



Fiscal Year 2017-2018

Annual Report

for the



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Executive Summary

On behalf of Constellation NewEnergy, Inc. (CNE), operator of the Metro Nashville District Energy System (DES), I am pleased to present the fifteenth “*Annual Report*” to the Metropolitan Government of Nashville and Davidson County, Tennessee (Metro).

The DES is made up of two basic parts, the Energy Generation Facility (EGF) and the Energy Distribution System (EDS). This report summarizes activities related to the performance of the DES for the period July 1, 2017 through June 30, 2018.

CNE’s fully staffed work force continues to operate and maintain the DES in a manner that produces outstanding results. Both steam and chilled water availability and reliability were greater than 99% and all contractual guarantees were met. There were no reportable or lost time accidents and I am happy to report that CNE’s environmental record at this facility is perfect with zero excursions, violations or fines since commercial operations began on December 16, 2003. All verification data, records, reporting requirements and submittals are kept up to date and in order. The DES customers are reported to be happy with the services they are being provided.

Under the Community Service section of the Monthly Operations Report Summary, you will see that CNE employees continue to volunteer and participate in community service projects and fund raising activities. Serving others is an important part of who we are.

Under the Modifications and Improvements section of this report, you will see that the Boiler Controls have been upgraded as well as the Security Camera System. The overall condition of the DES is good but, as the equipment ages, more improvements and upgrades will be needed.

Nashville continues to grow at an astounding pace. CNE and the Metro DES team routinely field inquiries and meet with potential new customers. Currently, the DES is near its capacity so Metro’s moratorium on the pursuit of new customers is still in effect. New buildings being constructed directly adjacent to the EGF could be provided steam and chilled water using the plant’s current equipment; however, additional piping would be required.

CNE is nearing the end of their initial contract term with the city. I would like to thank the Metro DES team and CNE personnel for their commitment toward achieving our objectives. As Metro weighs their long term options for the system, I hope CNE will continue to be included in their future plans.

Sincerely,

A handwritten signature in blue ink that reads "Tim Hestle".

Tim Hestle
Plant/General Manager



Monthly Operations Report Summary

Constellation NewEnergy, Inc. (CNE) submits a written report to the Metro Nashville District Energy System (DES) team on or about the 10th day of each month to convey the operational activities of the prior month. These reports are broken up in to four major sections. The first item included in each report is the Summary. This section gives an overview of the entire report, addresses news, events, and other business activities. The next section is Operations, which includes plant reliability and efficiency data, environmental, health & safety, accidents, personnel, and employee training. The third section of the report lists and discusses all Maintenance activities in and around the Energy Generation Facility (EGF). Items covered in this section include the building and grounds, warranty issues, preventive and predictive maintenance and construction projects. The final section of these reports is about the Energy Distribution System (EDS). Items discussed in this section are customers, sales and marketing, system maintenance and repairs, and distribution system projects.

Operations Summary

The EGF continued to furnish reliable steam and chilled water service to the DES customers over the past twelve months. There was one scheduled outage this year to allow NES to make upgrades to their equipment. Some customers requested service interruptions so they could make repairs in their respective buildings and some sections of the EDS were isolated to make steam and chilled water repairs. With the exception of these, there have been no significant service interruptions.

The plant is fully staffed with an outstanding work force. There were no reportable or lost time accidents for the year. Training classes were conducted in conjunction with the monthly Safety Meetings. Employees also received training related to plant systems, equipment and corporate programs and requirements. For the fifteenth consecutive year, there were no environmental excursions or violations.

Maintenance activities were performed as scheduled in the EGF and in the EDS. A great deal of planning and coordination go into the project work both in the plant and in the distribution system.

Communications with the DES customers are performed on a routine basis. Any issues they might have are dealt with courteously and expeditiously. According to the annual customer survey, they are satisfied with the services we are providing.

News, Events & Other Business

Routine business activities such as the Monthly Operations Meeting and Natural Gas Purchasing conference calls were conducted as scheduled each month. Other news and events include the following:

- An annual review and FY17 true-up meeting was held with the plant's water treatment vendor 7/10/17.
- An Exelon corporate security officer performed a site security review 7/19/17.
- 11 Lockheed-Martin Energy Engineers, working for TVA, toured the EGF 8/2/17.



- Metro & CNE attorneys participated in a conference call 8/11/17 to resolve issues related to Insurance Certificate
- The FY17 Annual Report Review was held with Metro 8/16/17
- A presentation was made by Trane (fka. Fellon-McCord) during the Monthly OPS Meeting 8/16/17. This was in regard to natural gas purchasing and contract extension recommendations. Metro indicated the gas supply contract should not exceed the term of CNE's current contract with the City unless it could be terminated without any penalties.
- The MNDES Advisory Board met in the EGF Conference Room 8/17/17
- Nashville employees witnessed a total solar eclipse on 8/21/17.
- Metro Heath Department/Pollution Control Division conducted their annual site inspection 8/24/17. All equipment and records were found to be in order.
- CNE and Metro DES Representatives attended weekly construction meetings for the new 5th and Broadway development during September 2017.
- A new steam division valve was installed in the Broadway Tunnel between the Renaissance Hotel and Bridgestone Arena connections. Shoring was installed around tunnel isolation valves during September 2017.
- CNE, SKANSKA and their Geologist performed daily inspections of the Broadway Tunnel following blasting at the 5th and Broadway site. CNE issued daily status reports to Metro during September 2017.
- A quarterly review was held with the plant's water treatment vendor 10/20/17.
- The final version of the FY17 Annual Report was issued 10/27/17.
- During the month of November 2017, CNE and Metro DES Representatives attended several meetings with Bridgestone Arena personnel regarding the possibility of installing temporary steam and chilled water services to their building in the event blasting on the 5th and Broadway site interrupts their service.
- The MNDES Advisory Board met at the EGF 11/16/17.
- Employees enjoyed a Thanksgiving Potluck Lunch 11/17/17.
- CNE's new VP of Distributed Energy, Michael Smith, visited the EGF 11/30/17.
- CNE employees enjoyed an annual Christmas Lunch catered by Famous Dave's BBQ 12/15/18.
- CNE managers entertained customers, employees, vendors and community groups at Tennessee Titans football games and Nashville Predators hockey games during the month of December 2017.
- A quarterly review was held with the plant's water treatment vendor on 1/26/18.
- A meeting was held with Siemens to discuss controls upgrades 1/30/18.
- Trane provided lunch for CNE/NDE employees 1/30/18.
- The Emergency Response Plan and Business Continuity Contacts were updated on 2/6/18.
- The MNDES Advisory Board met in the EGF Conference Room on 2/15/18.
- 12 engineering students from Vanderbilt University toured the EGF on 3/1/18.
- Nashville Chemical's CEO toured the EGF on 3/2/18.
- John Fleming, GM of the Downtown Renaissance Hotel, passed away on 3/5/18.
- CNE and Metro DES Representatives met with MDHA, a developer and his contractors on 3/20/18 regarding plans for the property directly south of the EGF.



- CNE employees participated in a United Way volunteer program on 3/21/18 & 3/22/18.
- CNE managers attended the Tennessee One Call annual meeting 4/18/18.
- A quarterly review was held with the plant's water treatment vendor 4/20/18.
- CNE and Metro DES Representatives met with engineers and contractors 4/23/18 to discuss blasting & other construction related activities on the property directly south of the EGF.
- CNE managers attended corporate leadership training in Louisville, KY 4/24/18.
- CNE managers attended the AEE annual meeting 4/27/18.
- CNE Managers attended a seminar sponsored by MRG 5/8/18.
- Representatives from Johnson Controls toured the EGF 5/15/18.
- The MNDES Advisory Board met in the EGF conference room 5/17/18.
- The 26th Annual CNE/NDE Invitation Golf Tournament was held at Indian Hills Golf Club in Murfreesboro, TN 5/19/18.
- After blasting at the Peabody Plaza being built across the street from the EGF tripped the plant off line on 5/21/18, CNE employees have been closely monitoring blasting activities daily
- The MNDES annual customer meeting was held in the Downtown Partnership conference room at 4th Avenue and Commerce Street 5/24/18.
- CNE entertained customers at the CMA Music Festival 6/7/18 – 6/10/18.
- CNE personnel met with Trane regarding a new web based control system 6/12/18.
- CNE managers attended the National Boiler Service annual meeting 6/15/18.
- The MNDES e-Newsletter was issued 6/21/18.

Community Service Activities

Constellation employees continue to participate in community service and fund raising activities. The following are examples of service activities:

- On the afternoon of Saturday October 14, 2017, Angela West served as a greeter at the Information Booth for “VetFest”. This was a two-day family festival at Fort Negley Park to honor and support veterans. The event was co-hosted by Operation Stand-Down Tennessee and Vetlinx. They planned the entertainment, activities and furnished prizes. At the same time, they were attempting to increase awareness of community resources and offering direct access to support services. Vendor booths and food trucks rounded out the good time for family, friends, neighbors and supporters of veterans. It was a free event open to everyone.
- On Saturday October 14, 2017, CNE employees and family members participated in the “2017 Walk to End Alzheimer's - Nashville Walk”. This 2.5 mile walk around Rolling Mill Hill began and ended at the Music City Hall of Fame Park across the street from the Country Music Hall of Fame.



Team member were: Richard West, Gayle Bowman, Angela West, Katherine Bowman, Alonzo Welch, Rachel Bowman, Tim Hestle, Emily, Daniel, Taylor and Shannon Priddy



- On Saturday, October 21, 2017, CNE employees and family members met at the Energy Generation Facility to participate in the 4.5 mile “2017 Making Strides Against Breast Cancer Nashville Walk”. It began and ended at Nissan Stadium after circling downtown. With our walk to and from the stadium, we logged an extra mile.



Team member included: Angela West, Tim Hestle, Katherine Bowman, Alonzo Welch, Gayle Bowman and Steve Bowman

- CNE employees participated in a Hands on Nashville – Home Energy Savings Project 4/27/18.



CNE Team member included: Angela West, Daniel Steger & Alonzo Welch



Nashville District Energy System Invitational Golf Tournament

The 26th Annual Nashville District Energy System Invitational Golf Tournament has held at Indian Hills Golf Course in Murfreesboro, Tennessee on May 19, 2018. This was the 15th consecutive year the event was organized by Constellation NewEnergy, Inc. Players included NDES customers, contractors, vendors, employees, family and friends. The winning team shot a 13 under par round of 59. Their nearest competitor shot 63. Blaine Marlin won the “Longest Drive” contest and Bryan Webb won the “Closest-to-the-Pin” contest. First place team members and the individual contest winners each received a trophy and a cash prize. Hole Sponsors generously furnished prizes for the remainder of the field.



First Place Team: James Stepp, Blaine Marlin, Mike Marlin and Ray Stepp



Blaine Marlin



Bryan Webb

Constellation sponsored a Hole-in-One contest on all of the par 3 holes and provided lunch for participants. This year’s event was another tremendous success and everyone is already looking forward to the next one.



Plant Performance

Facility Operations

Plant Reliability

The EGF continued to provide reliable service to the DES customers. With the exception of uncontrollable circumstances, the guarantees are to maintain 150 psig of export steam pressure leaving the EGF and deliver 43.3 degree chilled water to each customer. The following items describe minor incidents, short in duration, when the EGF experienced an excursion outside parameters of the performance guarantees.

- On August 30, 2017 at approximately 2:20 p.m. the chilled water system pressure dropped to approximately 79 psi and the chillers tripped offline. The chillers were restarted and the pressure began to gradually increase. When it reached 135 psi, it dropped again. This time to 98 psi. At approximately 2:40 p.m., CNE personnel were dispatched to several locations to try to find potential leaks. None were found. The pressure gradually increased and was back to normal by approximately 3:00 p.m. The cause was not found, but the system has been operating normally since. Chilled water was outside the guarantee for approximately 35 minutes.
- On October 11, 2017 at approximately 11:15 a.m., all of the chillers tripped offline due to a city wide voltage drop on the TVA main electrical feed to NES. The switchgear trips worked as designed and had to be reset. Once this was completed, the chillers were restarted and the chilled water temperature was back in range at 12:15 p.m.
- On October 18, 2017, Boiler #4 tripped due to low gas pressure and was immediately restarted. The system was below 150 psi for approximately 45 minutes. The reason for the momentary loss of pressure has not been determined.
- The entire plant was shut down at 11:00 p.m on October 21, 2017 to allow NES to upgrade their switch conductors on the two main feeds that supply power to the plant. All customers were notified well in advance and their cooperation was very much appreciated. NES completed their work at 7:00 a.m on October 22, 2017. The chillers were re-started at approximately 7:20 a.m. and were operating in their normal temperature range by 10:30 a.m. The boilers were restarted at approximately 8:15 and were at their normal operating pressure by approximately 11:15 a.m.
- On October 30, 2017, the chillers tripped offline due to a NES transformer failure at Nissan Stadium. The chillers were restarted immediately. The duration of this interruption was not a reportable event.
- On November 29, 2017 at approximately 7:30 a.m. the pressure was lowered on the system to 140 psi while C-Tech replaced the Master Steam Pressure Controller. The controller was installed and programmed and the system was placed back at normal operating pressure at 11:00 a.m.
- On January 2, 2018, the sensing line on the master pressure controller for the steam system began to freeze. This caused the controller to not operate correctly. The pressure dropped to a low of 130 psi. The system was below 150 psi for approximately 120 minutes. Portable heaters were placed in the area and there have been no further issues.



- At 9:18 a.m. on March 23, 2018, the system steam pressure dropped below 150 psi for approximately 60 minutes. This occurred while Siemens was working on communications between their system and the new boiler controls. The pressure reached a low of 112 psi before coming back.
- On April 20, 2018, there was an incident where a delivery vehicle broke off two drain lines on the chilled water lines servicing the ballrooms in the Renaissance Hotel. This caused the chillers to trip offline due to low pressure. The piping was isolated and the chillers were re-started. The system was above the contractual guarantee for 20 minutes with the highest temperature recorded being 45.8°F.
- Blasting at the Peabody Plaza site, directly across the street from the plant, caused a Rapid Pressure Safety Switch to shut down a 69kV to 13.8kV transformer at approximately 1:35 p.m. on May 21, 2018. The plant was without power for approximately 30 minutes while CNE personnel assessed the problem. CNE’s CSR began contacting customers and other CNE employees began the startup of the chillers, pumps and boilers. Chilled water operating temperature was back to normal by approximately 4:00 p.m. and steam was back to normal operating pressure by approximately 3:15 p.m.
- On June 23rd, while swapping boilers to perform the Annual Preventive Maintenance, the steam system dropped to 147.7 psi for approximately 30 minutes.
- A NES power glitch caused a spike in the chilled water supply temperature Jun 22nd. This was not a reportable incident because the duration was less than 30 minutes.

Constellation is required to report upsets that last longer than thirty minutes. The following table includes every minute the plant was outside the contractual service delivery parameters, whether reportable or not, and not necessarily down. Reliability does not include scheduled outages allowed per the Amended and Restated Management Agreement (ARMA).

	Downtime		Availability	Reliability
	Scheduled	Unscheduled		
Boilers	720 minutes	355 minutes	99.80%	99.93%
Chillers	690 minutes	280 minutes	99.81%	99.95%

Plant Efficiency

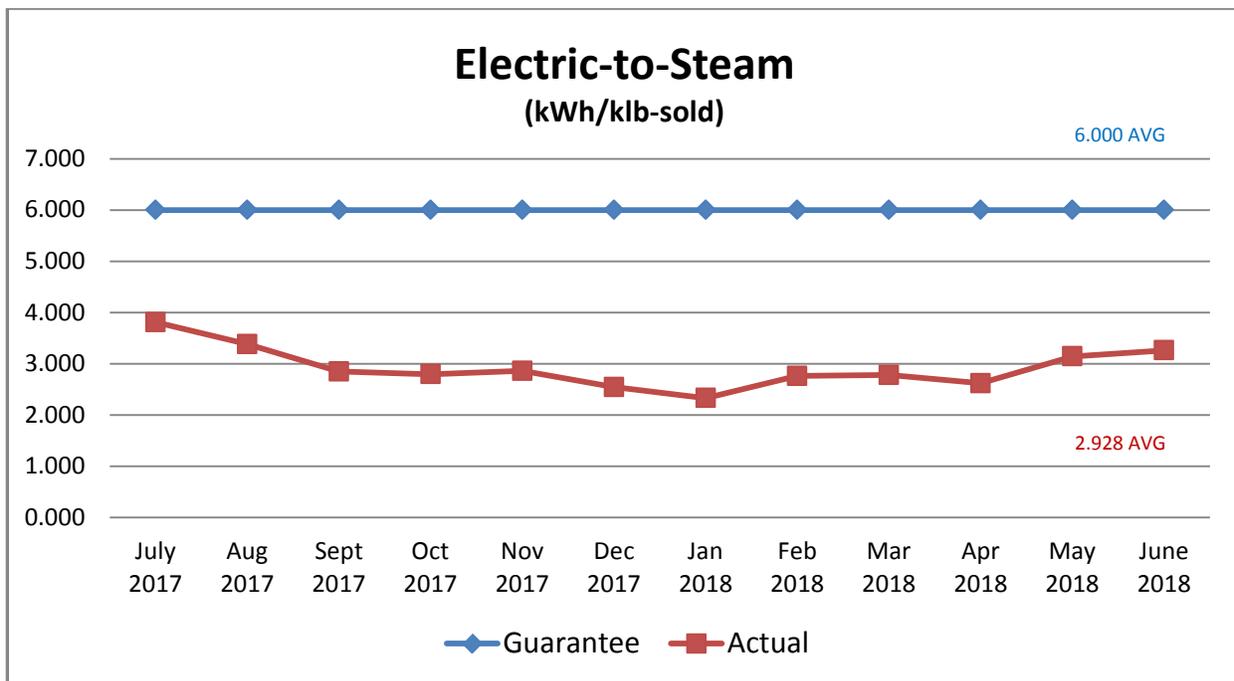
As usual, following the annual boiler inspections at the end of July 2017, two boilers were placed in wet lay-up, one in stand-by, and one de-aerator tank was isolated due to the reduced steam demand during the summer months. One boiler and one de-aerator were left on line. This equipment is rotated monthly. This is done to increase steam efficiency during the cooling season. Stand-by boilers were taken out of wet lay-up and the second DA Tank was put back in service during the month of November 2017 in preparation for the heating season.

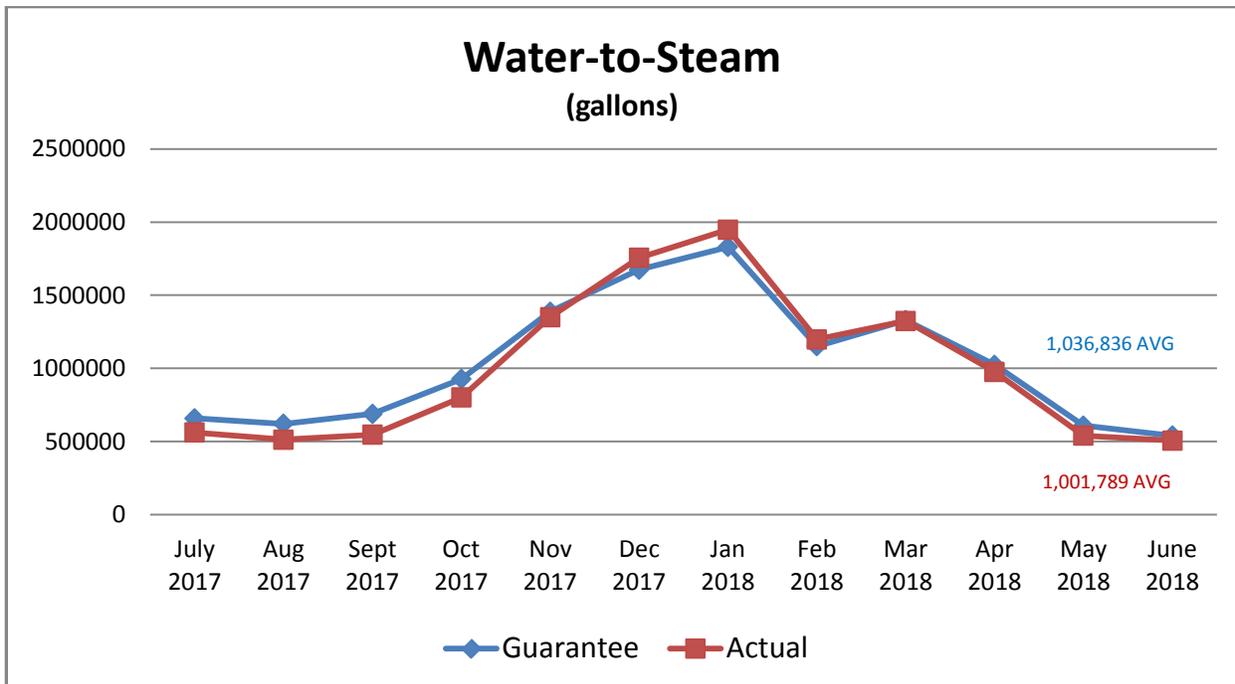
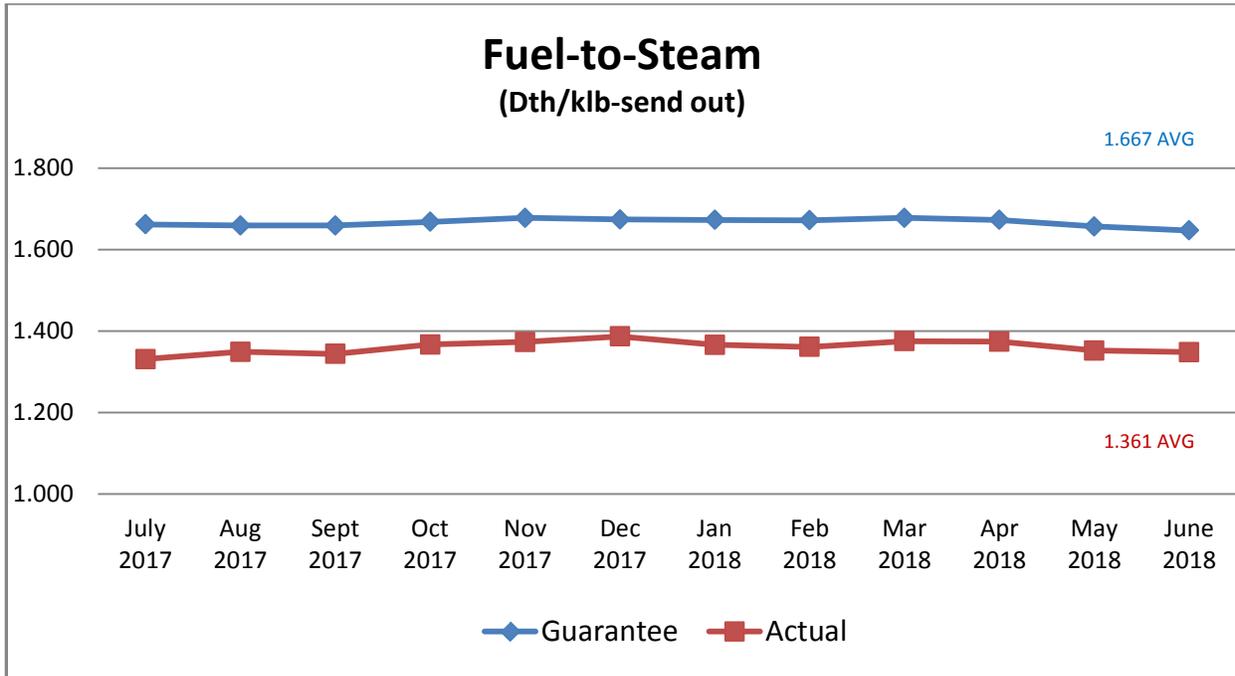
Constellation and Metro agreed upon the final version of the Metro DES annual reconciliation for FY18 on September 27, 2018. The annual reconciliation for this time period consisted of a true-up for the FEA, Engineering, Insurance and Metro Incremental Administrative costs. For reference, the annual reconciliation is included in Appendix 4 of this report.

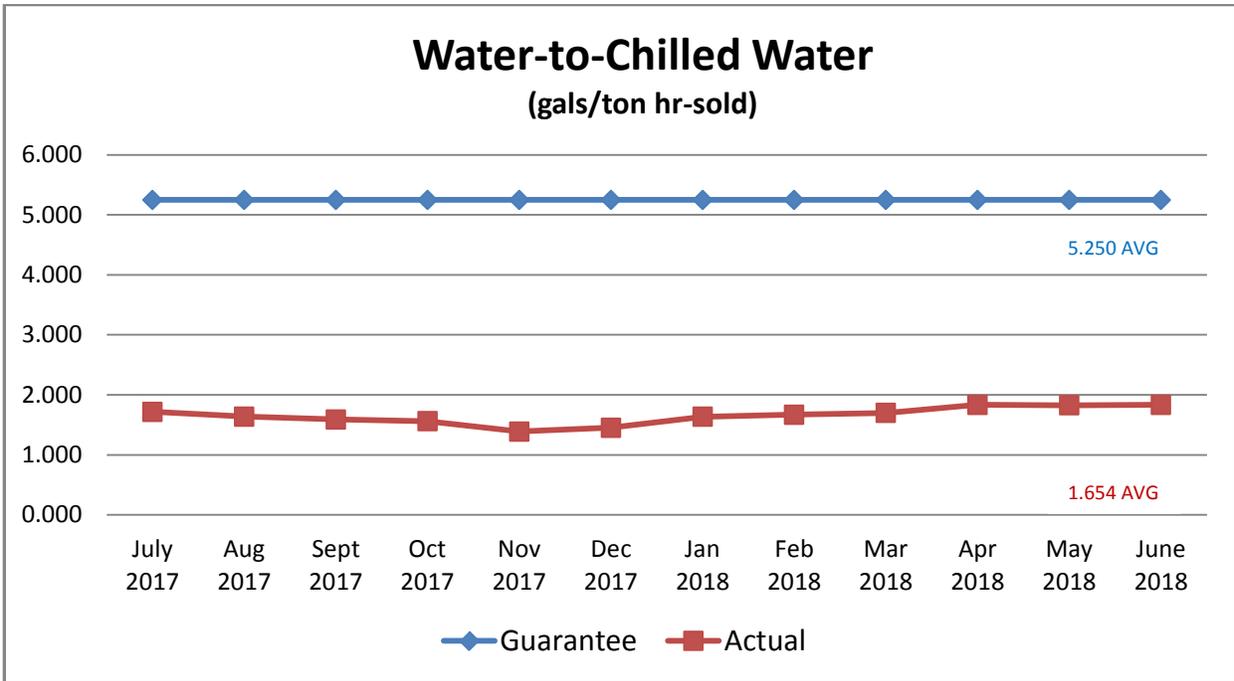
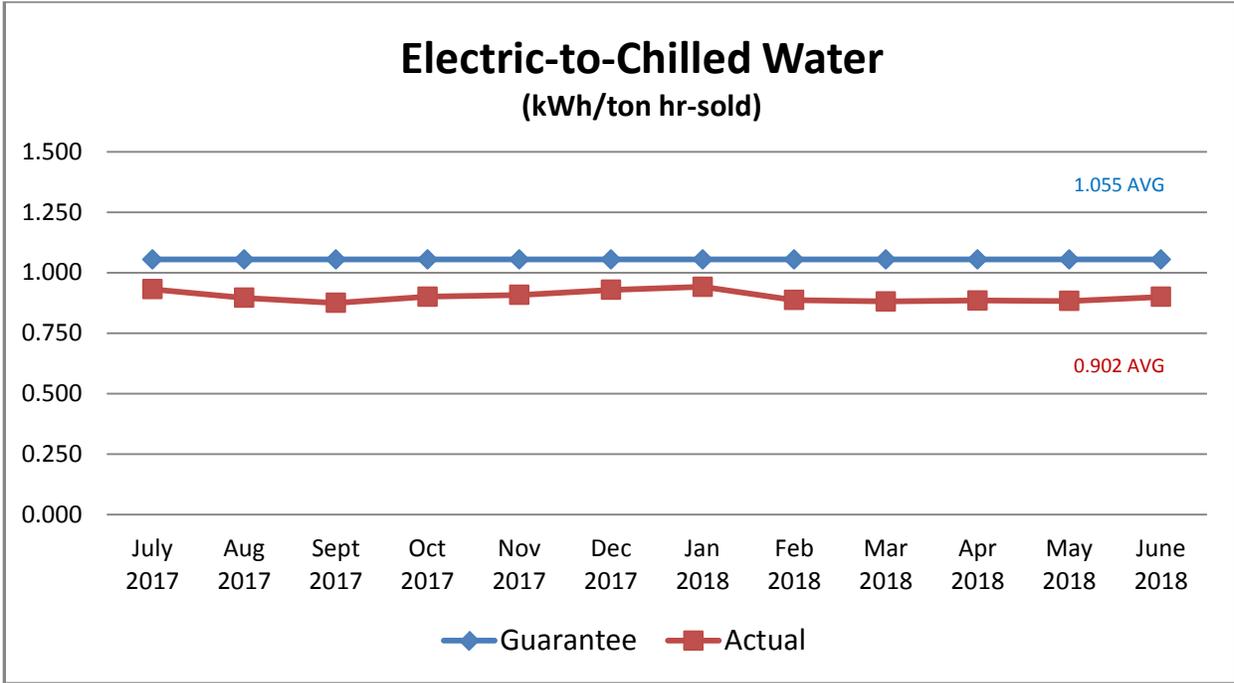
Constellation Energy’s efficiency guarantees consist of five key conversion rates:

1. Electric-to-Steam (kWh per klb-sold)
2. Fuel-to-Steam (Dekatherm per klb-send-out)
3. Water-to-Steam (gallons)
4. Electric-to-Chilled Water (kWh per ton hr-sold)
5. Water-to-Chilled Water (gallon per ton hr-sold)

The following graphs represent the efficiency guarantee results from July 2017 through June 2018:









Environmental, Health and Safety

Environmental

There have been no environmental violations since the plant began commercial operations in December 2003.

