

# Fiscal Year 2019-2020

# 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 seventeenth "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, 2019 through June 30, 2020.

CNE has been operating and managing the Nashville District Energy System for the past seventeen years. A two-year contract extension was negotiated and executed when the initial contract term expired on December 17, 2018.

CNE's experienced 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. CNE's environmental record remains intact with zero excursions, violations or fines. All data, records, reporting requirements and submittals are kept up to date and in order. CNE employees continue to participate in community service projects and fundraising activities. The DES customers are reported to be satisfied with the services they are being provided.

Due to the Covid-19 pandemic, we have had to adapt to a new way of doing business. Non-essential personnel began working from home, personnel are wearing Personal Protective Equipment when working outside the plant and we have had to locate and secure additional supplies for cleaning and sanitation. Social distancing guideline have restricted meetings and gatherings. We have also had to make adjustments in regard to operating the plant efficiently under extremely low load conditions.

Despite the hurdles we have encountered this year, we remain committed to providing the best service possible to DES customers. I would like to thank the Metro DES team and CNE personnel for their continued dedication toward achieving this objective.

Sincerely,

Tim Hestle

Plant/General Manager

Westle,



# 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 10<sup>th</sup> 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 only one steam outage which took place November 10-11, 2019. This outage was necessary to complete the replacement of the steam and condensate anchors in the Broadway Tunnel near Manhole 18. Several steam traps were also replaced in the tunnels during this eleven-hour outage.

Some DES 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. Apart from these, there have been no significant service interruptions.

The plant is staffed with an outstanding work force. There were zero reportable and zero 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 seventeenth 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.



# 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 emergency chilled water leak repair was made at 5<sup>th</sup> Avenue and Union Street July 6, 2019
- The DES eNewsletter was issued by MP&F July 8, 2019
- CNE issued a draft copy of their FY19 Annual Report to Metro July 31, 2019
- Water treatment quarterly review was held with our chemical vendor July 26, 2019
- Plant ITS Program was reviewed and updated July 30, 2019
- CNE filed a Notice of Appeal to the Procurement Appeals Board on May 30, 2019 regarding RFQ 1044673. A hearing was scheduled for July 23, 2019 was postponed to September 26, 2019.
- David Manning, former Metro Finance Director, passed away on August 4, 2019. He was instrumental in closing the old Thermal plant and developing the new Nashville District Energy System.
- Engie Representatives toured the EGF on August 5<sup>th</sup>, 14<sup>th</sup> and 30<sup>th</sup>. CNE provided Due Diligence support.
- The MNDES Advisory Board met in the EGF conference room August 15, 2019.
- Metro reviewed the Annual Report draft with CNE August 21, 2019.
- Representatives from Jones, Lang, LaSalle (JLL) toured the EGF August 27, 2019. JLL are the State of Tennessee's O&M contractor.
- Several engineers toured the EGF September 13, 2019 in association with the ASHRAE conference held in Nashville
- CNE's hearing with the Metro Procurement Appeals Board, regarding RFQ 1044673, scheduled for September 26, 2019 was postponed again. A new date has not been scheduled.
- A quarterly review of the water treatment program was held with our chemical vendor October 25, 2019.
- Tim Sugg (CNE Maintenance Mechanic and Welder) lost his battle with cancer October 27, 2019. He will be missed immensely.
- The MNDES Advisory Board met in the EGF conference room November 21, 2019.
- The annual Thanksgiving employee luncheon was held November 22, 2019. Instead of frying turkey's this year, employees enjoyed a Cajun Shrimp Boil.
- Ben Alig (CNE Operations Supervisor) retired at the end of November. Employees celebrated his last day November 27, 2019.
- A year-end review was held with our chemical vendor December 18, 2019.
- Employees enjoyed an annual Christmas Lunch, catered by Famous Dave's BBQ, December 20, 2019.



- Jim McMichael (CNE I&E Tech) and Vaughn Spears (MNDES's NES Representative) retired effective December 31, 2019.
- Trane furnished lunch for CNE employees January 8, 2020.
- A high school student and his father toured the January 8, 2020. The father owns a local HVAC company.
- Metro Water personnel toured the EGF and EDS tunnels January 14, 2020.
- A quarterly review was held with the plant's chemical vendor January 24, 2020.
- The final version of FY19 Annual Report was issued with Metro's requested revisions January 30, 2020.
- Metro Water Services employees toured the State Steam Tunnel February 6, 2020.
- An engineer, visiting from the Czech Republic, toured the EGF February 12, 2020.
- The MNDES Advisory Board met in the EFG Conference Room February 26, 2020.
- Beginning in March 2020, based on CDC Guidelines, CNE instituted a Covid-19 Protocol. This included the following:
  - o If sick, for any reason, stay home!
  - Wash hands frequently
  - o Practice social distancing (Stay 6 feet apart)
    - Employees who are going to be closer than 6 feet to one another for 10 minutes or more are required to wear face coverings
    - It is recommended to not use mass transit (planes, trains, buses)
    - It is recommended not to go to restaurants, bars, church, etc.
  - o All Constellation business travel is halted
  - o Employees must report all personal travel abroad to Exelon in advance
  - All non-essential office personnel with remote access are required to work from home
  - o For those required to report to a location, shifts to be modified when possible to avoid contact with others
  - Constellation corporate officers will routinely communicate with employees via email, conf. call, etc.
  - o Sick time reports, care giver reports, etc. are submitted daily
  - No non-essential visitors allowed in facilities
  - o All delivery people, vendors, etc. are required to wear a face mask to enter facilities
  - o If meetings are necessary, they must have less than 10 people
    - Practice social distancing and all participants are to wear proper face coverings
    - Use conference calls, Microsoft Teams, Skype, etc. when possible
  - o Employees are to wear proper PPE when interacting with public/customers
- Due to the Covid-19 social distancing guidelines, face-to-face meetings were suspended. Monthly Operations Meetings were conducted via conference call. Monthly Natural Gas conference calls are continuing as scheduled.
- CNE employees participated in corporate conference calls weekly to receive Covid-19 and business updates.



- April 24, 2020, the Tennessean Newspaper reported Mayor Cooper no longer plans to pursue the sale of the DES.
- A second contract extension is being negotiated with CNE to continue operating the DES.
- The MNDES Advisory Board Meeting was held via WebEx May 21, 2020.
- A "Black Lives Matter" protest was held in Nashville May 30, 2020. This was in response to the death of a black man (George Floyd) by a white police officer in Minnesota. Several MNDES customer buildings were damaged during the event. Mayor Cooper issued a 10:00 pm curfew and Governor Lee deployed the National Guard. The EGF and plant personnel were unharmed. An 8:00 pm curfew went in to effect May 30, 2020 which caused issues for shift personnel reporting to work.
- Bob Lackey (Metro Finance), DES Liaison, retired effective June 12, 2020. With his retirement, Adrienne Fancher (Engineer, MWS) has become the new DES Liaison. We look forward to working with her and Metro Water Services as they have assumed oversite of the DES from Metro Finance.
- Due to an increase in Covid-19 cases, the Metro Nashville Health Department issued Public Health Order 8, mandating the use of face coverings and/or masks to be worn in public. This includes indoor and outdoor public spaces. The order went into effect Monday, June 29, at 12:01 a.m.



# **Community Service Activities**

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

• CNE sponsored a Habitat for Humanity home in Gallatin, TN. Several employees participated in the build September 20, 2019.







1 to r: Angela West, Tim Hestle, Doug Moeller, Greg Morris, Daniel Steger, Chris Vigil



• CNE employees participated in the Nashville "Walk to End Alzheimer's" October 26, 2109



Back row, l to r: Doug Moeller, Tim Hestle, Elecia Adcock, Ray Adcock, Steve Bowman & Alonzo Welch Front row, l to r: Lynn Moeller, Angela West, Gayle Bowman & Emily Bowman

• CNE employees participated in the Nashville "Making Strides Against Breast Cancer" walk November 2, 2019



Back row, l to r: Adam Conrad, Ray Adcock, Angela West, Tim Hestle & Steve Bowman Front row, l to r: Elecia Adcock, Gayle Bowman & Rachel Bowman



• On March 3, 2020, a tornado destroyed one our co-worker's (Ray Adcock) house, barn and belongings. Several CNE employees assisted with the cleanup effort on his property.





Before After



# 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 F 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 5, 2019, a damper air regulator failed on #3 Boiler causing the unit to trip offline. Another boiler was placed in service and the air regulator was replaced the next day. The steam pressure dropped to a low of 111 psi and was below the guarantee for approximately 60 minutes.
- On August 13, 2019, the compressor on the B side of #8 Chiller tripped. Another chiller was placed in service. This caused the supply temperature to exceed the guarantee for approximately 75 minutes. The highest supply temperarture was 44.1 °F.
- On September 24, 2019, the steam pressure dropped to a low of 146 psi while bringing up a section of steam line that was isolated to make repairs in Manholes 9 and C. The system was below 150 psi for approximately 45 minutes.
- October 21, 2019, the steam pressure dropped to a low of 117 psi due to a jack shaft sticking on #3 Boiler's air damper. The system was below 150 psi for approximately 60 minutes.
- On October 29, 2019, C. E. Power tripped the boilers offline while conducting the annual Switchgear P.M.'s. The Boilers were re-started and the system was brought back to normal operating conditions. The system was below 150 psi for approximately 105 minutes with a low of 59 psi.
- There was one reportable incident in November which was the result of a scheduled steam outage on November 10-11, 2019. Steam pressure was below 150 psi for approximately 11 hours as the work was completed ahead of the 12 hour schedule.
- While performing Boiler tune ups on January 31, 2020, the pressure dropped below 150 psi for a few minutes to a low of 148 psi.
- While performing Boiler tune ups using propane, the pressure dropped below 150 psi for a few minutes on February 27 and 28, 2020. The lowest pressure recorded was 148 psi.
- The Plant lost power at approximately 12:40 a.m. on March 3, 2020 due to tornado damage to the electrical grid. CNE personnel responded and plant equipment was re-started at approximately 1:50 a.m. The chilled water temperature was below the guarantee for approximately 90 minutes and the steam pressure was below 150 psi for approximately 3 hours. There were no customer issues reported as a result of this incident.
- The steam pressure dropped below 150 psi for approximately 45 minutes on April 18, 2020 in the process of starting up a second boiler. The lowest pressure was 138 psi.
- Steam pressure was below 150 psi for approximately 45 minutes on May 3, 2020 due to temporary loss of power at the Plant during a severe storm. The lowest send out pressure was 121 psi.



- The chilled water supply temperature was above 43.3 degrees F on May 3, 2020 for approximately 36 minutes due to the same reason as above. The highest temperature reached was 47.5 degrees F.
- The chilled water supply temperature was above 43.3 degrees F on May 5, 2020, for approximately 76 minutes due to a failed chilled water supply temperature sensor on #4 Chiller. An additional chiller was started. The highest temperature reached was 49 degrees F. Trane replaced the failed sensor the following day.
- The chilled water supply temperature was above 43.3 degrees F on May 17, 2020, for approximately 44 minutes due to #3 Chiller tripping on low condenser water flow. The highest temperature reached was 44.6 degrees F.
- Steam pressure was below 150 psi for approximately 45 minutes on May 21, 2020, due to #2 Boiler tripped due to low water level. The lowest pressure sent out was 135 psi.
- On June 1, 2020, the chilled water temperature was above 43.3°F for approximately 45 minutes while Trane was troubleshooting #7 Chiller. The high temperature was 44.6°F.

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			
	Scheduled	Unscheduled	Availability	Reliability
Boilers	660 minutes	665 minutes	99.87%	99.87%
Chillers	0 minutes	412 minutes	100.00%	99.92%



# Plant Efficiency

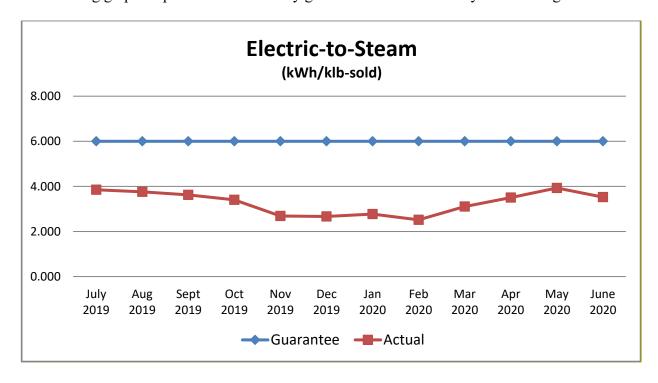
When the annual boiler inspections were completed at the end of July 2019, two boilers were placed in wet lay-up, one in stand-by, and one de-aerator tank was isolated due to the reduced steam demand during the summer months. One boiler and one de-aerator were left online. This equipment is rotated monthly. 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 2019 in preparation for the heating season.

Constellation and Metro agreed upon the final version of the Metro DES annual reconciliation for FY20 on September 14, 2020. The annual reconciliation for this time period consisted of a true-up for the FEA, propane, engineering and insurance costs. For reference, the annual reconciliation is included in Appendix 4 of this report.

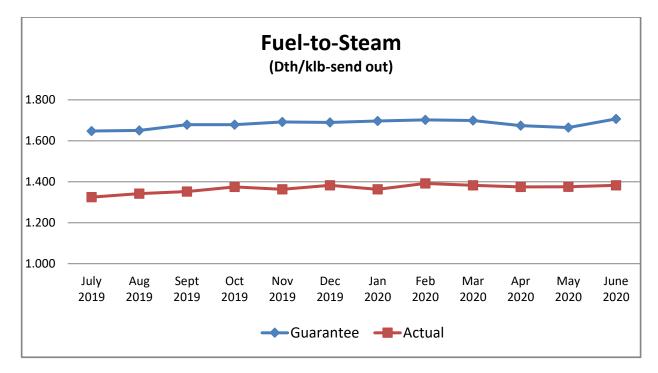
Constellation Energy's efficiency guarantees consist of five key conversion rates:

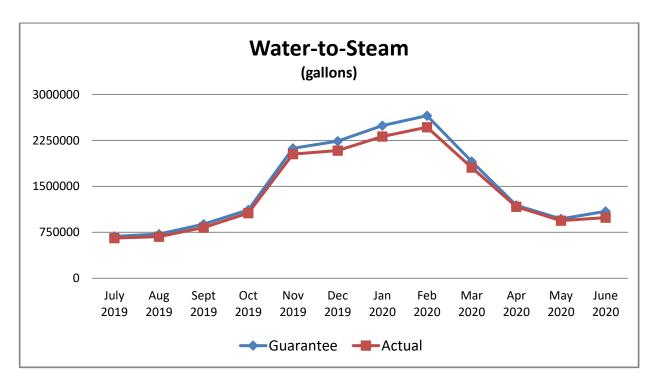
- 1. Electric-to-Steam (kWh per klb-sold)
- 2. Fuel-to-Steam (Dekatherm per klb-send-out)
- 3. Water-to-Steam (gallons)
- 4. Electric-to-Chilled Water (kWh per ton hr-sold)
- 5. Water-to-Chilled Water (gallon per ton hr-sold)

The following graphs represent the efficiency guarantee results from July 2019 through June 2020:

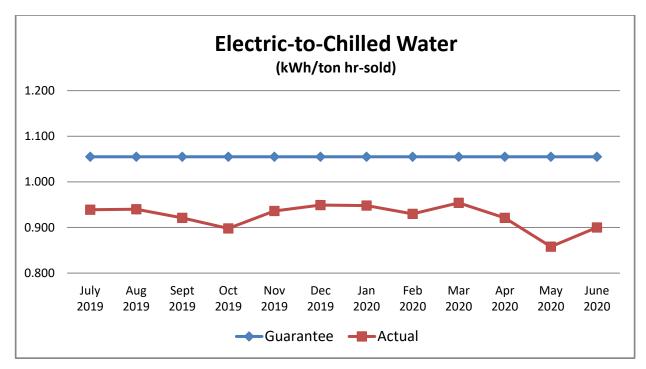


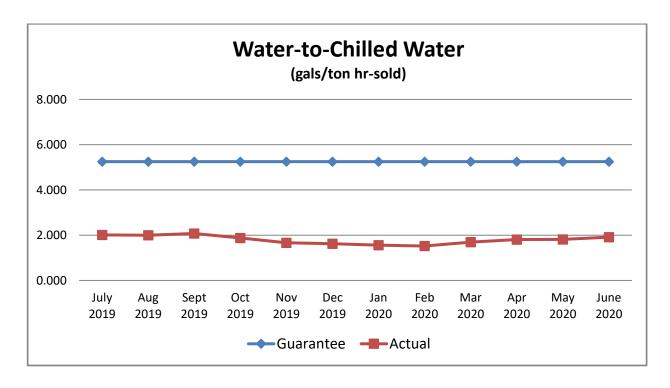














# Environmental, Health and Safety

# 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 2019 was sent to the Metro Nashville Health Department on July 9, 2019.
- The Semi-Annual Monitoring Report for July-December 2019 was sent to the Metro Health Department on January 8, 2020.
- The Title V Certificate of Compliance for 2019 was sent to the EPA on January 8, 2020. A copy was also sent to the Metro Health Department the same day.
- The Annual Emission Inventory Report for 2019 was sent to the Metro Health Department on January 31, 2020. 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 January 15, 2020.
- The Annual Greenhouse Gas Report was sent to the U.S. EPA on February 18, 2020.
- The Metro Health Department conducted the Annual Site Inspection and Record Review on June 26, 2020. Everything was found to be in order.

# Health

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

CNE replaced the AED located outside the EGF Conference Room.

The COVID-19 Virus Pandemic became prevalent in the United States in March 2020. CNE issued the following protocols for employees:

- If sick, stay home!
- Wash hands frequently
- Practice social distancing
  - o Maintain at least 6 feet between yourself and others



- o It is recommended to not use mass transit (planes, trains, buses)
- o It is recommended not to go to restaurants, bars, church, etc.
- Sick time reports, care giver reports, etc. are to be submitted daily
- Employees must to use proper PPE
  - N95 Mask and gloves required when visiting customer buildings
  - o Masks are required in buildings, trucks, etc. if you are going to be within 6 feet of someone else for 10 minutes or more
- Constellation business travel has been halted
- All non-essential office personnel must work from home
- Constellation corporate officers communicate with employees weekly via conference calls and emails
- No non-essential plant visitors are allowed
- If meetings are necessary, must have <10 people
  - o Use conference calls, Skype, etc. when possible
- CNE furnished a statement for the DES Website

# Safety

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

Monthly safety meetings were coordinated and scheduled by CNE's site Safety Officer. Training classes were conducted in conjunction with each safety meeting until March 2020 when social distancing prevented gatherings of ten, or more. Safety and accident reports are issued and posted each month.

The refrigerant alarm 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 2019	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 2020	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.

# **Training**

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:

- Employee's completed CNE Retail Electric and Natural Gas compliance Training in December 2019.
- Corporate conference call information sessions, regarding Covid-19 pandemic updates, were conducted weekly beginning in March 2020.
- Employees completed corporate on-line training classes in May 2020.
- Employees completed corporate FERC Training & Phishing Awareness Training in May 2020.

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
- 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

#### 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 did not take place this year due to COVID-19 Restrictions.

DES customers are routinely invited to participate in the Constellation/Nashville District Energy Annual Golf Tournament, attend Tennessee Titans football 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 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 removing 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 F. M. Global. 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 2019. #1 and #3 boilers and #2 de-aerator tank were most recently inspected in June 2020. All of the boilers 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 2020.



Inspections were witnessed by our chemical vendor's representative and plant personnel. When units are offline 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 #2, #3 and #6 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 #3 Boiler Feed Water Pump and #3 Condensate pump were addressed. All other equipment readings were within acceptable limits.

Infrared testing was conducted on all electrical switchgears and starters. No problems were found during this testing.

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

Annual maintenance costs for these activities: \$146,652.19 (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 August 19, 2020. A copy of the program is included in Exhibit 2 of this report. CNE plans to replace plant computers and update program in the 1<sup>st</sup> quarter of FY 20-21.

# Repairs and Replacements

The following are routine maintenance items performed daily or weekly:

- Office Janitorial Services & equipment room clean up
- Pick up debris around exterior of EGF
- Mow and landscape lawn
- Checked & repaired plant computers & servers
- Repaired plant lighting and electrical
- Checked & adjusted packing on all pumps

From time to time repairs and replacements must be made. The following are examples of repairs that have been performed in the EGF in the past 12 months:

#### **July 2019**

- Repaired water spigot in maintenance shop
- Repaired leak on #4 Boiler low water cut out
- Replaced oil heater on #3 chiller
- Installed #2 CWP motor
- Replaced #10 Security Camera
- Repaired #4 boiler sensing line
- Repaired cooling tower blow down meter
- Repaired #6 chiller starter
- Checked & adjusted flow on #6 chiller evaporator
- Replaced 2A chiller purge condenser fan motor
- Replaced drive pin on 2B chiller
- Replaced temperature sensor on #3A chiller
- Roof leaks repaired
- Replaced ceiling tiles
- Repaired portable exhaust fan
- Repaired lab sink drain

# August 2019

- Checked & adjusted packing on all pumps
- Replaced #6 Chiller evaporator flow sensor



- Repaired pressure switch #3 Boiler
- Replaced oil heater on #6 chiller
- Repaired portable hydraulic pump (Green Machine)
- Trouble shoot #5 BFW pump
- Trouble shoot #5 CWP trip
- Repaired Genie Manlift
- Repaired #12 cooling tower breaker
- Repaired #5 CWP OB Packing gland
- Added refrigerant to #6 chiller

# September 2019

- Repaired low water cut out switch on #4 Boiler
- Replaced low level indicator light on #2 Boiler
- Adjusted belts on cooling towers 4, 6 and 10
- Replaced #5 BFW pump motor
- Checked O<sub>2</sub> on #4 Boiler burner
- Repaired Genie Manlift
- Repaired cooling tower chemical pump
- Repaired transformer cabinet view ports
- Replaced belt on #5 AHU
- Repaired cooling tower blow down meter
- Trane replaced #6 Chiller flow switch

# October 2019

- Repaired level transmitter on cooling towers
- Unclogged lab sample line
- Adjusted boiler conductivity setpoints & alarms
- Repaired leak on #2 Boiler low water cutout
- Replaced belt on #12 cooling tower
- Replaced belt on #16 cooling tower
- Repaired entry door access system
- Repaired #9 cooling tower inlet valve
- Rebuilt chemical pump MBC215P
- Repaired leak on chemical pump CWT8940
- Replaced cooling tower M/U valve
- Repaired chilled water M/U leak
- Trane laser aligned #5 BFWP
- Replaced flow switch on #6 chiller evaporator



#### November 2019

- Cleaned level transmitter on cooling towers
- Repaired leak on Instrument Air Compressor
- Replaced ceiling tiles
- Checked #1 Boiler 02 analyzer
- Replaced capacitor bank fuses
- Replaced discharge valve operator on #5 CWP
- Repaired #5 CWP Soft start
- Repaired #1 Boiler Blowdown valve
- Rebuilt valves on #1 Softener
- Repaired filming amine chemical pump
- Replaced chemical pump MBC449
- Checked Plant heat trace
- Repaired boom lift
- Winterize boiler room
- Repaired loading dock gate latch
- Repaired Fire Sprinkler System
- Replaced relays in SWG #1

# December 2019

- Checked cooling tower blowdown meter
- Repaired strainer on #18 cooling tower
- Repaired UPS on SWG 6
- Adjust #1 Boiler FD fan jack shaft
- Rebuild packing glands on #5 CWP
- Repair #4 CWP Soft start
- Repaired #1 Boiler conductivity controller
- Rebuilt valves on #3 Softener
- Repaired security camera controller
- Assist MWS repair 2" meter
- Repaired Genie lift
- Replaced Boiler Analyzer
- Replaced #6 Chiller flow switch

# January 2020

- Replaced battery on forklift
- Replacement of #6 Chilled Water Pump VFD is in progress
- Replaced #4 CWP Soft Start
- Repaired Filming Amine Chemical Pump



- Replaced belts on #4 & #7 cooling towers
- Replaced air regulator on #1 cooling tower
- Repaired bearing supports in #3 cooling tower
- Replaced #3 cooling tower fan bearings
- Repaired backflow preventer
- Checked firing rate on #3 Boiler
- Checked submaster controller on #3 Boiler
- Assisted HydroVac with M/H access for cleaning quote
- Cleaned Softener flow meters
- Repaired #1 Softener controls
- Repaired #2 Boiler Conductivity Controller
- Removed dead trees

#### February 2020

- #6 Chilled Water Pump VFD Replacement in progress
- #6 Chilled Water Pump breaker repair in progress
- Replaced vibration switch on #10 cooling tower
- Repaired vibration switch on #17 cooling tower
- Sampled Softener Resin
- Replaced #4 and #17 cooling tower fan bearings (MRG)
- Replaced breaker on #6 cooling tower
- #2 BFWP outboard bearing replacement in progress
- Replaced oil seal on #2 BFWP
- Repaired condensate probe on #3 Boiler
- Assisted HydroVac clean out EGF floor drains
- Repaired portable sump pump on Service Truck
- Repaired #1 Softener controls
- Rebuilt Aqua-Matic valve on #1 Softener
- Repaired fire alarm (SE Sound)
- Repaired fire suppression sprinkler system (JB&S)
- Repaired plant backflow preventer (SM Lawrence)

#### March 2020

- Completed cleaning & painting chiller heads
- #6 Chilled Water Pump VFD Replacement in progress
- Assisted CE Power with repair of #6 Chilled Water Pump breaker
- Cleaned condenser water blow down meter
- Repaired inlet valves on #10 & #17 cooling tower
- Repaired chilled water chemical pump



- Repaired differential pressure switch on #5 BFWP
- Repaired hood over electric panels behind boilers
- Repaired leak on #2 BFWP
- Cleaned out floor drains
- Clean up used oil storage area & dispose of used oil
- Repaired #1 & #2 Softener controls
- Blew down chiller differential pressure lines
- Trane completed chiller run inspections
- Purchased additional safety supplies to prevent spread of COVID-19 Virus
- Annual fire extinguisher inspection completed
- Quarterly pest control performed

# **April 2020**

- #6 Chilled Water Pump VFD replacement is in progress
- Reset battery charger in SWG #1
- Replaced breaker on#12 cooling tower
- Repaired Instrument air compressor
- Replaced batteries in Genie-lift
- Replaced site glass on flash tank
- Check & Repair tube leaks in #6 Chiller
- Cleaned cooling tower B/D meter
- Cleaned out floor drains
- Replaced magnetic lock on expansion yard gate
- Rebuilt Aqua-Matic valve on #1 Softener
- Assist Peabody Place contractor repair EGF driveway
- Southeastern Sound performed annual fire alarm inspection
- Replaced batteries in fire alarm cabinet
- Replaced AED
- Secured safety supplies

#### May 2020

- Put #6 Chilled Water Pump VFD back in service and set upper limit
- Adjusted DP switches on CWP's
- Repaired jackshaft on #4 Boiler & checked burner
- Repaired chemical line leak at DA tanks
- Repaired #2 Boiler conductivity blow down meter
- Repaired roof fan
- Put refrigerant back in #6 Chiller



- Cleaned cooling tower blow down meter
- Cleaned & coated #1 cooling tower riser line
- Replaced strainer on cooling tower B/D line
- Rebuilt cooling tower B/D meter
- Assisted HydroVac clear floor drains
- Assisted Industrial Boiler repair tube leaks in #3 Boiler
- Assisted Trane replace DP oil filter on #3 Chiller
- Replaced solenoid on #9 Chiller
- Purchased Safety supplies

#### **June 2020**

- Clean hot deck on #9 Cooling Tower
- Repaired eyewash station at #5 Cooling Tower
- Cleaned Cooling Tower B/D Strainer
- Removed curtain in boiler room
- Replaced breaker on #3 Cooling Tower
- Repacked #5 Chilled Water Pump
- Added refrigerant to #7 Chiller
- Cleaned out chemical day tank
- Investigated chiller trip
- Send Genie Lift out for repairs
- Replaced faucet on lab sink
- Industrial Boiler repaired tube leaks in #3 Boiler
- Checked purge times on chillers
- Restored communications with #1 Chiller
- Trane replaced oil filter on #3 Chiller
- Trane replaced temperature sensor on #6 Chiller
- Trane cleaned temperature sensor on #4 Chiller
- Trane checked purge unit on #9 Chiller
- Warren Insulation repaired insulation in EGF

Annual maintenance costs for these activities: \$322,792.70 (excludes salaried personnel & corporate overhead).



# **EGF Emergency Repair Projects**

# EMR20-001 Emergency Tube Leak Repair in #3 Boiler

Industrial Boiler and Mechanical made repairs to two tube leaks in #3 Boiler the week of May 18, 2020. The leaks were located at the first D-wall tube near the bottom of the tube. Repairs were completed May 21, 2020. The boiler inspector inspected and approved the repair the same day. Refractory, insulation and sheet metal was restored and the boiler was placed back in service.



# **Modifications and Improvements**

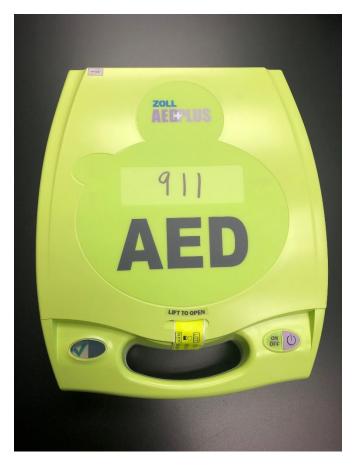
The following are improvements that were performed in and around the Energy Generation Facility and in the Energy Distribution System:



#6 Chilled Water Pump Variable Frequency Drive (VFD)

#6 Chilled Water Pump VFD Display





New Automated External Defibrillator (AED)



# **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 piping leak. Depending on the severity of the thermal temperature variance from the surrounding area, a determination is made whether to dig up the affected area.