Storm water samples were collected, inspections conducted and a report was generated quarterly. A Storm Water Pollution Prevention Plan (SWPPP) and a Spill Prevention Controls and Countermeasures (SPCC) refresher training class was also conducted.

Regulatory Compliance

Required reporting activities were submitted as follows:

- The Semi-Annual Emissions Monitoring Report for January-June 2017 was sent to the Metro Nashville Health Department on July 17, 2017.
- The Metro Health Department conducted the Annual Site Inspection and Record Review on August 24, 2017 and found no issues.
- The Semi-Annual Monitoring Report for July-December 2017 was sent to the Metro Health Department on January 17, 2018.
- The Title V Certificate of Compliance for 2017 was sent to the EPA on January 9, 2018. A copy was also sent to the Metro Health Department the same day.
- The Annual Emission Inventory Report for 2017 was sent to the Metro Health Department on January 22, 2018. The Annual Emission Fees were also sent in on that date.
- The Tier II report was sent to the State Emergency Planning Committee, Davidson County LEPC and the Nashville Fire Department on February 7, 2018.
- The Annual Greenhouse Gas Report was sent to the U.S. EPA on February 21, 2018.

Health

Due to the increasing cost of health insurance and Constellation's commitment to their employee's wellbeing, several programs are offered throughout the year. Many Nashville employees have taken advantage of the Healthy Habits Program, Healthy Eating Program and two Walking Challenge Programs.



Safety

CNE plant personnel continue to conduct themselves in a safe manner. There were no reportable or lost time accidents in the past year.

Monthly safety meetings were coordinated and scheduled by the CNE site Safety Officer. Training classes are conducted in conjunction with each safety meeting. Safety and accident reports are issued and posted each month.

The refrigerant alarm, escape devices and gas monitors are checked weekly. Preventative maintenance and calibrations are performed monthly on the portable gas monitors used in the EDS. Fire extinguishers are also checked monthly.

Per OSHA, the NEC and NFPA 70E 1910 Subpart S, our arc flash Personal Protective Equipment was sent out for inspection and recertification as required.

Accident Report

	Total	OSHA	Lost Time	Total
	Accidents	Reportable	Accidents	Lost Days
July 2017	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January 2018	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
Total	0	0	0	0



System Assessment and Status

Personnel

The plant is fully staffed with an exceptional work force. CNE prides itself on keeping employees engaged which results in a very low turnover rate. There were no personnel changes during FY17-18.

Training

In order to maintain and operate the facility safely, reliably and efficiently a significant amount of employee training is required. The following demonstrates some of the training that was conducted throughout the year:

- CNE Managers participated in “Passport Contract Management” training on 7/10/17.
- The American Red Cross conducted training on Adult CPR/AED/First Aid on 8/22/17 and 8/25/17.
- Employees completed annual Ethics Training on 9/15/17
- Managers received Cyber Security Training on 9/21/17
- CNE employees received Cyber Security Training on 10/17/17.
- CNE’s Plant/General Manager and Maintenance Supervisor attended Diversity and Inclusion Leadership training in Louisville, KY on 4/24/18.

Training classes conducted in conjunction with our monthly safety meetings included:

- Fire Safety (Annual Fire Extinguisher refresher conducted by the Metro Fire Department)
- Accident Investigation, Reporting & Record Keeping
- Tool & Equipment Safety
- Compressed Gas Cylinder Safety & Hot Work
- Confined Space Entry
- Storm Water Pollution Prevention Plan & Spill Prevention, Controls & Countermeasures (conducted by the Constellation’s Corporate EHS Manager)
- Bloodborne Pathogens, Heat Stress & Cold Stress
- Steam Safety & Refrigerant Safety (conducted by the Constellation’s Plant Safety Officer)
- Lock out/Tag out
- Safe Work Practices
- Elevated Work & Vehicle Safety
- Personal Protective Equipment
- Chemical Safety & Hazard Communications

Note: Unless otherwise specified, all safety classes were conducted by Hazmat Training, LLC.



Customer Service

CNE personnel routinely communicate with the customers each month through e-mails, phone calls or visits. When customers have heating or cooling issues inside their buildings, we assist them with trouble-shooting and attempt to resolve their problems. When a service interruption is required, whether it is project related or an emergency, activities are coordinated closely with the customers to keep the impact to a minimum.

The annual MNDES customer meeting and luncheon took place May 24, 2018 in the Downtown Partnership conference room. MNDES Contract Administrator personnel made a power point presentation regarding the state of the EDS, upcoming projects, fuel costs, water treatment and several other issues.

DES customers are routinely invited to participate in the CNE/Nashville District Energy System Annual Golf Tournament, attend Tennessee Titans football games, Nashville Predators hockey games or meet for breakfast or lunch. These relationships help further a positive image of the DES in the community and promote existing building owners to assist us in our sales efforts.

CNE's Customer Service Representative reviews each customers meter readings monthly. For those who do not meet their contractual chilled water return temperature requirements, a Thermal-Inefficiency-Fuel-Surcharge (TIFS) penalty is assessed. TIFS are added directly to customer invoices.

When a customer habitually exceeds their contractual demand capacity, the meter data is sent to the MNDES Contract Administrator for review and evaluation. The reason for the excursion is investigated and suggestions are made to keep it from reoccurring. If a capacity adjustment is deemed appropriate, a letter is sent to the customer with an explanation of the adjustment and its duration.



Energy Generation Facility and Equipment Maintenance

During the course of normal operation, preventative, predictive and routine maintenance items must be scheduled and completed. During the summer months the lawn is mowed weekly and landscaping is routinely manicured. This includes trimming trees and shrubs, putting mulch in the beds, maintaining the irrigation system and replacing dead plants. The building and grounds are policed daily and the lighting is maintained year round. The carpeting is shampooed in the office areas and the tile floors are stripped, waxed and sealed annually.

EGF Preventive and Predictive Maintenance

The following items were accomplished to increase equipment life, reliability, efficiency and safety:

CNE personnel perform daily equipment inspections, check bearing temperatures, oil levels, belt tensions, etc. In addition, preventative maintenance is performed on the following equipment monthly: HVAC units, cooling towers cell, condenser water pumps, chilled water pumps, boiler feed water pumps, condensate pumps, motors, instrument air compressors and driers. The roof surface is inspected and cleaned. The propane system is also test fired and leak checked monthly.

Annual pressure vessel inspections are scheduled to be completed during the cooling season. The inspections are conducted by Arise Incorporated. They are State Certified Boiler Inspectors, working as a subcontractor to our insurance carrier. These inspections are required in order to renew our operating permits. Boiler inspections consist of a visual examination of the mud drum, steam drum, economizer, tubes and fire box. #2 and #4 boilers and #1 de-aerator tank were inspected in July 2017. #1 and #3 boilers and #2 de-aerator tank were most recently inspected in June 2018. All units received a passing grade and their respective permits have been renewed. #2 and #4 boilers and #1 de-aerator are scheduled to be re-inspected in July 2018.

Inspections were witnessed by our chemical vendor's representative and plant personnel. When units are off line for inspection, preventative maintenance is performed on the forced draft fans, low water cut out switches and other associated equipment.

Annual chiller inspections are scheduled and executed during the heating season as a good maintenance practice. These inspections include opening the condensers and cleaning the tubes, performing vibration analysis and taking oil sample analysis on each chiller. Eddy current testing was conducted on the evaporator and condenser on #4, #6, #7 and #8 Chillers. Controls and purge units were also checked for proper operation.

As part of the Preventive and Predictive maintenance program CNE had a contractor take alignment and vibration readings on all pumps, fans and motors. These readings are compared to the previous year's readings. Misalignment Issues discovered with #1, #3 & #5 Boiler Feed Water Pumps were addressed. All other equipment readings were within acceptable limits.



Infrared testing was conducted on all electrical switchgears and starters. No problems were found as a result of this testing.

The high-voltage switch gear preventive maintenance was scheduled and executed during the fall. Inspections and testing was conducted on the following equipment: transformers, vacuum breakers, relays, load break switches, infrared inspections and oil sample analysis.

Annual maintenance costs for these activities: \$107,008.37 (excludes salaried personnel & corporate overhead).

Information Technology System Program

The Information Technology System Program is reviewed with Metro annually. The last review was conducted on October 12, 2017. A copy of the program is included in Exhibit 2 of this report. No changes have been made in the past 12 months.

Repairs and Replacements

From time to time emergency repairs and replacements must be made. The following are examples of the routine maintenance and emergency repairs that have been performed in the EGF:

July 2017

- Repaired irrigation system
- Replaced relief valve on service air tank in shop
- Repaired tap changers on Transformer 1A & 1B
- Repaired emergency light #32
- Repaired exterior lighting controls
- Repaired leak on #5 Chilled Water Pump
- Contractor repaired EGF roof leaks (Ferguson & Son)
- Installed refrigerant in 7B Chiller
- Removed and sent out #2 Boiler's safety relief valves. Valves were reinstalled when certified & returned
- Removed and sent out #4 Boiler's safety relief valves. Valves were reinstalled when certified & returned
- Replaced #10 Cooling Tower Vibration switch
- Removed Refrigerant from #8B Chiller
- Repaired #2 DA Sulfite line leak

August 2017

- Repaired siding & painted Vaporizer
- Repaired #2 AHU
- Replaced MEC 13
- Checked motor bearings on #3 Condensate Pump

- Checked boiler flow meters
- Replaced fan covers on VFDs
- Installed new UPS on Softener
- Replaced site glass on #4 boiler
- Replaced vane tang operator on #8B Chiller
- Leak checked #8 Chiller
- Replaced vane bearings in #8B Chiller
- Assembled refrigerant dryer for #8 Chiller
- Mounted new vises in shop
- Checked out Fluke Pressure calibrator
- Repaired calibration equipment
- Repaired chilled water make-up line leak

September 2017

- Repaired Instrument Air compressor
- Replaced bulbs in SWG #1
- Checked & repaired plant computers & server
- Replaced motor bearings on #3 Condensate Pump
- Repaired #1 Softener Controls
- Repaired plant Fire Sprinkler System air compressor
- Repaired #9 Chiller Oil Pump
- Trane repaired leaks on #8 Chiller by replacing the flat gaskets
- Installed refrigerant dryer on #8 Chiller
- Replaced purge unit solenoids on #1B Chiller
- Replaced Walchem Probe on #2 Boiler
- Replaced temperature sensors in 5B, 6B & 8B Chillers
- Repaired plant water heater

October 2017

- Adjusted belts on Cooling Towers #4, 11 & 18
- Investigated chilled water plant trip. This was caused by a TVA voltage drop.
- Calibrated O₂ Sensors on #1, 2 & 4 Boilers
- Calibrated flow meter on #3 Boiler
- Checked fire alarm
- Replaced coupling on #3 Condensate Pump
- #3 Chilled Water Pump VFD repaired
- Replaced #1 Chiller leaving temperature sensor
- Built support for EGF steam PRV Station
- Checked dryer on #8 Chiller
- Repaired air compressor on Fire sprinkler system
- Repaired Filming Amine Pump
- Repaired Oil Pump on #9 Chiller
- Replaced inlet valve solenoids on Cooling Tower #9 & 16

- Checked low water cut out switch on #1 DA
- Restarted chillers after trip caused by NES transformer failure at Nissan Stadium
- Replaced charging motor and switches in SWG 5A

November 2017

- Replaced Sub-Master Controllers on #1, 2, 3 & 4 Boilers
- Replaced Boiler Master Controller
- Replaced gauges on #4 Chilled Water Pump
- Replaced bulbs in MCC 3 & 4
- Repaired #2 Chilled Water Pump
- Repaired propane valve on #1 Boiler
- Repaired #2 Boiler Chemical Pump
- Repaired Aquamatic valve on #1 Softener
- Repaired #2 AHU
- Winterized lawn irrigation system
- Repaired refrigerant alarm
- Replaced gaskets on #1 Boiler water column

December 2017

- Winterized Boiler Room
- Adjusted belts on cooling towers #5, 7 & 8
- Repaired drain on #2 AHU
- Painted #3 & 4 Condenser Water Pumps
- Repaired Control Room thermostat
- Checked plant heat tracing
- Repaired #1 & 3 Softener Controls
- Serviced Thermal Bath
- Repaired breaker on #8 cooling tower

January 2018

- Installed portable heaters in boiler room
- Replaced #1 chilled water make-up pump
- Replaced Camera #9
- Replaced DP switch on #5 Condensing Water Pump
- Repaired DP switch on #3 Chilled Water Pump
- Repaired steam leak on #3 Boiler safety valve flange
- Repaired ignitor on #3 Boiler
- Repaired low water cut out on #3 Boiler
- Replaced gas solenoids on #3 Boiler
- Repaired blower motor on #3 Boiler
- Replaced air compressor on Fire sprinkler system
- Replaced site glass on flash tank
- Investigated chiller trip. This was caused by a NES power surge.
- Replaced oil heaters on #5B, 6B, 7B, 8B & 9B Chillers

- Fabricated cover for #4 Boiler level sensors
- Replaced meter on Switchgear #4B
- Repaired starter on #12 cooling tower
- Programed boiler control communications
- Replaced ignition switch on forklift

February 2018

- Repaired valve regulator on #8 Chiller
- Removed refrigerant from #8 Chiller
- Replaced evaporator inlet valve regulator on #4 Chiller
- Replaced Waltham probe on #3 Boiler
- Adjusted cooling fan controls on transformers in switch yard
- Replaced siding on garbage can enclosure
- Checked VFD on #3 Chilled Water Pump
- Replaced meter on SWG #4B
- Cleaned condenser water flow switch on #7 Chiller
- Eddy current test performed on #8 Chiller to leak check
- Repaired feed water valve on #3 Boiler
- Replaced DP switch on #3 BFWP

March 2018

- Replaced solenoid on #3 Softener
- Replaced air regulator on #3 Boiler feed water valve
- Replaced site glass on flash tank
- Repaired water leaks in #8 Chiller condenser
- Repaired sink in breakroom
- Repaired feed water valve on #3 Boiler
- Repaired chemical line leak on #2 DA
- Repaired #6 Condensate Pump

April 2018

- Checked and repaired plant computers
- Replaced flow meter on #1 Softener
- Replaced coupling on #3 Condensate Pump
- Replaced Waltham probe for #2 Boiler
- Repaired instrument air compressor low pressure alarm
- Replaced inlet temperature sensor on #8 chiller
- Replaced seals & bearings on #1 BFWP
- Replaced motor cooling fans on #1 & 3 BFWP's
- Reactivated lawn irrigation system for summer
- Checked blowdown on #3 Boiler
- Painted garbage bin enclosure

May 2018

- Trimmed shrubs
- Repaired lawn blower
- Replaced cooling tower level controllers
- Repaired #14 cooling tower vibration switch
- Replaced #9 security camera
- Repaired Genie lift
- Replaced seal on #4 chiller evaporator head
- Repaired DA sample lines
- Replaced seals & bearings on #1 BFWP
- Replaced deflector plate on #1 BFWP
- Replaced seals & bearings on #2 BFWP
- Removed curtain at louver wall
- Re-pipe condenser water chemical feed controller
- Cleaned floor drains
- Assisted Trane with gasket replacement on #1B chiller
- Restored communications with #8 Chiller
- Insulated PRV station, chiller heads & cooling tower make-up valve
- Repaired lawn irrigation system
- Repaired #1 Boiler gas valve
- Repaired switch on fire sprinkler system

June 2018

- Installed lift on mezzanine
- Repaired PRVs
- Replaced belts on #7, 9, 11, 14, 15 & 18 Cooling Towers
- Checked #3 Chilled Water Pump VFD power board
- Replaced trap on #1 Boiler steam blanket
- Repaired low water cut out on #1 & 3 Boilers
- Replaced site glass #3 Boiler
- Replaced HVAC unit in Control Room
- Repaired refrigerant alarm
- Reinstalled purge sensor #4 Chiller
- Adjusted oil regulator #1 Chiller
- Replaced high pressure switch on #1 Chiller
- Repaired leak in Vaporizer
- Checked equipment after NES power glitch
- #1 Chiller gasket replacement
- Repaired control air compressor oil separator

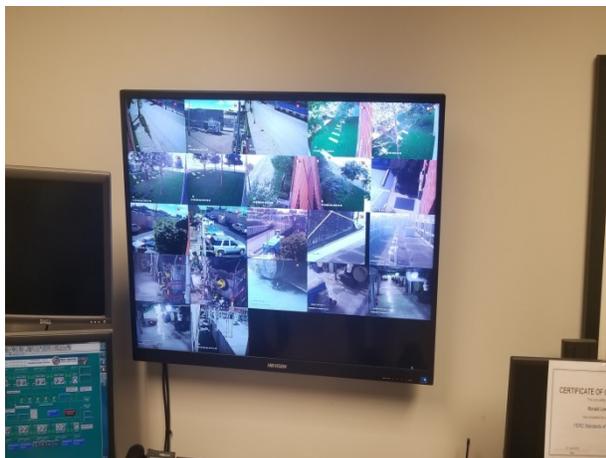
Annual maintenance costs for these activities: \$379,056.26 (excludes salaried personnel & corporate overhead).

Modifications and Improvements

The following are improvements that were performed in and around the Energy Generation Facility and in the Energy Distribution System:



Installed New Boiler Controllers and Master Pressure Controller



Installed new Security Camera System with Monitor, Controller and 12 additional cameras



Installed new gantry and electric hoist on mezzanine level



Replaced Siding & Hardware on Garbage Can Enclosure



Security Fence around Manhole N2 at Nissan Stadium



Temporary Chiller Connection valve box on 3rd Ave. near CJC



New Steam Division Valve added in Manhole 19



New Sump Pump added in Manhole D



Energy Distribution System

Preventive and Predictive Maintenance

All the direct buried portions of the EDS are checked monthly by means of thermographic imaging. When a hot spot is detected, it indicates a possible leak in our piping. Depending on the severity of the thermal temperature variance from the surrounding area, a determination is made whether to dig up the affected area.

Constellation Energy maintenance personnel perform monthly inspections of EDS tunnels, as well as, the State steam tunnel and the A. A. Birch (AAB) building tunnel. Monthly manhole inspections are also conducted. The condition of the structures, piping, supports, insulation, seals, lighting and ventilation is documented. Any deficiencies noted are prioritized and scheduled for repair accordingly.

CNE personnel have been very diligent in monitoring condensate return quality. When unacceptable levels of iron and hardness contamination are discovered, the condensate return is placed to drain either in the customers building or in the EDS tunnel. This water is not suitable for use in the boilers. Since Constellation Energy has limited control over what the DES customers return, alternative remedies continue to be explored for this problem.

When the customer meter readings are taken for the preceding month, the readings are reviewed. If they vary 30% high or low, from their three year average, Instrumentation personnel check the questionable metering devices for calibration as required in the customer buildings.

The air compressor in the Andrew Jackson Building mechanical room, which operates the Pressure Reducing Valve on the State steam loop, is inspected monthly and maintenance is performed as required. An alarm on this air compressor is tested on a regular basis. Sump pump alarms in Manhole D, Manhole 18 and in the AAB Tunnel are also tested periodically. Tempering Stations on the condensate return system in the Fairland Hotel and in the Municipal Auditorium are inspected for proper operation monthly.

The chilled water loop is being treated with a biocide to kill localized bacteria at customer interfaces and clean heat exchanger surfaces. Samples are being taken at several customer buildings periodically and tests indicate an improvement has been made. Bacteria levels are now below acceptable limits. An option being considered to make further improvement includes installing a side stream filter.



Routine Maintenance and Emergency Repairs

Some repairs can be made without disrupting service to the customers while others require sections of the system to be shut down. When possible, CNE will hire an on-line leak repair contractor to facilitate steam leak repairs without interrupting service to the DES customers. Several expansion joints, valves and flanges were repaired throughout the system during the past year using this technique.

The majority of jobs performed in the EDS require off duty policemen to perform security and traffic control. The following are examples of the routine maintenance and emergency repairs that have been performed on the EDS in FY17-18.

July 2017

- Restored steam service to Municipal Auditorium after they completed internal system repairs
- Made lighting & electrical repairs in M/H 18
- Reset delta T at Metro Courthouse to contractual set point
- Repaired AAB Tunnel lighting
- Checked piping progress in Bobby Hotel
- Assembled, delivered & hooked up metering at Fairland Hotel
- Assisted Bridgestone Headquarters contractor repair DES chilled water valve operator they damaged in Molloy Street
- Downloaded DAQ Standard program on Renaissance Hotel computer
- Isolated chilled water to Bobby Hotel
- Assisted contractor access AAB Tunnel
- Assisted electrical sub-contractor with access around EGF in preparation for new camera installations
- Assisted TEG with progress review of M/H D work
- Assembled material for M/H D Sump Pump installation
- Checked site prep & fence installation at M/H N2

August 2017

- Fabricated trap assemblies for the EDS
- Repaired portable sump pump on service truck
- Made lighting & electrical repairs in EDS Tunnel & AAB Tunnel
- Repaired steam leak in Parkway Tower Parking Garage
- Reset time on Fairland Hotel Cx Panel
- Assisted Sheraton with cleaning their chilled water heat exchanger
- Assisted TEG with review of M/H 12, D, N2, 15, 22B & 7th Avenue Tunnel
- Fabricated pipe supports for Manholes
- Repaired temporary chiller access cover at Bridgestone Arena

- Repaired EDS gas monitor
- Investigated chilled water make-up increase
- Isolated & drained condensate in AAB Tunnel to make repairs in M/H D
- Installed new trap assembly in AAB Tunnel
- Isolated & drained condensate in M/H 13
- Checked AAB Tunnel sump pump alarm
- Isolated steam in M/H 13, vented in AAB Tunnel & pumped out M/H D
- Restored steam service following repairs in M/H D
- Checked paint on structural steel in M/H D
- Assisted contractor with access to Bobby Hotel
- Installed wheel stops & a lock on the gate at M/H N2

September 2017

- Repaired trap at Station B-82 in Broadway Tunnel
- Repaired M/H B Sump Pump
- Made lighting & electrical repairs in AAB Tunnel
- Re-established communications with 5/3 Financial Cx Panel
- Removed old sump pump from AAB Tunnel
- Assisted TEG with access to M/H 4, A, B & M
- Isolated Chilled Water to Bobby Hotel for building to make internal modifications
- Fabricated trap assemblies for future installation in manholes
- Repaired 7th Ave. Tunnel fan
- Repaired chilled water RTD at Bridgestone Arena
- Switched to winter steam meter at Bridgestone Arena
- Replaced display screen on Cx Panel at the Nashville Public Library
- Assisted contractor shore up Broadway tunnel around isolation valves
- Assisted contractor install Steam valve in Broadway Tunnel
- Assisted geologist set up seismograph equipment in Broadway Tunnel
- Conducted Broadway Tunnel Daily Blast Inspection & furnished reports
- Installed sump pump in M/H D
- Assisted TEG with review of punch list items in M/H D
- Assisted TEG with review of valve installation at Bobby Hotel

October 2017

- Fabricated trap assemblies to be installed during NES Outage
- Repaired Manhole 18 Communications failure
- Replaced grating in sidewalk at Manhole 15
- Replaced Contrec at John Sevier Building
- Repaired air compressor at Andrew Jackson Building



- Re-established communications with 5/3 Financial Cx Panel
- Repaired Fairlane Hotel Tempering Station control valve
- Completed repairs to 7th Ave. Tunnel fan
- Repaired Manhole B sump pump float
- Assisted TEG & State contractor with access to State Tunnel to perform a structural review
- Isolated condensate in Manhole 4
- Turned steam back on at Parkway Tower
- Turned steam back on at 5/3 Financial
- Made repairs to the EDS during NES Outage
- Assisted contractor scale loose rock in Broadway tunnel
- Assisted contractor shore up tunnel around piping in Broadway tunnel
- Assisted insulation contractor in Broadway tunnel
- Lined up delivery and installation of Temporary Boiler & Chillers for Bridgestone Arena

November 2017

- Pumped Water out of AAB Tunnel due to failed sump pump
- Installed new sump pump in AAB Tunnel
- Assisted Nashville Public Library contractor move the TCV controls to their Energy Management System
- Checked Bobby Hotel piping & meter status
- Turned steam on to Bobby Hotel
- Turned steam on to Fairlane Hotel
- Replaced Fairlane Hotel Tempering Station control valve
- Re-established communications with Music City Center Cx Panel
- Replaced condensate pump in State Tunnel
- Installed gauge on condensate line at AAB
- Assisted TEG with review of M/H K, 9, 11 & 13
- Assisted contractors access CJC site after pre-bid meeting
- Assist contractors access Broadway Tunnel
- Continued to conduct Daily Blast Inspections of the Broadway Tunnel and furnish status reports
- Test fired temporary Boiler at Bridgestone Arena
- Checked temporary Chillers at Bridgestone Arena
- Assisted contractor with EGF Security Camera Installation prep

December 2017

- Made lighting & electrical repairs in EDS Tunnel
- Re-established communications with Cordell Hull Cx Panel
- Replaced portable M/H sump pump on service truck
- Assisted with installation of new service lines to CJC
- Pumped Chilled Water out of CJC electric vault

- Continued to conduct Daily Blast Inspections of the Broadway Tunnel and furnish status reports
- Insulated & heat traced temporary boiler water line
- Test ran temporary boiler weekly
- Assisted TEG with final review of Broadway Tunnel Reinforcing
- Assisted contractor with exploratory excavation on Charlotte Avenue
- Assisted contractor with installation of additional EGF Security Cameras
- Assisted contractor with Emergency Condensate Line Repair on Union Street

January 2018

- Made lighting & electrical repairs in EDS Tunnel
- Replaced Chilled Water drain valve in Broadway tunnel at 5th Ave.
- CNE personnel replaced the steam pressure transmitter at the Ryman Auditorium
- Assisted contractor with controls at Nashville Public Library
- Re-established communications with Ryman Cx Panel
- Relocated trap in M/H 6
- Checked TCV at Metro Courthouse
- Repaired portable sump pump on service truck
- Repaired sump pump float in M/H 18
- Assisted TEG access CJC
- Checked metering devices for CJC
- Continued to conduct Daily Blast Inspections of the Broadway Tunnel and furnish status reports
- Assisted contractor at 5th & Broadway vent shaft
- Thawed lines & test fired temporary Boiler
- Added chemicals to Temporary Boiler
- Performed Exploratory Excavation & Chilled Water leak repair on 3rd Avenue near Charlotte Avenue
- Completed Security Camera project punch list items
- Assisted TEG access M/H K
- Pumped out M/H 11
- Installed insulation blanket in M/H 9
- Assisted TEG with review of M/H 9, 11 & 13

February 2018

- Set Chilled Water delta T to contractual set point at War Memorial
- Assisted TEG access Broadway tunnel & M/H 6
- Restored communications with the Cx Panels at:
 - Ryman Auditorium
 - John Sevier Building
 - Municipal Auditorium
 - James K. Polk Building
 - War Memorial



- Continued to conduct Daily Blast Inspections of the Broadway Tunnel and furnish status reports
- Assisted contractor remove seismograph equipment from Broadway Tunnel
- Assisted TEG with review of Broadway tunnel following blasting
- Removed temporary chillers from Bridgestone Arena
- Removed temporary boiler from Bridgestone Arena

March 2018

- Replaced sump pump in M/H B1
- Repaired tunnel lighting & electrical
- Reset meter totalizer at TN Tower
- Reset time on Cx Panel for Daylight Savings Time
- Repaired Chilled Water supply pressure transmitter at Parkway Tower
- Restored communication with Cx Panels at Municipal Auditorium and James K. Polk
- Checked meters at Fairlane Hotel.
- Turned steam on inside the Bobby Hotel
- Continued to conduct Daily Blast Inspections of the Broadway Tunnel and furnish status reports
- Assisted TEG & contractors with structural review of Broadway Tunnel
- Assisted contractors access Ryman Auditorium to view location of steam meter replacement after pre-bid meeting
- Checked damage to insulation on steam line between CJC & Parkway Tower
- Assisted TEG review new infrastructure at 1st & Molloy

April 2018

- Adjusted sump pump floats in M/H B1 & M/H B2
- Tested sump pump alarms
- Repaired tunnel lighting & electrical
- Replaced motor on #3 Condensate Pump in M/H 18
- Established communications with Cx Panel at Fairlane Hotel
- Restored power to Cx Panel at Hyatt Place Hotel
- Checked new valve actuators at Bobby Hotel
- Checked manholes and marked lids for Marathon
- Repaired hydraulic sump pump
- Purchased steam meter for CJC
- Checked water in CJC elevator shaft
- Assisted 2nd contractor remove seismograph equipment from Broadway tunnel
- Assisted successful bidder review Ryman steam meter location
- Assisted contractors with 3rd Ave. Steam Line Insulation Repair site inspection after pre-bid meeting
- CNE & Metro DES Representatives met with contractors & engineers regarding Peabody Plaza construction
- Assisted contractor with steam line insulation repairs at 1st & Molloy



- Assisted contractor with access to M/H B2
- Verified division valve locations on 7th Avenue

May 2018

- Repaired AAB tunnel lighting & electrical
- Replaced #3 Condensate Pump in M/H 18
- Put actuator on new valve at the Renaissance Hotel
- Re-set Cx Panel at JK Polk Building
- Checked calibration on 6” RTD’s
- Checked calibration on four sets of 8” RTD’s
- Performed annual meter certification at 5/3 Financial Center
- Performed annual meter certification at Viridian Condominiums
- Performed annual meter certification at Nashville City Center
- Performed annual meter certification at Andrew Jackson Building
- Performed annual meter certification at Rachel Jackson Building
- Performed annual meter certification at Renaissance Hotel
- Performed annual meter certification at Renaissance Office Tower
- Performed annual meter certification at old Nashville Convention Center
- Checked permanent chilled water connection to Wachovia Bank
- Disconnected metering devices at Ryman Auditorium
- Isolated steam to Ryman Auditorium
- Restored steam to Ryman Auditorium after new meter was installed
- Re-connected metering devices at Ryman Auditorium
- Assisted contractor set up new meter at Ryman Auditorium
- Assisted geologist take seismograph readings around EGF
- Restored plant services after blasting at Peabody Plaza caused plant to trip off line
- Disconnect switches on transformers during daily blasts

June 2018

- Restored communications with War Memorial Cx Panel
- Checked calibration on four sets of 8” RTD’s
- Performed annual meter certification at Nissan Stadium
- Performed annual meter certification at TSU
- Performed annual meter certification at Hermitage Hotel
- Checked sump pump in Manhole B
- Assisted contractor with measurements and testing in Manhole U
- Assisted contractor at 5th and Broadway measure for new NES vault
- Assisted geologist take seismograph readings around EGF
- Disconnected switches on transformers during daily blasts at Peabody Plaza

Annual maintenance costs for EDS activities: \$368,625.94 (excludes salaried personnel & corporate overhead).