CNE 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 CNE 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 Fairlane 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 at the EGF.

#### 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.



Most 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 FY19-20.

# **July 2019**

- Checked calibration on 4" RTD's for Ryman Auditorium
- Checked calibration on 6" RTD's for Municipal Auditorium
- Checked calibration on 4" RTD's for Hyatt Place Hotel
- Checked calibration on 4" RTD's for Parkway Tower
- Performed annual meter certifications at Parkway Tower
- Checked calibration on 4" RTD's for 501 Building
- Performed annual meter certifications at 501 Building
- Investigated cooling issue at Hume-Fogg
- Replaced temperature transmitter at the Symphony
- Replaced leaking RTD well at Municipal Auditorium
- Repaired trap line at Tennessee Tower
- Investigated increase in chilled water make-up
- Repaired Manhole B Sump Pump electrical box
- Repaired Manhole D Sump Pump controls
- Repaired Manhole 9 Sump Pump floats
- Repaired Manhole 10 Sump Pump floats
- Ordered replacement sump pump for Manhole 18
- Restored communications with Ryman Auditorium meter panel
- Restored communications with Hume-Fogg and 501 Building
- Assist Bobby Hotel check water quality on their side of heat exchanger
- Mark manhole lids for MPD related to Independence Day festivities
- Assisted with Manhole 9 Pre-bid site visit (DES-157)
- Assisted with Manhole B2 Pre-bid site visit (DES-159)
- Assisted with Hyatt Centric Hotel Pre-bid site visit (DES-162)
- Emergency Chilled Water leak repair at 5th and Union (EMR19-003)
- Manhole 6 Emergency Steam leak repairs (EMR-004)

#### August 2019

- Checked steam isolation valve at Fairlane Hotel
- Calibrated 6" RTD's for Hume-Fogg
- Calibrated 4" RTD's for 4th & Church
- Performed annual meter certifications at 4th & Church Building
- Calibrated 4" RTD's for Ryman Auditorium
- Performed annual meter certifications at Ryman Auditorium



- Performed annual meter certifications at City Space Office Tower
- Calibrated 6" RTD's for Renaissance Hotel
- Performed annual meter certifications at Renaissance Hotel
- Performed annual meter certifications for Renaissance Ballrooms (old Convention Center)
- Calibrated 6" RTD's for Hyatt Place Hotel
- Performed annual meter certifications at Hyatt Place Hotel
- Assisted C.K. Masonry with manhole lids
- Calibrated steam transmitter at Renaissance Hotel
- Replaced high pressure steam block valve at Renaissance Hotel
- Lowered Chilled Water return set point 2°F at AAB. Heat exchanger needs to be cleaned.
- Repaired Manhole B Sump pump
- Attempted to install nipple on strainer in Manhole S4A. Steam isolation valve will not secure.
- Assisted JLL trouble shoot hammering in AJ Garage
- Repaired Manhole 10 Sump Pump
- Replacement of 7<sup>th</sup> Avenue tunnel exhaust fan motor is in progress
- Replaced Manhole 18 Sump Pump
- Restored communications with Ryman Auditorium meter
- Sprayed weeds at Manhole N1
- Assisted Fairlane Hotel isolate & re-energize steam to building
- Checked heat exchanger valve alignment at Metro Courthouse
- Assembled material costs for Hyatt Centric Hotel metering (DES-162)
- Emergency Chilled Water leak repair made at 5<sup>th</sup> Avenue and Union Street (EMR19-003)
- Emergency Condensate Line leak repair made in Manhole 6 (EMR19-004)
- Insulation replacement in Manhole 6 (EMR19-004)

#### September 2019

- Investigated Chilled Water leak on 3rd Avenue near the CJC
- Checked calibration on 4" RTD's for State Capitol
- Checked calibration on 3-1/2" RTD's for Wildhorse Saloon
- Performed annual meter certifications at Wildhorse Saloon
- Performed annual meter certifications at Hume-Fogg
- Checked calibration on 3-1/2" RTD's for Bridgestone Arena
- Performed annual meter certifications at Bridgestone Arena
- Checked calibration on 6" RTD's for Symphony
- Performed annual meter certifications at Symphony
- Checked calibration on 6" RTD's for Cordell Hull
- Performed annual meter certifications at Cordell Hull
- Restored communications with Cordell Hull metering panel



- Assisted C.K. Masonry with manhole rings & lids
- Condensate Hard dumped in Manhole 18 investigated source
  - o Placed Hermitage Hotel condensate to drain
- Assisted Renaissance Hotel repair one of their chilled water pumps
- Repaired Sump pump in Manhole 18
- Added dye to chilled water and checked water in James K. Polk Building elevator sump
- Assist contractor replace traps at Wildhorse and in Manhole K
- Repaired Manhole 9 Sump Pump
- Replaced belts on south 4<sup>th</sup> Avenue tunnel exhaust fan
- Restored communications with old Renaissance Ballrooms meter panel
- Repaired O<sub>2</sub> Sensor in Gas Monitor
- Assisted contractor repair steam leak in Manhole 9 (DES-157 CO #1)
- Assisted contractor with punch list items at Hyatt Centric Hotel (DES-162)
- Assisted TEG with access to Manhole 18 (DES-170)
- Checked guides in Manhole 18 for TEG (DES-170)
- Manhole 18, Pre-bid Meeting, site visit (DES-170)
- Assisted TEG with review of Manhole 6 and checked temperature of lids (EMR19-004)
- Assisted contractor with punch list items in Manhole 6 (EMR19-004)
- Emergency Condensate Line expansion joint leak repair in Manhole L (EMR19-005)

#### October 2019

- Calibrate 4" RTD's for Fairlane Hotel
- Calibrate 6" RTD's for JKP
- Calibrate 4" RTD's for Nashville Public Library
- Performed annual meter certifications at Nashville Public Library
- Calibrate 6" RTD's for Municipal Auditorium
- Performed annual meter certifications at Municipal Auditorium
- Performed annual meter certifications at Fairlane Hotel
- Performed annual meter certifications at State Capitol
- Restored communications with NPL metering panel
- Restored communications with Hume-Fogg metering panel
- Assisted C.K. Masonry with Manhole rings & lids
- Replaced lid on Manhole S6
- Checked isolation valve in M/H 15
- Assisted MWS test backflow preventer at Fairlane Hotel
- Repaired sump pump in Manhole B2
- Repaired sump pump in Manhole B
- Replaced contactor on sump pump in Manhole M robbed to repair M/H B2 earlier



- Repaired Sump pump in Manhole 9
- Repaired Sump pump in Manhole 10
- Check sump pumps in Manhole D1
- Turn steam back on to War Memorial
- Install drain valve on strainer in Manhole 6
- Install drain valve on strainer in Manhole S4A
- Steam Outage Planning & Prep
- Met with contractor at Cordell Hull
- Replaced manhole Gas Monitor
- Hook up communications to CJC meter panel (DES-124)
- Assisted contractor with access to Manhole 9 (DES-157)
- Assisted contractor with access to Manhole 18 (DES-170)
- Manhole D1 Emergency Vault Repair (EMR19-006)

#### November 2019

- Calibrate 4" RTD's for Sheraton Hotel
- Annual meter certifications at Sheraton Hotel
- Calibrate 4" RTD's for War Memorial
- Performed annual meter certifications at War Memorial
- Performed annual meter certifications at James K. Polk
- Performed annual meter certifications at Tennessee Tower
- Assisted Sheraton troubleshoot hot water issue in their building
- Assisted Renaissance troubleshoot cooling issue in their Ballroom
- Assisted Stansell Elec locate DES lines at Manhole 19
- Checked chilled water isolation valves in Andrew Jackson
- Cataloged metering devices for John Sevier
- Delivered metering devices to John Sevier
- Repaired Condensate return pumps in Manhole 18
- Repaired Sump pump in Manhole B2
- Relocate Sump pump controls for Manhole 9
- Repaired Sump pump in Manhole 10
- Checked heat trace at Symphony
- Isolate & restore steam to Nashville Public Library
- Steam Outage preparation and review
- Met with contractor at John Sevier
- Assisted contractor with access to Manhole 9 (DES-157)
- Assisted contractor with access to Manhole B2 (DES-159)
- Assisted TEG with access to Hyatt Centric (DES-162)



- Charge chilled water lines to Hyatt Centric (DES-162)
- Pressure tested Hyatt Centric chilled water lines (DES-162)
- Assembled pricing for Hyatt Centric metering devices (DES-162)
- Assisted TEG with access to Manhole 18 (DES-170)
- Assisted with Manhole 18 punch list items (DES-170)
- Assisted with Manhole 6 punch list items (EMR19-004)
- Assisted Colt with warranty repair in Manhole L (EMR19-005)
- Assisted contractor with exploratory dig on 3<sup>rd</sup> Avenue (EMR19-007)
- Assisted TEG with review of exploratory dig on 3<sup>rd</sup> Avenue (EMR19-007)

#### December 2019

- Calibrate 4" RTD's for Citizens Plaza
- Performed annual meter certifications at Citizens Plaza
- Calibrate 6" RTD's for AA Birch
- Calibrate 4" RTD's for State Library & Archives
- Calibrate 3" RTD's for State Supreme Court
- Attempt to slip line condensate pipe from M/H 4 to Fairlane
- Check RTD's at Hume-Fogg
- Checked and ordered new Contrec for Parkway Tower
- Reset Cx Panel at 5/3 Financial
- Reset Cx Panel at Hermitage Hotel
- Reset Cx Panel at Nashville City Center
- Reset Cx Panel at Nissan Stadium
- Check Cx Panel at Sheraton Hotel
- Check Cx Panel at City Space Office Tower
- Replaced Sump pump in Manhole B2
- Relocated strainer on trap line in Manhole 9
- Relocated controls for Manhole 9 sump pump
- Conducted partial Chilled Water Outage for State of Tennessee buildings
- Assisted TEG with access to Manhole 9 (DES-157)
- Assisted TEG with access to Manhole B2 (DES-159)

# January 2020

- Checked calibration on 4" RTD's for Metro Courthouse
- Performed annual meter certifications at Metro Courthouse
- Performed annual meter certifications at AAB
- Checked calibration on 3" RTD's for State Supreme Court
- Performed annual meter certifications at State Supreme Court
- Checked calibration on 4" RTD's for State Library & Archives



- Performed annual meter certifications at State Library & Archives
- Repaired sump pump in Manhole 10
- Repaired sump pump in Manhole B2
- Repaired sump pump in Manhole 9
- Repaired sump pump in Manhole D
- Repaired high pressure steam transmitter at Fairlane Hotel
- Repaired trap line leaks in Manhole B8 & AAB Tunnel
- Repaired trap line leaks in Manhole B4, B9 & B10
- Checked chilled water meter installation at John Sevier
- Replaced Contrec at Parkway Tower
- Assisted Metro Water attempt to locate leak near Manhole D
- Checked source of water infiltration in Manhole B2
- Repaired leak on tempering station at Municipal Auditorium
- Prepare for Andrew Jackson chilled water outage
- Replaced ring & lid at Manhole 10
- Replaced Handheld Gas Monitor
- Assisted TEG with walk through of Manhole 9 (DES-157)
- Assisted TEG with walk through of Manhole B2 (DES-159)
- Assisted contractor with Manhole B2 punch list (DES-159)
- Ordered Metering Equipment for Hyatt Centric Hotel (DES-162)
- Manhole 20 Pre-bid walk through conducted (DES-169)

#### February 2020

- Checked calibration on 4-1/2" RTD's for CJC
- Performed annual meter certifications at CJC
- Checked calibration on 4" RTD's for Bobby Hotel
- Performed annual meter certifications at the Bobby Hotel
- Repaired sump pump in Manhole 10
- Repaired sump pump in Manhole B2
- Replaced disconnect in Manhole D
- Replaced sump pump in Manhole D1
- Checked condensate vent line at Fairlane Hotel
- Repaired air compressor at Andrew Jackson Building
- Corrected time on customer meters (day light savings time)
- Checked chilled water meter installation at John Sevier
- Repaired 7<sup>th</sup> Avenue tunnel air intake grate at Renaissance Hotel
- Repaired 7<sup>th</sup> Avenue tunnel exhaust fan
- Restored communications with Ryman Auditorium meter



- Restored communications with Hume-Fogg meter
- Assisted with chilled water valve replacement at Andrew Jackson Building
- Assisted contractor with access to Manhole 19
- Assisted HydroVac clean out Manholes 2, D1 & N2
- Assisted CE Power with IR Scan around CJC
- Assist TEG with access to Manhole B2 (DES-159)
- Received metering equipment for Hyatt Centric Hotel (DES-162 CO #2)

#### March 2020

- #2 Condensate pump motor bad in M/H 18. Ordered replacement
- Repaired sump pump in Manhole B2
- Replaced disconnect in Manhole D
- Isolated & restored steam to Nashville Public Library at customers request
- Isolated & restored steam to Fairlane Hotel at customers request
- Repaired 7<sup>th</sup> Avenue tunnel exhaust fan motor
- Corrected time on customer meters
- Checked metering equipment installation at John Sevier
- Checked metering equipment installation at 5<sup>th</sup> & Broadway
- Repaired Tunnel lighting
- Worked on restoring communications with Ryman Auditorium meter
- Restored communications with Hermitage Hotel meter
- Restored communications with Nashville City Center meter
- Replaced State Steam System air compressor in Andrew Jackson Building
- Assisted TEG with DES Project warranty reviews
- Assisted TEG with quarterly State tunnel review
- Assisted TEG with access to building Manhole16A and 10C
- Took photos of work in Manhole 9 (DES-157)

# **April 2020**

- Checked calibration on 8" RTD's for Rachel Jackson building
- Checked calibration on 8" RTD's for Andrew Jackson building
- Checked calibration on 6" RTD's for 5/3 Financial
- Replaced sump pump in Manhole B2
- Repaired sump pump removed from Manhole B2
- Repaired sump pump in Manhole 9
- Replaced portable sump pump on Service Truck
- Isolated and restored steam to Nashville Public Library
- Isolated steam to State Tunnel
- Replaced heaters on 7<sup>th</sup> Avenue tunnel exhaust fan motor