DES Projects

Below is a brief description of the DES projects in various stages of completion performed during FY17-18.

DES-124.4 Criminal Justice Center (CJC) New Service Installation

Metro DES and CNE Representatives visited the CJC site on October 25, 2017 to confirm the location of the entrance points of the steam, condensate and chilled water service lines into the building. A Pre-bid Meeting and walk through was held on November 8, 2017. The project was awarded to S. M. Lawrence on November 27, 2017. The chilled water piping was completed the second week of January. The insulation was completed January 24, 2018 and the concrete manhole box for the new temporary chiller piping was installed on January 31, 2018. The box was installed per the contract documents and based on the existing curb height in the area of the CJC. There was a disagreement between the Metro Public Works and the CJC contractor as to the final curb height. A meeting was held with the contractor, a Metro DES Representative, a representative from Metro Public Works and CNE on March 15, 2018. An agreement was reached on the final location and slope of the concrete valve box. The concrete box was set on March 19, 2018 and backfilled the following day. The final insulation on the piping inside the box was completed on March 31, 2018. A Metro DES Representative reviewed this work on April 2, 2018. The delay in making a decision on the elevation and re-setting the box resulted in a change order. The back-up documentation for Change Order #1 was reviewed and approved.

DES-133.1 Manhole 19 Steam Valve Installation

Due to the blasting in the area near the DES Broadway Tunnel, Metro requested a new steam division valve be installed east of the Renaissance Hotel steam branch connection. F. M. Sylvan personnel installed a 12 inch butt weld valve, a drip-leg, a drain valve and a steam trap line on September 24-25, 2017.

DES-133.2 Temporary Equipment for the Bridgestone Arena

Metro requested CNE provide one 350 HP Boiler and three 500 Ton Air Cooled Chillers for the Bridgestone Arena. This was done as a precautionary measure in the event blasting on the 5th and Broadway site across the street damaged the DES steam and chilled water lines in the Broadway tunnel. The temporary chillers and boiler arrived and were set November 1, 2017. The chillers were checked for leaks and then the lines were drained. The chillers could not be test run because there was no electrical power. Bridgestone Arena personnel made the decision that they would provide generators to power the chillers in the event they were needed. The boiler was test run on November 17, 2017 and operational training was provided by Ware. CNE's Operations Supervisor started and test ran the boiler several times per week. All of the plant's operators were trained on the proper startup procedure in the event it is needed. The temporary chillers were removed and sent back to Trane on February 12, 2018 upon completion of blasting on the 5th & Broadway site. The area on the Broadway side of the Bridgestone Arena was cleaned and returned to normal.



use. The temporary Boiler was removed and sent back to Ware on February 14, 2018. The Sixth Avenue South side of Bridgestone Arena was cleaned and returned to normal use. The site was reviewed with the Bridgestone Arena personnel on February 14, 2018 and with personnel from Metro Public Works on February 16, 2018 and no punch list items were noted.

DES-133.3 Broadway Tunnel Structural Reinforcement

Metro requested CNE have the Broadway tunnel reinforced from the ventilation shaft at 5th Avenue North approximately 190 feet to the west. Proshot Concrete was awarded the contract on November 13, 2017 and began work on November 20, 2017. The work was substantially completed on December 15, 2017. A walk through was conducted the same day and some punch list items were generated. A final walk through was conducted on December 20, 2017 and there were no deficiencies noted.

Change Order #1

A vertical and horizontal crack was observed on the east side of the Bridgestone connection in the tunnel following the daily blast inspection on November 20, 2017. Metro requested that a Structural Engineer review the area. He completed his review on November 22, 2017. A detailed plan for repairs was provided and Proshot began the work on November 29, 2017. This work was completed on December 15, 2017.

DES-135 Exploratory Excavation and Chilled Water Leak Repairs

On December 14, 2017, green dye was discovered in an AT&T Vault on Charlotte Avenue. The closest chilled water lines in this area are located at the intersection of 3rd Avenue and Charlotte Avenue. CNE had F. M. Sylvan Company perform an exploratory excavation on December 21, 2017. No chilled water leaks were found. Additional investigation revealed green dye in a sewer manhole near the curb at 3rd Avenue and Charlotte Avenue. On January 11, 2018, F. M. Sylvan dug up the chilled water piping on 3rd Avenue. A leak was discovered on a chilled water drain line and a temporary repair was made the following day. The chilled water makeup dropped by approximately 80,000 gallons per day following this repair. Due to the frigid temperatures and the need to schedule a partial outage with affected customers, permanent repairs were scheduled to take place January 19, 2018. An existing 2 inch drain line was removed from the chilled water supply and return lines and 6 inch blind flanges were installed on the two branch tees that formerly supplied chilled water to the Public Square Parking Garage. The repairs were completed and service was restored by approximately 6:00 p.m. The excavated area was backfilled on January 25, 2018 and cold patch asphalt was installed the following day. Final paving took place on May 19, 2018.

DES-136 Update DES Marketing Brochure

Metro requested CNE have the DES Brochure updated. After multiple revisions, McNeely, Pigot & Fox completed this project and delivered 500 copies to the plant in December 2017.

DES-138 Manhole D Repairs

CNE awarded F. M. Sylvan the contract for this work. The condensate piping, sparge tube, steam trap lines, insulation and structural steel was installed during the timeframe of August 10-12, 2017. The ladder and sump pump was installed the following week. Painting was completed by late August and the valve and expansion joint insulation blankets were installed on September 10, 2017. A walk through of the project was completed on September 11, 2017 and a punch list was delivered to the contractor on September 12, 2017. The punch list items were completed on September 19, 2017.

DES-140 Manhole N2 Security Fence Installation

The project to install a security fence around Manhole N2 was approved on June 22, 2017. This project began July 31, 2017 with site grading, the installation of a plastic weed barrier, manhole risers, castings, gravel and fence posts. The fence, gate and wheel stops were installed the first week of August 2017. There was some damage to the original wheel stops and new plastic wheel stops were ordered and installed the first week of October 2017.

DES-141 EGF Security Camera Additions and Video Recording Upgrades

This project was awarded to Koorsen following competitive bidding. The electrical conduit portion of this project began on November 27, 2017. The cameras, recording devices and large monitor were installed and substantial completion was achieved December 21, 2017. Punch list items were completed on January 29, 2018.

DES-142 Bobby Hotel Steam Valve Installation

This project was awarded to BESCO. Work took place September 7, 2017. A Metro DES Representative reviewed the completed work the following day. There were no punch list items.

DES-144 Manhole 6 Structural Repairs

A Metro DES Representative and a steel coatings company reviewed the structural steel in Manhole 6 on February 28, 2018. A pre-bid meeting is scheduled for July 11, 2018 at 9:00 a.m. to review the proposed project scope.

DES-145 Manhole 9, 11 and K Repairs and Improvements

On December 15, 2017, Proshot Concrete was awarded the contract to make structural repairs in Manholes 9, 11 and K. Manhole K repairs were complete on January 5, 2018. A Metro DES Representative reviewed the repairs and Proshot completed the punch list items the same day. Manhole 9 and 11 repairs began on January 8, 2018 and were completed on January 10, 2018.

DES-146 Ryman Auditorium Steam Meter Replacement

A Pre-bid Meeting was held on March 27, 2018 to review the Bid Drawings and Proposal Forms. The steam meter and piping is to be enlarged from 1" to 1½". Four bidders attended the meeting and a walk through of the building's mechanical room. Bids were received on April 10, 2018. The project was awarded to F.M. Sylvan on



April 20, 2018. Submittals were approved and the Contractor began the installation of the new steam meter and associated piping on May 15, 2018 at 5:00 p.m. Steam service was restored at 11:00 p.m. the same day. CNE personnel re-connected the metering devices the following day and the insulation was completed on May 25, 2018.

DES-147 3rd Avenue Steam Line Insulation Repair

A contractor doing work for AT&T damaged the outer casing and insulation on the steam service line to the Parkway Tower Building. A Pre-bid Meeting was held April 5, 2018 and bids were received on April 16, 2018. The project was awarded to F.M. Sylvan on April 20, 2018. Work began on May 7, 2018 at 9:00 a.m. and was completed the same day. The backup documentation was reviewed and approved by a Metro DES Representative.

DES-148 Rolling Mill Hill- Site I Development (Peabody Plaza)

This project began in early April 2018. Blasting started on May 1, 2018. The contractor installed seismograph equipment at the plant and performed a building survey prior to the start of blasting. Vibratex also installed seismograph equipment on May 2, 2018 and performed a site survey documenting pre-blast conditions. Blasting tripped the plant off line May 21, 2018. Since that time, CNE has closely monitored each blast.

DES-149 1st and Molloy Exploratory Excavation and Steam Line Repair

A "hot spot" was noted on the thermographic survey at the intersection of 1st Avenue and Molloy Street. Monitoring indicated the temperature continued to increase. Due to the increase and the fact that the building contractor is excavating in the area near the DES lines, CNE was asked to perform an exploratory excavation to locate the source of the hot spot. Excavation of this area began on April 2, 2018 and revealed damage to the outer casing and insulation on the steam line. Metro's DES Representative recommended removing the damaged casing and insulation and replacing it with pyrogel insulation and a new casing of 10 gauge steel. The casing was then covered with pyrogel and pittwrap. Following these repairs the area was backfilled on April 10, 2018. The binder was installed on April 13, 2018. The final paving was completed on May 19, 2018.

DES-150 Federal Courthouse Construction Related Costs

The construction for the new Federal Courthouse is expected to begin soon. Site preparation has already begun. Metro has been informed that blasting will be required. Due to the close proximity of the site to the 7th Avenue Tunnel, Metro DES Representatives and CNE have developed an Emergency Response Plan. This will allow service to be furnished to the Nashville Public Library and/or the Hume Fogg High School in the event blasting damages the piping or tunnel structure.



Outstanding Issues and Recommendations

Each year CNE meets with Metro representatives to discuss outstanding issues and project recommendations. Below is a list of those items.

Outstanding Issues

- O&M Contract extension or renewal
- Chilled water leak near Tennessee Performing Arts Center
- Metro DES Customer Delinquent Payment Notification Procedure & Refund Policy
- New service contract with Oliver-McMillan for new 5th & Broad Development

Recommendations for FY 19

- Pipe insulation restoration in manholes and in the tunnels
- Manhole & Tunnel Structural Steel Rehabilitation & Corrosion Prevention
- Install a side stream filter on the chilled water system
- Build a maintenance platform under the 7th Avenue Tunnel exhaust fan
- Investigate the installation of additional Division Valves
- Investigate system expansion
 - Add additional equipment to existing plant for potential new customers
 - Add new service lines from plant to allow for system redundancy and to serve potential new customers south of Broadway
 - Investigate the possibility of a satellite plant
- Pursue service contract with Peabody Plaza Building
- Potential projects that should be customer funded:
 - Polisher on Condensate return system
 - Oxygen Trim on burners
 - Capacitor Bank on Electrical feed to plant



Sales and Marketing

Sales and Marketing Review

Due to the amount of development taking place south of Broadway, the potential exists for system expansion. As reported last year, Metro has temporarily suspended the pursuit of new customers. Potential customers continue to inquire about system capacity. Peabody Plaza is in the process of being built on the site directly south of the EGF. The existing adjacent parking lots on the east and west sides of the EGF are scheduled to be developed soon.

The following table, furnished by Thermal Engineering Group, Inc. on September 21, 2016, indicates the remaining current system capacity.

System Capacity		
Diversity Factor	66.54%	74.60%
	Chilled Water (tons)	Steam (pph)
Installed capacity including redundant equipment	23,400	260,000
Installed capacity	20,800	195,000
System losses	600	28,568
Max Allowable Customer Load	20,200	166,433
Maximum System Peaks	19,654	157,996
Net Undiversified Capacity Available for Sale	546	8,437
Net Diversified Capacity Available for Sale	821	11,309
Diversified Potential for Contract Capacities	31,809	321,289
Contract Capacity for Existing Customers	30,533	299,459
Potential Contract Capacity for Sale	1,276	21,740

Customers currently on the system that are redeveloping their property:

- The Nashville Convention Center is being converted to a dual tower mixed use complex called the 5th & Broadway.
- The Criminal Justice Center is building a new jail on the existing site.

Ongoing activities include the following:

- A Sales and Marketing Report is included in the Monthly Operations Report.
- The DES e-Newsletter is produced and issued semi-annually.
- The Annual CNE/NDES Golf Tournament is held each year for existing and potential new customers as well as strategic partners.
- CNE participates in meetings and social events with business groups, engineers and developers throughout the year.
- CNE provides presentations and tours of the EGF to point out the positive attributes of the system.



Utilities and Fuel Procurement

During FY17-18, CNE was proactive in the procurement of fuel and risk management. Natural gas and propane procurement recommendations were made by Trane Energy Supply Services and International F. C. Stone Financial, Inc. In a collaborative effort with Metro, CNE made procurement decisions based upon a matrix of pricing and consumption factors including but not limited to then-current pricing conditions, future pricing conditions, technical and fundamental pricing trends, consumption variances as a function of incremental demand and conservation and budgetary considerations.

All natural gas supply was purchased from Constellation NewEnergy – Gas Division, LLC (CNEG) under the terms and conditions of an agreement between CNE and CNEG for a service period through December 2018. The costs include the amount paid to CNEG for the cost of gas (including transportation to the Nashville city gate), Piedmont for the cost of transportation from the city gate to the plant, risk management fees, Metro’s gas consultant and ARFA costs, but it does not include the Fuel Efficiency Adjustment (FEA). Appendix 3 includes the FEA. That is why there is a difference in the totals.

The following is a report of the natural gas purchased in FY17-18:

Natural Gas

Month	Quantity (DT)	Unit Cost	Amount
July, 2017	26,981.3	\$ 3.9167	\$ 105,678.58
August	28,499.0	\$ 3.8119	\$ 108,634.98
September	32,030.0	\$ 3.7662	\$ 120,630.32
October	40,604.7	\$ 3.6967	\$ 150,101.62
November	55,602.1	\$ 3.4351	\$ 190,996.70
December	76,736.0	\$ 3.6384	\$ 279,197.69
January, 2018	90,543.5	\$ 4.3625	\$ 304,448.19
February	58,649.9	\$ 4.0386	\$ 236,863.29
March	61,130.4	\$ 3.3402	\$ 204,186.20
April	51,249.9	\$ 3.4194	\$ 175,244.62
May	32,222.7	\$ 3.6062	\$ 116,200.39
June	29,161.4	\$ 3.6994	\$ 107,878.64
Total	583,410.9	\$ 3.5996	\$ 2,100,061.22



No additional propane was purchased in FY17-18. The following is a report of propane used:

Propane

Month	Quantity (DT)	Unit Cost	Amount
July, 2017	0	N/A	\$ 0.00
August	0	N/A	\$ 0.00
September	74	\$ 26.4192	\$ 1,955.02
October	0	N/A	\$ 0.00
November	0	N/A	\$ 0.00
December	0	N/A	\$ 0.00
January, 2018	25	\$ 26.0670	\$ 651.67
February	0	N/A	\$ 0.00
March	0	N/A	\$ 0.00
April	0	N/A	\$ 0.00
May	0	N/A	\$ 0.00
June	0	N/A	\$ 0.00
Total	99	\$ 26.3303	\$ 2,606.70

During FY17-18, electricity was purchased each month based on the Nashville Electric Service rate schedule. Quantities reported in the Monthly Reports are taken from plant meters. The difference between the plant meter readings and billed quantities has been reconciled in Appendix 4 & Exhibit 1 of this report.

Electricity

Month	Quantity (Kwh)	Unit Cost	Amount
July, 2017	8,052,100	\$ 0.08612	\$ 693,451.11
August	7,131,516	\$ 0.09039	\$ 644,621.28
September	5,477,248	\$ 0.09214	\$ 504,653.73
October	4,455,920	\$ 0.09856	\$ 439,161.71
November	3,086,328	\$ 0.09211	\$ 284,280.46
December	2,444,988	\$ 0.09370	\$ 229,102.36
January, 2018	2,424,352	\$ 0.09061	\$ 219,670.09
February	2,863,112	\$ 0.10279	\$ 294,290.54
March	2,948,652	\$ 0.08885	\$ 261,979.74
April	3,243,856	\$ 0.09385	\$ 304,439.47
May	6,251,196	\$ 0.08581	\$ 536,385.37
June	7,568,036	\$ 0.08758	\$ 662,789.66
Total	55,947,304	\$ 0.09071	\$ 5,074,825.52



The following table indicates the water purchased during FY17-18 based on the Metro Water Services rate schedule. The quantities in this table are from the water bills. They differ from those reported in the Monthly Reports because the water departments billing cycle is not based on an actual month.

Water & Sewer

Month	Quantity (gal)	Unit Cost	Amount
July, 2017	20,051,636	\$ 0.00364	\$ 73,010.39
August	18,347,692	\$ 0.00365	\$ 66,910.56
September	18,493,552	\$ 0.00365	\$ 67,593.18
October	14,899,412	\$ 0.00366	\$ 54,499.10
November	11,058,432	\$ 0.00367	\$ 40,603.91
December	9,148,040	\$ 0.00368	\$ 33,627.69
January, 2018	9,335,040	\$ 0.00367	\$ 34,233.60
February	7,022,224	\$ 0.00369	\$ 25,903.72
March	7,568,264	\$ 0.00369	\$ 27,914.87
April	8,165,168	\$ 0.00369	\$ 30,104.02
May	9,876,592	\$ 0.00367	\$ 36,268.92
June	18,693,268	\$ 0.00367	\$ 68,526.07
Total	152,659,320	\$ 0.00366	\$ 559,223.03



Financial Report

The following is an explanation of the Appendices associated with this financial report.

Appendix 1 – Customer List

This chart lists the number of customers served by the District Energy System (DES). The customers are sorted according to three categories:

- Private Customers
- State of Tennessee Customers
- Metropolitan Nashville (Metro) Customers

Appendix 2 – Revenues

This chart summarizes the revenues charged per month by DES to each customer for FY17-18.

Appendix 3 – Customer Rate Reconciliation

Monthly Reconciliation charts from July 2017 to June 2018 are found in this appendix. The final chart is a Summary Reconciliation table for FY17-18. These tables detail the amount allocable to customers to the amount allocated to customers. The difference in the allocable amount and the amount allocated to customers is paid by Metro and is called the Metro Funding Amount (MFA).

- **Facilities Capital Charge** – The debt service on revenue bonds issued for the project.
- **System Operator Charge** – Includes the system operator’s fee which is most of the operations and maintenance costs of the system.
- **EDS Improvements Charge** – Due to a CPI adjustment of 1.023%, the annual replacement and repair allowance was \$195,343 for FY17-18.
- **Metro Incremental Administrative Charge** – Per the customer service agreement, these charges are the “actual, reasonable and necessary” cost over and above current Metro operating costs to manage the DES system and operator.
- **Pass Through Charges**
 - **Water Treatment & Chemicals** – actual costs of chemicals to treat water
 - **Engineering** – The engineering costs required for any non-capital projects, customer related issues, meetings, etc.
 - **Insurance** – The cost to maintain all-risk property insurance and business insurance policies.
 - **EDS Electricity** – The cost of electricity for tunnel lights and safety equipment.
 - **EDS Surcharge** – Surcharge to private customers only to cap their annual cost of any EDS repairs made by Metro (\$78,002).
 - **Water and Sewer** – Actual costs charged by Metro Water Services
- **Energy Charges**
 - **Electricity**
 - **Natural Gas**
 - **Propane**

Appendix 4 – CEPS Invoice Reconciliation (FEA)

Exhibit 1 – Performance Guarantee Calculation



Appendix 1



Metro Nashville District Energy System Customers

Private		State		Metro	
1	Bobby Hotel (fka Wells Fargo)	18	Andrew Jackson	32	A.A. Birch
2	Parkway Tower	19	Cordell Hull	33	Metro Courthouse
3	Sheraton Hotel	20	John Sevier	34	Municipal Auditorium
4	Hermitage Hotel	21	War Memorial	35	Criminal Justice Center
5	501 Union Building	22	Library & Archives	36	Bridgestone Arena
6	4 th & Church Building	23	Supreme Court	37	Nissan Stadium
7	Fifth-Third Financial Center	24	State Capitol	38	Hume-Fogg High School
8	Renaissance Hotel	25	James K. Polk	39	Nashville Public Library
9	Renaissance Office Tower	26	Citizens Plaza	40	Music City Center
10	St. Mary's Catholic Church	27	Snodgrass Tennessee Tower		
11	Nashville City Center	28	Tennessee State University		
12	Wildhorse Saloon	29	Tennessee Performing Arts Center		
13	Ryman Auditorium	30	Legislative Plaza		
14	Schermerhorn Symphony Center	31	Rachael Jackson		
15	Viridian Residential Tower				
16	Hyatt Place Hotel				
17	Fairlane Hotel (fka 401 Union)				



Appendix 2

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
Fiscal Year Ending June 30, 2018

Customer No.	Customer Name	July	August	September	October	November	December	January	February	March	April	May	June (including True Up)	Total
2	A. A. Birch	\$ 63,806.02	\$ 60,779.94	\$ 56,639.40	\$ 57,273.43	\$ 57,685.68	\$ 51,213.92	\$ 53,370.42	\$ 55,635.67	\$ 56,260.80	\$ 56,755.97	\$ 65,316.22	\$ 67,739.95	\$ 702,477.42
4	Metro Courthouse	\$ 34,153.45	\$ 29,576.06	\$ 28,204.02	\$ 26,894.03	\$ 24,644.12	\$ 26,401.69	\$ 27,767.70	\$ 26,220.08	\$ 24,580.88	\$ 25,782.64	\$ 30,162.45	\$ 33,450.68	\$ 337,837.80
7	Parkway Tower	\$ 28,828.03	\$ 25,900.14	\$ 25,096.45	\$ 23,840.76	\$ 27,935.56	\$ 31,015.51	\$ 34,200.51	\$ 27,966.73	\$ 27,654.85	\$ 26,775.22	\$ 23,573.58	\$ 27,621.81	\$ 330,409.15
9	Bobby Hotel (fka Wells Fargo)	\$ 5,763.38	\$ 4,936.02	\$ 5,300.03	\$ 5,265.91	\$ 5,222.05	\$ 5,202.66	\$ 5,176.40	\$ 5,172.32	\$ 7,380.98	\$ 8,519.66	\$ 13,585.90	\$ 15,652.20	\$ 87,177.51
10	Fairlane Hotel (fka 401 Union)	\$ 6,407.42	\$ 5,853.45	\$ 7,058.37	\$ 6,531.60	\$ 7,529.35	\$ 8,324.01	\$ 13,166.89	\$ 9,692.85	\$ 8,329.95	\$ 8,412.01	\$ 10,206.82	\$ 11,868.29	\$ 103,381.01
11	Sheraton Hotel	\$ 72,243.31	\$ 59,274.52	\$ 62,615.27	\$ 60,221.19	\$ 54,283.64	\$ 55,220.58	\$ 55,332.87	\$ 52,080.68	\$ 48,115.42	\$ 50,089.24	\$ 55,660.47	\$ 57,084.13	\$ 682,221.32
12	Municipal Auditorium	\$ 25,827.60	\$ 22,240.33	\$ 22,213.51	\$ 22,170.10	\$ 23,946.13	\$ 27,403.48	\$ 26,487.82	\$ 23,393.94	\$ 23,761.22	\$ 22,818.17	\$ 21,469.63	\$ 23,188.26	\$ 284,920.19
21	Hermitage Hotel	\$ 24,443.19	\$ 21,702.51	\$ 21,545.61	\$ 21,876.96	\$ 21,805.45	\$ 21,106.01	\$ 19,323.92	\$ 18,291.80	\$ 17,298.18	\$ 17,785.89	\$ 21,853.24	\$ 24,907.21	\$ 251,939.97
24	Criminal Justice Center	\$ 23,294.10	\$ 19,329.21	\$ 21,324.53	\$ 21,377.95	\$ 21,377.53	\$ 21,411.17	\$ 21,321.68	\$ 21,280.87	\$ 21,346.76	\$ 21,519.21	\$ 21,398.66	\$ 23,768.28	\$ 258,749.95
25	501 Union Building	\$ 16,797.69	\$ 15,063.79	\$ 15,830.33	\$ 15,544.35	\$ 14,974.94	\$ 16,575.11	\$ 15,655.68	\$ 12,185.16	\$ 10,866.68	\$ 10,794.90	\$ 14,325.45	\$ 15,602.42	\$ 174,216.50
28	4th & Church Building	\$ 43,948.08	\$ 42,129.97	\$ 36,062.07	\$ 33,528.75	\$ 35,565.26	\$ 36,140.87	\$ 46,375.14	\$ 39,172.99	\$ 34,125.77	\$ 33,326.27	\$ 35,418.81	\$ 41,965.11	\$ 457,759.09
29	Fifth-Third Financial Center	\$ 47,165.57	\$ 41,495.59	\$ 37,945.89	\$ 34,266.64	\$ 31,633.08	\$ 30,004.51	\$ 23,793.96	\$ 30,983.80	\$ 30,976.38	\$ 32,709.99	\$ 34,255.83	\$ 44,958.40	\$ 420,189.64
32	Renaissance Hotel	\$ 112,507.08	\$ 98,004.67	\$ 90,849.54	\$ 82,070.83	\$ 69,786.84	\$ 74,350.08	\$ 80,263.45	\$ 76,124.63	\$ 77,384.69	\$ 74,439.27	\$ 92,416.25	\$ 94,018.06	\$ 1,022,215.39
34	Renaissance Office Tower	\$ 14,798.28	\$ 13,711.25	\$ 13,068.87	\$ 12,133.54	\$ 10,085.74	\$ 9,463.48	\$ 8,909.89	\$ 8,767.70	\$ 8,676.24	\$ 8,990.16	\$ 12,036.58	\$ 14,210.10	\$ 134,851.83
35	St. Mary's Catholic Church	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 1,009.76	\$ 12,117.12
36	Nashville City Center	\$ 43,861.84	\$ 39,901.60	\$ 36,021.88	\$ 31,687.64	\$ 26,316.27	\$ 24,764.19	\$ 26,011.68	\$ 23,753.45	\$ 24,714.38	\$ 24,415.28	\$ 32,890.10	\$ 41,399.20	\$ 375,737.51
38	Wildhorse Saloon	\$ 21,973.32	\$ 19,742.61	\$ 17,897.85	\$ 15,103.26	\$ 11,058.16	\$ 8,432.97	\$ 8,690.40	\$ 10,172.42	\$ 8,266.56	\$ 9,818.02	\$ 13,583.50	\$ 15,236.04	\$ 159,975.11
39	Ryman Auditorium	\$ 19,873.42	\$ 18,193.72	\$ 17,853.77	\$ 16,975.19	\$ 14,707.19	\$ 14,029.49	\$ 12,537.27	\$ 14,376.36	\$ 13,886.16	\$ 14,409.36	\$ 17,980.39	\$ 18,852.85	\$ 193,675.17
40	Bridgestone Arena	\$ 135,129.03	\$ 150,617.68	\$ 140,718.31	\$ 128,577.19	\$ 91,599.75	\$ 99,599.07	\$ 92,432.38	\$ 108,388.57	\$ 104,429.60	\$ 104,670.44	\$ 106,931.54	\$ 121,092.95	\$ 1,384,186.51
41	Nissan Stadium	\$ 82,022.11	\$ 74,768.69	\$ 62,073.06	\$ 51,759.33	\$ 36,627.39	\$ 30,260.06	\$ 28,460.15	\$ 35,286.17	\$ 31,094.04	\$ 35,361.02	\$ 60,034.36	\$ 73,663.68	\$ 601,410.06
43	Hume-Fogg High School	\$ 12,534.52	\$ 11,140.93	\$ 10,653.10	\$ 10,058.60	\$ 10,256.48	\$ 11,146.80	\$ 13,046.28	\$ 12,184.06	\$ 11,966.10	\$ 12,025.19	\$ 12,435.47	\$ 12,969.06	\$ 140,416.59
44	Schermerhorn Symphony Center	\$ 35,764.67	\$ 32,223.93	\$ 31,988.72	\$ 28,622.46	\$ 24,964.63	\$ 26,604.07	\$ 27,808.40	\$ 29,982.10	\$ 27,187.59	\$ 27,622.49	\$ 30,839.13	\$ 31,711.60	\$ 355,319.79
45	Nashville Public Library	\$ 30,711.35	\$ 31,718.59	\$ 37,157.14	\$ 42,585.88	\$ 34,348.28	\$ 27,660.97	\$ 23,699.28	\$ 31,979.52	\$ 30,992.13	\$ 32,958.55	\$ 40,764.88	\$ 34,773.57	\$ 399,350.14
49	Viridian Residential Tower	\$ 22,834.11	\$ 22,135.12	\$ 20,157.22	\$ 18,512.42	\$ 16,211.71	\$ 15,403.39	\$ 15,522.05	\$ 15,896.00	\$ 15,597.08	\$ 16,355.50	\$ 20,873.64	\$ 22,023.13	\$ 221,521.37
50	Music City Center	\$ 287,965.54	\$ 256,789.68	\$ 227,275.17	\$ 228,438.12	\$ 212,559.38	\$ 219,181.13	\$ 210,744.24	\$ 202,487.90	\$ 185,837.57	\$ 197,948.23	\$ 224,290.08	\$ 281,543.45	\$ 2,735,060.49
51	Hyatt Place Hotel	\$ 20,867.11	\$ 20,001.42	\$ 19,329.02	\$ 18,571.23	\$ 17,381.81	\$ 17,626.96	\$ 17,512.85	\$ 17,323.87	\$ 16,565.63	\$ 16,954.37	\$ 19,995.81	\$ 19,761.32	\$ 221,891.40
51	State Government of TN	\$ 471,219.58	\$ 464,111.20	\$ 432,899.03	\$ 429,685.55	\$ 406,471.29	\$ 425,842.71	\$ 446,127.55	\$ 405,559.95	\$ 384,878.63	\$ 382,383.08	\$ 418,539.02	\$ 455,284.80	\$ 5,123,002.39
	Grand Totals:	\$ 1,705,749.56	\$ 1,602,352.38	\$ 1,498,787.92	\$ 1,444,582.67	\$ 1,309,987.47	\$ 1,335,394.65	\$ 1,354,748.62	\$ 1,315,369.35	\$ 1,253,184.03	\$ 1,274,649.89	\$ 1,451,847.57	\$ 1,625,356.31	\$ 17,172,010.42