- Wired metering devices at John Sevier building
- Assisted C-Tech with meter setup at John Sevier building
- Repaired Tunnel lighting
- Restore communications with Ryman Auditorium meter
- Restored communications with Renaissance Ballroom meter
- Restored communications with Manhole 18
- Worked on communications with Hume-Fogg meter
- Returned Fairlane Hotel chilled water valve to manufacturer for rebuild quote
- Measured and fabricated trap assemblies
- Replaced trap internals in Manhole 18
- Assisted TEG with access to Manhole 22 (DES-174)
- Assist TEG with access to 4<sup>th</sup> Avenue tunnel (DES-172)
- Take photos of ladders in tunnels for TEG (DES-171)
- Wire metering devices at 5<sup>th</sup> & Broadway building (DES-160)
- Assist C-Tech with meter setup at 5<sup>th</sup> & Broadway building (DES-160)

### May 2020

- Checked calibration on 8" RTD's for Nashville City Center building
- Performed annual meter certification at Nashville City Center
- Performed annual meter certification at John Sevier building.
- Performed annual meter certification at Andrew Jackson building
- Performed annual meter certification at Rachel Jackson building
- Performed annual meter certification at 5/3 Financial Center
- Replaced traps in Manhole 18
- Replaced trap in Manhole S4A
- Repaired sump pump & control wiring in Manhole 9
- Replaced traps in Manhole B6 and B7
- Repaired trap line leak in Manhole 10
- Switched to summer steam meter at Bridgestone Arena
- Investigated water infiltration into Manhole B2
- Restored chilled water service to John Sevier building
- Checked steam pressure transmitter at John Sevier building
- Repaired steam leak on warm up line to John Sevier building
- Assisted C-Tech with 5th & Broad meter modifications
- Checked steam flow converter at Fairlane Hotel
- Restored communications with Ryman Auditorium meter
- Restored communications with Hermitage Hotel meter
- Restored communications with Hume-Fogg meter



- Checked communications with Manhole 18
- Restore steam service to TN Tower
- Repaired tunnel lighting
- Pump out building 9 for BESCO to insulate (DES-157)

#### **June 2020**

- Checked sump pump alarm in building B2
- Investigate source of condensate hardness
- Installed 6" PVC vent line in building B
- Checked expansion joints in building A & B as requested by TEG
- Restored communications with Ryman Auditorium
- Restored communications with Nashville City Center
- Checked communications with Manhole 18
- Repaired tunnel lighting
- Assisted TEG with Manhole 9 punch list development (DES-157)
- Pump out Manhole 9 for BESCO to complete punch list (DES-157)
- Assist TEG with review of Manhole 9 insulation (DES-157)
- Deliver metering devices to Hyatt Centric (DES-162)
- Investigate possible condensate leak near M/H 9 (DES-176)

Annual maintenance costs for EDS activities: \$332,834.50 (excludes salaried personnel & corporate overhead).



# **EDS Emergency Repair Projects**

### EMR19-004 Emergency Condensate Leak Repair in Manhole 6

Excessive heat was reported at the Manhole Lids and CNE was asked to make repairs to the manhole based on TEG's recommendations. These included repairing a condensate leak in the manhole, removing existing insulation and installing Pyrogel insulation throughout, removing existing insulation blankets and installing new. The condensate leak was repaired on August 20, 2019 and the insulation was completed on September 13, 2019.

# EMR19-005 Emergency Condensate Leak Repair in Manhole L

Colt Atlantic repaired the leaking expansion joint September 17, 2019. The expansion joint was discovered to be leaking again in October. Colt made the warranty repair on November 5, 2019.

#### EMR 19-006 Emergency Lid Replacement at Manhole D1

On October 18, 2019, a contractor found a hole in the vault lid at Manhole D1 while removing the manhole ring to facilitate the milling of the street. CNE notified TEG. Recommendations for repairs were made and the existing vault lid was removed and a new one installed the following week.

# EMR19-007 Emergency Chilled Water Leak Repair near CJC

On November 4, 2019 the Building Contractor at the CJC reported a hole in the street on 3<sup>rd</sup> Avenue North near Manhole D1 and a substantial amount of water with green dye in it, entering their building sumps. CNE contacted an excavation company to perform an exploratory dig in the area near the hole. The excavation did not indicate a chilled water leak in this general area. Another excavation was performed at the building isolation valves to the south of the original excavation. This area was also dry. While the second excavation was being performed, Metro Water Services isolated the water to a fire hydrant on the east side of 3<sup>rd</sup> Avenue near the original excavation site. The Building Contractor indicated to CNE personnel that the amount of water entering the CJC Sumps diminished significantly following the isolation of the hydrant. The two excavations were backfilled, per Public Works specifications, on November 11, 2019.



#### **DES Projects**

Below is a brief description of the DES projects performed during FY20 in various stages of completion.

#### **DES-153** Manhole L Repairs

Bid Drawings were sent to CNE on August 21, 2019. A pre-bid meeting is on hold until further determination of the effectiveness of the coatings used on the DES-157 and DES-159 Projects.

#### **DES-157** Manhole 9 Repairs

A Pre-bid Meeting was held on July 23, 2019. Bid documents were reviewed and site visit was made to the manhole. The bids were received on August 6, 2019. Project was awarded to BESCO. They completed a steam leak repair in the manhole as Change Order #1 to this project September 24, 2019. Main project work began on December 11, 2019. A walkthrough was conducted December 18, 2019. Punch list items were completed on December 30, 2019 except for the insulation and the insulation blankets. Due to a delay in the manufacture of the insulation blankets the removal of the insulation and installing the new insulation blankets did not begin until March 20, 2020. The project was placed on hold pending the Mayor's and Governor's Safer at Home Orders for the COVID-19 pandemic being lifted. Partial billing of this project has been submitted to Metro. The remainder of this work began on May 26, 2020 and is expected to be completed in July 2020.

#### **DES-159** Manhole B2 Repairs

A Pre-bid Meeting was held on July 23, 2019. Bid documents were reviewed and site visit was made to the manhole. The bids were received on August 6, 2019. Project was awarded to BESCO. This project began on December 4, 2019, a walkthrough was conducted on December 18, 2019 and punch list items were completed on December 27, 2019. A final walkthrough was conducted on February 4, 2020. A decision was made to cancel the floor sealing portion of this project and investigate the water entering the manhole around the steam line. Further investigation revealed a hole in the end can on the steam line allowing water to enter the manhole. CNE submitted a proposal to repair the end can and it was approved by Metro's Contract Administrator on May 19, 2020. The Contractor plans to start work in July 2020.

#### **DES-160** 5<sup>th</sup> & Broadway Chilled Water Service Connection

Metering equipment was delivered to the Contractor on June 18, 2019. The Building Contractor has installed the metering equipment and CNE personnel completed the wiring on April 6, 2020. C-Tech programmed the metering panel on April 8, 2020. CNE personnel initiated chilled water service to the building on April 8, 2020.

#### DES-162 3<sup>rd</sup> & Molloy Hotel Chilled Water Service Connection (Hyatt Centric Hotel)

A Pre-bid Meeting was held on July 23, 2019. Bid documents were reviewed and site visit was made to the manhole. The bids are due on August 2, 2019. The project was awarded to F.M. Sylvan. The CNE portion of the project was completed on August 30,



2019. The installation of the remaining pipe, valves and fittings in to the new customer building will be performed by others. These items were delivered to the installing contractor by October 7, 2019. Metro approved a Change Order for the purchase of metering equipment in January 2020. The metering equipment was delivered to the Customer's Contractor on June 10, 2020. CNE will deliver a proposal to Metro for the Gx Panel buildout and installation in July 2020.

# **DES-169** Manhole 20 Repairs

Bid Drawings were sent to CNE for review on July 17, 2019. A pre-bid meeting was held on January 16, 2020 and bids were received on January 24, 2020. Nashville Machine was awarded the contract and the work is expected to begin in July 2020.

DES-170 Manhole 18/Broadway Tunnel Steam & Condensate Line Anchor Replacement

A pre-bid Meeting and project walkthrough was held on September 27, 2019. Bids are received on October 3, 2019. The project was awarded to BESCO and preliminary fabrication began following approval of shop drawings and submittals. The installation of the supports and pusher arms began the week of November 4, 2019. The installation of the supports and pusher arms were completed the week beginning November 4<sup>th</sup>. Moving the steam and condensate lines back in place was completed during the November 10-11, 2019 steam outage. The insulation was completed on November 18, 2019, a walkthrough was conducted on November 20, 2019 and punch list items were completed the week beginning November 25, 2019.

# **DES-171** Broadway Tunnel Pipe Support and Safety Repairs

Bid drawings were issued and reviewed the last week of June 2020. A pre-bid meeting will be scheduled in July 2020.

# DES-172 Viridian and 4th Avenue Tunnel Pipe Support Repairs

Bid drawings were issued and reviewed the last week of June 2020. A pre-bid meeting will be scheduled in July 2020.

# **DES-174** 7<sup>th</sup> Avenue Tunnel Pipe Support Repairs

Bid drawings were issued and reviewed the last week of June 2020. A pre-bid meeting will be scheduled in July 2020.

#### DES-176 Exploratory Excavation and Condensate Line Leak Repair

A hole was discovered in the pavement on the east side of Manhole 9. On June 1, 2020, hot water was discovered entering the vault. The water is suspected to be condensate. Metro has requested CNE have an exploratory excavation performed. This work is scheduled to begin July 6, 2020.



# 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**

- CNE O & M contract extension
- Locate and repair chilled water leaks in the EDS
- Begin service for Hyatt Centric Hotel
- State of Tennessee to make repairs to their steam tunnel
- DES-176 Exploratory Excavation and Condensate line leak Repair
  - A hole was discovered in the pavement on the east side of Manhole 9. On June 1, 2020 hot water was discovered entering the vault at Manhole 9. The water was suspected to be condensate. June 26, 2020 TEG asked CNE to have an exploratory excavation performed. CNE's subcontractor is scheduled to begin July 6, 2020.

#### **Recommendations for FY 21**

- Pipe insulation restoration in manholes and in the tunnels
- Manhole and Tunnel Structural Steel Rehabilitation and Corrosion Prevention
- Install electric hoist to access Broadway tunnel in 5<sup>th</sup> & Broad parking garage
- Add expansion loops to chilled water lines in Broadway tunnel to allow access to tunnel from 5<sup>th</sup> & Broadway parking garage
- Install a side stream filter on the chilled water system
- Build a maintenance platform under the 7<sup>th</sup> Avenue Tunnel exhaust fan
- Investigate system expansion
  - o 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
  - o Investigate the possibility of a satellite plant
- Pursue service contracts with:
  - o Peabody Union (aka. Rolling Mill Hill Site "K") to be built on East side of EGF
  - o Two Fairmont Hotels to be built on the SW corner of 1st Avenue and KVB
  - o 333 Union Hotel to be built on the SE corner of 4<sup>th</sup> Avenue and Union Street
- Potential projects that should be customer funded:
  - o 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. Metro has actively begun to try and sell system remaining capacity.

The following table, furnished by Thermal Engineering Group, Inc. on May 15, 2019, 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	19,430
Max Allowable Customer Load	20,200	166,433
Maximum System Peaks	18,584	148,065
Net Undiversified Capacity Available for Sale	1,616	18,368
Net Diversified Capacity Available for Sale	2,429	24,622
Diversified Potential for Contract Capacities	34,328	331,948
Contract Capacity for Existing Customers	30,359	284,616
Potential Contract Capacity for Sale	3,969	47,332

Ongoing activities include the following:

- A Sales and Marketing Report is included in the Monthly Operations Report.
- CNE holds an annual Golf Tournament 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 FY19-20, CNE provided proactive support in the areas of fuel procurement and risk management. Natural gas and propane procurement recommendations were made in a collaborative effort with Metro, CNE, Insight Sourcing Group and International FC Stone Financial Inc. Procurement decisions were made 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 of the natural gas supply was procured from Constellation NewEnergy - Gas Division, LLC (CNEG) under the terms and conditions of an agreement between CNE and CNEG for a service period extended through December 2020. 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 and the risk management fees, but it does not include the Fuel Efficiency Adjustment (FEA) or late fees.

The following is a report of the natural gas purchased in FY19-20:

#### **Natural Gas**

1 (atulal Gas			
Month	Quantity (DT)	Unit Cost	Amount
July, 2019	28,073.3	\$2.9693	\$83,358.57
August	28,208.7	\$2.8153	\$79,414.95
September	28,672.1	\$2.8896	\$82,849.80
October	44,049.9	\$2.9384	\$129,437.14
November	68,490.0	\$3.0288	\$207,440.33
December	71,394.2	\$2.9114	\$207,859.95
January, 2020	74,740.9	\$2.6124	\$195,255.78
February	73,851.4	\$2.2952	\$169,503.99
March	51,460.1	\$2.3309	\$119,948.58
April	40,101.7	\$2.1810	\$87,460.12
May	31,672.7	\$2.4384	\$77,229.80
June	24,999.5	\$2.4537	\$61,342.50
Total	565,714.5	\$2.6535	\$1,501,101.51



100,000 gallons of propane was purchased from TARGA October 14, 2019 and placed in storage. Since the plant did not have a natural gas curtailment, the propane was sold back to TARGA March 2, 2020. The table does not include the net storage fee which will be recovered in the true-up.

The following is a report of propane used:

#### **Propane**

Month	Quantity (DT)	Unit Cost	Amount
July, 2019	0	N/A	\$0.00
August	16	\$25.5553	\$408.88
September	25	\$24.5534	\$613.33
October	41	\$24.9320	\$1,022.21
November	49	\$25.0336	\$1,226.65
December	16	\$25.5553	\$408.88
January, 2020	25	\$24.5331	\$613.33
February	270	\$24.9873	\$6,746.56
March	0	N/A	\$0.00
April	0	N/A	\$0.00
May	8	\$25.5553	\$204.44
June	0	N/A	\$0.00
Total	450	\$24.9873	\$11.244.29

<sup>\*</sup>The quantities for July and December in this table differ from those reported in the monthly reports. The quantities reported here are what was billed to the customers.



During FY19-20, 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 have been reconciled in Appendix 4 & Exhibit 1 of this report.

**Electricity** 

Month	Quantity (Kwh)	Unit Cost	Amount
July, 2019	7,901,964	\$0.07802	\$616,480.85
August	7,967,064	\$0.07879	\$627,700.16
September	7,528,192	\$0.07781	\$585,806.12
October	4,814,684	\$0.09540	\$459,318.66
November	2,912,504	\$0.07556	\$220,058.09
December	3,037,720	\$0.07720	\$234,507.54
January, 2020	2,829,736	\$0.08738	\$247,265.65
February	2,744,196	\$0.08190	\$224,751.19
March	3,137,820	\$0.07975	\$250,232.30
April	2,695,448	\$0.10129	\$273,012.67
May	3,375,120	\$0.08838	\$298,294.60
June	5,556,180	\$0.08770	\$487,255.27
Total	54,500,628	\$0.08302	\$4,524,683.10



The following table indicates the water purchased during FY19-20 based on the Metro Water Services rate schedule. The quantities in this table are from the actual water bills. They differ from those reported in the Monthly Reports because the Water Department's billing cycle is not based on an actual month.