Appendix 3

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
Fiscal Year Ending June 30, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 127,480.79	\$ 195,422.64	\$ 8,560.32	\$ 25,529.25	\$ 22,886.13	\$ 9,096.75	\$ 562.90	\$ 327.20	\$ 3,441.94	\$ -	\$ 12,834.21	\$ 189,694.41	\$ 106,545.39	\$ 95.49	\$ 702,477.42
4	Metro Courthouse	\$ 60,349.19	\$ 91,187.76	\$ 3,994.56	\$ 11,913.62	\$ 12,567.91	\$ 4,635.66	\$ 262.82	\$ 152.76	\$ 1,606.13	\$ -	\$ 3,136.06	\$ 102,121.51	\$ 45,857.50	\$ 52.32	\$ 337,837.80
7	Parkway Tower	\$ 55,018.92	\$ 88,471.56	\$ 3,875.04	\$ 11,553.79	\$ 12,701.13	\$ 4,543.41	\$ 254.46	\$ 147.85	\$ 1,558.06	\$ 8,334.00	\$ 3,653.21	\$ 103,389.12	\$ 36,891.91	\$ 16.69	\$ 330,409.15
9	Bobby Hotel (fka Wells Fargo)	\$ 20,279.62	\$ 32,067.24	\$ 1,404.60	\$ 4,188.26	\$ 1,393.28	\$ 655.95	\$ 92.21	\$ 53.63	\$ 564.75	\$ 2,993.04	\$ 323.34	\$ 14,465.34	\$ 8,696.25	\$ -	\$ 87,177.51
10	Fairlane Hotel (fka 401 Union)	\$ 21,033.95	\$ 33,043.92	\$ 1,447.32	\$ 4,316.03	\$ 1,972.36	\$ 1,090.94	\$ 95.15	\$ 55.27	\$ 581.97	\$ 3,645.96	\$ 50.04	\$ 18,377.18	\$ 17,656.56	\$ 14.36	\$ 103,381.01
11	Sheraton Hotel	\$ 116,090.75	\$ 177,698.28	\$ 7,783.92	\$ 23,213.99	\$ 24,312.96	\$ 9,947.42	\$ 511.85	\$ 297.54	\$ 3,129.77	\$ 14,454.96	\$ 1,315.56	\$ 176,017.79	\$ 127,264.22	\$ 182.31	\$ 682,221.32
12	Municipal Auditorium	\$ 58,257.96	\$ 94,431.48	\$ 4,136.04	\$ 12,331.51	\$ 6,448.83	\$ 3,047.09	\$ 271.57	\$ 157.76	\$ 1,663.00	\$ -	\$ 3,501.75	\$ 53,208.64	\$ 47,443.22	\$ 21.34	\$ 284,920.19
21	Hermitage Hotel	\$ 56,073.70	\$ 83,320.56	\$ 3,650.16	\$ 10,887.03	\$ 8,389.53	\$ 2,533.74	\$ 240.28	\$ 139.68	\$ 1,467.62	\$ 3,254.04	\$ 5,916.40	\$ 61,914.48	\$ 14,135.66	\$ 17.09	\$ 251,939.97
24	Criminal Justice Center	\$ 94,815.37	\$ 136,990.92	\$ 6,001.56	\$ 17,903.57	\$ -	\$ -	\$ 395.47	\$ 229.93	\$ 2,413.13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 258,749.95
25	501 Union Building	\$ 22,108.56	\$ 33,588.72	\$ 1,471.44	\$ 4,388.22	\$ 9,450.41	\$ 3,450.94	\$ 96.86	\$ 56.26	\$ 591.63	\$ 2,736.00	\$ 158.29	\$ 64,504.99	\$ 31,565.34	\$ 48.84	\$ 174,216.50
28	4th & Church Building	\$ 245,028.60	\$ -	\$ -	\$ -	\$ 16,185.48	\$ 5,586.24	\$ 323.16	\$ 187.82	\$ -	\$ -	\$ -	\$ 144,373.36	\$ 46,048.34	\$ 26.09	\$ 457,759.09
29	Fifth-Third Financial Center	\$ 67,566.59	\$ 124,324.68	\$ 5,444.04	\$ 16,222.55	\$ 16,127.39	\$ 4,058.56	\$ 355.97	\$ 206.74	\$ 2,188.91	\$ 9,246.00	\$ 2,501.87	\$ 171,946.34	\$ -	\$ -	\$ 420,189.64
32	Renaissance Hotel	\$ 175,147.08	\$ 262,411.08	\$ 11,495.40	\$ 34,285.82	\$ 42,056.26	\$ 14,425.49	\$ 756.41	\$ 439.77	\$ 4,622.01	\$ 17,189.04	\$ -	\$ 312,304.10	\$ 146,932.86	\$ 150.07	\$ 1,022,215.39
34	Renaissance Office Tower	\$ 16,519.19	\$ 30,395.76	\$ 1,331.04	\$ 3,966.18	\$ 8,619.48	\$ 2,209.09	\$ 87.01	\$ 50.54	\$ 535.17	\$ 2,670.96	\$ 860.10	\$ 67,607.31	\$ -	\$ -	\$ 134,851.83
35	St. Mary's Catholic Church	\$ 11,726.16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 390.96	\$ -	\$ -	\$ -	\$ -	\$ 12,117.12
36	Nashville City Center	\$ 55,063.80	\$ 101,319.24	\$ 4,436.64	\$ 13,220.73	\$ 17,581.22	\$ 4,298.07	\$ 290.18	\$ 168.49	\$ 1,783.87	\$ 8,855.04	\$ -	\$ 168,720.23	\$ -	\$ -	\$ 375,737.51
38	Wildhorse Saloon	\$ 20,498.04	\$ 33,178.32	\$ 1,453.20	\$ 4,332.72	\$ 6,571.54	\$ 2,230.63	\$ 95.42	\$ 55.43	\$ 584.29	\$ 2,148.96	\$ 338.07	\$ 66,044.63	\$ 22,397.05	\$ 46.81	\$ 159,975.11
39	Ryman Auditorium	\$ 22,165.30	\$ 36,001.46	\$ 1,576.82	\$ 4,682.61	\$ 10,650.00	\$ 3,743.93	\$ 102.18	\$ 60.37	\$ 635.21	\$ 2,082.96	\$ -	\$ 77,530.14	\$ 34,398.51	\$ 45.68	\$ 193,675.17
40	Bridgestone Arena	\$ 227,742.72	\$ 375,740.76	\$ 16,456.68	\$ 49,061.38	\$ 65,560.19	\$ 20,013.80	\$ 1,079.57	\$ 627.29	\$ 6,616.80	\$ -	\$ 3,334.63	\$ 505,966.58	\$ 111,721.22	\$ 264.89	\$ 1,384,186.51
41	Nissan Stadium	\$ 97,171.45	\$ 178,798.56	\$ 7,829.28	\$ 23,330.71	\$ 29,876.47	\$ 6,646.36	\$ 512.03	\$ 297.33	\$ 3,148.02	\$ -	\$ 354.43	\$ 253,445.42	\$ -	\$ -	\$ 601,410.06
43	Hume-Fogg High School	\$ 32,360.53	\$ 51,034.44	\$ 2,235.36	\$ 6,665.73	\$ 2,593.48	\$ 1,098.98	\$ 146.87	\$ 85.36	\$ 898.77	\$ -	\$ 5,459.60	\$ 23,850.81	\$ 13,980.41	\$ 6.25	\$ 140,416.59
44	Schermerhorn Symphony Center	\$ 178,583.76	\$ -	\$ -	\$ -	\$ 12,652.28	\$ 4,950.51	\$ 232.87	\$ 135.34	\$ -	\$ -	\$ -	\$ 104,890.20	\$ 53,803.46	\$ 71.37	\$ 355,319.79
45	Nashville Public Library	\$ 80,962.80	\$ -	\$ -	\$ -	\$ 28,173.94	\$ 9,696.23	\$ 363.05	\$ 211.00	\$ -	\$ -	\$ 1,968.04	\$ 200,471.07	\$ 77,403.99	\$ 100.02	\$ 399,350.14
49	Viridian Residential Tower	\$ 145,416.24	\$ -	\$ -	\$ -	\$ 6,897.20	\$ 1,630.34	\$ 174.73	\$ 101.49	\$ -	\$ -	\$ 12,132.56	\$ 55,168.81	\$ -	\$ -	\$ 221,521.37
50	Music City Center	\$ 930,813.36	\$ 108,613.68	\$ -	\$ 89,195.69	\$ 116,162.17	\$ 44,416.03	\$ 2,690.39	\$ 1,563.48	\$ -	\$ -	\$ 508.53	\$ 944,358.58	\$ 496,081.22	\$ 657.36	\$ 2,735,060.49
51	Hyatt Place Hotel	\$ 129,429.84	\$ -	\$ -	\$ -	\$ 5,980.57	\$ 2,623.80	\$ 178.67	\$ 103.91	\$ -	\$ -	\$ 2,673.69	\$ 44,177.66	\$ 36,672.53	\$ 50.73	\$ 221,891.40
51	State Government of TN	\$ 1,639,133.76	\$ 1,254,788.04	\$ -	\$ -	\$ 150,363.44	\$ 58,664.60	\$ -	\$ 2,317.52	\$ 24,375.49	\$ -	\$ 52,927.48	\$ 1,275,751.64	\$ 663,942.92	\$ 737.50	\$ 5,123,002.39
	Grand Totals:	\$ 4,706,838.03	\$ 3,522,829.10	\$ 94,583.42	\$ 371,189.39	\$ 636,173.65	\$ 225,294.56	\$ 10,172.08	\$ 8,229.76	\$ 62,406.54	\$ 78,001.92	\$ 113,947.86	\$ 5,200,300.34	\$ 2,139,438.56	\$ 2,605.21	\$ 17,172,010.42
	Rate Calculation Totals:	\$ 5,765,333.52	\$ 5,154,143.40	\$ 166,041.48	\$ 491,936.49	\$ 636,351.09	\$ 225,415.23	\$ 14,658.33	\$ 8,442.16	\$ 66,761.65	\$ 78,001.92	\$ 107,070.94	\$ 5,201,194.69	\$ 2,142,044.63	\$ 2,606.70	\$ 20,060,002.23
	Deviation:	\$ (1,058,495.49)	\$ (1,631,314.30)	\$ (71,458.06)	\$ (120,747.10)	\$ (177.44)	\$ (120.67)	\$ (4,486.25)	\$ (212.40)	\$ (4,355.11)	\$ -	\$ 6,876.92	\$ (894.35)	\$ (2,606.07)	\$ (1.49)	\$ (2,887,991.81)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
July, 2017

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 13,300.07	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 2,937.77	\$ 692.65	\$ 30.16	\$ -	\$ 211.50	\$ -	\$ 823.74	\$ 22,353.88	\$ 4,579.88	\$ -	\$ 63,806.02
4	Metro Courthouse	\$ 6,296.23	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 1,815.87	\$ 418.54	\$ 14.08	\$ -	\$ 98.70	\$ -	\$ 105.01	\$ 14,001.22	\$ 2,595.70	\$ -	\$ 34,153.45
7	Parkway Tower	\$ 5,740.12	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,437.78	\$ 247.55	\$ 13.64	\$ -	\$ 95.74	\$ 694.50	\$ 234.10	\$ 11,819.03	\$ -	\$ -	\$ 28,828.03
9	Bobby Hotel (fka Wells Fargo)	\$ 2,115.76	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 32.18	\$ 5.54	\$ 4.94	\$ -	\$ 34.70	\$ 249.42	\$ -	\$ 223.41	\$ -	\$ -	\$ 5,763.38
10	Fairlane Hotel (fka 401 Union)	\$ 2,194.47	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 111.35	\$ 19.17	\$ 5.10	\$ -	\$ 35.76	\$ 303.83	\$ -	\$ 545.97	\$ -	\$ -	\$ 6,407.42
11	Sheraton Hotel	\$ 12,111.74	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 3,850.95	\$ 1,062.04	\$ 27.42	\$ -	\$ 192.33	\$ 1,204.58	\$ -	\$ 26,849.14	\$ 9,780.78	\$ -	\$ 72,243.31
12	Municipal Auditorium	\$ 6,078.05	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 1,197.50	\$ 214.11	\$ 14.56	\$ -	\$ 102.19	\$ -	\$ 320.48	\$ 8,584.94	\$ 194.54	\$ -	\$ 25,827.60
21	Hermitage Hotel	\$ 5,850.16	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 1,176.01	\$ 207.11	\$ 12.87	\$ -	\$ 90.19	\$ 271.17	\$ 514.11	\$ 8,159.88	\$ 113.46	\$ -	\$ 24,443.19
24	Criminal Justice Center	\$ 9,892.10	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 148.28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,294.10
25	501 Union Building	\$ 2,306.59	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 1,060.82	\$ 278.20	\$ 5.19	\$ -	\$ 36.35	\$ 228.00	\$ -	\$ 7,295.94	\$ 2,342.16	\$ -	\$ 16,797.69
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 2,498.92	\$ 430.25	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 20,582.54	\$ -	\$ -	\$ 43,948.08
29	Fifth-Third Financial Center	\$ 7,049.22	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 2,511.98	\$ 432.50	\$ 19.11	\$ -	\$ 134.51	\$ 770.50	\$ 69.64	\$ 24,169.87	\$ -	\$ -	\$ 47,165.57
32	Renaissance Hotel	\$ 18,273.10	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 7,893.80	\$ 1,628.67	\$ 40.51	\$ -	\$ 284.02	\$ 1,432.42	\$ -	\$ 51,000.13	\$ 6,607.29	\$ -	\$ 112,507.08
34	Renaissance Office Tower	\$ 1,723.44	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 1,122.47	\$ 193.26	\$ 4.67	\$ -	\$ 32.89	\$ 222.58	\$ -	\$ 8,563.11	\$ -	\$ -	\$ 14,798.28
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 5,744.81	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 2,838.42	\$ 488.71	\$ 15.58	\$ -	\$ 109.62	\$ 737.92	\$ -	\$ 24,140.58	\$ -	\$ -	\$ 43,861.84
38	Wildhorse Saloon	\$ 2,138.56	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 1,245.92	\$ 351.61	\$ 5.12	\$ -	\$ 35.90	\$ 179.08	\$ -	\$ 11,451.83	\$ 3,360.57	\$ -	\$ 21,973.32
39	Ryman Auditorium	\$ 2,206.30	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 1,436.24	\$ 342.55	\$ 5.36	\$ -	\$ 37.66	\$ 173.58	\$ -	\$ 9,975.08	\$ 2,335.43	\$ -	\$ 19,873.42
40	Bridgestone Arena	\$ 23,760.41	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 6,841.10	\$ 1,563.38	\$ 57.89	\$ -	\$ 406.60	\$ -	\$ -	\$ 56,756.77	\$ 9,449.87	\$ -	\$ 135,129.03
41	Nissan Stadium	\$ 10,137.91	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 6,524.38	\$ 1,123.34	\$ 27.49	\$ -	\$ 193.45	\$ -	\$ 25.04	\$ 46,720.75	\$ -	\$ -	\$ 82,022.11
43	Hume-Fogg High School	\$ 3,376.18	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 420.34	\$ 74.00	\$ 7.87	\$ -	\$ 55.23	\$ -	\$ 262.90	\$ 3,368.52	\$ 39.97	\$ -	\$ 12,534.52
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 1,656.75	\$ 483.44	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 13,871.95	\$ 4,858.07	\$ -	\$ 35,764.67
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 2,928.53	\$ 515.50	\$ 19.45	\$ -	\$ -	\$ -	\$ 14.17	\$ 20,210.21	\$ 276.59	\$ -	\$ 30,711.35
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 1,257.30	\$ 216.48	\$ 9.38	\$ -	\$ -	\$ -	\$ 278.71	\$ 8,954.22	\$ -	\$ -	\$ 22,834.11
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 17,408.16	\$ 4,509.11	\$ 144.22	\$ -	\$ -	\$ -	\$ 76.63	\$ 135,582.39	\$ 37,059.54	\$ -	\$ 287,965.54
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 864.80	\$ 271.68	\$ 9.56	\$ -	\$ -	\$ -	\$ 30.46	\$ 5,894.95	\$ 3,009.84	\$ -	\$ 20,867.11
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 20,952.14	\$ 4,588.94	\$ -	\$ -	\$ 1,497.87	\$ -	\$ 3,567.20	\$ 175,395.23	\$ 24,058.05	\$ -	\$ 471,219.58
	Grand Totals:	\$ 420,386.43	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 92,021.48	\$ 20,358.33	\$ 545.14	\$ -	\$ 3,833.49	\$ 6,500.16	\$ 6,322.19	\$ 716,471.54	\$ 110,661.74	\$ -	\$ 1,705,749.56
	Rate Calculation Totals:	\$ 530,925.55	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 92,045.56	\$ 20,362.91	\$ 800.00	\$ -	\$ 4,102.52	\$ 6,500.16	\$ 6,322.19	\$ 716,582.44	\$ 110,661.73	\$ -	\$ 1,968,074.30
	Deviation:	\$ (110,539.12)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (24.08)	\$ (4.58)	\$ (254.86)	\$ -	\$ (269.03)	\$ -	\$ -	\$ (110.90)	\$ 0.01	\$ -	\$ (262,324.74)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
August, 2017

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 7,946.72	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 3,195.56	\$ 762.39	\$ 30.16	\$ -	\$ 235.37	\$ -	\$ 484.11	\$ 24,664.25	\$ 4,585.01	\$ -	\$ 60,779.94
4	Metro Courthouse	\$ 3,761.96	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 1,541.05	\$ 366.32	\$ 14.08	\$ -	\$ 109.83	\$ -	\$ 55.34	\$ 12,750.99	\$ 2,168.39	\$ -	\$ 29,576.06
7	Parkway Tower	\$ 3,429.70	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,331.95	\$ 257.79	\$ 13.64	\$ -	\$ 106.54	\$ 694.50	\$ 219.00	\$ 11,301.45	\$ -	\$ -	\$ 25,900.14
9	Bobby Hotel (fka Wells Fargo)	\$ 1,264.16	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 36.78	\$ 7.12	\$ 4.94	\$ -	\$ 38.62	\$ 249.42	\$ -	\$ 237.55	\$ -	\$ -	\$ 4,936.02
10	Fairlane Hotel (fka 401 Union)	\$ 1,311.18	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 174.87	\$ 33.85	\$ 5.10	\$ -	\$ 39.79	\$ 303.83	\$ -	\$ 793.06	\$ -	\$ -	\$ 5,853.45
11	Sheraton Hotel	\$ 7,236.71	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 3,103.29	\$ 805.91	\$ 27.42	\$ -	\$ 214.02	\$ 1,204.58	\$ 26.55	\$ 22,950.71	\$ 6,541.00	\$ -	\$ 59,274.52
12	Municipal Auditorium	\$ 3,631.61	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 978.35	\$ 198.75	\$ 14.56	\$ -	\$ 113.72	\$ -	\$ 318.55	\$ 7,564.03	\$ 299.53	\$ -	\$ 22,240.33
21	Hermitage Hotel	\$ 3,495.44	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 1,048.19	\$ 217.27	\$ 12.87	\$ -	\$ 100.36	\$ 271.17	\$ 447.09	\$ 7,603.27	\$ 458.62	\$ -	\$ 21,702.51
24	Criminal Justice Center	\$ 5,910.47	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 165.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,329.21
25	501 Union Building	\$ 1,378.17	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 982.58	\$ 256.26	\$ 5.19	\$ -	\$ 40.46	\$ 228.00	\$ -	\$ 6,823.14	\$ 2,105.55	\$ -	\$ 15,063.79
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 2,185.53	\$ 423.00	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 19,085.07	\$ -	\$ -	\$ 42,129.97
29	Fifth-Third Financial Center	\$ 4,211.87	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 2,210.31	\$ 427.80	\$ 19.11	\$ -	\$ 149.69	\$ 770.50	\$ 65.58	\$ 21,632.49	\$ -	\$ -	\$ 41,495.59
32	Renaissance Hotel	\$ 10,918.08	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 6,749.46	\$ 1,498.58	\$ 40.51	\$ -	\$ 316.06	\$ 1,432.42	\$ -	\$ 45,576.95	\$ 6,125.47	\$ -	\$ 98,004.67
34	Renaissance Office Tower	\$ 1,029.75	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 1,014.42	\$ 196.34	\$ 4.67	\$ -	\$ 36.60	\$ 222.58	\$ -	\$ 8,271.03	\$ -	\$ -	\$ 13,711.25
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 3,432.49	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 2,593.92	\$ 502.04	\$ 15.58	\$ -	\$ 121.99	\$ 737.92	\$ -	\$ 22,711.46	\$ -	\$ -	\$ 39,901.60
38	Wildhorse Saloon	\$ 1,277.78	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 1,106.07	\$ 314.59	\$ 5.12	\$ -	\$ 39.96	\$ 179.08	\$ -	\$ 10,412.59	\$ 3,202.69	\$ -	\$ 19,742.61
39	Ryman Auditorium	\$ 1,318.25	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 1,323.58	\$ 326.40	\$ 5.36	\$ -	\$ 41.91	\$ 173.58	\$ -	\$ 9,405.63	\$ 2,237.79	\$ -	\$ 18,193.72
40	Bridgestone Arena	\$ 14,196.71	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 9,162.37	\$ 2,254.67	\$ 57.89	\$ -	\$ 452.48	\$ -	\$ -	\$ 72,863.94	\$ 15,336.61	\$ -	\$ 150,617.68
41	Nissan Stadium	\$ 6,057.34	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 5,754.40	\$ 1,113.74	\$ 27.49	\$ -	\$ 215.27	\$ -	\$ 41.91	\$ 44,288.79	\$ -	\$ -	\$ 74,768.69
43	Hume-Fogg High School	\$ 2,017.25	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 405.46	\$ 78.48	\$ 7.87	\$ -	\$ 61.46	\$ -	\$ 220.05	\$ 3,420.85	\$ -	\$ -	\$ 11,140.93
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 1,422.41	\$ 404.28	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 11,393.32	\$ 4,109.46	\$ -	\$ 32,223.93
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 2,990.54	\$ 612.23	\$ 19.45	\$ -	\$ -	\$ -	\$ 239.45	\$ 20,044.92	\$ 1,065.10	\$ -	\$ 31,718.59
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 1,090.95	\$ 211.15	\$ 9.38	\$ -	\$ -	\$ -	\$ 399.89	\$ 8,305.73	\$ -	\$ -	\$ 22,135.12
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 14,479.63	\$ 3,855.34	\$ 144.22	\$ -	\$ -	\$ -	\$ -	\$ 111,577.54	\$ 33,547.46	\$ -	\$ 256,789.68
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 768.86	\$ 231.37	\$ 9.56	\$ -	\$ -	\$ -	\$ 41.33	\$ 5,533.93	\$ 2,630.55	\$ -	\$ 20,001.42
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 19,176.41	\$ 4,617.05	\$ -	\$ -	\$ 1,666.86	\$ -	\$ 4,318.07	\$ 164,320.41	\$ 28,852.25	\$ -	\$ 464,111.20
	Grand Totals:	\$ 363,916.85	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 84,826.94	\$ 19,972.72	\$ 545.14	\$ -	\$ 4,266.01	\$ 6,500.16	\$ 6,876.92	\$ 673,533.10	\$ 113,265.48	\$ -	\$ 1,602,352.38
	Rate Calculation Totals:	\$ 429,963.37	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 84,850.27	\$ 19,974.12	\$ 800.00	\$ -	\$ 4,565.43	\$ 6,500.16	\$ -	\$ 673,639.45	\$ 113,265.48	\$ -	\$ 1,813,329.52
	Deviation:	\$ (66,046.52)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (23.33)	\$ (1.40)	\$ (254.86)	\$ -	\$ (299.42)	\$ -	\$ 6,876.92	\$ (106.35)	\$ -	\$ -	\$ (210,977.14)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
September, 2017

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 2,812.51	\$ 572.77	\$ 30.16	\$ -	\$ 241.80	\$ -	\$ 925.65	\$ 18,062.62	\$ 4,425.45	\$ 68.67	\$ 56,639.40
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 1,466.72	\$ 303.38	\$ 14.08	\$ -	\$ 112.83	\$ -	\$ 96.45	\$ 9,817.42	\$ 2,516.88	\$ 39.06	\$ 28,204.02
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,329.03	\$ 223.84	\$ 13.64	\$ -	\$ 109.46	\$ 694.50	\$ 303.57	\$ 9,291.93	\$ -	\$ -	\$ 25,096.45
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 31.30	\$ 5.27	\$ 4.94	\$ -	\$ 39.67	\$ 249.42	\$ -	\$ 182.03	\$ -	\$ -	\$ 5,300.03
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 175.16	\$ 29.50	\$ 5.10	\$ -	\$ 40.89	\$ 303.83	\$ -	\$ 1,559.29	\$ -	\$ -	\$ 7,058.37
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 3,508.76	\$ 804.89	\$ 27.42	\$ -	\$ 219.87	\$ 1,204.58	\$ 145.65	\$ 20,162.68	\$ 9,554.60	\$ 148.26	\$ 62,615.27
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 760.21	\$ 128.42	\$ 14.56	\$ -	\$ 116.83	\$ -	\$ 505.94	\$ 6,694.27	\$ 16.96	\$ 0.26	\$ 22,213.51
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 1,027.79	\$ 191.51	\$ 12.87	\$ -	\$ 103.10	\$ 271.17	\$ 472.22	\$ 5,910.68	\$ 822.47	\$ 12.76	\$ 21,545.61
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 169.53	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,324.53
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 1,125.62	\$ 249.93	\$ 5.19	\$ -	\$ 41.56	\$ 228.00	\$ -	\$ 6,356.05	\$ 2,695.34	\$ 41.82	\$ 15,830.33
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 1,671.19	\$ 281.46	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 13,673.05	\$ -	\$ -	\$ 36,062.07
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 1,938.37	\$ 326.46	\$ 19.11	\$ -	\$ 153.77	\$ 770.50	\$ 167.90	\$ 16,930.99	\$ -	\$ -	\$ 37,945.89
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 6,270.82	\$ 1,199.51	\$ 40.51	\$ -	\$ 324.70	\$ 1,432.42	\$ -	\$ 35,136.62	\$ 6,402.87	\$ 99.36	\$ 90,849.54
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 1,022.02	\$ 172.13	\$ 4.67	\$ -	\$ 37.60	\$ 222.58	\$ 44.96	\$ 7,252.45	\$ -	\$ -	\$ 13,068.87
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 2,350.46	\$ 395.86	\$ 15.58	\$ -	\$ 125.32	\$ 737.92	\$ -	\$ 18,021.89	\$ -	\$ -	\$ 36,021.88
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 1,040.57	\$ 237.19	\$ 5.12	\$ -	\$ 41.05	\$ 179.08	\$ 37.03	\$ 8,635.96	\$ 2,766.03	\$ 42.92	\$ 17,897.85
39	Ryman Auditorium	\$ 1,762.28	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 1,437.53	\$ 296.44	\$ 5.36	\$ -	\$ 43.05	\$ 173.58	\$ -	\$ 8,310.53	\$ 2,426.13	\$ 37.65	\$ 17,853.77
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 9,940.38	\$ 2,020.77	\$ 57.89	\$ -	\$ 464.84	\$ -	\$ -	\$ 57,243.08	\$ 15,479.58	\$ 240.20	\$ 140,718.31
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 4,698.60	\$ 791.34	\$ 27.49	\$ -	\$ 221.15	\$ -	\$ 34.50	\$ 30,932.61	\$ -	\$ -	\$ 62,073.06
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 280.02	\$ 47.16	\$ 7.87	\$ -	\$ 63.14	\$ -	\$ 397.86	\$ 2,230.83	\$ -	\$ -	\$ 10,653.10
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 1,601.90	\$ 354.45	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 11,298.29	\$ 3,780.95	\$ 58.67	\$ 31,988.72
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 3,593.32	\$ 725.55	\$ 19.45	\$ -	\$ -	\$ -	\$ 316.43	\$ 20,296.76	\$ 5,375.32	\$ 83.41	\$ 37,157.14
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 1,019.82	\$ 171.76	\$ 9.38	\$ -	\$ -	\$ -	\$ 690.73	\$ 6,147.51	\$ -	\$ -	\$ 20,157.22
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 13,668.48	\$ 3,053.35	\$ 144.22	\$ -	\$ -	\$ -	\$ -	\$ 83,150.18	\$ 33,552.80	\$ 520.65	\$ 227,275.17
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 832.45	\$ 201.24	\$ 9.56	\$ -	\$ -	\$ -	\$ 121.83	\$ 4,610.05	\$ 2,725.77	\$ 42.30	\$ 19,329.02
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 18,215.28	\$ 3,816.32	\$ -	\$ -	\$ 1,712.40	\$ -	\$ 4,724.15	\$ 129,324.23	\$ 33,427.79	\$ 518.71	\$ 432,899.03
Grand Totals:		\$ 392,151.68	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 81,818.31	\$ 16,600.50	\$ 545.14	\$ -	\$ 4,382.56	\$ 6,500.16	\$ 8,984.87	\$ 531,232.00	\$ 125,968.94	\$ 1,954.70	\$ 1,498,787.92
Rate Calculation Totals:		\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 81,842.12	\$ 16,604.96	\$ 800.00	\$ -	\$ 4,690.06	\$ 6,500.16	\$ 8,984.87	\$ 531,320.25	\$ 125,988.49	\$ 1,955.02	\$ 1,738,901.63
Deviation:		\$ (88,292.78)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (23.81)	\$ (4.46)	\$ (254.86)	\$ -	\$ (307.50)	\$ -	\$ -	\$ (88.25)	\$ (19.55)	\$ (0.32)	\$ (240,113.71)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
October, 2017

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 2,286.18	\$ 708.21	\$ 30.16	\$ -	\$ 318.01	\$ -	\$ 1,287.86	\$ 16,155.13	\$ 6,988.11	\$ -	\$ 57,273.43
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 1,160.45	\$ 344.21	\$ 14.08	\$ -	\$ 148.40	\$ -	\$ 257.20	\$ 8,102.97	\$ 3,029.52	\$ -	\$ 26,894.03
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,072.21	\$ 252.68	\$ 13.64	\$ -	\$ 143.95	\$ 694.50	\$ 278.27	\$ 7,670.94	\$ 584.09	\$ -	\$ 23,840.76
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 18.17	\$ 3.99	\$ 4.94	\$ -	\$ 52.18	\$ 249.42	\$ -	\$ 149.81	\$ -	\$ -	\$ 5,265.91
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 90.82	\$ 19.94	\$ 5.10	\$ -	\$ 53.77	\$ 303.83	\$ -	\$ 1,113.54	\$ -	\$ -	\$ 6,531.60
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 2,768.89	\$ 914.86	\$ 27.42	\$ -	\$ 289.16	\$ 1,204.58	\$ 225.76	\$ 17,552.68	\$ 10,399.28	\$ -	\$ 60,221.19
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 648.10	\$ 218.59	\$ 14.56	\$ -	\$ 153.65	\$ -	\$ 639.33	\$ 3,934.60	\$ 2,585.21	\$ -	\$ 22,170.10
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 906.82	\$ 245.00	\$ 12.87	\$ -	\$ 135.60	\$ 271.17	\$ 527.41	\$ 5,502.48	\$ 1,554.57	\$ -	\$ 21,876.96
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 222.95	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,377.95
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 1,028.15	\$ 307.06	\$ 5.19	\$ -	\$ 54.66	\$ 228.00	\$ 9.39	\$ 6,070.04	\$ 2,755.04	\$ -	\$ 15,544.35
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 1,142.48	\$ 290.59	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 10,313.45	\$ 1,345.86	\$ -	\$ 33,528.75
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 1,559.43	\$ 342.43	\$ 19.11	\$ -	\$ 202.23	\$ 770.50	\$ 207.88	\$ 13,526.27	\$ -	\$ -	\$ 34,266.64
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 4,019.60	\$ 1,154.99	\$ 40.51	\$ -	\$ 427.04	\$ 1,432.42	\$ -	\$ 25,824.11	\$ 9,229.43	\$ -	\$ 82,070.83
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 978.19	\$ 214.80	\$ 4.67	\$ -	\$ 49.44	\$ 222.58	\$ 117.29	\$ 6,234.11	\$ -	\$ -	\$ 12,133.54
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 1,819.83	\$ 399.61	\$ 15.58	\$ -	\$ 164.81	\$ 737.92	\$ -	\$ 14,175.04	\$ -	\$ -	\$ 31,687.64
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 689.96	\$ 208.06	\$ 5.12	\$ -	\$ 53.99	\$ 179.08	\$ 46.68	\$ 7,090.86	\$ 1,916.61	\$ -	\$ 15,103.26
39	Ryman Auditorium	\$ 1,762.28	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 1,187.17	\$ 341.82	\$ 5.36	\$ -	\$ 56.62	\$ 173.58	\$ -	\$ 7,337.38	\$ 2,749.76	\$ -	\$ 16,975.19
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 7,911.75	\$ 2,014.41	\$ 57.89	\$ -	\$ 611.34	\$ -	\$ -	\$ 53,319.82	\$ 9,390.41	\$ -	\$ 128,577.19
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 2,736.23	\$ 600.85	\$ 27.49	\$ -	\$ 290.85	\$ -	\$ 103.49	\$ 22,633.05	\$ -	\$ -	\$ 51,759.33
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 169.81	\$ 54.65	\$ 7.87	\$ -	\$ 83.04	\$ -	\$ 524.34	\$ 1,004.27	\$ 588.40	\$ -	\$ 10,058.60
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 1,275.82	\$ 384.82	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 8,520.30	\$ 3,547.06	\$ -	\$ 28,622.46
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 3,626.35	\$ 1,068.19	\$ 19.45	\$ -	\$ -	\$ -	\$ 281.01	\$ 21,629.27	\$ 9,214.71	\$ -	\$ 42,585.88
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 712.30	\$ 156.41	\$ 9.38	\$ -	\$ -	\$ -	\$ 1,054.27	\$ 4,462.04	\$ -	\$ -	\$ 18,512.42
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 12,121.54	\$ 3,891.95	\$ 144.22	\$ -	\$ -	\$ -	\$ -	\$ 77,402.15	\$ 41,692.77	\$ -	\$ 228,438.12
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 641.68	\$ 227.39	\$ 9.56	\$ -	\$ -	\$ -	\$ 193.62	\$ 3,782.27	\$ 2,930.89	\$ -	\$ 18,571.23
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 15,144.17	\$ 4,666.60	\$ -	\$ -	\$ 2,252.11	\$ -	\$ 5,375.24	\$ 115,634.96	\$ 45,452.32	\$ -	\$ 429,685.55
Grand Totals:		\$ 392,151.68	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 65,716.10	\$ 19,032.11	\$ 545.14	\$ -	\$ 5,763.80	\$ 6,500.16	\$ 11,129.04	\$ 459,141.54	\$ 155,954.04	\$ -	\$ 1,444,582.67
Rate Calculation Totals:		\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 65,734.04	\$ 19,040.73	\$ 800.00	\$ -	\$ 6,168.14	\$ 6,500.16	\$ 11,129.04	\$ 459,219.98	\$ 156,112.29	\$ -	\$ 1,684,920.08
Deviation:		\$ (88,292.78)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (17.94)	\$ (8.62)	\$ (254.86)	\$ -	\$ (404.34)	\$ -	\$ -	\$ (78.44)	\$ (158.25)	\$ -	\$ (240,337.41)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
November, 2017

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 1,862.29	\$ 941.48	\$ 30.16	\$ -	\$ 317.41	\$ -	\$ 1,633.97	\$ 11,726.28	\$ 11,674.32	\$ -	\$ 57,685.68
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 876.50	\$ 385.83	\$ 14.08	\$ -	\$ 148.11	\$ -	\$ 410.81	\$ 5,074.56	\$ 3,897.03	\$ -	\$ 24,644.12
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,336.72	\$ 550.19	\$ 13.64	\$ -	\$ 143.68	\$ 694.50	\$ 299.35	\$ 6,890.49	\$ 4,876.51	\$ -	\$ 27,935.56
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 10.92	\$ 3.07	\$ 4.94	\$ -	\$ 52.08	\$ 249.42	\$ -	\$ 114.22	\$ -	\$ -	\$ 5,222.05
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 56.46	\$ 77.40	\$ 5.10	\$ -	\$ 53.67	\$ 303.83	\$ -	\$ 371.53	\$ 1,716.76	\$ -	\$ 7,529.35
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 1,906.08	\$ 961.14	\$ 27.42	\$ -	\$ 288.61	\$ 1,204.58	\$ 145.65	\$ 11,032.01	\$ 11,879.59	\$ -	\$ 54,283.64
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 469.70	\$ 362.42	\$ 14.56	\$ -	\$ 153.36	\$ -	\$ 363.36	\$ 2,176.59	\$ 6,430.08	\$ -	\$ 23,946.13
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 787.82	\$ 316.41	\$ 12.87	\$ -	\$ 135.33	\$ 271.17	\$ 478.35	\$ 4,427.57	\$ 2,654.89	\$ -	\$ 21,805.45
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 222.53	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,377.53
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 1,014.79	\$ 403.82	\$ 5.19	\$ -	\$ 54.56	\$ 228.00	\$ -	\$ 4,866.37	\$ 3,315.39	\$ -	\$ 14,974.94
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 1,042.29	\$ 462.20	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 8,895.88	\$ 4,728.52	\$ -	\$ 35,565.26
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 1,295.49	\$ 363.78	\$ 19.11	\$ -	\$ 201.85	\$ 770.50	\$ 311.82	\$ 11,031.74	\$ -	\$ -	\$ 31,633.08
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 2,066.77	\$ 967.79	\$ 40.51	\$ -	\$ 426.23	\$ 1,432.42	\$ -	\$ 14,103.78	\$ 10,806.61	\$ -	\$ 69,786.84
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 822.38	\$ 230.93	\$ 4.67	\$ -	\$ 49.35	\$ 222.58	\$ 150.52	\$ 4,292.85	\$ -	\$ -	\$ 10,085.74
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 1,193.87	\$ 335.24	\$ 15.58	\$ -	\$ 164.50	\$ 737.92	\$ -	\$ 9,494.31	\$ -	\$ -	\$ 26,316.27
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 342.15	\$ 136.83	\$ 5.12	\$ -	\$ 53.88	\$ 179.08	\$ 43.47	\$ 4,247.79	\$ 1,136.94	\$ -	\$ 11,058.16
39	Ryman Auditorium	\$ 1,762.28	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 910.99	\$ 365.28	\$ 5.36	\$ -	\$ 56.51	\$ 173.58	\$ -	\$ 5,018.34	\$ 3,053.63	\$ -	\$ 14,707.19
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 4,695.81	\$ 1,478.87	\$ 57.89	\$ -	\$ 610.18	\$ -	\$ 440.79	\$ 24,574.23	\$ 4,470.41	\$ -	\$ 91,599.75
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 1,241.80	\$ 348.70	\$ 27.49	\$ -	\$ 290.30	\$ -	\$ 11.50	\$ 9,340.23	\$ -	\$ -	\$ 36,627.39
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 117.73	\$ 71.38	\$ 7.87	\$ -	\$ 82.88	\$ -	\$ 588.74	\$ 692.87	\$ 1,068.79	\$ -	\$ 10,256.48
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 981.95	\$ 417.07	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 4,728.98	\$ 3,942.17	\$ -	\$ 24,964.63
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 2,719.79	\$ 1,084.71	\$ 19.45	\$ -	\$ -	\$ -	\$ -	\$ 14,824.38	\$ 8,953.05	\$ -	\$ 34,348.28
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 332.43	\$ 93.35	\$ 9.38	\$ -	\$ -	\$ -	\$ 1,429.93	\$ 2,228.60	\$ -	\$ -	\$ 16,211.71
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 10,056.98	\$ 4,548.95	\$ 144.22	\$ -	\$ -	\$ -	\$ 215.95	\$ 56,295.48	\$ 48,112.31	\$ -	\$ 212,559.38
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 427.56	\$ 233.54	\$ 9.56	\$ -	\$ -	\$ -	\$ 317.62	\$ 2,442.54	\$ 3,165.17	\$ -	\$ 17,381.81
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 11,849.38	\$ 5,565.02	\$ -	\$ -	\$ 2,247.83	\$ -	\$ 4,496.99	\$ 78,737.14	\$ 62,414.78	\$ -	\$ 406,471.29
	Grand Totals:	\$ 392,151.68	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 48,418.65	\$ 20,705.40	\$ 545.14	\$ -	\$ 5,752.85	\$ 6,500.16	\$ 11,338.82	\$ 297,628.76	\$ 198,296.95	\$ -	\$ 1,309,987.47
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 48,430.49	\$ 20,719.91	\$ 800.00	\$ -	\$ 6,156.49	\$ 6,500.16	\$ 11,338.82	\$ 297,674.76	\$ 198,612.32	\$ -	\$ 1,550,448.65
	Deviation:	\$ (88,292.78)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (11.84)	\$ (14.51)	\$ (254.86)	\$ -	\$ (403.64)	\$ -	\$ -	\$ (46.00)	\$ (315.37)	\$ -	\$ (240,461.18)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
December, 2017