### Water & Sewer

Month	Quantity (gal)	Unit Cost	Amount
July, 2019	17,307,972	\$0.00368	\$63,755.64
August	15,371,400	\$0.00370	\$56,797.65
September	18,613,980	\$0.00369	\$68,641.50
October	17,453,832	\$0.00369	\$64,491.71
November	8,519,720	\$0.00376	\$32,054.36
December	8,026,040	\$0.00377	\$30,240.50
January, 2020	8,233,236	\$0.00377	\$31,023.76
February	8,881,004	\$0.00630	\$55,960.18
March	8,246,700	\$0.00630	\$51,974.00
April	7,987,144	\$0.00630	\$50,336.10
May	8,208,552	\$0.00634	\$52,024.78
June	11,528,176	\$0.00628	\$72,358.36
Total	138,377,756	\$0.00455	\$629,658.54



# 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 FY19-20.

#### **Appendix 3 – Customer Rate Reconciliation**

Monthly Reconciliation charts from July 2019 to June 2020 are found in this appendix. The final chart is a Summary Reconciliation table for FY19-20. 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 1.015%, \$202,437 was charged in FY19-20 for the annual repair and replacement fund.
- 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
  - o 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.
  - o **EDS Electricity** The cost of electricity for tunnel lights and safety equipment.
  - o **EDS Surcharge** Surcharge to private customers only to cap their annual cost of any EDS repairs made by Metro (\$80,836).
  - o Water and Sewer Actual costs charged by Metro Water Services
- Energy Charges
  - Electricity
  - Natural Gas
  - o Propane

#### **Appendix 4 – CEPS Invoice Reconciliation (FEA)**

#### **Exhibit 1 – Performance Guarantee Calculation**



# Appendix 1



# **Metro Nashville District Energy System Customers**

Pri	vate	Sta	te	Me	tro
1	Bobby Hotel (fka Wells Fargo)	19	Andrew Jackson	33	A.A. Birch
2	Parkway Tower	20	Cordell Hull	34	Metro Courthouse
3	Sheraton Hotel	21	John Sevier	35	Municipal Auditorium
4	Hermitage Hotel	22	War Memorial	36	Criminal Justice Center
5	501 Union Building	23	Library & Archives	37	Bridgestone Arena
6	4th & Church Building	24	Supreme Court	38	Nissan Stadium
7	Fifth-Third Financial Center	25	State Capitol	39	Hume-Fogg High School
8	Renaissance Hotel	26	James K. Polk	40	Nashville Public Library
9	City Space (fka Ren. Office Tower)	27	Citizens Plaza	41	Music City Center
10	St. Mary's Catholic Church	28	Snodgrass Tennessee Tower		
11	Nashville City Center	29	Tennessee State University		
12	Wildhorse Saloon	30	Tennessee Performing Arts Center		
13	Ryman Auditorium	31	Legislative Plaza		
14	Schermerhorn Symphony Center	32	Rachael Jackson		
15	Viridian Residential Tower				
16	Hyatt Place Hotel				
17	Fairlane Hotel (fka 401 Union)				
18	5 <sup>th</sup> & Broadway (fka Nash Conv Ctr)				



# Appendix 2

#### Metro Nashville District Energy System Revenues

#### Chilled Water and Steam Fiscal Year Ending June 30, 2020

Customer No.	Customer Name		July		August		September		October	November		December	January		February		March		April		Мау	June	(including True Up)		Total
2	A. A. Birch	\$	55,884.76	\$	56,097.26	\$	54,515.98	\$ !	52,582.53	\$ 50,155.88	\$	48,392.52	\$ 49,009.43	\$	48,852.84	\$	50,046.33	\$	49,243.08	\$	46,538.80	\$	51,812.81 \$	$\epsilon$	513,132.22
4	Metro Courthouse	\$	31,527.71	\$	30,186.97	\$	29,100.87	\$	27,896.85	\$ 26,220.18	\$	23,984.02	\$ 24,910.64	\$	25,112.58	\$	25,889.73	\$	26,260.52	\$	26,842.28	\$	32,395.01 \$	3	330,327.36
7	Parkway Tower	\$	28,000.67	\$	26,686.54	\$	26,306.73	\$	23,290.36	\$ 25,997.06	\$	29,529.20	\$ 29,300.70	\$	27,107.83	\$	25,353.27	\$	20,321.66	\$	21,941.91	\$	23,976.22 \$	3	307,812.15
9	Bobby Hotel (fka Wells Fargo)	\$	15,903.87	\$	15,751.45	\$	14,522.73	\$	12,130.51	\$ 7,875.06	\$	8,083.40	\$ 7,764.47	\$	7,523.42	\$	9,216.20	\$	8,828.51	\$	9,117.59	\$	10,676.72 \$	1	127,393.93
10	Fairlane Hotel (fka 401 Union)	\$	11,972.17	\$	11,085.80	\$	10,960.62	\$	10,684.28	\$ 10,205.65	\$	10,168.69	\$ 10,130.68	\$	9,053.64	\$	7,263.66	\$	7,544.77	\$	8,299.26	\$	9,501.25 \$	1	116,870.47
11	Sheraton Hotel	\$	59,438.76	\$	56,981.43	\$	55,582.26	\$	55,383.45	\$ 50,588.24	\$	49,930.01	\$ 49,996.07	\$	50,276.52	\$	46,527.75	\$	43,512.38	\$	43,070.42	\$	45,253.03 \$	E	506,540.32
12	Municipal Auditorium	\$	24,584.09	\$	23,513.25	\$	25,704.94	\$	23,285.87	\$ 24,700.27	\$	23,203.33	\$ 21,287.13	\$	23,847.65	\$	17,518.66	\$	17,288.80	\$	15,058.92	\$	18,826.81 \$	2	258,819.72
21	Hermitage Hotel	\$	25,192.13	\$	24,280.19	\$	22,128.45	\$	21,595.61	\$ 18,601.45	\$	19,131.67	\$ 18,918.35	\$	19,637.51	\$	19,175.25	\$	18,861.72	\$	19,770.03	\$	22,067.17 \$	2	249,359.53
24	Criminal Justice Center	\$	32,980.01	\$	34,729.01	\$	29,812.74	\$	31,405.78	\$ 31,257.71	\$	29,686.83	\$ 27,867.94	\$	27,472.75	\$	30,193.40	\$	30,622.26	\$	29,634.21	\$	31,335.59 \$	. 3	366,998.23
25	501 Union Building	\$	12,479.20	\$	11,794.85	\$	12,118.04	\$	11,158.54	\$ 9,452.06	\$	9,650.71	\$ 10,757.36	\$	9,017.17	\$	9,208.61	\$	8,760.26	\$	8,087.88	\$	9,470.31 \$	1	121,954.99
28	4th & Church Building	\$	43,365.54	\$	43,118.01	\$	40,806.73	\$	33,783.31	\$ 35,803.63	\$	37,372.10	\$ 38,733.86	\$	36,752.74	\$	34,259.45	\$	31,974.38	\$	29,267.91	\$	38,080.24 \$	. 4	443,317.90
29	Fifth-Third Financial Center	\$	42,686.23	\$	42,123.62	\$	41,415.19	\$	35,394.69	\$ 24,187.31	\$	28,853.27	\$ 28,190.24	\$	27,378.60	\$	30,022.70	\$	30,508.10	\$	31,229.15	\$	37,061.96 \$	3	399,051.06
32	Renaissance Hotel	\$	99,504.63	\$	92,777.60	\$	80,930.64	\$	80,280.84	\$ 78,094.83	\$	78,069.65	\$ 82,757.98	\$	74,086.50	\$	68,257.14	\$	54,793.18	\$	61,299.42	\$	75,216.63 \$	9	926,069.04
33	5th & Broadway	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$ 10,940.47	\$	19,937.35	\$	19,983.07	\$	20,018.75	\$	21,315.71	\$	25,765.93 \$	1	117,961.28
34	Renaissance Office Tower	\$	14,727.17	\$	13,841.64	\$	13,475.58	\$	11,964.74	\$ 7,895.56	\$	7,971.43	\$ 8,150.16	\$	8,260.02	\$	8,604.62	\$	8,927.27	\$	9,555.96	\$	11,879.09 \$	1	125,253.24
35	St. Mary's Catholic Church	\$	1,046.36	\$	1,046.36	\$	1,046.36	\$	1,046.36	\$ 1,046.36	\$	1,046.36	\$ 1,046.36	\$	1,046.36	\$	1,046.36	\$	1,046.36	\$	1,046.36	\$	1,046.36 \$		12,556.32
36	Nashville City Center	\$	38,585.15	\$	40,079.46	\$	39,562.18	\$	34,410.37	\$ 20,202.27	\$	22,518.48	\$ 21,788.53	\$	21,102.50	\$	22,346.64	\$	22,630.90	\$	26,034.17	\$	34,284.97 \$	3	343,545.62
38	Wildhorse Saloon	\$	14,555.86	\$	12,204.02	\$	11,730.93	\$	10,414.14	\$ 9,822.17	\$	9,599.89	\$ 8,489.82	\$	8,321.78	\$	8,575.89	\$	8,476.02	\$	7,841.94	\$	8,197.19 \$	1	118,229.65
39	Ryman Auditorium	\$	16,471.97	\$	15,203.68	\$	16,209.77	\$	16,310.71	\$ 13,333.21	\$	13,216.34	\$ 13,352.86	\$	12,757.98	\$	14,379.07	\$	14,689.85	\$	15,040.25	\$	16,124.81 \$	1	177,090.50
40	Bridgestone Arena	\$	115,901.58	\$	126,181.24	\$	147,276.50	\$ 1	29,366.53	\$ 89,157.04	\$	89,897.45	\$ 91,217.71	\$	103,006.66	\$	82,373.90	\$	78,699.03	\$	83,108.00	\$ :	108,514.57 \$	1,2	244,700.21
41	Nissan Stadium	\$	69,148.68	\$	69,525.87	\$	63,751.23	\$ 4	48,853.59	\$ 32,574.05	\$	31,227.49	\$ 30,869.76	\$	28,652.88	\$	34,820.57	\$	37,149.51	\$	43,691.74	\$	55,407.22 \$		545,672.59
43	Hume-Fogg High School	\$	12,189.57	\$	11,798.49	\$	11,184.78	\$	9,072.03	\$ 8,787.38	\$	10,383.87	\$ 10,130.70	\$	9,377.68	\$	9,783.88	\$	10,027.07	\$	9,157.31	\$	10,359.60 \$	1	122,252.36
44	Schermerhorn Symphony Center	\$	32,888.73	\$	30,057.24	\$	32,499.55	\$	29,865.76	\$ 23,609.48	\$	24,542.03	\$ 25,250.34	\$	24,481.05	\$	24,770.06	\$	21,195.80	\$	24,011.35	\$	28,991.43 \$	3	322,162.82
45	Nashville Public Library	\$	36,041.77	\$	36,145.63	\$	36,763.61	\$	38,881.70	\$ 33,157.33	\$	35,836.14	\$ 36,261.07	\$	35,282.81	\$	29,019.90	\$	32,616.20	\$	25,592.05	\$	28,807.81 \$	4	104,406.02
49	Viridian Residential Tower	\$	21,760.68	\$	22,061.93	\$	22,222.93	\$	20,048.34	\$ 16,017.02	\$	16,002.20	\$ 16,177.27	\$	16,315.30	\$	16,010.61	\$	17,677.29	\$	18,318.71	\$	20,669.33 \$	2	223,281.61
50	Music City Center	\$	260,191.41	\$	251,497.36	\$	241,989.69	\$ 2	38,900.98	\$ 202,606.94	\$	197,577.82	\$ 196,667.50	\$	190,412.53	\$	166,361.97	\$	180,645.93	\$	183,736.87	\$ 2	207,534.26 \$	2,5	518,123.26
51	Hyatt Place Hotel	\$	18,482.76	\$	19,543.73	\$	18,789.75	\$	18,234.90	\$ 16,403.16	\$	16,325.64	\$ 16,143.53	\$	15,871.76	\$	16,159.14	\$	13,305.31	\$	13,233.07	\$	16,534.30 \$	1	199,027.05
S1	State Government of TN	\$	435,915.53	\$	440,270.15	\$	428,110.37	\$ 4	19,867.54	\$ 381,953.60	\$	390,503.03	\$ 386,655.48	\$	387,687.80	\$	376,104.91	\$	377,146.26	\$	366,644.22	\$ 4	432,247.96 \$	4,8	323,106.85
	Grand Totals:	\$ 1	1,571,426.99	\$ 1,	558,582.78	\$ 1	1,528,519.15	\$ 1,4	46,110.31	\$ 1,249,704.90	\$ :	1,262,703.57	\$ 1,272,766.41	\$ 1	1,268,634.21	\$ 1	1,203,272.74	\$ 1	1,192,771.17	\$ 1	1,198,485.49	\$ 1,4	412,038.58 \$	16,1	165,016.30