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 819.18	\$ 597.31	\$ 30.16	\$ -	\$ 365.38	\$ -	\$ 1,577.63	\$ 6,151.26	\$ 12,173.23	\$ -	\$ 51,213.92
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 834.76	\$ 440.36	\$ 14.08	\$ -	\$ 170.50	\$ -	\$ 482.26	\$ 4,484.12	\$ 6,138.41	\$ -	\$ 26,401.69
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,255.44	\$ 619.73	\$ 13.64	\$ -	\$ 165.40	\$ 694.50	\$ 408.97	\$ 7,079.40	\$ 7,647.95	\$ -	\$ 31,015.51
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 7.27	\$ 2.40	\$ 4.94	\$ -	\$ 59.95	\$ 249.42	\$ -	\$ 91.28	\$ -	\$ -	\$ 5,202.66
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 45.16	\$ 85.20	\$ 5.10	\$ -	\$ 61.77	\$ 303.83	\$ -	\$ 260.82	\$ 2,617.53	\$ -	\$ 8,324.01
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 1,484.77	\$ 929.04	\$ 27.42	\$ -	\$ 332.24	\$ 1,204.58	\$ 145.65	\$ 7,912.49	\$ 16,345.83	\$ -	\$ 55,220.58
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 300.43	\$ 385.90	\$ 14.56	\$ -	\$ 176.54	\$ -	\$ 78.19	\$ 1,795.50	\$ 10,676.30	\$ -	\$ 27,403.48
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 638.05	\$ 297.73	\$ 12.87	\$ -	\$ 155.79	\$ 271.17	\$ 509.01	\$ 3,254.98	\$ 3,245.37	\$ -	\$ 21,106.01
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 256.17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,411.17
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 1,060.48	\$ 471.26	\$ 5.19	\$ -	\$ 62.81	\$ 228.00	\$ 1.34	\$ 5,143.65	\$ 4,515.56	\$ -	\$ 16,575.11
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 960.45	\$ 559.61	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 5,150.53	\$ 9,033.91	\$ -	\$ 36,140.87
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 1,093.71	\$ 360.94	\$ 19.11	\$ -	\$ 232.36	\$ 770.50	\$ 359.80	\$ 9,529.30	\$ -	\$ -	\$ 30,004.51
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 1,387.77	\$ 981.49	\$ 40.51	\$ -	\$ 490.65	\$ 1,432.42	\$ -	\$ 10,583.87	\$ 19,490.64	\$ -	\$ 74,350.08
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 670.92	\$ 221.42	\$ 4.67	\$ -	\$ 56.81	\$ 222.58	\$ 142.70	\$ 3,831.92	\$ -	\$ -	\$ 9,463.48
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 992.58	\$ 327.57	\$ 15.58	\$ -	\$ 189.36	\$ 737.92	\$ -	\$ 8,126.33	\$ -	\$ -	\$ 24,764.19
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 213.35	\$ 110.61	\$ 5.12	\$ -	\$ 62.02	\$ 179.08	\$ 46.68	\$ 1,406.62	\$ 1,496.59	\$ -	\$ 8,432.97
39	Ryman Auditorium	\$ 1,762.28	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 665.22	\$ 334.68	\$ 5.36	\$ -	\$ 65.05	\$ 173.58	\$ -	\$ 3,375.22	\$ 4,286.88	\$ -	\$ 14,029.49
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 4,706.60	\$ 1,801.38	\$ 57.89	\$ -	\$ 702.40	\$ -	\$ 709.09	\$ 27,112.57	\$ 9,237.57	\$ -	\$ 99,599.07
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 536.54	\$ 177.07	\$ 27.49	\$ -	\$ 334.17	\$ -	\$ 34.50	\$ 3,782.92	\$ -	\$ -	\$ 30,260.06
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 97.73	\$ 83.68	\$ 7.87	\$ -	\$ 95.41	\$ -	\$ 607.13	\$ 713.94	\$ 1,914.82	\$ -	\$ 11,146.80
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 931.80	\$ 447.63	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 5,112.98	\$ 5,217.20	\$ -	\$ 26,604.07
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 1,897.00	\$ 870.89	\$ 19.45	\$ -	\$ -	\$ -	\$ 9.45	\$ 9,001.26	\$ 9,116.02	\$ -	\$ 27,660.97
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 238.88	\$ 78.84	\$ 9.38	\$ -	\$ -	\$ -	\$ 1,526.87	\$ 1,431.40	\$ -	\$ -	\$ 15,403.39
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 7,078.84	\$ 3,979.83	\$ 144.22	\$ -	\$ -	\$ -	\$ 181.12	\$ 53,415.07	\$ 61,196.56	\$ -	\$ 219,181.13
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 334.06	\$ 221.68	\$ 9.56	\$ -	\$ -	\$ -	\$ 391.59	\$ 1,735.42	\$ 4,148.83	\$ -	\$ 17,626.96
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 10,906.87	\$ 6,293.80	\$ -	\$ -	\$ 2,587.57	\$ -	\$ 4,829.34	\$ 59,750.54	\$ 100,314.44	\$ -	\$ 425,842.71
	Grand Totals:	\$ 392,151.68	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 39,157.86	\$ 20,680.05	\$ 545.14	\$ -	\$ 6,622.35	\$ 6,500.16	\$ 12,041.32	\$ 240,233.39	\$ 288,813.64	\$ -	\$ 1,335,394.65
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 39,169.89	\$ 20,699.04	\$ 800.00	\$ -	\$ 7,086.97	\$ 6,500.16	\$ 12,041.32	\$ 240,287.50	\$ 289,361.56	\$ -	\$ 1,576,162.14
	Deviation:	\$ (88,292.78)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (12.03)	\$ (18.99)	\$ (254.86)	\$ -	\$ (464.62)	\$ -	\$ -	\$ (54.11)	\$ (547.92)	\$ -	\$ (240,767.49)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
January, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 1,215.97	\$ 849.95	\$ 30.16	\$ -	\$ 237.74	\$ -	\$ 1,247.62	\$ 7,220.46	\$ 13,041.93	\$ 26.82	\$ 53,370.42
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 915.33	\$ 530.04	\$ 14.08	\$ -	\$ 110.94	\$ -	\$ 417.96	\$ 5,483.28	\$ 6,445.61	\$ 13.26	\$ 27,767.70
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,255.47	\$ 703.40	\$ 13.64	\$ -	\$ 107.62	\$ 694.50	\$ 459.57	\$ 9,703.48	\$ 8,115.66	\$ 16.69	\$ 34,200.51
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 8.00	\$ 2.80	\$ 4.94	\$ -	\$ 39.01	\$ 249.42	\$ -	\$ 84.83	\$ -	\$ -	\$ 5,176.40
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 125.70	\$ 271.34	\$ 5.10	\$ -	\$ 40.20	\$ 303.83	\$ -	\$ 477.98	\$ 6,983.78	\$ 14.36	\$ 13,166.89
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 1,587.43	\$ 1,094.26	\$ 27.42	\$ -	\$ 216.18	\$ 1,204.58	\$ 174.78	\$ 7,600.76	\$ 16,554.85	\$ 34.05	\$ 55,332.87
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 313.14	\$ 443.28	\$ 14.56	\$ -	\$ 114.86	\$ -	\$ -	\$ 1,353.51	\$ 10,251.33	\$ 21.08	\$ 26,487.82
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 494.36	\$ 241.55	\$ 12.87	\$ -	\$ 101.37	\$ 271.17	\$ 539.67	\$ 2,829.92	\$ 2,107.64	\$ 4.33	\$ 19,323.92
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.17	\$ -	\$ 166.68	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,321.68
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 902.12	\$ 426.65	\$ 5.19	\$ -	\$ 40.87	\$ 228.00	\$ 26.83	\$ 5,520.50	\$ 3,411.68	\$ 7.02	\$ 15,655.68
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 1,660.23	\$ 993.67	\$ 17.32	\$ -	\$ -	\$ -	\$ -	\$ 10,576.03	\$ 12,682.75	\$ 26.09	\$ 46,375.14
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 800.07	\$ 279.88	\$ 19.11	\$ -	\$ 151.19	\$ 770.50	\$ 231.87	\$ 3,902.55	\$ -	\$ -	\$ 23,793.96
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 1,473.97	\$ 1,318.34	\$ 40.51	\$ -	\$ 319.25	\$ 1,432.42	\$ -	\$ 11,029.10	\$ 24,656.42	\$ 50.71	\$ 80,263.45
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 572.18	\$ 200.16	\$ 4.67	\$ -	\$ 36.96	\$ 222.58	\$ 99.69	\$ 3,461.19	\$ -	\$ -	\$ 8,909.89
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 823.44	\$ 288.05	\$ 15.58	\$ -	\$ 123.21	\$ 737.92	\$ -	\$ 9,648.63	\$ -	\$ -	\$ 26,011.68
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 257.36	\$ 151.58	\$ 5.12	\$ -	\$ 40.36	\$ 179.08	\$ 59.56	\$ 1,189.85	\$ 1,890.70	\$ 3.89	\$ 8,690.40
39	Ryman Auditorium	\$ 1,762.28	\$ 2,899.88	\$ 127.01	\$ 334.33	\$ 564.42	\$ 324.58	\$ 5.36	\$ -	\$ 42.33	\$ 173.58	\$ -	\$ 2,390.35	\$ 3,905.12	\$ 8.03	\$ 12,537.27
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 4,060.51	\$ 1,811.23	\$ 57.89	\$ -	\$ 457.03	\$ -	\$ 824.08	\$ 17,921.38	\$ 12,004.00	\$ 24.69	\$ 92,432.38
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 394.16	\$ 137.88	\$ 27.49	\$ -	\$ 217.44	\$ -	\$ -	\$ 2,315.81	\$ -	\$ -	\$ 28,460.15
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 227.90	\$ 178.64	\$ 7.87	\$ -	\$ 62.08	\$ -	\$ 554.24	\$ 1,344.77	\$ 3,038.31	\$ 6.25	\$ 13,046.28
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 869.92	\$ 505.34	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 5,351.29	\$ 6,174.69	\$ 12.70	\$ 27,808.40
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 1,467.94	\$ 776.47	\$ 19.45	\$ -	\$ -	\$ -	\$ 108.63	\$ 6,485.94	\$ 8,077.34	\$ 16.61	\$ 23,699.28
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 235.93	\$ 82.53	\$ 9.38	\$ -	\$ -	\$ -	\$ 1,520.81	\$ 1,555.38	\$ -	\$ -	\$ 15,522.05
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,566.57	\$ 6,975.00	\$ 4,603.89	\$ 144.22	\$ -	\$ -	\$ -	\$ 34.83	\$ 39,196.02	\$ 66,468.08	\$ 136.71	\$ 210,744.24
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 319.93	\$ 245.36	\$ 9.56	\$ -	\$ -	\$ -	\$ 267.59	\$ 1,777.23	\$ 4,098.93	\$ 8.43	\$ 17,512.85
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 11,704.21	\$ 7,557.36	\$ -	\$ -	\$ 1,683.65	\$ -	\$ 5,014.10	\$ 72,416.97	\$ 106,372.32	\$ 218.79	\$ 446,127.55
	Grand Totals:	\$ 392,151.68	\$ 293,468.85	\$ 7,877.56	\$ 27,302.65	\$ 39,224.69	\$ 24,018.23	\$ 545.14	\$ -	\$ 4,308.97	\$ 6,500.16	\$ 11,581.83	\$ 230,837.21	\$ 316,281.14	\$ 650.51	\$ 1,354,748.62
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 39,237.94	\$ 24,041.19	\$ 800.00	\$ -	\$ 4,611.32	\$ 6,500.16	\$ 11,581.83	\$ 230,888.65	\$ 316,844.17	\$ 651.68	\$ 1,595,372.64
	Deviation:	\$ (88,292.78)	\$ (136,043.10)	\$ (5,959.23)	\$ (9,119.85)	\$ (13.25)	\$ (22.96)	\$ (254.86)	\$ -	\$ (302.35)	\$ -	\$ -	\$ (51.44)	\$ (563.03)	\$ (1.17)	\$ (240,624.02)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
February, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 987.06	\$ 730.62	\$ 30.14	\$ -	\$ 179.55	\$ -	\$ 965.90	\$ 10,513.36	\$ 12,729.27	\$ -	\$ 55,635.67
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 571.01	\$ 362.78	\$ 14.07	\$ -	\$ 83.78	\$ -	\$ 325.08	\$ 5,697.78	\$ 5,328.38	\$ -	\$ 26,220.08
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 656.87	\$ 415.91	\$ 13.64	\$ -	\$ 81.27	\$ 694.50	\$ 354.16	\$ 6,538.98	\$ 6,080.92	\$ -	\$ 27,966.73
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 3.84	\$ 1.38	\$ 4.94	\$ -	\$ 29.46	\$ 249.42	\$ -	\$ 95.88	\$ -	\$ -	\$ 5,172.32
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 110.73	\$ 126.03	\$ 5.10	\$ -	\$ 30.36	\$ 303.83	\$ 50.04	\$ 1,196.31	\$ 2,925.85	\$ -	\$ 9,692.85
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 961.28	\$ 727.06	\$ 27.41	\$ -	\$ 163.26	\$ 1,204.58	\$ 123.80	\$ 9,110.54	\$ 12,924.19	\$ -	\$ 52,080.68
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 205.61	\$ 267.62	\$ 14.56	\$ -	\$ 86.74	\$ -	\$ 480.19	\$ 1,788.10	\$ 6,575.06	\$ -	\$ 23,393.94
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 286.21	\$ 142.56	\$ 12.86	\$ -	\$ 76.56	\$ 271.17	\$ 502.88	\$ 2,942.90	\$ 1,335.62	\$ -	\$ 18,291.80
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.16	\$ -	\$ 125.88	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,280.87
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 404.52	\$ 219.52	\$ 5.19	\$ -	\$ 30.86	\$ 228.00	\$ 26.83	\$ 3,682.72	\$ 2,500.70	\$ -	\$ 12,185.16
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 896.68	\$ 581.98	\$ 17.31	\$ -	\$ -	\$ -	\$ -	\$ 8,472.94	\$ 8,785.03	\$ -	\$ 39,172.99
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 667.40	\$ 240.81	\$ 19.11	\$ -	\$ 114.18	\$ 770.50	\$ 287.84	\$ 11,245.17	\$ -	\$ -	\$ 30,983.80
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 1,217.44	\$ 991.44	\$ 40.49	\$ -	\$ 241.10	\$ 1,432.42	\$ -	\$ 13,489.76	\$ 18,769.25	\$ -	\$ 76,124.63
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 351.95	\$ 126.99	\$ 4.67	\$ -	\$ 27.92	\$ 222.58	\$ 74.28	\$ 3,646.85	\$ -	\$ -	\$ 8,767.70
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 577.08	\$ 208.22	\$ 15.58	\$ -	\$ 93.05	\$ 737.92	\$ -	\$ 7,746.75	\$ -	\$ -	\$ 23,753.45
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 185.20	\$ 112.52	\$ 5.11	\$ -	\$ 30.48	\$ 179.08	\$ 40.25	\$ 3,153.49	\$ 1,553.39	\$ -	\$ 10,172.42
39	Ryman Auditorium	\$ 1,965.87	\$ 3,140.46	\$ 137.55	\$ 362.08	\$ 439.50	\$ 261.43	\$ 5.80	\$ -	\$ 34.62	\$ 173.58	\$ -	\$ 4,359.54	\$ 3,495.93	\$ -	\$ 14,376.36
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 3,372.21	\$ 1,583.60	\$ 57.87	\$ -	\$ 345.15	\$ -	\$ 344.96	\$ 34,943.14	\$ 12,470.07	\$ -	\$ 108,388.57
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 518.72	\$ 187.16	\$ 27.49	\$ -	\$ 164.21	\$ -	\$ 23.00	\$ 8,998.22	\$ -	\$ -	\$ 35,286.17
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 133.34	\$ 111.61	\$ 7.87	\$ -	\$ 46.88	\$ -	\$ 512.84	\$ 1,586.91	\$ 2,158.39	\$ -	\$ 12,184.06
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 633.37	\$ 392.50	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 8,488.08	\$ 5,573.69	\$ -	\$ 29,982.10
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 1,488.08	\$ 792.80	\$ 19.45	\$ -	\$ -	\$ -	\$ 122.80	\$ 14,111.88	\$ 8,697.61	\$ -	\$ 31,979.52
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 173.54	\$ 62.62	\$ 9.38	\$ -	\$ -	\$ -	\$ 1,499.00	\$ 2,033.44	\$ -	\$ -	\$ 15,896.00
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,563.38	\$ 4,318.09	\$ 2,896.93	\$ 144.17	\$ -	\$ -	\$ -	\$ -	\$ 56,435.18	\$ 45,511.23	\$ -	\$ 202,487.90
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 224.90	\$ 183.87	\$ 9.56	\$ -	\$ -	\$ -	\$ 284.99	\$ 2,343.19	\$ 3,491.54	\$ -	\$ 17,323.87
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 6,537.73	\$ 4,577.92	\$ -	\$ -	\$ 1,271.51	\$ -	\$ 4,962.73	\$ 71,622.39	\$ 75,427.52	\$ -	\$ 405,559.95
	Grand Totals:	\$ 392,355.27	\$ 293,709.43	\$ 7,888.10	\$ 27,327.21	\$ 25,922.36	\$ 16,305.88	\$ 545.41	\$ -	\$ 3,256.82	\$ 6,500.16	\$ 10,981.57	\$ 294,243.50	\$ 236,333.64	\$ -	\$ 1,315,369.35
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 25,930.72	\$ 16,324.52	\$ 800.00	\$ -	\$ 3,482.46	\$ 6,500.16	\$ 10,981.57	\$ 294,290.54	\$ 236,863.29	\$ -	\$ 1,555,388.96
	Deviation:	\$ (88,089.19)	\$ (135,802.52)	\$ (5,948.69)	\$ (9,095.29)	\$ (8.36)	\$ (18.64)	\$ (254.59)	\$ -	\$ (225.64)	\$ -	\$ -	\$ (47.04)	\$ (529.65)	\$ -	\$ (240,019.61)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
March, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 1,133.90	\$ 744.31	\$ 30.14	\$ -	\$ 273.53	\$ -	\$ 1,593.73	\$ 10,253.63	\$ 12,731.79	\$ -	\$ 56,260.80
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 598.69	\$ 335.56	\$ 14.07	\$ -	\$ 127.64	\$ -	\$ 350.08	\$ 5,125.09	\$ 4,192.55	\$ -	\$ 24,580.88
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 765.50	\$ 428.58	\$ 13.64	\$ -	\$ 123.82	\$ 694.50	\$ 290.92	\$ 6,867.93	\$ 5,339.48	\$ -	\$ 27,654.85
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 43.44	\$ 61.56	\$ 4.94	\$ -	\$ 44.88	\$ 249.42	\$ -	\$ 246.22	\$ 1,943.12	\$ -	\$ 7,380.98
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 144.60	\$ 92.19	\$ 5.10	\$ -	\$ 46.25	\$ 303.83	\$ -	\$ 1,289.96	\$ 1,503.42	\$ -	\$ 8,329.95
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 871.15	\$ 595.96	\$ 27.41	\$ -	\$ 248.73	\$ 1,204.58	\$ 160.22	\$ 7,325.17	\$ 10,843.64	\$ -	\$ 48,115.42
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 308.64	\$ 268.93	\$ 14.56	\$ -	\$ 132.16	\$ -	\$ 248.37	\$ 2,424.95	\$ 6,387.55	\$ -	\$ 23,761.22
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 304.84	\$ 135.04	\$ 12.86	\$ -	\$ 116.63	\$ 271.17	\$ 539.67	\$ 2,640.09	\$ 556.84	\$ -	\$ 17,298.18
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.16	\$ -	\$ 191.77	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,346.76
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 376.94	\$ 196.71	\$ 5.19	\$ -	\$ 47.02	\$ 228.00	\$ 65.73	\$ 2,862.30	\$ 1,997.97	\$ -	\$ 10,866.68
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 760.66	\$ 437.16	\$ 17.31	\$ -	\$ -	\$ -	\$ -	\$ 6,688.61	\$ 5,802.98	\$ -	\$ 34,125.77
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 766.13	\$ 307.62	\$ 19.11	\$ -	\$ 173.96	\$ 770.50	\$ 295.83	\$ 11,004.44	\$ -	\$ -	\$ 30,976.38
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 1,584.28	\$ 1,034.34	\$ 40.49	\$ -	\$ 367.31	\$ 1,432.42	\$ -	\$ 15,442.01	\$ 17,541.11	\$ -	\$ 77,384.69
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 423.74	\$ 170.14	\$ 4.67	\$ -	\$ 42.53	\$ 222.58	\$ 70.37	\$ 3,429.75	\$ -	\$ -	\$ 8,676.24
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 674.61	\$ 270.87	\$ 15.58	\$ -	\$ 141.77	\$ 737.92	\$ -	\$ 8,498.78	\$ -	\$ -	\$ 24,714.38
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 167.68	\$ 87.30	\$ 5.11	\$ -	\$ 46.43	\$ 179.08	\$ 28.98	\$ 1,959.50	\$ 879.58	\$ -	\$ 8,266.56
39	Ryman Auditorium	\$ 1,965.87	\$ 3,140.46	\$ 137.55	\$ 362.08	\$ 498.49	\$ 274.21	\$ 5.80	\$ -	\$ 52.74	\$ 173.58	\$ -	\$ 4,013.00	\$ 3,262.38	\$ -	\$ 13,886.16
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 3,292.68	\$ 1,513.16	\$ 57.87	\$ -	\$ 525.84	\$ -	\$ 517.44	\$ 34,834.47	\$ 8,416.57	\$ -	\$ 104,429.60
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 440.88	\$ 177.02	\$ 27.49	\$ -	\$ 250.18	\$ -	\$ -	\$ 4,831.10	\$ -	\$ -	\$ 31,094.04
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 138.49	\$ 99.05	\$ 7.87	\$ -	\$ 71.43	\$ -	\$ 538.14	\$ 1,571.55	\$ 1,913.35	\$ -	\$ 11,966.10
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 708.62	\$ 393.00	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 6,413.36	\$ 4,778.15	\$ -	\$ 27,187.59
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 1,640.10	\$ 851.24	\$ 19.45	\$ -	\$ -	\$ -	\$ 245.59	\$ 12,999.97	\$ 8,488.88	\$ -	\$ 30,992.13
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 194.34	\$ 78.03	\$ 9.38	\$ -	\$ -	\$ -	\$ 1,435.99	\$ 1,761.32	\$ -	\$ -	\$ 15,597.08
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,563.38	\$ 4,954.28	\$ 2,890.09	\$ 144.17	\$ -	\$ -	\$ -	\$ -	\$ 44,984.82	\$ 39,681.91	\$ -	\$ 185,837.57
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 245.21	\$ 162.93	\$ 9.56	\$ -	\$ -	\$ -	\$ 339.38	\$ 2,182.64	\$ 2,840.09	\$ -	\$ 16,565.63
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 6,868.95	\$ 4,228.71	\$ -	\$ -	\$ 1,937.15	\$ -	\$ 3,613.83	\$ 62,287.30	\$ 64,782.54	\$ -	\$ 384,878.63
	Grand Totals:	\$ 392,355.27	\$ 293,709.43	\$ 7,888.10	\$ 27,327.21	\$ 27,906.84	\$ 15,833.71	\$ 545.41	\$ -	\$ 4,961.77	\$ 6,500.16	\$ 10,334.27	\$ 261,937.96	\$ 203,883.90	\$ -	\$ 1,253,184.03
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 27,914.87	\$ 15,843.64	\$ 800.00	\$ -	\$ 5,305.67	\$ 6,500.16	\$ 10,334.27	\$ 261,979.74	\$ 204,186.20	\$ -	\$ 1,493,080.25
	Deviation:	\$ (88,089.19)	\$ (135,802.52)	\$ (5,948.69)	\$ (9,095.29)	\$ (8.03)	\$ (9.93)	\$ (254.59)	\$ -	\$ (343.90)	\$ -	\$ -	\$ (41.78)	\$ (302.30)	\$ -	\$ (239,896.22)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
April, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 1,332.82	\$ 823.74	\$ 30.14	\$ 152.24	\$ 367.12	\$ -	\$ 1,408.60	\$ 12,191.87	\$ 10,949.67	\$ -	\$ 56,755.97
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 669.72	\$ 355.17	\$ 14.07	\$ 71.05	\$ 171.31	\$ -	\$ 353.66	\$ 6,294.91	\$ 4,015.55	\$ -	\$ 25,782.64
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 757.87	\$ 393.13	\$ 13.64	\$ 68.86	\$ 166.19	\$ 694.50	\$ 290.92	\$ 6,937.77	\$ 4,321.86	\$ -	\$ 26,775.22
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 75.06	\$ 122.14	\$ 4.94	\$ 24.97	\$ 60.24	\$ 249.42	\$ 208.28	\$ 453.78	\$ 2,533.43	\$ -	\$ 8,519.66
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 162.53	\$ 91.10	\$ 5.10	\$ 25.73	\$ 62.07	\$ 303.83	\$ -	\$ 1,718.36	\$ 1,098.69	\$ -	\$ 8,412.01
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 1,022.56	\$ 713.25	\$ 27.41	\$ 138.43	\$ 333.83	\$ 1,204.58	\$ 167.50	\$ 9,185.95	\$ 10,457.17	\$ -	\$ 50,089.24
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 297.84	\$ 252.54	\$ 14.56	\$ 73.49	\$ 177.38	\$ -	\$ 303.57	\$ 3,543.50	\$ 4,179.23	\$ -	\$ 22,818.17
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 346.76	\$ 123.24	\$ 12.86	\$ 64.95	\$ 156.54	\$ 271.17	\$ 521.28	\$ 3,023.76	\$ 544.29	\$ -	\$ 17,785.89
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.16	\$ 106.84	\$ 257.38	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,519.21
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 374.20	\$ 186.08	\$ 5.19	\$ 26.17	\$ 63.10	\$ 228.00	\$ 21.46	\$ 2,873.23	\$ 1,930.65	\$ -	\$ 10,794.90
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 727.94	\$ 366.97	\$ 17.31	\$ 87.44	\$ -	\$ -	\$ -	\$ 7,825.57	\$ 3,881.99	\$ -	\$ 33,326.27
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 804.48	\$ 236.01	\$ 19.11	\$ 96.54	\$ 233.47	\$ 770.50	\$ 311.82	\$ 12,599.27	\$ -	\$ -	\$ 32,709.99
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 1,728.32	\$ 1,037.43	\$ 40.49	\$ 204.51	\$ 492.99	\$ 1,432.42	\$ -	\$ 16,139.32	\$ 13,421.06	\$ -	\$ 74,439.27
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 406.17	\$ 119.16	\$ 4.67	\$ 23.60	\$ 57.08	\$ 222.58	\$ 58.64	\$ 3,785.80	\$ -	\$ -	\$ 8,990.16
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 698.45	\$ 204.90	\$ 15.58	\$ 78.68	\$ 190.27	\$ 737.92	\$ -	\$ 8,114.63	\$ -	\$ -	\$ 24,415.28
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 198.66	\$ 89.70	\$ 5.11	\$ 25.82	\$ 62.32	\$ 179.08	\$ 35.42	\$ 3,513.81	\$ 795.20	\$ -	\$ 9,818.02
39	Ryman Auditorium	\$ 1,965.87	\$ 3,140.46	\$ 137.55	\$ 362.08	\$ 547.85	\$ 279.53	\$ 5.80	\$ 29.34	\$ 70.79	\$ 173.58	\$ -	\$ 4,690.28	\$ 3,006.23	\$ -	\$ 14,409.36
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 3,682.55	\$ 1,399.12	\$ 57.87	\$ 292.32	\$ 705.76	\$ -	\$ 479.11	\$ 34,715.75	\$ 8,066.39	\$ -	\$ 104,670.44
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 668.25	\$ 196.04	\$ 27.49	\$ 138.84	\$ 335.77	\$ -	\$ 57.49	\$ 8,569.77	\$ -	\$ -	\$ 35,361.02
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 141.94	\$ 109.74	\$ 7.87	\$ 39.74	\$ 95.86	\$ -	\$ 556.54	\$ 1,724.17	\$ 1,723.11	\$ -	\$ 12,025.19
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 749.68	\$ 389.86	\$ 12.48	\$ 63.03	\$ -	\$ -	\$ -	\$ 7,225.65	\$ 4,299.81	\$ -	\$ 27,622.49
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 1,855.85	\$ 868.04	\$ 19.45	\$ 98.19	\$ -	\$ -	\$ 273.93	\$ 14,907.91	\$ 8,188.28	\$ -	\$ 32,958.55
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 269.84	\$ 79.16	\$ 9.38	\$ 47.39	\$ -	\$ -	\$ 1,339.04	\$ 2,492.67	\$ -	\$ -	\$ 16,355.50
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,563.38	\$ 5,455.72	\$ 2,981.04	\$ 144.17	\$ 728.20	\$ -	\$ -	\$ -	\$ 60,525.00	\$ 34,931.80	\$ -	\$ 197,948.23
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 285.83	\$ 192.01	\$ 9.56	\$ 48.27	\$ -	\$ -	\$ 365.48	\$ 2,530.56	\$ 2,736.84	\$ -	\$ 16,954.37
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 6,833.10	\$ 4,139.92	\$ -	\$ 1,078.22	\$ 2,599.89	\$ -	\$ 3,746.34	\$ 68,794.21	\$ 54,031.25	\$ -	\$ 382,383.08
	Grand Totals:	\$ 392,355.27	\$ 293,709.43	\$ 7,888.10	\$ 27,327.21	\$ 30,093.99	\$ 15,749.02	\$ 545.41	\$ 3,832.86	\$ 6,659.36	\$ 6,500.16	\$ 10,499.08	\$ 304,377.50	\$ 175,112.50	\$ -	\$ 1,274,649.89
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 30,104.02	\$ 15,757.16	\$ 800.00	\$ 4,040.90	\$ 7,120.93	\$ 6,500.16	\$ 10,499.08	\$ 304,439.47	\$ 175,244.62	\$ -	\$ 1,514,722.04
	Deviation:	\$ (88,089.19)	\$ (135,802.52)	\$ (5,948.69)	\$ (9,095.29)	\$ (10.03)	\$ (8.14)	\$ (254.59)	\$ (208.04)	\$ (461.57)	\$ -	\$ -	\$ (61.97)	\$ (132.12)	\$ -	\$ (240,072.15)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
May, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 1,672.81	\$ 1,013.98	\$ 30.14	\$ -	\$ 347.55	\$ -	\$ 555.39	\$ 24,575.38	\$ 7,621.20	\$ -	\$ 65,316.22
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 791.45	\$ 459.88	\$ 14.07	\$ -	\$ 162.18	\$ -	\$ 267.92	\$ 11,674.35	\$ 2,955.40	\$ -	\$ 30,162.45
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 560.21	\$ 264.57	\$ 13.64	\$ -	\$ 157.32	\$ 694.50	\$ 248.76	\$ 8,408.29	\$ 95.81	\$ -	\$ 23,573.58
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 379.89	\$ 245.69	\$ 4.94	\$ -	\$ 57.02	\$ 249.42	\$ 81.56	\$ 5,544.35	\$ 2,235.63	\$ -	\$ 13,585.90
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 262.99	\$ 140.62	\$ 5.10	\$ -	\$ 58.77	\$ 303.83	\$ -	\$ 3,908.11	\$ 582.80	\$ -	\$ 10,206.82
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 1,242.87	\$ 796.59	\$ 27.41	\$ -	\$ 316.03	\$ 1,204.58	\$ -	\$ 18,156.36	\$ 7,078.07	\$ -	\$ 55,660.47
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 426.33	\$ 200.32	\$ 14.56	\$ -	\$ 167.92	\$ -	\$ 243.77	\$ 6,401.29	\$ 39.38	\$ -	\$ 21,469.63
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 461.95	\$ 237.18	\$ 12.86	\$ -	\$ 148.20	\$ 271.17	\$ 410.89	\$ 6,888.19	\$ 701.76	\$ -	\$ 21,853.24
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.16	\$ -	\$ 243.67	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,398.66
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 424.08	\$ 260.11	\$ 5.19	\$ -	\$ 59.73	\$ 228.00	\$ 6.71	\$ 6,222.97	\$ 2,031.84	\$ -	\$ 14,325.45
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 908.65	\$ 424.39	\$ 17.31	\$ -	\$ -	\$ -	\$ -	\$ 13,649.41	\$ -	\$ -	\$ 35,418.81
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 938.73	\$ 438.44	\$ 19.11	\$ -	\$ 221.03	\$ 770.50	\$ 127.93	\$ 14,101.30	\$ -	\$ -	\$ 34,255.83
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 2,596.50	\$ 1,458.78	\$ 40.49	\$ -	\$ 466.71	\$ 1,432.42	\$ -	\$ 38,418.75	\$ 8,059.87	\$ -	\$ 92,416.25
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 448.43	\$ 209.44	\$ 4.67	\$ -	\$ 54.04	\$ 222.58	\$ 48.87	\$ 6,736.09	\$ -	\$ -	\$ 12,036.58
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 1,066.29	\$ 498.01	\$ 15.58	\$ -	\$ 180.13	\$ 737.92	\$ -	\$ 16,017.32	\$ -	\$ -	\$ 32,890.10
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 407.55	\$ 244.77	\$ 5.11	\$ -	\$ 59.00	\$ 179.08	\$ -	\$ 5,992.71	\$ 1,782.38	\$ -	\$ 13,583.50
39	Ryman Auditorium	\$ 1,965.87	\$ 3,140.46	\$ 137.55	\$ 362.08	\$ 614.15	\$ 350.63	\$ 5.80	\$ -	\$ 67.02	\$ 173.58	\$ -	\$ 9,073.91	\$ 2,089.34	\$ -	\$ 17,980.39
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 2,915.04	\$ 1,452.30	\$ 57.87	\$ -	\$ 668.13	\$ -	\$ 19.16	\$ 43,572.78	\$ 2,974.69	\$ -	\$ 106,931.54
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 2,080.13	\$ 971.53	\$ 27.49	\$ -	\$ 317.87	\$ -	\$ 23.00	\$ 31,246.97	\$ -	\$ -	\$ 60,034.36
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 196.67	\$ 127.57	\$ 7.87	\$ -	\$ 90.75	\$ -	\$ 347.26	\$ 2,869.50	\$ 1,169.63	\$ -	\$ 12,435.47
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 720.70	\$ 466.04	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 10,518.35	\$ 4,239.58	\$ -	\$ 30,839.13
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 1,649.46	\$ 980.60	\$ 19.45	\$ -	\$ -	\$ -	\$ 205.45	\$ 24,277.85	\$ 6,885.17	\$ -	\$ 40,764.88
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 493.69	\$ 230.58	\$ 9.38	\$ -	\$ -	\$ -	\$ 605.90	\$ 7,416.07	\$ -	\$ -	\$ 20,873.64
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,563.38	\$ 6,516.77	\$ 3,792.99	\$ 144.17	\$ -	\$ -	\$ -	\$ -	\$ 96,111.50	\$ 24,542.35	\$ -	\$ 224,290.08
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 385.12	\$ 264.40	\$ 9.56	\$ -	\$ -	\$ -	\$ 197.97	\$ 5,584.27	\$ 2,768.67	\$ -	\$ 19,995.81
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 8,100.09	\$ 4,952.46	\$ -	\$ -	\$ 2,461.34	\$ -	\$ 4,670.30	\$ 118,897.55	\$ 38,297.13	\$ -	\$ 418,539.02
	Grand Totals:	\$ 392,355.27	\$ 293,709.43	\$ 7,888.10	\$ 27,327.21	\$ 36,260.55	\$ 20,481.87	\$ 545.41	\$ -	\$ 6,304.41	\$ 6,500.16	\$ 8,060.84	\$ 536,263.62	\$ 116,150.70	\$ -	\$ 1,451,847.57
	Rate Calculation Totals:	\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 36,268.92	\$ 20,487.23	\$ 800.00	\$ -	\$ 6,741.26	\$ 6,500.16	\$ 8,060.84	\$ 536,385.37	\$ 116,200.39	\$ -	\$ 1,691,659.87
	Deviation:	\$ (88,089.19)	\$ (135,802.52)	\$ (5,948.69)	\$ (9,095.29)	\$ (8.37)	\$ (5.36)	\$ (254.59)	\$ -	\$ (436.85)	\$ -	\$ -	\$ (121.75)	\$ (49.69)	\$ -	\$ (239,812.30)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
June, 2018

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 10,623.40	\$ 16,285.22	\$ 713.36	\$ 1,877.79	\$ 2,762.32	\$ 659.34	\$ 30.14	\$ -	\$ 346.98	\$ -	\$ 330.01	\$ 26,182.48	\$ 5,504.98	\$ -	\$ 65,316.02
4	Metro Courthouse	\$ 5,029.10	\$ 7,598.98	\$ 332.88	\$ 876.24	\$ 1,399.91	\$ 333.59	\$ 14.07	\$ -	\$ 161.91	\$ -	\$ 14.29	\$ 13,785.84	\$ 2,769.81	\$ -	\$ 32,316.62
7	Parkway Tower	\$ 4,584.91	\$ 7,372.63	\$ 322.92	\$ 850.02	\$ 1,014.72	\$ 186.04	\$ 13.64	\$ -	\$ 157.07	\$ 694.50	\$ 265.62	\$ 11,037.94	\$ -	\$ -	\$ 26,500.01
9	Bobby Hotel (fka Wells Fargo)	\$ 1,689.97	\$ 2,672.27	\$ 117.05	\$ 308.11	\$ 757.35	\$ 194.99	\$ 4.94	\$ -	\$ 56.94	\$ 249.42	\$ 33.50	\$ 7,071.09	\$ 2,021.34	\$ -	\$ 15,176.97
10	Fairlane Hotel (fka 401 Union)	\$ 1,752.83	\$ 2,753.66	\$ 120.61	\$ 317.50	\$ 523.56	\$ 104.60	\$ 5.10	\$ -	\$ 58.67	\$ 303.83	\$ -	\$ 5,192.45	\$ 309.92	\$ -	\$ 11,442.73
11	Sheraton Hotel	\$ 9,674.23	\$ 14,808.19	\$ 648.66	\$ 1,707.48	\$ 2,133.97	\$ 542.42	\$ 27.41	\$ -	\$ 315.51	\$ 1,204.58	\$ -	\$ 18,567.38	\$ 5,442.93	\$ -	\$ 55,072.76
12	Municipal Auditorium	\$ 4,854.83	\$ 7,869.29	\$ 344.67	\$ 907.27	\$ 575.50	\$ 106.21	\$ 14.56	\$ -	\$ 167.65	\$ -	\$ -	\$ 7,082.20	\$ 25.29	\$ -	\$ 21,947.47
21	Hermitage Hotel	\$ 4,672.81	\$ 6,943.38	\$ 304.18	\$ 800.67	\$ 961.70	\$ 179.14	\$ 12.86	\$ -	\$ 147.95	\$ 271.17	\$ 453.82	\$ 8,815.69	\$ 101.64	\$ -	\$ 23,665.01
24	Criminal Justice Center	\$ 7,901.28	\$ 11,415.91	\$ 500.13	\$ 1,316.51	\$ -	\$ -	\$ 21.16	\$ -	\$ 243.27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,398.26
25	501 Union Building	\$ 1,842.38	\$ 2,799.06	\$ 122.62	\$ 322.76	\$ 748.17	\$ 195.34	\$ 5.19	\$ -	\$ 59.65	\$ 228.00	\$ -	\$ 6,905.79	\$ 2,094.65	\$ -	\$ 15,323.61
28	4th & Church Building	\$ 20,419.05	\$ -	\$ -	\$ -	\$ 1,827.01	\$ 334.96	\$ 17.31	\$ -	\$ -	\$ -	\$ -	\$ 19,664.74	\$ -	\$ -	\$ 42,263.07
29	Fifth-Third Financial Center	\$ 5,630.55	\$ 10,360.39	\$ 453.67	\$ 1,194.18	\$ 1,646.60	\$ 301.89	\$ 19.11	\$ -	\$ 220.67	\$ 770.50	\$ 63.96	\$ 22,390.84	\$ -	\$ -	\$ 43,052.36
32	Renaissance Hotel	\$ 14,595.59	\$ 21,867.59	\$ 957.95	\$ 2,521.60	\$ 5,316.19	\$ 1,154.13	\$ 40.49	\$ -	\$ 465.95	\$ 1,432.42	\$ -	\$ 36,127.38	\$ 6,461.40	\$ -	\$ 90,940.69
34	Renaissance Office Tower	\$ 1,376.60	\$ 2,532.98	\$ 110.92	\$ 291.96	\$ 841.71	\$ 154.32	\$ 4.67	\$ -	\$ 53.95	\$ 222.58	\$ 52.78	\$ 8,163.85	\$ -	\$ -	\$ 13,806.32
35	St. Mary's Catholic Church	\$ 977.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32.58	\$ -	\$ -	\$ -	\$ -	\$ 1,009.76
36	Nashville City Center	\$ 4,588.65	\$ 8,443.27	\$ 369.72	\$ 973.21	\$ 2,067.11	\$ 378.99	\$ 15.58	\$ -	\$ 179.84	\$ 737.92	\$ -	\$ 22,153.06	\$ -	\$ -	\$ 39,907.35
38	Wildhorse Saloon	\$ 1,708.17	\$ 2,764.86	\$ 121.10	\$ 318.77	\$ 755.70	\$ 185.87	\$ 5.11	\$ -	\$ 58.90	\$ 179.08	\$ -	\$ 7,072.40	\$ 1,703.61	\$ -	\$ 14,873.57
39	Ryman Auditorium	\$ 1,965.87	\$ 3,140.46	\$ 137.55	\$ 362.08	\$ 1,087.11	\$ 246.38	\$ 5.80	\$ -	\$ 66.91	\$ 173.58	\$ -	\$ 9,716.25	\$ 1,694.88	\$ -	\$ 18,596.87
40	Bridgestone Arena	\$ 18,978.56	\$ 31,311.73	\$ 1,371.39	\$ 3,609.89	\$ 5,374.74	\$ 1,120.91	\$ 57.87	\$ -	\$ 667.05	\$ -	\$ -	\$ 48,757.02	\$ 4,878.79	\$ -	\$ 116,127.95
41	Nissan Stadium	\$ 8,097.62	\$ 14,899.88	\$ 652.44	\$ 1,717.43	\$ 4,481.75	\$ 821.69	\$ 27.49	\$ -	\$ 317.36	\$ -	\$ -	\$ 40,008.37	\$ -	\$ -	\$ 71,024.03
43	Hume-Fogg High School	\$ 2,696.71	\$ 4,252.87	\$ 186.28	\$ 490.36	\$ 278.73	\$ 63.02	\$ 7.87	\$ -	\$ 90.61	\$ -	\$ 349.56	\$ 3,367.72	\$ 428.88	\$ -	\$ 12,212.61
44	Schermerhorn Symphony Center	\$ 14,881.98	\$ -	\$ -	\$ -	\$ 1,171.08	\$ 312.08	\$ 12.48	\$ -	\$ -	\$ -	\$ -	\$ 12,149.16	\$ 3,506.04	\$ -	\$ 32,032.82
45	Nashville Public Library	\$ 6,746.90	\$ -	\$ -	\$ -	\$ 2,484.77	\$ 550.01	\$ 19.45	\$ -	\$ -	\$ -	\$ 151.13	\$ 22,020.30	\$ 3,400.88	\$ -	\$ 35,373.44
49	Viridian Residential Tower	\$ 12,118.02	\$ -	\$ -	\$ -	\$ 924.14	\$ 169.43	\$ 9.38	\$ -	\$ -	\$ -	\$ 351.42	\$ 8,431.88	\$ -	\$ -	\$ 22,004.27
50	Music City Center	\$ 77,567.78	\$ 9,051.14	\$ -	\$ 6,563.38	\$ 13,785.38	\$ 3,412.56	\$ 144.17	\$ -	\$ -	\$ -	\$ -	\$ 131,363.13	\$ 31,869.60	\$ -	\$ 273,757.14
51	Hyatt Place Hotel	\$ 10,785.82	\$ -	\$ -	\$ -	\$ 682.15	\$ 188.33	\$ 9.56	\$ -	\$ -	\$ -	\$ 121.83	\$ 5,865.47	\$ 2,277.83	\$ -	\$ 19,930.99
51	State Government of TN	\$ 136,594.48	\$ 104,565.67	\$ -	\$ -	\$ 14,907.87	\$ 3,660.50	\$ -	\$ -	\$ 2,457.31	\$ -	\$ 3,609.19	\$ 160,804.92	\$ 33,386.15	\$ -	\$ 459,986.09
Grand Totals:		\$ 392,355.27	\$ 293,709.43	\$ 7,888.10	\$ 27,327.21	\$ 68,509.24	\$ 15,556.74	\$ 545.41	\$ -	\$ 6,294.15	\$ 6,500.16	\$ 5,797.11	\$ 662,697.35	\$ 107,878.62	\$ -	\$ 1,595,058.79
Rate Calculation Totals:		\$ 480,444.46	\$ 429,511.95	\$ 13,836.79	\$ 36,422.50	\$ 68,526.07	\$ 15,559.82	\$ 800.00	\$ -	\$ 6,730.40	\$ 6,500.16	\$ 5,797.11	\$ 662,789.66	\$ 107,878.64	\$ -	\$ 1,834,797.56
Deviation:		\$ (88,089.19)	\$ (135,802.52)	\$ (5,948.69)	\$ (9,095.29)	\$ (16.83)	\$ (3.08)	\$ (254.59)	\$ -	\$ (436.25)	\$ -	\$ -	\$ (92.31)	\$ (0.02)	\$ -	\$ (239,738.77)

Metro Nashville District Energy System
Revenues
Chilled Water and Steam
Fiscal Year 17 - 18 True Up