# Appendix 3

# Metro Nashville District Energy System

#### Revenues

#### Chilled Water and Steam

Fiscal Year Ending June 30, 2020

Customer Number Customer Name		Capacity	Operating	EDS	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	\$	127,529.51 \$	193,609.86	\$ 8,871.14 \$	12,815.81 \$	24,715.65 \$	7,805.54	\$ 2,870.73	621.20	\$ 3,011.74	\$ - \$	12,610.54	\$ 163,688.02 \$	53,778.26 \$	1,204.22 \$	613,132.22
4 Metro Courthouse	\$	60,372.22 \$	90,342.06	\$ 4,139.53 \$	5,980.31 \$	17,256.39 \$	5,539.95	\$ 1,348.51	290.49	\$ 1,405.40	\$ - \$	3,410.56	\$ 103,659.27 \$	35,862.60 \$	720.07 \$	330,327.36
7 Parkway Tower	\$	55,039.57 \$	87,650.27		5,801.38 \$	14,339.75 \$				\$ 1,363.32	\$ 8,636.88 \$	2,594.43			562.91 \$	307,812.15
9 Bobby Hotel (fka Wells Fargo)	\$	20,433.05 \$	32,035.42	\$ 1,467.77 \$	2,122.26 \$	6,876.75 \$	1,943.22	\$ 466.39	101.47	\$ 498.61	\$ 3,102.00 \$	1,167.01	\$ 44,978.72	11,971.93 \$	229.33 \$	127,393.93
10 Fairlane Hotel (fka 401 Union)	\$	21,041.81 \$	32,737.27	\$ 1,499.89 \$	2,166.97 \$	5,216.30 \$	1,663.16	\$ 479.99	104.66	\$ 509.23	\$ 3,779.04 \$	1,763.09	\$ 32,909.15 \$	12,715.25 \$	284.66 \$	116,870.47
11 Sheraton Hotel	\$	116,134.99 \$	176,050.09	\$ 8,066.53 \$	11,653.51 \$	25,903.88 \$	9,261.21	\$ 2,612.14	564.98	\$ 2,738.61	\$ 14,979.96 \$	1,628.90	\$ 149,592.63 \$	85,557.28 \$	1,795.61 \$	606,540.32
12 Municipal Auditorium	\$	58,279.81 \$	93,554.77	\$ 4,286.06 \$	6,192.05 \$	7,814.71 \$	2,841.61	\$ 1,352.46	297.76	\$ 1,455.15	\$ - \$	3,031.47	\$ 47,152.22 \$	31,784.29 \$	777.36 \$	258,819.72
21 Hermitage Hotel	\$	56,095.16 \$	82,548.15	\$ 3,782.64 \$	5,464.59 \$	10,783.98 \$	2,942.24	\$ 1,241.83	266.10	\$ 1,284.20	\$ 3,372.00 \$	5,560.00	\$ 64,369.61 \$	11,403.19 \$	245.84 \$	249,359.53
24 Criminal Justice Center	\$	94,852.19 \$	135,721.65	\$ 6,219.48 \$	8,985.12 \$	9,166.36 \$	3,889.08	\$ 2,068.98	439.39	\$ 2,111.53	\$ - \$	289.77	\$ 58,297.15	44,055.87 \$	901.66 \$	366,998.23
25 501 Union Building	\$	22,116.99 \$	33,277.15	\$ 1,524.72 \$	2,202.79 \$	5,393.25 \$	1,701.60	\$ 495.45	106.91	\$ 517.65	\$ 2,835.12 \$	21.34	\$ 39,575.12	11,941.70 \$	245.20 \$	121,954.99
28 4th & Church Building	\$	253,905.60 \$	-	\$ - \$	- \$	17,949.04 \$	5,273.99	\$ 1,628.55	355.52	\$ -	\$ - \$	=	\$ 132,335.86 \$	31,113.61 \$	755.73 \$	443,317.90
29 Fifth-Third Financial Center	\$	67,590.74 \$	123,168.22	\$ 5,641.46 \$	8,150.11 \$	17,650.74 \$	4,033.26	\$ 1,685.76	385.43	\$ 1,915.30	\$ 9,582.00 \$	4,315.90	\$ 154,932.14 \$	- \$	- \$	399,051.06
32 Renaissance Hotel	\$	175,214.40 \$	259,978.09	\$ 11,912.55 \$	17,209.90 \$	47,040.20 \$	14,673.01	\$ 3,895.97	836.99	\$ 4,044.38	\$ 17,813.04 \$	832.17	\$ 262,450.41 \$	107,746.06 \$	2,421.87 \$	926,069.04
33 5th & Broadway	\$	35,955.42 \$	65,520.21	\$ 3,001.04 \$	3,788.31 \$	641.85 \$	176.69	\$ 1,379.05	443.45	\$ 1,067.57	\$ - \$		,	- \$	- \$	117,961.28
34 Renaissance Office Tower	\$	16,525.03 \$	30,113.03	\$ 1,379.28 \$	1,992.57 \$	8,774.31 \$	1,993.15	\$ 412.15	94.23	\$ 468.26	\$ 2,768.04 \$	623.78	\$ 60,109.41	- \$	- \$	125,253.24
35 St. Mary's Catholic Church	\$	12,151.44 \$	-	\$ - \$	- \$	- \$		\$ - 5	-	\$ -	\$ 404.88 \$				- \$	12,556.32
36 Nashville City Center	\$	55,083.57 \$	100,376.77	\$ 4,597.58 \$	6,641.95 \$	17,207.20 \$	3,816.96	\$ 1,373.82	921122	\$ 1,560.89	, +	2,986.11				343,545.62
38 Wildhorse Saloon	\$	20,505.65 \$	32,870.25	\$ 1,506.00 \$	2,175.63 \$	5,870.54 \$	,			\$ 511.26	, , , , , , ,	3,481.99	,	.,	194.47 \$	118,229.65
39 Ryman Auditorium	\$	21,155.21 \$	34,475.38	\$ 1,579.44 \$	2,281.82 \$	12,696.61 \$				\$ 536.23		-	,		531.09 \$	177,090.50
40 Bridgestone Arena	\$	227,827.63 \$	372,251.46		24,637.12 \$	68,045.04 \$	,	Ç 3,333. <b>2</b> 3 ,	,	\$ 5,789.82		_,	,		1,467.62 \$	1,244,700.21
41 Nissan Stadium	\$	97,206.36 \$	177,135.43		11,721.19 \$	28,679.30 \$	-,					285.75	,		- \$	545,672.59
43 Hume-Fogg High School	\$	32,372.82 \$	50,560.80	\$ 2,316.49 \$	3,346.69 \$	2,239.44 \$						-,	,		111133 Q	122,252.36
44 Schermerhorn Symphony Center	\$	185,067.60 \$	-	\$ - \$	- \$	12,589.90 \$	4,289.82	\$ 1,165.33 \$				-				322,162.82
45 Nashville Public Library	\$	83,905.08 \$	-	\$ - \$	- \$	37,247.90 \$	,	, , , , , , ,				-,				404,406.02
49 Viridian Residential Tower	\$	150,693.84 \$	-	\$ - \$	- \$	7,783.87 \$	,	\$ 827.53				11,672.49				223,281.61
50 Music City Center	\$	930,813.36 \$	112,557.96	\$ - \$	45,311.25 \$	137,130.26 \$			,			,			, ,	2,518,123.26
51 Hyatt Place Hotel S1 State Government of TN	\$	134,130.60 \$ 1.639.133.76 \$	1.300.356.00	\$ - \$ \$ - \$	- \$ - \$	4,833.82 \$ 161.945.16 \$	, , ,	\$ 939.86 \$ \$ - \$	198.84	\$ - \$ 21.329.03		4,639.76 51.715.32				199,027.05 4,823,106.85
Grand Totals:		, , ,	,,		- \$ 190.641.33 \$		,		,	, , ,		- ,	, , , ,			
Rate Calculation Totals:	\$ \$	4,771,133.41 \$ 5.788.377.58 \$			190,641.33 \$	715,792.20 \$ 716,023.75 \$	-,			\$ 55,659.15 \$ 58,135.48		,		-,, +	. ,	16,165,016.30 18,860,460.81
		.,		\$ 171,604.23 \$			•	, -	-	+ 00/-00::0		,-			. ,	
Deviation:	Ş	(1,017,244.17) \$	(1,541,488.54)	\$ (70,629.86) \$	(72,474.79) \$	(235.09) \$	(123.77)	\$ (7,435.13)	-	\$ (2,476.33)	- \$	-	\$ (767.32) \$	(1,839.33) \$	12.06 \$	(2,695,444.51)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam July, 2019

Number Number Customer	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	\$ 11,277.75 \$	17,087.47	\$ 782.94 \$	1,253.87	\$ 2,798.39	\$ 433.28 \$	85.09	\$ -	\$ 285.46 \$	- 5	286.20	\$ 21,340.05	\$ 254.26	\$ -	\$ \$	55,884.76
4 Metro Courthouse	\$ 5,342.18 \$	7,977.98	\$ 365.56 \$	585.44	\$ 1,665.33	\$ 310.80 \$	39.72	\$ -	\$ 133.28 \$	- 5	-	\$ 13,121.57	\$ 1,985.85	\$ -	\$ \$	31,527.71
7 Parkway Tower	\$ 4,857.00 \$	7,721.31	\$ 353.75 \$	566.53	\$ 1,367.31	\$ 208.12 \$	38.48	\$ -	\$ 128.98 \$	719.74	264.56	\$ 11,774.89	\$ -	\$ -	\$ \$	28,000.67
9 Bobby Hotel (fka Wells Fargo)	\$ 1,945.00 \$	3,079.99	\$ 141.11 \$	225.99	\$ 1,114.47	\$ 191.42 \$	15.35	\$ -	\$ 51.45 \$	258.50	-	\$ 8,125.72	\$ 754.87	\$ -	\$ \$	15,903.87
10 Fairlane Hotel (fka 401 Union)	\$ 1,858.79 \$	2,886.50	\$ 132.25 \$	211.79	\$ 674.08	\$ 111.72 \$	14.37	\$ -	\$ 48.21 \$	314.92	120.06	\$ 5,283.46	\$ 316.02	\$ -	\$ \$	11,972.17
11 Sheraton Hotel	\$ 10,270.77 \$	15,538.61	\$ 711.97 \$	1,140.22	\$ 2,917.43	\$ 599.23 \$	77.37	\$ -	\$ 259.58 \$	1,248.33	129.47	\$ 21,169.20	\$ 5,376.58	\$ -	\$ \$	59,438.76
12 Municipal Auditorium	\$ 5,141.06 \$	8,238.94	\$ 377.46 \$	604.50	\$ 1,121.54	\$ 170.84 \$	41.06	\$ -	\$ 137.62 \$	- 5	105.82	\$ 8,640.73	\$ 4.52	\$ -	\$ \$	24,584.09
21 Hermitage Hotel	\$ 4,967.22 \$	7,294.71	\$ 334.26 \$	535.32	\$ 1,134.48	\$ 217.29 \$	36.30	\$ -	\$ 121.87 \$	281.00	436.12	\$ 8,287.67	\$ 1,545.89	\$ -	\$ \$	25,192.13
24 Criminal Justice Center	\$ 8,408.86 \$	12,007.68	\$ 550.26 \$	881.23	\$ 1,026.22	\$ 194.04 \$	59.74	\$ -	\$ 200.62 \$	- 5	-	\$ 8,340.28	\$ 1,311.08	\$ -	\$ \$	32,980.01
25 501 Union Building	\$ 1,956.61 \$	2,938.02	\$ 134.62 \$	215.59	\$ 617.46	\$ 114.73 \$	14.62	\$ -	\$ 49.08 \$	236.26	15.43	\$ 5,467.64	\$ 719.14	\$ -	\$ \$	12,479.20
28 4th & Church Building	\$ 21,158.80 \$	-	\$ - \$	-	\$ 2,449.90	\$ 372.90 \$	48.86	\$ -	\$ - \$	- 5	-	\$ 19,335.08	\$ -	\$ -	\$ \$	43,365.54
29 Fifth-Third Financial Center	\$ 5,925.51 \$	10,797.83	\$ 494.57 \$	792.05	\$ 2,066.11	\$ 314.48 \$	53.91	\$ -	\$ 180.32 \$	798.50	50.17	\$ 21,212.78	\$ -	\$ -	\$ \$	42,686.23
32 Renaissance Hotel	\$ 15,509.81 \$	22,966.24	\$ 1,052.36 \$	1,685.33	\$ 6,470.97	\$ 1,124.59 \$	114.32	\$ -	\$ 383.68 \$	1,484.42	-	\$ 43,874.04	\$ 4,838.87	\$ -	\$ \$	99,504.63
33 5th & Broadway	\$ - \$	-	\$ - \$	-	\$ -	\$ - \$	=	\$ -	\$ - \$	- 5	-	\$ -	\$ -	\$ -	\$ \$	-
34 Renaissance Office Tower	\$ 1,448.71 \$	2,639.93	\$ 120.92 \$	193.65	\$ 1,012.27	\$ 154.08 \$	13.18	\$ -	\$ 44.09 \$	230.67	-	\$ 8,869.67	\$ -	\$ -	\$ \$	14,727.17
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ - \$	-	\$ -	\$ - \$	-	\$ -	\$ - \$	33.74	-	\$ -	\$ -	\$ -	\$ \$	1,046.36
36 Nashville City Center	\$ 4,829.03 \$	8,799.77	\$ 403.06 \$	645.49	\$ 2,502.05	\$ 380.84 \$	43.93	\$ -	\$ 146.95 \$	764.75	-	\$ 20,069.28	\$ -	\$ -	\$ \$	38,585.15
38 Wildhorse Saloon	\$ 1,809.00 \$	2,894.89	\$ 132.63 \$	212.40	\$ 918.41	\$ 170.52 \$	14.42	\$ -	\$ 48.36 \$	185.58	244.12	\$ 6,860.73	\$ 1,064.80	\$ -	\$ \$	14,555.86
39 Ryman Auditorium	\$ 1,864.87 \$	3,034.36	\$ 139.01 \$	222.63	\$ 1,131.28	\$ 215.66 \$	15.13	\$ -	\$ 50.68 \$	179.92	-	\$ 8,112.23	\$ 1,506.20	\$ -	\$ \$	16,471.97
40 Bridgestone Arena	\$ 20,081.02 \$	32,760.66	\$ 1,500.85 \$	2,403.58	\$ 6,007.98	\$ 1,111.72 \$	163.31		\$ 547.20 \$	- 5	-	\$ 44,490.32	\$ 6,834.94	\$ -	\$ \$	115,901.58
41 Nissan Stadium	\$ 8,521.82 \$	15,529.00	\$ 711.27 \$	1,139.10	\$ 4,974.90	\$ 757.23 \$	77.53	\$ -	\$ 259.32 \$	- 5		\$ 37,178.51			\$ \$	69,148.68
43 Hume-Fogg High School	\$ 2,859.25 \$	4,457.36	\$ 204.22 \$	327.06			22.21		\$ 74.45 \$	- 5	264.56	\$ 2,777.95			\$ \$	12,189.57
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ - \$	-	\$ 1,427.63		35.22		\$ - \$	- 5		\$ 12,571.02		\$ -	\$ \$	32,888.73
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ - \$	-	\$ 2,853.09		54.88		\$ - \$	- 5	215.35	\$ 20,286.06	,	\$ -	\$ \$	36,041.77
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ - \$		\$ 1,089.48		26.46		\$ - \$	- 5	-	\$ 7,921.09			\$ \$	21,760.68
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ - \$	4,137.49	,		406.88	\$ -	\$ - \$	- 5	-	\$ 123,675.40	\$ 25,750.87	\$ -	\$ \$	260,191.41
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ - \$	-	\$ 622.02		26.99	\$ -	\$ - \$	- 5		. ,			\$ \$	18,482.76
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ - \$	-	\$ 16,541.13		-		\$ 2,021.85 \$	- 5	,				\$	435,915.53
Grand Totals:	\$ 401,357.70 \$	306,394.08	\$ 8,643.07 \$	17,979.26	\$ 80,959.15		1,539.33	\$ -	\$ 5,173.05 \$	6,736.33	4,803.16	\$ 635,723.60	\$ 87,276.70	\$ -	\$	,571,426.99
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.72	\$ 14,339.29 \$	22,964.17			2,258.33		\$ 5,227.98 \$	6,736.33	4,803.16		\$ 87,276.69		\$	.,788,879.13
Deviation:	\$ (81,559.03) \$	(124,320.64)	\$ (5,696.22) \$	(4,984.91)	\$ (21.69)	\$ (3.33) \$	(719.00)	\$ -	\$ (54.93) \$	- 5	-	\$ (92.40)	\$ 0.01	\$ -	\$ \$	(217,452.14)

# Metro Nashville District Energy System Revenues Chilled Water and Steam August, 2019

Number 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	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 2,628.07	\$ 553.54	\$ 85.14	\$ -	\$ 240.25 \$	- \$	336.07	\$ 22,998.	90 \$	567.77	\$ 2.80 \$	56,097.26
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 1,472.04	\$ 377.57	\$ 39.74	\$ -	\$ 112.11 \$	- \$	284.09	\$ 12,442.	00 \$	1,992.68	\$ 9.83 \$	30,186.97
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,192.11	\$ 240.71	\$ 38.50	\$ -	\$ 108.76 \$	719.74 \$	264.05	\$ 11,361.	32 \$	-	\$ - 5	26,686.54
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 1,030.70	\$ 254.74	\$ 13.96	\$ -	\$ 39.42 \$	258.50 \$	-	\$ 8,338.	41 \$	1,156.39	\$ 5.71 \$	15,751.45
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 558.14	\$ 124.91	\$ 14.38	\$ -	\$ 40.63 \$	314.92 \$	122.90	\$ 4,798.	70 \$	302.98	\$ 1.49 \$	11,085.80
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 2,600.59	\$ 739.73	\$ 77.41	\$ -	\$ 218.47 \$	1,248.33 \$	130.31	\$ 20,519.	61 \$	5,323.27	\$ 26.26 \$	56,981.43
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 1,082.68	\$ 218.78	\$ 41.09	\$ -	\$ 116.08 \$	- \$	205.76	\$ 8,262.	76 \$	4.05	\$ 0.02 \$	23,513.25
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 1,016.87	\$ 265.77	\$ 36.32	\$ -	\$ 102.45 \$	281.00 \$	402.37	\$ 8,295.	24 \$	1,499.15	\$ 7.40 \$	24,280.19
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 1,122.31	\$ 338.31	\$ 59.76	\$ -	\$ 168.45 \$	- \$	-	\$ 9,693.	50 \$	2,770.23	\$ 13.67 \$	34,729.01
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 558.71	\$ 143.97	\$ 14.63	\$ -	\$ 41.30 \$	236.26 \$	4.00	\$ 5,072.	57 \$	772.88	\$ 3.81 \$	11,794.85
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 2,212.39	\$ 446.72	\$ 48.89	\$ -	\$ - \$	- \$	-	\$ 19,251.	21 \$	-	\$ - \$	43,118.01
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 1,928.95	\$ 389.48	\$ 53.95	\$ -	\$ 152.79 \$	798.50 \$	79.48	\$ 21,600.	94 \$	-	\$ - \$	42,123.62
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 5,740.07	\$ 1,279.01	\$ 114.38	\$ -	\$ 322.64 \$	1,484.42 \$	=	\$ 41,997.	62 \$	2,976.27	\$ 14.68 \$	92,777.60
33 5th & Broadway	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	- \$	-	\$ -	\$	-	\$ - \$	
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 916.25	\$ 185.01	\$ 13.19	\$ -	\$ 37.35 \$	230.67 \$	17.49	\$ 8,256.	18 \$	-	\$ - \$	13,841.64
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	33.74 \$	-	\$ -	\$	-	\$ - \$	1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 2,210.04	\$ 446.24	\$ 43.97	\$ -	\$ 124.52 \$	764.75 \$	-	\$ 22,538.	26 \$	-	\$ - \$	40,079.46
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 718.62	\$ 157.94	\$ 14.43	\$ -	\$ 40.78 \$	185.58 \$	241.65	\$ 5,750.	50 \$	318.49	\$ 1.57	12,204.02
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 972.40	\$ 253.32	\$ 15.14	\$ -	\$ 42.77 \$	179.92 \$	-	\$ 7,341.	51 \$	1,413.37	\$ 6.97	15,203.68
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.86	\$ 1,421.14	\$ 2,275.93	\$ 6,830.87	\$ 1,715.21	\$ 163.42	\$ -	\$ 461.87 \$	- \$	-	\$ 54,933.	24 \$	8,332.00	\$ 41.11 \$	126,181.24
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 4,583.77	\$ 925.54	\$ 77.60	\$ -	\$ 219.73 \$	- \$	-	\$ 39,098.	61 \$	-	\$ - 5	69,525.87
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 270.78	\$ 72.88	\$ 22.22	\$ -	\$ 62.74 \$	- \$	500.67	\$ 3,002.	33 \$	451.32	\$ 2.23 \$	11,798.49
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 1,116.16	\$ 307.80	\$ 35.24	\$ -	\$ - \$	- \$	-	\$ 11,121.	31 \$	2,044.34	\$ 10.09 \$	30,057.24
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 2,650.74	\$ 747.65	\$ 54.91	\$ -	\$ - \$	- \$	271.64	\$ 20,133.	98 \$	5,268.63	\$ 25.99	36,145.63
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 940.44	\$ 189.89	\$ 26.49	\$ -	\$ - \$	- \$	420.69	\$ 7,926.	60 \$	-	\$ - \$	22,061.93
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,140.19	\$ 14,165.30	\$ 3,696.01	\$ 407.14	\$ -	\$ - \$	- \$	-	\$ 121,309.	19 \$	20,729.65	\$ 102.27 \$	251,497.36
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 629.80	\$ 202.69	\$ 27.00	\$ -	\$ - \$	- \$	196.14	\$ 5,428.	24 \$	1,873.07		19,543.73
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 15,110.11	\$ 4,062.29			\$ 1,701.48 \$	- \$	3,539.64	\$ 145,692.	60 \$	25,082.83	\$ 123.72	440,270.15
Grand Totals:	\$ 394,585.77 \$	295,924.90	\$ 8,163.41	\$ 17,213.75	\$ 74,258.91	\$ 18,335.71	\$ 1,538.90	\$ -	\$ 4,354.59 \$	6,736.33 \$	7,016.95	\$ 647,165.	33 \$	82,879.37	\$ 408.86	1,558,582.78
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.72	\$ 14,339.29	\$ 22,964.17	\$ 74,278.00	\$ 18,339.55	\$ 2,258.33	\$ -	\$ 4,660.26 \$	6,736.33 \$	7,016.95	\$ 647,254.	48 \$	82,879.37	\$ 408.88 \$	1,794,767.06
Deviation:	\$ (88,330.96) \$	(134,789.82)	\$ (6,175.88)	\$ (5,750.42)	\$ (19.09)	\$ (3.84)	\$ (719.43)	\$ -	\$ (305.67) \$	- \$	-	\$ (89.	15) \$	-	\$ (0.02) \$	(236,184.28)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam September, 2019

Customer Number Customer Name	Capacity	Operating	EDS Improvemen t	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	ПFS	Electricity	Natural Gas	Propane	Total
2 A. A. Birch	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 2,921.03	\$ 433.89	\$ 85.14	\$ -	\$ 176.48 \$	- \$	368.07	\$ 20,735.80	\$ 1,103.04	\$ 7.81 \$	54,515.98
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 1,592.34	\$ 288.38	\$ 39.74	\$ -	\$ 82.36 \$	- \$	337.36	\$ 11,336.43	\$ 1,953.51	\$ 13.84 \$	29,100.87
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,337.19	\$ 179.26	\$ 38.50	\$ -	\$ 79.88 \$	719.74 \$	255.67	\$ 10,935.14	\$ -	\$ - \$	26,306.73
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 1,097.25	\$ 187.53	\$ 13.96	\$ -	\$ 28.96 \$	258.50 \$	-	\$ 7,221.04	\$ 1,054.40	\$ 7.47 \$	14,522.73
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 630.41	\$ 96.24	\$ 14.38	\$ -	\$ 29.84 \$	314.92 \$	125.83	\$ 4,634.47	\$ 305.61	\$ 2.17 \$	10,960.62
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 2,896.64	\$ 590.83	\$ 77.41	\$ -	\$ 160.48 \$	1,248.33 \$	137.55	\$ 19,055.73	\$ 5,280.43	\$ 37.41 \$	55,582.26
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 1,555.83	\$ 208.70	\$ 41.09	\$ -	\$ 85.27 \$	- \$	292.63	\$ 9,936.08	\$ 3.29	\$ 0.02 \$	25,704.94
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 1,105.25	\$ 156.78	\$ 36.32	\$ -	\$ 75.25 \$	281.00 \$	402.37	\$ 7,471.75	\$ 224.52	\$ 1.59 \$	22,128.45
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 908.26	\$ 161.89			\$ 123.73 \$	- \$	-	\$ 6,942.46	\$ 1,046.45	\$ 7.41 \$	29,812.74
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 614.31	\$ 116.22	\$ 14.63	\$ -	\$ 30.33 \$	236.26 \$	2.67	\$ 5,267.37	\$ 883.27	\$ 6.26 \$	12,118.04
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 2,211.35	\$ 296.45	\$ 48.89	\$ -	\$ - \$	- \$	-	\$ 17,091.24	\$ -	\$ - \$	40,806.73
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 2,135.61	\$ 286.29	\$ 53.95	\$ -	\$ 112.24 \$	798.50 \$	135.12	\$ 20,773.95	\$ -	\$ - \$	41,415.19
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 5,837.79	\$ 880.97	\$ 114.38	\$ -	\$ 236.99 \$	1,484.42 \$	-	\$ 30,944.26	\$ 2,565.15	\$ 18.17 \$	80,930.64
33 5th & Broadway	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	- \$	-	\$ -	\$ -	\$ - \$	-
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 1,088.22	\$ 145.88	\$ 13.19	\$ -	\$ 27.44 \$	230.67 \$	19.43	\$ 7,765.25	\$ -	\$ - \$	13,475.58
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	33.74 \$	-	\$ -	\$ -	\$ - \$	1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 2,301.43	\$ 308.52	\$ 43.97	\$ -	\$ 91.47 \$	764.75 \$	-	\$ 22,100.36	\$ -	\$ - \$	39,562.18
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 765.61	\$ 112.61	\$ 14.43	\$ -	\$ 29.96 \$	185.58 \$	256.05	\$ 5,330.42	\$ 259.97	\$ 1.84 \$	11,730.93
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 1,267.10	\$ 220.38	\$ 15.14	\$ -	\$ 31.42 \$	179.92 \$	-	\$ 8,191.07	\$ 1,317.13	\$ 9.33 \$	16,209.77
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.86	\$ 1,421.14	\$ 2,275.93	\$ 10,436.89	\$ 1,900.58			\$ 339.27 \$	- \$	-	\$ 67,565.71	\$ 13,074.48	\$ 92.63 \$	147,276.50
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 4,840.78	\$ 648.94	\$ 77.60	\$ -	\$ 161.41 \$	- \$	57.15	\$ 33,344.73	\$ -	\$ - \$	63,751.23
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 281.22	\$ 41.52	\$ 22.22	\$ -	\$ 46.08 \$	- \$	525.82	\$ 2,754.29	\$ 99.60	\$ 0.71 \$	11,184.78
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 1,454.87	\$ 307.47	\$ 35.24	\$ -	\$ - \$	- \$	-	\$ 12,327.46	\$ 2,931.44	\$ 20.77 \$	32,499.55
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 3,138.56				\$ - \$	- \$	274.09	\$ 19,877.17	\$ 5,745.01	\$ 40.70 \$	36,763.61
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 1,125.77	\$ 150.92	\$ 26.49	\$ -	\$ - \$	- \$	684.40	\$ 7,677.53	\$ -	\$ - \$	22,222.93
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,140.19	\$ 15,961.24	\$ 2,985.26	\$ 407.14	\$ -	\$ - \$	- \$	-	\$ 109,345.75	\$ 22,046.31	\$ 156.19 \$	241,989.69
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 706.51			\$ -	\$ - \$	- \$	214.18	\$ 4,864.82	\$ 1,630.88	\$ 11.55 \$	18,789.75
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	7	\$ -	\$ 16,871.53	\$ 3,221.63			\$ 1,249.85 \$	- \$	,	\$ 133,950.38	\$ 25,027.99	\$ 177.34 \$	428,110.37
Grand Totals:	\$ 394,585.77 \$	295,924.90	\$ 8,163.41	\$ 17,213.75	\$ 85,082.99	\$ 14,725.48	\$ 1,538.90	\$ -	\$ 3,198.71 \$	6,736.33 \$	6,742.56	\$ 607,440.66	\$ 86,552.48	\$ 613.21 \$	1,528,519.15
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.72		\$ 22,964.17					\$ 3,423.34 \$	6,736.33 \$	6,742.56				, . ,
Deviation:	\$ (88,330.96) \$	(134,789.82)	\$ (6,175.88)	\$ (5,750.42	\$ (18.92)	\$ (3.14)	\$ (719.43)	\$ -	\$ (224.63) \$	- \$	-	\$ (74.79)	\$ (16.44)	\$ (0.12) \$	(236,104.55)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam October, 2019