Customer Number	Customer Name	Capacity	Operating	EFS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EFS Electricity	EFS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ -	\$ -	\$ -	\$ 2,995.77	\$ (132.24)	\$ -	\$ 201.08	\$ 174.96	\$ -	\$ -	\$ -	\$ (356.19)	\$ (459.45)	\$ -	\$ 2,423.93
4	Metro Courthouse	\$ -	\$ -	\$ -	\$ 1,398.74	\$ (73.55)	\$ -	\$ 93.91	\$ 81.71	\$ -	\$ -	\$ -	\$ (171.02)	\$ (195.73)	\$ -	\$ 1,134.06
7	Parkway Tower	\$ -	\$ -	\$ -	\$ 1,353.55	\$ (72.64)	\$ -	\$ 90.78	\$ 78.99	\$ -	\$ -	\$ -	\$ (158.51)	\$ (170.37)	\$ -	\$ 1,121.80
9	Bobby Hotel (fka Wells Fargo)	\$ -	\$ -	\$ -	\$ 490.94	\$ (10.92)	\$ -	\$ 32.93	\$ 28.66	\$ -	\$ -	\$ -	\$ (29.11)	\$ (37.27)	\$ -	\$ 475.23
10	Fairlane Hotel (fka 401 Union)	\$ -	\$ -	\$ -	\$ 506.03	\$ (11.57)	\$ -	\$ 33.95	\$ 29.54	\$ -	\$ -	\$ -	\$ (50.20)	\$ (82.19)	\$ -	\$ 425.56
11	Sheraton Hotel	\$ -	\$ -	\$ -	\$ 2,724.23	\$ (129.04)	\$ -	\$ 182.86	\$ 159.11	\$ -	\$ -	\$ -	\$ (388.08)	\$ (537.71)	\$ -	\$ 2,011.37
12	Municipal Auditorium	\$ -	\$ -	\$ -	\$ 1,444.27	\$ (32.52)	\$ -	\$ 96.85	\$ 84.27	\$ -	\$ -	\$ -	\$ (134.84)	\$ (217.24)	\$ -	\$ 1,240.79
21	Hermitage Hotel	\$ -	\$ -	\$ -	\$ 1,278.99	\$ (50.97)	\$ -	\$ 85.89	\$ 74.73	\$ -	\$ -	\$ -	\$ (84.93)	\$ (61.51)	\$ -	\$ 1,242.20
24	Criminal Justice Center	\$ -	\$ -	\$ -	\$ 2,105.45	\$ -	\$ -	\$ 141.48	\$ 123.09	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,370.02
25	501 Union Building	\$ -	\$ -	\$ -	\$ 515.10	\$ (52.06)	\$ -	\$ 34.58	\$ 30.09	\$ -	\$ -	\$ -	\$ (117.71)	\$ (131.19)	\$ -	\$ 278.81
28	4th & Church Building	\$ -	\$ -	\$ -	\$ -	\$ (96.55)	\$ -	\$ 115.37	\$ 100.38	\$ -	\$ -	\$ -	\$ (204.46)	\$ (212.70)	\$ -	\$ (297.96)
29	Fifth-Third Financial Center	\$ -	\$ -	\$ -	\$ 1,892.39	\$ (105.31)	\$ -	\$ 126.65	\$ 110.20	\$ -	\$ -	\$ -	\$ (117.89)	\$ -	\$ -	\$ 1,906.04
32	Renaissance Hotel	\$ -	\$ -	\$ -	\$ 4,026.62	\$ (248.66)	\$ -	\$ 270.39	\$ 235.26	\$ -	\$ -	\$ -	\$ (567.68)	\$ (638.56)	\$ -	\$ 3,077.37
34	Renaissance Office Tower	\$ -	\$ -	\$ -	\$ 462.66	\$ (55.10)	\$ -	\$ 30.97	\$ 26.94	\$ -	\$ -	\$ -	\$ (61.69)	\$ -	\$ -	\$ 403.78
35	St. Mary's Catholic Church	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	Nashville City Center	\$ -	\$ -	\$ -	\$ 1,542.21	\$ (114.84)	\$ -	\$ 103.22	\$ 89.81	\$ -	\$ -	\$ -	\$ (128.55)	\$ -	\$ -	\$ 1,491.85
38	Wildhorse Saloon	\$ -	\$ -	\$ -	\$ 507.48	\$ (38.63)	\$ -	\$ 34.03	\$ 29.61	\$ -	\$ -	\$ -	\$ (82.78)	\$ (87.24)	\$ -	\$ 362.47
39	Ryman Auditorium	\$ -	\$ -	\$ -	\$ 531.90	\$ (62.25)	\$ -	\$ 35.66	\$ 31.03	\$ -	\$ -	\$ -	\$ (135.37)	\$ (144.99)	\$ -	\$ 255.98
40	Bridgestone Arena	\$ -	\$ -	\$ -	\$ 5,742.70	\$ (395.55)	\$ -	\$ 384.99	\$ 334.97	\$ -	\$ -	\$ -	\$ (648.37)	\$ (453.74)	\$ -	\$ 4,965.00
41	Nissan Stadium	\$ -	\$ -	\$ -	\$ 2,721.55	\$ (199.37)	\$ -	\$ 182.15	\$ 158.49	\$ -	\$ -	\$ -	\$ (223.17)	\$ -	\$ -	\$ 2,639.65
43	Hume-Fogg High School	\$ -	\$ -	\$ -	\$ 781.41	\$ (14.68)	\$ -	\$ 52.43	\$ 45.62	\$ -	\$ -	\$ -	\$ (45.09)	\$ (63.24)	\$ -	\$ 756.45
44	Schermerhorn Symphony Center	\$ -	\$ -	\$ -	\$ -	\$ (71.72)	\$ -	\$ 83.11	\$ 72.31	\$ -	\$ -	\$ -	\$ (181.51)	\$ (223.41)	\$ -	\$ (321.22)
45	Nashville Public Library	\$ -	\$ -	\$ -	\$ -	\$ (167.79)	\$ -	\$ 129.65	\$ 112.81	\$ -	\$ -	\$ -	\$ (339.58)	\$ (334.96)	\$ -	\$ (599.87)
49	Viridian Residential Tower	\$ -	\$ -	\$ -	\$ -	\$ (45.96)	\$ -	\$ 62.17	\$ 54.10	\$ -	\$ -	\$ -	\$ (51.45)	\$ -	\$ -	\$ 18.86
50	Music City Center	\$ -	\$ -	\$ -	\$ 10,412.80	\$ (656.70)	\$ -	\$ 960.00	\$ 835.28	\$ -	\$ -	\$ -	\$ (1,679.88)	\$ (2,085.19)	\$ -	\$ 7,786.31
51	Hyatt Place Hotel	\$ -	\$ -	\$ -	\$ -	\$ (31.98)	\$ -	\$ 63.95	\$ 55.64	\$ -	\$ -	\$ -	\$ (104.86)	\$ (152.42)	\$ -	\$ (169.67)
S1	State Government of TN	\$ -	\$ -	\$ -	\$ -	\$ (832.76)	\$ -	\$ -	\$ 1,239.30	\$ -	\$ -	\$ -	\$ (2,234.21)	\$ (2,873.62)	\$ -	\$ (4,701.29)
	Grand Totals:	\$ -	\$ -	\$ -	\$ 43,434.79	\$ (3,703.36)	\$ -	\$ 3,629.05	\$ 4,396.90	\$ -	\$ -	\$ -	\$ (8,297.13)	\$ (9,162.73)	\$ -	\$ 30,297.52
	Rate Calculation Totals:	\$ -	\$ -	\$ -	\$ 54,866.49	\$ (3,703.82)	\$ -	\$ 5,058.33	\$ 4,401.26	\$ -	\$ -	\$ -	\$ (8,303.12)	\$ (9,174.55)	\$ -	\$ 43,144.59
	Deviation:	\$ -	\$ -	\$ -	\$ (11,431.70)	\$ 0.46	\$ -	\$ (1,429.28)	\$ (4.36)	\$ -	\$ -	\$ -	\$ 5.99	\$ 11.82	\$ -	\$ (12,847.07)



Appendix 4



NASHVILLE, TENNESSEE

REV: 1
DATE: 07/31/18

CNE INVOICE RECONCILIATION - FY 2017 - 2018

SALES SUMMARY FROM CUSTOMER METER READS														
MONTH		7	8	9	10	11	12	1	2	3	4	5	6	TOTAL
STEAM SALES	Previously invoiced, lbs	13,670,272	15,204,484	18,247,754	24,238,477	35,707,168	50,903,675	63,549,780	39,093,510	40,213,607	32,583,418	17,680,529	15,835,022	366,927,696
	Reconciled, lbs													
CHW SALES	Previously invoiced, ton-hrs	8,493,402	7,825,060	6,114,558	4,779,477	3,194,613	2,393,368	2,319,796	3,015,564	3,114,912	3,474,191	6,933,146	8,256,369	59,914,456
	Reconciled, ton-hrs													
SUMMARY FROM CUSTOMER METER READS from INVOICES (paste link)														
START DATE		07/01/17	08/01/17	09/01/17	10/01/17	11/01/17	12/01/17	01/01/18	02/01/18	03/01/18	04/01/18	05/01/18	06/01/18	07/01/17
END DATE		07/31/17	08/31/17	09/30/17	10/31/17	11/30/17	12/31/17	01/31/18	02/28/18	03/31/18	04/30/18	05/31/18	06/30/18	06/30/18
CHW SALES	ton-hrs	8,493,402	7,825,060	6,114,558	4,779,477	3,194,613	2,393,368	2,319,796	3,015,564	3,114,912	3,474,191	6,933,146	8,256,369	59,914,456
CHW SENDOUT	ton-hrs	8,994,000	8,251,600	6,452,100	5,031,200	3,387,900	2,551,200	2,449,200	3,156,200	3,250,700	3,621,200	7,221,500	8,537,300	62,904,100
CHW ELECTRIC	kWh	7,917,877	7,011,687	5,351,912	4,308,058	2,899,406	2,224,510	2,185,098	2,674,548	2,744,551	3,076,302	6,122,781	7,430,067	53,946,797
CHW MUW	galls	14,591,000	12,826,000	9,713,000	7,455,000	4,437,000	3,476,000	3,794,000	5,032,000	5,292,000	6,376,000	12,668,000	15,152,000	100,812,000
STEAM SALES	mlbs	13,670	15,204	18,248	24,238	35,707	50,904	63,550	39,094	40,214	32,583	17,681	15,835	366,928
STEAM SENDOUT	mlbs	20,276	21,124	23,886	29,700	40,493	55,315	66,303	43,086	44,445	37,305	23,827	21,638	427,398
STEAM PRODUCTION	mlbs	24,177	25,414	28,574	34,871	47,432	64,856	76,935	50,929	52,981	42,388	27,052	24,945	500,554
NATURAL GAS	mmBtu	26,981	28,499	32,030	40,605	55,602	76,736	90,544	58,650	61,130	51,250	32,223	29,161	583,411
PROPANE	mmBtu	0	0	74	0	0	0	25	0	0	0	0	0	99
STEAM ELECTRIC	kWh	52,088	51,426	51,947	67,738	102,110	129,474	148,158	107,907	111,834	85,318	55,590	51,618	1,015,209
CONDENSATE RETURN	galls	1,913,000	2,050,800	2,329,100	2,835,100	3,758,100	5,326,600	6,537,800	4,281,700	4,293,300	3,683,600	2,392,500	2,183,100	41,584,700
	mlbs	15,602	16,726	18,996	23,123	30,650	43,443	53,321	34,921	35,016	30,043	19,513	17,805	339,159
	°F	190 °F	189 °F	187 °F	183 °F	178 °F	177 °F	176 °F	175 °F	173 °F	174 °F	185 °F	193 °F	175 °F
STEAM MUW	galls	555,840	508,150	540,660	793,010	1,336,760	1,738,780	1,929,520	1,186,150	1,310,850	966,570	534,980	501,170	11,902,440
	mlbs	4,639	4,241	4,512	6,618	11,156	14,511	16,102	9,899	10,939	8,066	4,465	4,182	99,329
Days in Service		31	31	30	31	30	31	31	28	31	30	31	30	365
Efficiency - Cooling	kWh/ton-hr-Sold	0.932	0.896	0.875	0.901	0.908	0.929	0.942	0.887	0.881	0.885	0.883	0.900	0.900
Efficiency - Heating	Dth/klb-Sendout	1.331	1.349	1.344	1.367	1.373	1.387	1.366	1.361	1.375	1.374	1.352	1.348	1.365

CNE INVOICE RECONCILIATION - FY 2017 - 2018

FINALIZE FUEL EFFICIENCY ADJUSTMENTS

SUMMARY	ELECTRIC FEA	FUEL GAS FEA	WATER FEA	System TOTAL	Include FEA in INVOICE (YES/NO) YES
STEAM SYSTEM	\$26,331.70	\$85,000.05	\$266.02	\$111,597.77	
CHILLED WATER SYSTEM	\$188,281.36	\$0.00	\$135,195.19	\$323,476.55	
TOTAL	\$214,613.06	\$85,000.05	\$135,461.21	\$435,074.32	

ELECTRICITY-TO-STEAM CONVERSION

CONTRACTUAL GUARANTEE	6.000	kWh per mlb sold	CNE PENALTY/BONUS CALCULATION		PENALTY	BONUS
Metering Inaccuracy Buffer	0%		RATE VARIANCE	kWh per mlb sold	0.000	3.165
GUARANTEED MAX QUANTITY	6.000	kWh per mlb sold	STEAM SOLD	366,928 mlb		
CEPS FUEL EFFICIENCY ADJUSTM	6.000	kWh per mlb sold	VARIANCE in kWh = RATE VARIANCE x STEAM SOLD		0	1,161,176
CEPS ACTUAL CONVERSION RATE	2.835	kWh per mlb sold	AVERAGE ELECTRIC PRICE	\$0.0907 / kWh		
			CEPS PENALTY / BONUS		\$0.00	\$26,331.70
NOTE: Penalty at 100% of variance and Bonus at 25% of variance						

FUEL GAS-TO-STEAM CONVERSION

CONTRACTUAL GUARANTEE (varies by Condensate Return, see below)	79%	of Send-out	CNE PENALTY/BONUS CALCULATION		PENALTY	BONUS
Given Condensate Return at	180 °F	avg. Temp.	RATE VARIANCE	Dth. per mlb sold	0.000	0.221
GUARANTEED MAX QUANTITY	1.669	Dth.per mlb sold	STEAM SEND-OUT	427,398 mlb		
CEPS FUEL EFFICIENCY ADJUSTM	1.586	Dth.per mlb sold	VARIANCE in Dth. = RATE VARIANCE x STEAM SOLD		0	94,455
CEPS ACTUAL CONVERSION RATE	1.365	Dth.per mlb sold	AVERAGE FUEL PRICE	\$3.5996 / Dth.		
			CEPS PENALTY / BONUS		\$0.00	\$85,000.05
NOTE: Penalty at 100% of variance and Bonus at 25% of variance						

WATER-TO-STEAM CONVERSION

CONTRACTUAL GUARANTEE (varies by Plant Send-out, see below)	15%		CNE PENALTY/BONUS CALCULATION		PENALTY	BONUS
PLANT LOSSES	7.4805	gallons per cft	VARIANCE in gallons = GMQ - CES ACTUAL USE		0	420,567
VOLUMETRIC CONVERSION	8.15585	gall per lb	AVERAGE WATER PRICE	\$2.5301 / kGall		
CONDENSATE RETURN SPEC. VO	12,442,031	gallons	CEPS PENALTY / BONUS		\$0.00	\$266.02
GUARANTEED MAX QUANTITY	12,021,464	gallons	Average water price excludes sewer.			
CEPS ACTUAL USE			NOTE: Penalty at 100% of variance and Bonus at 25% of variance			

ELECTRICITY-TO-CHILLED WATER CONVERSION

CONTRACTUAL GUARANTEE	1.055	kWh per ton-hr sold	CNE PENALTY/BONUS CALCULATION		PENALTY	BONUS
Metering Inaccuracy Buffer	0%		RATE VARIANCE	kWh per ton-hr sold	0.000	0.139
GUARANTEED MAX QUANTITY	1.055	kWh per ton-hr sold	CHILLED WATER SOLD	59,914,456 ton-hrs		
CEPS FUEL EFFICIENCY ADJUSTM	1.055	kWh per ton-hr sold	VARIANCE in kWh = RATE VARIANCE x CHW SOLD		0	8,302,837
CEPS ACTUAL CONVERSION RATE	0.916	kWh per ton-hr sold	AVERAGE ELECTRIC PRICE	\$0.0907 / kWh		
			CEPS PENALTY / BONUS		\$0.00	\$188,281.36
NOTE: Penalty at 100% of variance and Bonus at 25% of variance						

WATER-TO-CHILLED WATER CONVERSION

CONTRACTUAL GUARANTEE	5.250	gall per ton-hr sold	CNE PENALTY/BONUS CALCULATION		PENALTY	BONUS
Metering Inaccuracy Buffer	0%		RATE VARIANCE	gall per ton-hr sold	0.000	3.567
GUARANTEED MAX QUANTITY	5.250	gall per ton-hr sold	CHILLED WATER SOLD	59,914,456 ton-hrs		
CEPS FUEL EFFICIENCY ADJUSTM	5.250	gall per ton-hr sold	VARIANCE in gallons = RATE VARIANCE x CHW SOLD		0	213,738,894
CEPS ACTUAL CONVERSION RATE	1.683	gall per ton-hr sold	AVERAGE WATER PRICE	\$2.5301 / kGall		
			CEPS PENALTY / BONUS		\$0.00	\$135,195.19
NOTE: Penalty at 100% of variance and Bonus at 25% of variance						

COMPARISON PREVIOUSLY BILLED VS. RECONCILED AMOUNTS

STEAM SYSTEM				CHILLED WATER SYSTEM			
	CALCULATED	RECONCILED	VARIANCE		CALCULATED	RECONCILED	VARIANCE
ELECTRIC	\$27,516.60	\$26,331.70	(\$1,184.90)	ELECTRIC	\$210,427.19	\$188,281.36	(\$22,145.83)
FUEL GAS	\$85,249.14	\$85,000.05	(\$249.09)	FUEL GAS	\$0.00	\$0.00	\$0.00
WATER	(\$203.15)	\$266.02	\$469.17	WATER	\$135,196.87	\$135,195.19	(\$1.68)
TOTAL	\$112,562.59	\$111,597.77	(\$964.82)	TOTAL	\$345,624.06	\$323,476.55	(\$22,147.51)

COMPARISON AMOUNT COLLECTED BY METRO VS 97-13 CAP

FEA COLLECTED BY METRO				METRO PAID	METRO OWES
	STEAM	CHILLED WATER	TOTAL	CNE	CUSTOMER
ELECTRIC	\$16,767.40	\$117,904.89	\$134,672.29		
FUEL GAS	\$51,157.96	\$0.00	\$51,157.96		
WATER	(\$183.40)	\$81,015.28	\$80,831.88		
TOTAL	\$67,741.96	\$198,920.17	\$266,662.13	\$245,480.64	\$21,181.49

CNE INVOICE RECONCILIATION - FY 2017 - 2018

UTILITY INVOICES (Paste Link)														
Month of Service		7	8	9	10	11	12	1	2	3	4	5	6	TOTAL
ELECTRIC SERVICE (NES)														
Service Dates	From	6/30/2017	8/1/2017	9/1/2017	10/1/2017	11/1/2017	12/1/2017	1/1/2018	2/1/2018	3/1/2018	4/1/2018	5/1/2018	6/1/2018	6/30/2017
	To	7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018	6/30/2018
PEAK Demand	kWh	15,792	15,568	13,160	12,880	7,728	6,060	6,060	7,896	6,552	8,456	14,392	15,960	15,960
Service Period Use	kWh	8,052,100	7,131,516	5,477,248	4,455,920	3,086,328	2,444,988	2,424,352	2,863,112	2,948,652	3,243,856	6,251,196	7,568,036	55,947,304
Service Period Charge	\$	\$ 693,451.11	\$ 644,621.28	\$ 504,653.73	\$ 439,161.71	\$ 284,280.46	\$ 229,102.36	\$ 219,670.09	\$ 294,290.54	\$ 261,979.74	\$ 304,439.47	\$ 536,385.37	\$ 662,789.66	\$ 5,074,825.52
Average Charge	\$/kWh	\$ 0.086100	\$ 0.090400	\$ 0.092100	\$ 0.098600	\$ 0.092100	\$ 0.093700	\$ 0.090600	\$ 0.102800	\$ 0.088800	\$ 0.093900	\$ 0.085800	\$ 0.087600	\$ 0.090707
NATURAL GAS SERVICE														
Service Dates	From	7/1/2017	8/1/2017	9/1/2017	10/1/2017	11/1/2017	12/1/2017	1/1/2018	2/1/2018	3/1/2018	4/1/2018	5/1/2018	6/1/2018	7/1/2017
	To	7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018	6/30/2018
UTILITY CEPS INVOICE DATA EN	Start	897,377	922,651	949,198	979,174	17,000	68,887	140,672	225,879	281,120	338,450	386,404	416,515	6/30/2018
	Ending	922,651	949,198	979,174	1,017,000	68,887	140,672	225,879	281,120	338,450	386,404	416,515	443,865	
UTILITY METER Multiplier		10	10	10	10	10	10	10	10	10	10	10	10	
HEAT FACTOR		1.068	1.074	1.069	1.073	1.072	1.069	1.063	1.062	1.066	1.069	1.070	1.066	
Service Period Use	CCF	252,740	265,470	299,760	378,260	518,870	717,850	852,070	552,410	573,300	479,540	301,110	273,500	5,464,880
	Dth	26,981.3	28,499.0	32,030.0	40,604.7	55,602.1	76,736.0	90,543.5	58,649.9	61,130.4	51,249.9	32,222.7	29,161.4	583,410.9
Service Period Charges														
CONSULTANTS	\$	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	\$ 6,361.65	76,339.80
NASHVILLE GAS	\$	\$ 17,185.85	\$ 17,839.05	\$ 19,358.73	\$ 23,049.16	\$ 29,503.81	\$ 38,599.50	\$ 44,542.04	\$ 30,815.52	\$ 31,883.10	\$ 27,630.68	\$ 19,414.31	\$ 18,980.32	318,802.07
ATMOS	\$	\$ 82,131.08	\$ 84,434.28	\$ 94,909.94	\$ 120,690.81	\$ 155,131.24	\$ 234,236.54	\$ 253,544.50	\$ 199,686.12	\$ 165,941.45	\$ 141,252.29	\$ 90,424.43	\$ 82,536.67	1,704,919.35
TOTAL	\$	\$ 105,678.58	\$108,634.98	\$ 120,630.32	\$ 150,101.62	\$ 190,996.70	\$ 279,197.69	\$ 304,448.19	\$ 236,863.29	\$ 204,186.20	\$ 175,244.62	\$ 116,200.39	\$ 107,878.64	\$ 2,100,061.22
Average Charge	\$/Dth	\$ 3.9167	\$ 3.8119	\$ 3.7662	\$ 3.6967	\$ 3.4351	\$ 3.6384	\$ 3.3625	\$ 4.0386	\$ 3.3402	\$ 3.4194	\$ 3.6062	\$ 3.6994	\$ 3.5996
WATER SERVICE (DOMESTIC AND PLANT)														
Service Dates	From	6/30/2017	8/1/2017	9/1/2017	10/1/2017	11/1/2017	12/1/2017	1/1/2018	2/1/2018	3/1/2018	4/1/2018	5/1/2018	6/1/2018	6/30/2017
	To	7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018	6/30/2018
UTILITY CEPS INVOICE DATA ENTRY														
DOMESTIC	Start													
	Ending													
PLANT METER #1	Start													
	Ending													
PLANT METER #2	Start													
	Ending													
Service Period Use														
DOMESTIC	CCF	39	41	36	29	29	20	10	19	21	25	21	42	332
PLANT METER #1	CCF	26,807	24,529	24,724	19,919	14,784	12,230	12,480	9,388	10,118	10,916	13,204	24,991	204,090
PLANT METER #2	CCF													0
TOTAL	CCF	26,846	24,570	24,760	19,948	14,813	12,250	12,490	9,407	10,139	10,941	13,225	25,033	204,422
PLANT ONLY	CCF	26,807	24,529	24,724	19,919	14,784	12,230	12,480	9,388	10,118	10,916	13,204	24,991	204,090
	GALLONS	20,051,636	18,347,692	18,493,552	14,899,412	11,058,432	9,148,040	9,335,040	7,022,224	7,568,264	8,165,168	9,876,592	18,693,268	152,659,320
Service Period Charges														
DOMESTIC	WATER \$	\$ 111.81	\$ 116.09	\$ 105.39	\$ 90.41	\$ 90.41	\$ 71.15	\$ 49.75	\$ 69.01	\$ 73.29	\$ 81.85	\$ 73.29	\$ 118.23	\$ 1,050.68
	SEWER \$	\$ 225.57	\$ 234.21	\$ 212.61	\$ 182.37	\$ 182.37	\$ 143.49	\$ 100.29	\$ 139.17	\$ 147.81	\$ 165.09	\$ 147.81	\$ 238.53	\$ 2,119.32
PLANT	WATER \$	\$ 50,727.75	\$ 46,419.94	\$ 46,786.38	\$ 37,694.78	\$ 27,982.17	\$ 23,147.23	\$ 23,615.62	\$ 17,771.32	\$ 19,152.49	\$ 20,663.80	\$ 24,989.82	\$ 47,294.09	\$ 386,245.39
	SEWER \$	\$ 21,845.26	\$ 19,990.32	\$ 20,146.80	\$ 16,231.54	\$ 12,048.96	\$ 9,965.82	\$ 10,167.94	\$ 7,651.22	\$ 8,241.28	\$ 8,893.28	\$ 10,758.00	\$ 20,365.22	\$ 166,305.64
STATE FEE @ 10%		\$ 100.00	\$ 150.00	\$ 342.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 3,502.00
TOTAL		\$ 73,010.39	\$ 66,910.56	\$ 67,593.18	\$ 54,499.10	\$ 40,603.91	\$ 33,627.69	\$ 34,233.60	\$ 25,930.72	\$ 27,914.87	\$ 30,104.02	\$ 36,268.92	\$ 68,526.07	\$ 559,223.03
PLANT, WATER ONLY	\$	\$ 50,727.75	\$ 46,419.94	\$ 46,786.38	\$ 37,694.78	\$ 27,982.17	\$ 23,147.23	\$ 23,615.62	\$ 17,771.32	\$ 19,152.49	\$ 20,663.80	\$ 24,989.82	\$ 47,294.09	\$ 386,245.39
Average Charge	\$/kGall	\$ 2.5299	\$ 2.5300	\$ 2.5299	\$ 2.5300	\$ 2.5304	\$ 2.5303	\$ 2.5298	\$ 2.5307	\$ 2.5306	\$ 2.5307	\$ 2.5302	\$ 2.5300	\$ 2.5301

MONTHLY FEAS														
Service Dates	From	0	0	0	0	0	0	0	0	0	0	0	0	0
	To	7/1/2017	8/1/2017	9/1/2017	10/1/2017	11/1/2017	12/1/2017	1/1/2018	2/1/2018	3/1/2018	4/1/2018	5/1/2018	6/1/2018	7/1/2017
		7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018	6/30/2018
STEAM	ELECTRIC	\$644.42	\$899.59	\$1,324.74	\$1,914.91	\$2,581.58	\$4,121.00	\$5,281.16	\$3,255.24	\$2,873.74	\$2,586.88	\$1,083.14	\$950.20	\$27,516.60
	FUEL GAS	\$4,983.15	\$4,630.50	\$5,358.17	\$6,010.67	\$7,615.62	\$10,163.87	\$12,395.98	\$9,875.39	\$8,054.06	\$6,824.27	\$4,854.71	\$4,482.75	\$85,249.14
	WATER	\$61.75	\$67.61	\$90.74	\$80.00	\$23.84	-\$207.92	-\$299.42	-\$118.20	\$3.56	\$30.21	\$43.00	\$21.68	-\$203.15
CHW	ELECTRIC	\$22,486.91	\$28,118.58	\$25,341.78	\$18,143.36	\$10,812.72	\$7,064.14	\$5,937.40	\$13,020.00	\$12,032.29	\$13,864.62	\$25,579.15	\$28,026.24	\$210,427.19
	FUEL GAS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	WATER	\$18,973.42	\$17,872.10	\$14,158.20	\$11,154.94	\$7,802.74	\$5,750.12	\$5,303.76	\$6,832.09	\$6,997.78	\$7,506.28	\$15,011.78	\$17,833.66	\$135,196.87
		\$ 47,149.65	\$ 51,588.38	\$ 46,273.63	\$ 37,303.88	\$ 28,836.50	\$ 26,891.21	\$ 28,618.88	\$ 32,864.52	\$ 29,961.43	\$ 30,812.26	\$ 46,571.78	\$ 51,314.53	\$ 458,186.65

STEAM CAPACITY TEST ADJUSTMENTS														
Month		7	8	9	10	11	12							TOTAL
NATURAL GAS														0
USAGE CREDIT	MCF													0
	Dth													0
	\$													\$ -

CNE INVOICE RECONCILIATION - FY 2017 - 2018

146	End Reading	194,594	197,226	200,161	203,662	208,149	214,444	222,147	227,134	232,071	236,347	239,336	242,210		
147	Period Use in units = 1 x mmBtu	2,471	2,632	2,935	3,501	4,487	6,295	7,703	4,987	4,937	4,276	2,989	2,874		50,087
148	Condensate Return Temp	190 °F	189 °F	187 °F	183 °F	178 °F	177 °F	176 °F	175 °F	173 °F	174 °F	185 °F	193 °F		180 °F
149	FT_4500: MUW, Stm.	Start Reading	144,865,230	145,421,070	145,929,220	146,469,880	147,262,890	148,599,650	150,338,430	152,267,950	153,454,100	154,764,950	155,731,520	156,266,500	
150	End Reading	145,421,070	145,929,220	146,469,880	147,262,890	148,599,650	150,338,430	152,267,950	153,454,100	154,764,950	155,731,520	156,266,500	156,767,670		
151	Period Use in units = 1 x GALL	555,840	508,150	540,660	793,010	1,336,760	1,738,780	1,929,520	1,186,150	1,310,850	966,570	534,980	501,170		11,902,440
152	FT_4200: MUW, CW.	Start Reading	1,395,425,000	1,410,016,000	1,422,842,000	1,432,555,000	1,440,010,000	1,444,447,000	1,447,923,000	1,451,717,000	1,456,749,000	1,462,041,000	1,468,417,000	1,481,085,000	
153	End Reading	1,410,016,000	1,422,842,000	1,432,555,000	1,440,010,000	1,444,447,000	1,447,923,000	1,451,717,000	1,456,749,000	1,462,041,000	1,468,417,000	1,481,085,000	1,496,237,000		
154	Period Use in units = 1 x GALL	14,591,000	12,826,000	9,713,000	7,455,000	4,437,000	3,476,000	3,794,000	5,032,000	5,292,000	6,376,000	12,668,000	15,152,000		100,812,000
155	FT_4100: MUW, CHW.	Start Reading	140,514,000	143,021,700	145,633,100	148,154,400	151,111,800	154,098,000	157,363,100	159,498,500	160,593,700	161,954,900	163,398,200	165,071,400	
156	End Reading	143,021,700	145,633,100	148,154,400	151,111,800	154,098,000	157,363,100	159,498,500	160,593,700	161,954,900	163,398,200	165,071,400	166,744,800		
157	Period Use in units = 1 x GALL	2,507,700	2,611,400	2,521,300	2,957,400	2,986,200	3,265,100	2,135,400	1,095,200	1,361,200	1,443,300	1,673,200	1,673,400		26,230,800
158	2" PLANT WATER	Start Reading in 10 x scft	13,058,500	13,268,600	13,477,800	13,667,600	13,856,800	14,037,600	14,222,100	14,397,800	14,555,300	14,730,300	14,899,200	15,098,000	
159	UTILITY METER	Start Reading in 10 x scft	13,268,600	13,477,800	13,667,600	13,856,800	14,037,600	14,222,100	14,397,800	14,555,300	14,730,300	14,899,200	15,098,000	15,299,900	
160	Period Use in units = 1 x SCFT	210,100	209,200	189,800	189,200	180,800	184,500	175,700	157,500	175,000	168,900	198,800	201,900		2,241,400
161	6" PLANT WATER	Start Reading	202,208,500	204,751,500	207,039,500	208,843,500	210,369,500	211,507,000	212,513,500	213,391,500	2,142,190	2,151,025	2,160,805	2,180,215	
162	UTILITY METER	End Reading	204,751,500	207,039,500	208,843,500	210,369,500	211,507,000	212,513,500	213,391,500	214,219,000	2,151,025	2,160,805	2,180,215	2,203,035	
163	Period Use in units = 1 x SCFT	2,543,000	2,288,000	1,804,000	1,526,000	1,137,500	1,006,500	878,000	827,500	835	9,780	19,410	22,820		12,071,345
164	2" DOMESTIC WATER	Start Reading	3,330,000.0	3,373,000.0	3,408,000.0	3,439,000.0	3,472,000.0	3,496,000.0	3,506,000.0	3,521,000.0	3,542,000.0	3,566,000.0	3,586,000.0	3,623,000.0	
165	UTILITY METER	End Reading	3,373,000.0	3,408,000.0	3,439,000.0	3,472,000.0	3,496,000.0	3,506,000.0	3,521,000.0	3,542,000.0	3,566,000.0	3,586,000.0	3,623,000.0	3,662,000.0	
166	Period Use in units = 1 x SCFT	43,000	35,000	31,000	33,000	24,000	10,000	15,000	21,000	24,000	20,000	37,000	39,000		332,000

PERFORMANCE CALCULATIONS

Month		7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
ELECTRIC-to-STEAM CONVERSION															
Emainutility	kWh	8,052,100	7,131,516	5,477,248	4,455,920	3,086,328	2,444,988	2,424,352	2,863,112	2,948,652	3,243,856	6,251,196	7,568,036	55,947,304	
Echw,metered	kWh	7,671,395	6,963,018	5,306,612	4,261,610	2,853,559	2,177,040	2,137,343	2,632,538	2,699,406	3,032,620	6,075,518	7,383,571	53,194,229	
Esteam,metered	kWh	50,516	51,072	51,511	67,016	100,521	126,772	144,994	106,239	110,025	84,124	55,164	51,298	999,252	
Esteam,unmetered	kWh	2,071	841	1,120	1,914	4,307	7,320	8,494	4,614	5,195	3,296	1,063	903	41,138	
CAPACITY TEST ADJUSTMENT, kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	
Esteam,total	kWh	52,587	51,913	52,631	68,930	104,828	134,092	153,488	110,853	115,220	87,420	56,227	52,201	1,040,390	
Customer Steam, Sn+e	lbs	13,670,272	15,204,484	18,247,754	24,238,477	35,707,168	50,903,675	63,549,780	39,093,510	40,213,607	32,583,418	17,680,529	15,835,022	366,927,696	
nelec, actual	kWh/klb	3.847	3.414	2.884	2.844	2.936	2.634	2.415	2.836	2.865	2.663	3.180	3.297	2.835	
FUEL GAS-to-STEAM CONVERSION															
Metered Plant Steam Send-out	lbs	20,276,000	21,124,000	23,886,000	29,700,000	40,493,000	55,315,000	66,303,000	43,086,000	44,445,000	37,305,000	23,827,000	21,638,000	427,398,000	
CAPACITY TEST ADJUSTMENT, lbs		0	0	0	0	0	0	0	0	0	0	0	0	0	
ADJUSTED Plant Steam SO	lbs	20,276,000	21,124,000	23,886,000	29,700,000	40,493,000	55,315,000	66,303,000	43,086,000	44,445,000	37,305,000	23,827,000	21,638,000	427,398,000	
Natural Gas use, NG	Dth	26,981.3	28,499.0	32,030.0	40,604.7	55,602.1	76,736.0	90,543.5	58,649.9	61,130.4	51,249.9	32,222.7	29,161.4	583,410.9	
Propane Gas use, P	scft	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Dth	0	0	74	0	0	0	25	0	0	0	0	0	99	
CAPACITY TEST ADJUSTMENT, Dth		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	
TOTAL FUEL GAS USE	Dth	26,981.3	28,499.0	32,104.0	40,604.7	55,602.1	76,736.0	90,568.5	58,649.9	61,130.4	51,249.9	32,222.7	29,161.4	583,509.9	
nhhv,actual	Dth/klb	1.331	1.349	1.344	1.367	1.373	1.387	1.366	1.361	1.375	1.374	1.352	1.348	1.3650	
Condensate Return, CR	gallon	1,913,000	2,050,800	2,329,100	2,835,100	3,758,100	5,326,600	6,537,800	4,281,700	4,293,300	3,683,600	2,392,500	2,183,100	41,584,700	
% of SO		76.95%	79.18%	79.53%	77.85%	75.69%	78.54%	80.42%	81.05%	78.78%	80.53%	81.89%	82.29%	79.35%	
Condensate Return Energy	mmBtu	2,471	2,632	2,935	3,501	4,487	6,295	7,703	4,987	4,937	4,276	2,989	2,874	50,087	
Condensate Return Temperature	avg	190 °F	189 °F	187 °F	183 °F	178 °F	177 °F	176 °F	175 °F	173 °F	174 °F	185 °F	193 °F	180 °F	
nhhv,guarantee	Dth/klb													GUARANTEED MAX RATE CES FEA RATE	
														1.669 1.586	
WATER-to-STEAM CONVERSION															
Metered Steam Makeup, MW	Gallons	555,840	508,150	540,660	793,010	1,336,760	1,738,780	1,929,520	1,186,150	1,310,850	966,570	534,980	501,170	11,902,440	
CAPACITY TEST ADJUSTMENT, Gallons		0	0	0	0	0	0	0	0	0	0	0	0	0	
ADJUSTED Steam Makeup, MW	Gallons	555,840	508,150	540,660	793,010	1,336,760	1,738,780	1,929,520	1,186,150	1,310,850	966,570	534,980	501,170	11,902,440	
Actual Steam Makeup, nwater	Gallons	561,398	513,232	546,067	800,940	1,350,128	1,756,168	1,948,815	1,198,012	1,323,959	976,236	540,330	506,182	12,021,464	
Guarantee Steam Makeup, nguar.	Gallons	659,029	620,129	689,535	927,427	1,387,823	1,673,996	1,830,457	1,151,304	1,329,587	1,023,980	608,305	540,460	12,442,031	
ELECTRICITY-to-CHW CONVERSION															
Emainutility	kWh	8,052,100	7,131,516	5,477,248	4,455,920	3,086,328	2,444,988	2,424,352	2,863,112	2,948,652	3,243,856	6,251,196	7,568,036	55,947,304	
CAPACITY TEST ADJUSTMENT, kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	
Echw,metered	kWh	7,671,395	6,963,018	5,306,612	4,261,610	2,853,559	2,177,040	2,137,343	2,632,538	2,699,406	3,032,620	6,075,518	7,383,571	53,194,229	
Esteam,total	kWh	52,587	51,913	52,631	68,930	104,828	134,092	153,488	110,853	115,220	87,420	56,227	52,201	1,040,390	
Echw,unmetered	kWh	328,118	116,585	118,005	125,380	127,941	133,856	133,521	119,721	134,026	123,816	119,451	132,264	1,712,686	
Echw,total	kWh	7,999,513	7,079,603	5,424,617	4,386,990	2,981,500	2,310,896	2,270,864	2,752,259	2,833,432	3,156,436	6,194,969	7,515,835	54,906,914	
Customer CHW, CHWs+e	Ton-hrs	8,493,402	7,825,060	6,114,558	4,779,477	3,194,613	2,393,368	2,319,796	3,015,564	3,114,912	3,474,191	6,933,146	8,256,369	59,914,456	
nelec, actual	kWh/ton-hr	0.942	0.905	0.887	0.918	0.963	0.966	0.979	0.913	0.910	0.894	0.891	0.891	0.916	
CW-to-CHW CONVERSION															
Condenser Water Makeup, CM	Gallons	14,591,000	12,826,000	9,713,000	7,455,000	4,437,000	3,476,000	3,794,000	5,032,000	5,292,000	6,376,000	12,668,000	15,152,000	100,812,000	
Customer CHW, CHWs+e	Ton-hrs	8,493,402	7,825,060	6,114,558	4,779,477	3,194,613	2,393,368	2,319,796	3,015,564	3,114,912	3,474,191	6,933,146	8,256,369		

CNE INVOICE RECONCILIATION - FY 2017 - 2018

	7	8	9	10	11	12	1	2	3	4	5	6	TOTAL	
METER CHECKS AND ESTIMATES														
WATER METER CHECKS														
Utility Meters - Utility Dates	gallons	20,051,636	18,347,692	18,493,552	14,899,412	11,058,432	9,148,040	9,335,040	7,022,224	7,568,264	8,165,168	9,876,592	18,693,268	152,659,320
Utility Meters - Customer Dates	gallons	20,593,188	18,679,056	14,913,624	12,829,696	9,860,884	8,908,680	7,881,676	7,367,800	1,375,086	1,336,526	1,632,211	1,680,906	107,059,333
variance (line 184-line 183)	gallons	541,552	331,364	-3,579,928	-2,069,716	-1,197,548	-239,360	-1,453,364	345,576	-6,193,178	-6,828,642	-8,244,381	-17,012,362	-45,599,987
% of TOTAL (line 183)		3%	2%	-19%	-14%	-11%	-3%	-16%	5%	-82%	-84%	-83%	-91%	-29.87%
Plant Meters														
CHW	gallons	2,507,700	2,611,400	2,521,300	2,957,400	2,986,200	3,265,100	2,135,400	1,095,200	1,361,200	1,443,300	1,673,200	1,673,400	26,230,800
CW	gallons	14,591,000	12,826,000	9,713,000	7,455,000	4,437,000	3,476,000	3,794,000	5,032,000	5,292,000	6,376,000	12,668,000	15,152,000	100,812,000
STEAM	gallons	555,840	508,150	540,660	793,010	1,336,760	1,738,780	1,929,520	1,186,150	1,310,850	966,570	534,980	501,170	11,902,440
TOTAL	gallons	17,654,540	15,945,550	12,774,960	11,205,410	8,759,960	8,479,880	7,858,920	7,313,350	7,964,050	8,785,870	14,876,180	17,326,570	138,945,240
variance (line 191-line 184)	gallons	-2,938,648	-2,733,506	-2,138,664	-1,624,286	-1,100,924	-428,800	-22,756	-54,450	6,588,964	7,449,344	13,243,969	15,645,664	31,885,907
% of TOTAL (line 184)		-14%	-15%	-14%	-13%	-11%	-5%	0%	-1%	47%	57%	81%	91%	29.78%
CW MUW CHECK														
CHW Send-out	ton-hrs	8,994,000	8,251,600	6,452,100	5,031,200	3,387,900	2,551,200	2,449,200	3,156,200	3,250,700	3,621,200	7,221,500	8,537,300	62,904,100
CW MUW Rate	gall/ton-hr	1.622	1.554	1.505	1.482	1.310	1.362	1.549	1.594	1.628	1.761	1.754	1.775	1.603
FINAL MAKEUP WATER RESULTS														
CHW	gallons	2,507,700	2,611,400	2,521,300	2,957,400	2,986,200	3,265,100	2,135,400	1,095,200	1,361,200	1,443,300	1,673,200	1,673,400	26,230,800
CW	gallons	14,591,000	12,826,000	9,713,000	7,455,000	4,437,000	3,476,000	3,794,000	5,032,000	5,292,000	6,376,000	12,668,000	15,152,000	100,812,000
STEAM	gallons	555,840	508,150	540,660	793,010	1,336,760	1,738,780	1,929,520	1,186,150	1,310,850	966,570	534,980	501,170	11,902,440
TOTAL	gallons	17,654,540	15,945,550	12,774,960	11,205,410	8,759,960	8,479,880	7,858,920	7,313,350	7,964,050	8,785,870	14,876,180	17,326,570	138,945,240
variance	gallons	-2,938,648	-2,733,506	-2,138,664	-1,624,286	-1,100,924	-428,800	-22,756	-54,450	6,588,964	7,449,344	13,243,969	15,645,664	31,885,907
% of TOTAL (line 184)		-14%	-15%	-14%	-11%	-10%	-5%	0%	0%	0%	91%	134%	84%	21%
STEAM PLANT MASS BALANCE CK														
STEAM SENDOUT	kibs	20,276	21,124	23,886	29,700	40,493	55,315	66,303	43,086	44,445	37,305	23,827	21,638	427,398
STEAM PRODUCTION	kibs	24,177	25,414	26,574	34,871	47,432	64,856	76,935	50,929	52,981	42,388	27,052	24,945	500,554
variance		-3,901	-4,290	-4,688	-5,171	-6,939	-9,541	-10,632	-7,843	-8,536	-5,083	-3,225	-3,307	-17,156
CALC'D LOSSES														
BLOWDOI 4%	kibs	967	1,017	1,143	1,395	1,897	2,594	3,077	2,037	2,119	1,696	1,082	998	20,022
DEA VENT 0.50%	kibs	121	127	143	174	237	324	385	255	265	212	135	125	2,503
TOTAL CALC'D LOSSES	kibs	1,088	1,144	1,286	1,569	2,134	2,919	3,462	2,292	2,384	1,907	1,217	1,123	22,525
CONDENSATE RETURN														
	gallons	1,913,000	2,050,800	2,329,100	2,835,100	3,758,100	5,326,600	6,537,800	4,281,700	4,293,300	3,683,600	2,392,500	2,183,100	41,584,700
8.15585	kibs	15,602	16,726	18,996	23,123	30,650	43,443	53,321	34,921	35,016	30,043	19,513	17,805	339,159
STEAM MUW	kibs	4,639	4,241	4,512	6,618	11,156	14,511	16,102	9,899	10,939	8,066	4,465	4,182	99,329
TOTAL LEAVING PLANT	kibs	21,364	22,268	25,172	31,269	42,627	58,234	69,765	45,378	46,829	39,212	25,044	22,761	449,923
TOTAL ENTERING PLANT	kibs	20,241	20,967	23,508	29,741	41,806	57,954	69,424	44,820	45,955	38,109	23,977	21,987	438,488
OVERAGE / SHORTFALL	kibs	-1,123	-1,301	-1,664	-1,529	-821	-280	-341	-558	-774	-1,103	-1,067	-773	-11,435
% of TOTAL		-5.3%	-5.8%	-6.6%	-4.9%	-1.9%	-0.5%	-0.5%	-1.2%	-1.9%	-2.8%	-4.3%	-3.4%	-2.54%
FINAL CONDENSATE RETURN CALCULATIONS														
RECALC'D TOTAL ENTERING	kibs	22,005	22,936	25,927	32,207	43,906	59,981	71,856	46,739	48,234	40,389	25,796	23,443	451,443
RECALC'D COND. RETURN	kibs	17,366	18,695	21,415	25,589	32,751	45,470	55,756	36,840	37,295	32,323	21,331	19,261	373,159
variance	gallons	2,129,298	2,292,219	2,625,724	3,137,547	4,015,596	5,757,125	6,836,271	4,517,047	4,572,740	3,963,108	2,615,436	2,361,609	44,284,281



Exhibit 1



NASHVILLE, TENNESSEE

EXHIBIT 1 - CALCULATION DETAIL FOR PLANT PERFORMANCE PER APPENDIX 19

ELECTRICITY-TO-STEAM CONVERSION

(1)	E (MainUtility) = total electric use per main utility meters		55,947,304 kWh
(2)	E (Steam,metered) = metered electric use for steam plant		999,252 kWh
	MCC-3	368,552	
	MCC-4	630,700	
(3)	E (CHW,metered) = metered electric use for chilled water plant		53,194,229 kWh
	SWGR-2A	8,283,640	
	SWGR-2B	11,525,340	
	SWGR-3A	13,714,190	
	SWGR-3B	7,279,720	
	SWGR-4A	2,396,764	
	SWGR-4B	2,811,883	
	SWGR-5A	1,864,840	
	SWGR-5B	1,853,152	
	MCC-1	1,682,097	
	MCC-2	1,782,603	
(4)	Esteam,unmetered = un-metered electric use for steam plant = [(2) / (1)] x [(1) - (2) - (3)]		31,324 kWh *
(5)	Echw,unmetered = un-metered electric use for chilled water plant = (1) - (2) - (3) - (4)		1,722,500 kWh *
(6)	Esteam,total = total electric use for steam plant = (2) + (4)		1,030,576 kWh *
(7)	Customer Steam Sales, metered + unmetered		366,927,696 lbs

$$n \text{ (elec): Actual Steam Plant Electric Conversion} = (6) / [(7) \times 0.001] = 2.809 \text{ kWh/klb}$$

NATURAL GAS-TO-STEAM CONVERSION

(8)	NG = Total Natural Gas Use per main utility meters		583,410.9 Dth
(9)	P = Total Propane Gas		99 scft
(10)	HHV = Higher Heating Value of Propane		1,002,520 Btu/scft
(11)	SO = Plant Steam Send Out		427,398,000 lbs
	Meter Reading at the beginning, n-1	5,100,439	
	Meter Reading at the end, n	5,527,837	
	Units of Measure	1 x SCFT	

$$n \text{ (HHV): Actual Plant Efficiency} = [(8) + (9) \times (10)] / [(11) \times 0.001] = 1.365 \text{ Dth/klb}$$

(12)	CR = Condensate Return per plant meter		41,584,700 gallons **
	Meter Reading at the beginning, n-1	330,511,500	
	Meter Reading at the end, n	372,096,200	
	Units of Measure	1 x SCFT	
(13)	H = Condensate Return energy		50,087 mmBtu
	Meter Reading at the beginning, n-1	192,123	
	Meter Reading at the end, n	242,210	
	Units of Measure	1 x MMBTU	

$$T \text{ (cr,avg): Average Condensate Return Temperature} = 180 \text{ }^\circ\text{F}$$



NASHVILLE, TENNESSEE

EXHIBIT 1 - CALCULATION DETAIL FOR PLANT PERFORMANCE PER APPENDIX 19

WATER-TO-STEAM CONVERSION

(14)	MW = Steam system makeup water plant meter		11,902,440 gallons
	<i>Meter Reading at the beginning, n-1</i>	144,865,230	
	<i>Meter Reading at the end, n</i>	156,767,670	
	<i>Units of Measure</i>	1 x SCFT	

n (water): Actual steam plant water use = (14) * 1.01 = 12,021,464 gallons

G (water): Guaranteed steam plant water use = [(11) / 8.15585 - (12) = 12,442,031 gallons

ELECTRICITY-TO-CHILLED WATER CONVERSION

(15)	E (chw,total) = Total CHW Electric use = (3) + (5) =	54,916,728 kWh *
(16)	Customer CHW Sales, metered + unmetered	59,914,456 kWh

n (elec): Actual chilled water plant electric conversion = (15) / (16) = 0.917 kw/ton

CONDENSER WATER-TO-CHILLED WATER CONVERSION

(17)	CM = Condenser water makeup plant meter		100,812,000 gallons **
	<i>Meter Reading at the beginning, n-1</i>	1,395,425,000	
	<i>Meter Reading at the end, n</i>	1,496,237,000	
	<i>Units of Measure</i>	1 x GALL	

n (water): Actual chilled water plant conversion = (17) / (16) = 1.683 gal/ton-hr

NOTES: * - There is a 13,053 kWh variance from the FEA due to rounding errors resulting from monthly vs. annual summation.

** - Estimated due to incorrect totalization resulting from "low flow cut-off".



Exhibit 2



Information Technology Services Program for



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Networks

The Operating System Network for the Metro Nashville District Energy System (DES) Energy Generation Facility (EGF) was provided and installed by Siemens Building Technologies. This System controls all the equipment and machinery in the plant using the Siemens proprietary Apogee and Insite software. This system was approved and accepted by Metro prior to plant start up.

Metro had a T-1, fiber optic, line installed to the EGF so that Metro representatives could access the Metro.gov network from the Metro office.

Constellation NewEnergy, Inc. (CNE) installed an Administrative Computer Network to be used for non-operating, office functions; such as, the Computerized Maintenance Management System data base (CMMS), e-mail, reporting, accounting, customer billing, etc. The following addresses equipment, programs and scheduled activities to support this network.

Hardware

The computer equipment in the EGF belongs to Metro. CNE is obligated to provide equipment which meets or exceeds industry standards. The following table shows equipment acquired by CNE for the Nashville DES:

<u>Equipment</u>
<u>Server</u> Dell PowerEdge T620/dual Xeon e5-2640 2.5GHz Processor/ 4x4 GB RAM/4x1TB SATA HDs/PERC H310/ RAID 5 Configuration/DVD drive
<u>Firewall</u> Sonicwall TZ 150 Sonicwall TZ 215
<u>Desktop Computer</u> Lenovo ThinkCentre M92P Series with Intel i5 Processor, 4 GB Ram, AMD Radon HD 7350 graphics adapter, 500 GB HD & DVDRW
<u>Monitor</u> Dell Professional P2312H 23" Ultra Sharp LCD Flat Panel
<u>Laptop Computer</u> Lenovo ThinkPad L530 notebook, with Intel i7 3520 QM Processor, 15.6 HD Display, 8 GB Ram, 500 GB HD, DVDRW, Centrino N2230 & Bluetooth
<u>Docking Station</u> ThinkPad MiniDock replicator Ultra slim keyboard & mouse

Per industry standards, computer hardware will be replaced every three to five years. This equipment was most recently replaced in 2013. The mother board on both servers was replaced under warranty in 2016. An equipment inventory is located on page 5 of this document.

CNE has a performance contract with Metro to operate and maintain the Nashville DES. With the exception of a designated work station in the Metro office, CNE will have exclusive use of and responsibility for this equipment in the same way CNE has exclusive rights to boilers, chillers, pumps, etc., as long as the ARMA is in effect.

Software

Each server has the following software installed:

Operating System	Microsoft 8 R2 Server
Data base	Microsoft SQL 2008
AntiVirus	Symantec Endpoint Protection 12.1 + Malwarebytes

Each computer has the following software installed:

Operating System	Microsoft 7 Professional
Microsoft Office 2010	Word, Excel, Power Point, Outlook, One Note, Office Publisher
AntiVirus	Symantec Endpoint Protection 12.1 + Malwarebytes

Additional software installed on specific machines includes:

- Microsoft Office, Access - Administrative Operations Representative and the Office Coordinator.
- Adobe Acrobat X - General Manager and the Administrative Operations Representative.
- I-Maint - Control Room, Plant Operations Manager, Operations Supervisor, Maintenance Supervisor, Instrumentation & Electrical Supervisor and Metro office.

Connectivity

	Metro	Constellation
Internet Connection	Fiber optic	Comcast Cable

CNE accesses customer meter data through the internet. The State has granted CNE access to their building meters through a VPN at no cost. Metro building meters are accessed through the fiber optic line Metro installed to the EGF.

Metro Access to Data

A Dell server, furnished by CNE, is located in the Metro office at the EGF. The purpose of this server is to give Metro administrative access to plant data. This server acts as a work station and contains a copy of network data for Metro's use. CNE personnel check to insure the required data files are transferred from the CNE Administrative server to the Metro Server two times per week. Information stored on the Metro office server includes a copy of the Siemens SQL data base, the I-Maint/CMMS data base, the EGF control room shift readings, the customer billing system data base (updated twice per month by the Administrative Operations Representative) and customer meter data (updated once per month by the Customer Service Representative).

Data Backup and Storage

CNE's Administrative Server is backed up continuously. The offsite, online repository used by CNE is Carbonite.

The Siemens SQL database is also backed up to Carbonite. Other trend data is manually backed up on two external drives every Monday, the last day of the month and when any changes or updates are made.

Metro, at their own expense, backs up their Server data to Mozy Pro, a global, online data storage vendor. This contract is maintained by Metro's Contract Administrator and is renewed annually each November. Mozy is a subsidiary of EMC Company. The incremental data changes are sent to the data store at 2:50 a.m. daily without affecting the server processing power and capabilities.

If data stops being transferred from the Metro Server to Mozy, a notification is sent to the DES Contract Administrators office and to CNE's Operations Manager. CNE personnel check to see if there have been any software security updates. If so, CNE will correct this issue and reestablish connectivity. If other issues cause the data not to transfer, CNE will assist a Metro Representative with trouble shooting. Metro checks their system at least once per month. From time to time, Metro has to purge old data from Mozy or purchase additional storage space.

Support and Service

Administrative System

A three year extended service plan was purchased from Lenovo for all of the new hardware. CNE has contracted with a third party vendor, FrontGate Technology Solutions, LLC, for ITS service and support. These services include:

1. Installation and set up of new work stations and servers. Fully test and verify set up.
2. Provide information technology consulting, support and maintenance services to maintain the IT infrastructure at the Energy Generation Facility. This includes: Server and desktop hardware support, troubleshooting, repairing or replacement of system components and peripherals.
3. Hardware support will include and may not be limited to: memory upgrades, hard disk replacement, network card replacement, system board replacement and hardware accessories installation.
4. Software support includes installation, configuration, and troubleshooting of the supported applications. This will also include monthly patches, anti-virus and security upgrades.
5. Response time for critical system and system-down issues will be within 4 hours and non-critical system tasks will be resolved within 24 hours. An on-site equipment inspection will be performed at least once per month.

Operating System

Constellation Energy purchased a Bronze Level service agreement with Siemens to maintain, repair, replace and install all software upgrades on their proprietary system. These services include: annual software updates, annual network maintenance, annual preventative maintenance to MBC 40 devices, data protection and data recovery, routine backups, online diagnostics and operator coaching.

Program Review

The Information Technology Services Program is reviewed with Metro annually and updated as required. A summary of revisions and changes will be included in the Annual Report. If no changes are made, a statement to that effect will be included.

Hardware Inventory

There are three servers, four laptops and eleven desktop workstations. Below is a detailed list of what is included at each workstation and where each is located (Equipment descriptions are located in the Hardware section of this program above).

Office Location	Computer	ID Number	Monitor	Keyboard & Mouse
Data Room	2 Servers	G4SLBY1 (Siemens) GRNBY1 (CNE)	2-23 " Flat Panels	1-each
Metro Office	1 Server	4501BP1	1-17 " Flat Panel	1 - each
General Manager	1 Laptop	R9-W1C7R-12/12	1-23 " Flat Panel	1-each
Operations Manager	1 Laptop	R9-W1C7T-12/12	1-23 " Flat Panel	1-each
Finance & Administration Representative	1 Laptop	R9-W1C7V-12/12	1-23 " Flat Panel	1-each
Customer Service Representative	1 Desktop	1S3212CTOMJXTNXA	1-23 " Flat Panel	1-each
Instrumentation & Electrical Supervisor	1 Desktop	1S3212CTOMJXTNXD	1-23 " Flat Panel	1-each
Instrumentation & Controls Technician	1 Laptop	R9-W1C7W-12/12	N/A	N/A
Maintenance Supervisor	1 Desktop	1S3212CTOMJXTNXB	1-23 " Flat Panel	1-each
Operations Supervisor	2 Desktops	1S3212CTOMJXTNXC 1S3212CTOMJXTNXE	2-23 " Flat Panels	1-each
Office Coordinator	1 Desktop	1S3212CTOMJXTNMV	1-23 " Flat Panel	1-each
Control Room	3 Desktops	1S3212CTOMJXTNMR 1S3212CTOMJXTNMT 1S3212CTOMJXTNMW	14-17 " Flat Panels	1-each
Control Room (SE-2)	1 Desktop	ESO6826516	1-17 " Flat Panel	1-each
Control Room (Key Scan)	1 Desktop	B1Y5W91	1-17 " Flat Panel	1-each



Exhibit 3

Constellation NewEnergy, Inc. Assets

(Equipment used at MNDES owned by CNE)

- 2011 GMC Canyon Crew Cab Pickup Truck
- 2015 Chevrolet 3500 Crew Cab Flatbed Pickup Truck
- 2016 Ford F-150 Crew Cab Pickup Truck
- Ecom Combustion Analyzer
- Fluke Multi-meter
- Fluke Insulation Tester (megger)
- Greenlee Circuit Analyzer
- Fluke Clamp Meter
- Fluke 87 Multi-meter
- Salisbury Audio/Visual Voltage Detector
- Quad Tech Decade Resistor
- Fluke 719 Pro Pressure Calibrator
- Piecal Thermocouple Tester
- Altek loop Calibrator
- Fluke 45 Dual Display Multi-meter
- Hart Scientific Temperature Bath
- Miller Bobcat 225 Welding Machine
- Miller Bobcat 250 Welding Machine
- Hytorc Hydraulic Torque Wrench System
- Milwaukee Electric Mag-base drill press
- Ryobi portable pressure washer
- Miller Filtair 130 Welding Fume Extractor
- Miller CST 280 Welding Machine
- Goodway RAM-4 Tube Cleaning Machine
- Goodway Cooling Tower Vacuum System
- Vestil 2,000 lb. Capacity Aluminum A Frame
- Vestil 4,000 lb. Capacity Aluminum A Frame
- Vestil 8,000 lb. Capacity Steel A Frame
- 2,000 lb. Capacity Electric Chain Hoist
- 1,000 lb. Capacity Electric Chain Hoist
- 3 – Bucks of scaffolding with braces, safety pins, handrails, walk boards and kick plates
- Hyster Model S50XM Lift Truck
- Buffalo Vaneaxial Exhaust Fan
- Generac XG 10000E Generator
- H&H Pump Com Hydraulic Powered Dewatering Pump (Green Machine)
- Trane 3,400 lb. Refrigerant Recovery Tank
- Service First Refrigerant Recovery Machine

- Distribution Truck hand tools, cones, pry bars, hoses, pumps, etc.
- Phillips AED & cabinet
- Epson Video Projector
- 5-OKI desk top printers
- 2-HP printers
- 27" JVC TV
- JVC VCR/DVR
- Poulan Push Mower
- Echo Weed eater
- Echo back pack blower
- 2 – Kerosene torpedo heaters
- 40 cal rated high voltage suit with hood and fan
- 20 kV Mat
- Hot stick
- Remote switch operator "Chicken Switch"
- 1 pair 10 kV gloves
- 1 pair 20 kV gloves
- Voltage detector "Glow stick"
- Arc protection face shield
- Ricoh Copier (Leased)