Customer Number	Custom er Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	пгѕ	Electricity		Natural Gas	Propane	Total
2 /	A. A. Birch	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 2,354.05	\$ 574.50	\$ 85.14	\$ -	\$ -	\$ - \$	1,152.23	\$ 15,0	31.09	4,665.37	\$ 35.43	\$ 52,582.53
4	Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 1,487.73	\$ 363.95	\$ 39.74	\$ -	\$ -	\$ - \$	539.78	\$ 9,	012.67	2,973.49	\$ 22.58	\$ 27,896.85
7	Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,139.81	\$ 198.94	\$ 38.50	\$ -	\$ -	\$ 719.74 \$	163.46	\$ 8,	268.56	-	\$ -	\$ 23,290.36
9	Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 749.07	\$ 178.50	\$ 13.96	\$ -	\$ -	\$ 258.50 \$	78.19	\$ 4,	326.55	1,361.78	\$ 10.34	\$ 12,130.51
10	Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 584.74	\$ 139.18	\$ 14.38	\$ -	\$ -	\$ 314.92 \$	181.43	\$ 3,	76.48	1,058.36	\$ 8.04	\$ 10,684.28
11	Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 2,821.48	\$ 782.80	\$ 77.41	\$ -	\$ -	\$ 1,248.33 \$	144.79	\$ 15,	370.19	8,278.14	\$ 62.86	\$ 55,383.45
12	Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 964.22	\$ 234.40	\$ 41.09	\$ -	\$ -	\$ - \$	489.24	\$ 6,	75.71	1,884.87	\$ 14.31	\$ 23,285.87
21	Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 1,088.92	\$ 219.66	\$ 36.32	\$ -	\$ -	\$ 281.00 \$	457.23	\$ 6,	288.31	844.14	\$ 6.41	\$ 21,595.61
24	Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 903.77	\$ 300.25	\$ 59.76	\$ -	\$ -	\$ - \$	=	\$ 5,	185.35	4,063.02	\$ 30.85	\$ 31,405.78
25	501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 543.38	\$ 136.82	\$ 14.63	\$ -	\$ -	\$ 236.26 \$	-	\$ 4,0	74.78	1,196.86	\$ 9.09	\$ 11,158.54
28	4th & Church Building	\$ 21,158.80 \$	=	\$ -	\$ -	\$ 1,241.15	\$ 234.14	\$ 48.89	\$ -	\$ -	\$ - \$	=	\$ 10,	97.33	499.21	\$ 3.79	\$ 33,783.31
29	Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 1,729.89	\$ 301.93	\$ 53.95	\$ -	\$ -	\$ 798.50 \$	349.72	\$ 15,	041.17	-	\$ -	\$ 35,394.69
32	Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 5,276.54	\$ 1,237.78	\$ 114.38	\$ -	\$ -	\$ 1,484.42 \$	=	\$ 24,	217.17	9,033.44	\$ 68.60	\$ 80,280.84
33	5th & Broadway	\$ - \$	=	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	-	\$	- :	-	\$ -	\$ -
34	Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 936.89	\$ 163.52	\$ 13.19	\$ -	\$ -	\$ 230.67 \$	95.22	\$ 6,	39.75	-	\$ -	\$ 11,964.74
35	St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33.74 \$	-	\$	- !	-	\$ -	\$ 1,046.36
36	Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 1,928.78	\$ 336.64	\$ 43.97	\$ -	\$ -	\$ 764.75 \$	285.01	\$ 17,	99.54	-	\$ -	\$ 34,410.37
38	Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 610.33	\$ 127.68	\$ 14.43	\$ -	\$ -	\$ 185.58 \$	308.86	\$ 3,	785.18	603.04	\$ 4.58	\$ 10,414.14
39	Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 1,343.84	\$ 317.19	\$ 15.14	\$ -	\$ -	\$ 179.92 \$	-	\$ 7,	102.02	2,356.43	\$ 17.89	\$ 16,310.71
40	Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 9,723.11	\$ 1,987.18	\$ 163.42	\$ -	\$ -	\$ - \$	-	\$ 55,4	153.74	8,272.73	\$ 62.82	\$ 129,366.53
41	Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 2,964.84	\$ 517.47	\$ 77.60	\$ -	\$ -	\$ - \$	57.15	\$ 20,	515.91	-	\$ -	\$ 48,853.59
43	Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 145.41	\$ 36.29	\$ 22.22	\$ -	\$ -	\$ - \$	540.91	\$	500.35	311.17	\$ 2.36	\$ 9,072.03
44	Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 1,457.56	\$ 365.11	\$ 35.24	\$ -	\$ -	\$ - \$	-	\$ 9,	105.05	3,156.53	\$ 23.97	\$ 29,865.76
45	Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 3,874.81	\$ 943.43	\$ 54.91	\$ -	\$ -	\$ - \$	310.79	\$ 19,	31.36	7,616.47	\$ 57.84	\$ 38,881.70
49	Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 786.29	\$ 137.24	\$ 26.49	\$ -	\$ -	\$ - \$	1,249.50	\$ 5,	291.00	-	\$ -	\$ 20,048.34
50	Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,140.19	\$ 15,094.19	\$ 3,861.53	\$ 407.14	\$ -	\$ -	\$ - \$	-	\$ 93,	199.99	34,984.66	\$ 265.67	\$ 238,900.98
51	Hyatt Place Hotel	\$ 11,177.55 \$		\$ -	\$ -	\$ 602.02	\$ 182.60	\$ 27.00	\$ -	\$ -	\$ - \$	365.23	\$ 3,	553.21	2,210.50	\$ 16.79	\$ 18,234.90
S1	State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 15,379.60	\$ 4,056.07	\$ -	\$ -	\$ -	\$ - \$	5,735.30	\$ 110,	330.57	39,111.51	\$ 297.01	\$ 419,867.54
(	Grand Totals:	\$ 394,585.77 \$	295,924.91	\$ 8,163.41	\$ 17,213.75	\$ 75,732.42	\$ 17,934.80	\$ 1,538.90	\$ -	\$ -	\$ 6,736.33 \$	12,504.04		273.03	134,481.72	\$ 1,021.23	\$ 1,446,110.31
1	Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74							\$ -	\$ 6,736.33 \$	12,504.04		345.01	. ,		\$ 1,682,104.03
	Deviation:	\$ (88,330.96) \$	(134,789.83)	\$ (6,175.88)	\$ (5,750.42)	\$ (19.57)	\$ (7.83)	\$ (719.43)	\$ -	\$ -	\$ - \$	-	\$	(71.98)	(126.84)	\$ (0.98)	\$ (235,993.72)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam November, 2019

Number Number Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	ПFS	Electricity	Natural Gas		Propane		Total
2 A. A. Birch	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 1,139.51 \$	717.17	\$ 85.14	\$ -	\$ 230.10	-	\$ 1,704.34	\$ 8,340.36	\$ 9	202.41 \$	52.13	\$ \$	50,155.88
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 1,027.25 \$	513.25	\$ 39.74	\$ -	\$ 107.37	-	\$ 585.95	\$ 5,715.21	\$ 4	747.61 \$	26.89	\$	26,220.18
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,147.81 \$	502.34	\$ 38.50	\$ -	\$ 104.16	719.74	\$ 138.31	\$ 7,154.59	\$ 3	410.94 \$	19.32	\$	25,997.06
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 226.49 \$	119.49	\$ 13.96	\$ -	\$ 37.76	258.50	\$ 175.20	\$ 1,168.02	\$ 1	215.14 \$	6.88	\$	7,875.06
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 318.55 \$	205.44	\$ 14.38	\$ -	\$ 38.91	314.92	\$ 229.71	\$ 1,557.16	\$ 2	704.51 \$	15.32	\$	10,205.65
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 1,556.91 \$	956.30	\$ 77.41	\$ -	\$ 209.23	1,248.33	\$ 195.47	\$ 8,233.99	\$ 11	945.48 \$	67.67	\$	50,588.24
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 505.86 \$	460.87	\$ 41.09	\$ -	\$ 111.17	-	\$ 310.92	\$ 1,765.16	\$ 7	878.54 \$	44.63	\$	24,700.27
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 539.99 \$	226.86	\$ 36.32	\$ -	\$ 98.11	281.00	\$ 527.34	\$ 3,157.97	\$ 1	352.58 \$	7.66	\$	18,601.45
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 531.47 \$	432.28	\$ 59.76	\$ -	\$ 161.32	-	\$ -	\$ 2,575.73	\$ 6	895.31 \$	39.06	\$	31,257.71
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 286.19 \$	154.74	\$ 14.63	\$ -	\$ 39.55	236.26	\$ -	\$ 2,129.12	\$ 1	635.59 \$	9.26	\$	9,452.06
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 942.60 \$	544.80	\$ 48.89	\$ -	\$ - !	-	\$ -	\$ 6,750.19	\$ 6	322.54 \$	35.81	\$	35,803.63
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 912.79 \$	297.60	\$ 53.95	\$ -	\$ 146.32	798.50	\$ 524.59	\$ 4,334.03	\$	- \$	-	\$	24,187.31
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 2,527.44 \$	1,509.18	\$ 114.38	\$ -	\$ 308.98	1,484.42	\$ 267.48	\$ 14,690.56	\$ 18	240.56 \$	103.32	\$	78,094.83
33 5th & Broadway	\$ - \$	-	\$ -	\$ -	\$ - \$	-	\$ -	\$ -	\$ - :	-	\$ -	\$ -	\$	- \$	-	\$	=
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 511.24 \$	166.68	\$ 13.19	\$ -	\$ 35.77	230.67	\$ 9.72	\$ 2,742.79	\$	- \$	-	\$	7,895.56
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ - \$	=	\$ -	\$ -	\$ - :	33.74	\$ -	\$ -	\$	- \$	-	\$	1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 1,023.40 \$	333.66	\$ 43.97	\$ -	\$ 119.25	764.75	\$ -	\$ 3,965.56	\$	- \$	-	\$	20,202.27
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 317.23 \$	170.16	\$ 14.43	\$ -	\$ 39.06	185.58	\$ 348.87	\$ 2,185.56	\$ 1	776.76 \$	10.06	\$	9,822.17
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 677.17 \$	335.85	\$ 15.14	\$ -	\$ 40.97	179.92	\$ -	\$ 4,025.17	\$ 3	063.36 \$	17.35	\$	13,333.21
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 3,122.60 \$	1,178.24	\$ 163.42	\$ -	\$ 442.33	-	\$ 552.49	\$ 25,705.82	\$ 4	264.45 \$	24.16	\$	89,157.04
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 488.38 \$	159.23	\$ 77.60	\$ -	\$ 210.44	-	\$ 11.43	\$ 7,006.35	\$	- \$	-	\$	32,574.05
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 33.60 \$	48.98	\$ 22.22	\$ -	\$ 60.09	-	\$ -	\$ 191.26	\$ 1	012.18 \$	5.73	\$	8,787.38
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 762.61 \$	392.07	\$ 35.24	\$ -	\$ - :	-	\$ -	\$ 3,157.03	\$ 3	818.60 \$	21.63	\$	23,609.48
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 2,642.52 \$	1,179.02	\$ 54.91	\$ -	\$ - :	-	\$ 320.58	\$ 13,468.45	\$ 8	451.88 \$	47.88	\$	33,157.33
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 257.77 \$	84.04	\$ 26.49	\$ -	\$ - :	-	\$ 1,544.61	\$ 1,546.29	\$	- \$	-	\$	16,017.02
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,140.19	\$ 8,497.69 \$	4,629.45	\$ 407.14	\$ -	\$ - :	-	\$ 475.35	\$ 47,739.44	\$ 49	489.74 \$	280.33	\$	202,606.94
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 246.02 \$	193.16	\$ 27.00	\$ -	\$ - :	-	\$ 475.70	\$ 1,259.83	\$ 3	006.87 \$	17.03	\$	16,403.16
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 8,633.85 \$	5,288.18	\$ -	\$ -	\$ 1,629.47	-	\$ 6,417.62	\$ 48,808.95	\$ 65	845.07 \$	372.98	\$	381,953.60
Grand Totals:	\$ 394,585.77 \$	295,924.91	\$ 8,163.41	\$ 17,213.75	\$ 38,876.94 \$	20,799.04	\$ 1,538.90	\$ -	\$ 4,170.36	6,736.33	\$ 14,815.68	\$ 229,374.59	\$ 216	280.12 \$	1,225.10	\$	1,249,704.90
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,339.29	\$ 22,964.17	\$ 38,888.02 \$	20,812.70	\$ 2,258.33	\$ -	\$ 4,463.06	6,736.33	\$ 14,815.68	\$ 229,412.91	\$ 216	550.23 \$	1,226.65	\$	1,486,098.84
Deviation:	\$ (88,330.96) \$	(134,789.83)	\$ (6,175.88)	\$ (5,750.42)	\$ (11.08) \$	(13.66)	\$ (719.43)	\$ -	\$ (292.70)	-		\$ (38.32	) \$	270.11) \$	(1.55	5) \$	(236,393.94)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam December, 2019

Number Number Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	ПFS	Electricity		Natural Gas	Propane		Total
2 A. A. Birch	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 1,034.40 \$	568.62	\$ 85.14	\$ -	\$ 517.71	\$ -	\$ 1,680.34	\$ 7,528	.05 \$	8,277.87	15.6	7 \$	48,392.52
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 780.26 \$	352.32	\$ 39.74	\$ -	\$ 241.59	\$ -	\$ 461.65	\$ 4,693	.89 \$	3,950.18 \$	7.4	8 \$	23,984.02
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,165.65 \$	539.83	\$ 38.50	\$ -	\$ 234.35	5 719.74	\$ 146.70	\$ 7,606	.08 \$	6,305.06	11.9	4 \$	29,529.20
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 198.96	99.16	\$ 13.96	\$ -	\$ 84.95	\$ 258.50	\$ 173.75	\$ 1,311	.74 \$	1,286.32	2.4	4 \$	8,083.40
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 314.80 \$	171.35	\$ 14.38	\$ -	\$ 87.54	314.92	\$ 231.18	\$ 1,754	.74 \$	2,468.36	4.6	7 \$	10,168.69
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 1,505.17 \$	802.03	\$ 77.41	\$ -	\$ 470.76	1,248.33	\$ 159.27	\$ 8,263	.08 \$	11,285.15	21.3	5 \$	49,930.01
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 348.89	323.59	\$ 41.09	\$ -	\$ 250.14	\$ -	\$ 100.59	\$ 1,804	.62 \$	6,739.62	12.7	5 \$	23,203.33
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 592.54 \$	213.75	\$ 36.32	\$ -	\$ 220.75	\$ 281.00	\$ 506.01	\$ 3,516	.98 \$	1,388.07	2.6	3 \$	19,131.67
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 308.94 \$	296.35	\$ 59.76	\$ -	\$ 362.97	-	\$ -	\$ 1,822	.33 \$	6,261.85	11.8	5 \$	29,686.83
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 299.57	142.43	\$ 14.63	\$ -	\$ 88.98	\$ 236.26	\$ -	\$ 2,187	.99 \$	1,730.85	3.2	3 \$	9,650.71
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 940.69	480.52	\$ 48.89	\$ -	\$ - 5	\$ -	\$ -	\$ 8,298	.84 \$	6,432.18	12.1	3 \$	37,372.10
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 846.51	239.15	\$ 53.95	\$ -	\$ 329.23	\$ 798.50	\$ 572.27	\$ 8,894	.13 \$	- \$	-	\$	28,853.27
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 2,674.89	1,408.88	\$ 114.38	\$ -	\$ 695.22	1,484.42	\$ -	\$ 13,243	.09 \$	19,563.23	37.0	3 \$	78,069.65
33 5th & Broadway																\$	-
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 474.75	134.13	\$ 13.19	\$ -	\$ 80.49	230.67	\$ -	\$ 2,852	.70 \$	- \$	-	\$	7,971.43
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ - \$	-	\$ -	\$ -	\$ - :	\$ 33.74	\$ -	\$	- \$	- \$	-	\$	1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 639.92	180.79	\$ 43.97	\$ -	\$ 268.31	5 764.75	\$ 557.06	\$ 6,112	.00 \$	- \$	-	\$	22,518.48
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 297.87 \$	145.62	\$ 14.43	\$ -	\$ 87.89	\$ 185.58	\$ 396.88	\$ 1,852	.83 \$	1,840.85	3.4	8 \$	9,599.89
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 685.67	291.89	\$ 15.14	\$ -	\$ 92.17	3 179.92	\$ -	\$ 4,027	.45 \$	2,940.25	5.5	7 \$	13,216.34
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 3,649.17 \$	1,232.22	\$ 163.42	\$ -	\$ 995.25	\$ -	\$ 323.87	\$ 23,790	.61 \$	6,027.97	11.4	1 \$	89,897.45
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 653.03	184.49	\$ 77.60	\$ -	\$ 473.49	\$ -	\$ 34.29	\$ 5,183	.97 \$	- \$	-	\$	31,227.49
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 168.32 \$	81.99	\$ 22.22	\$ -	\$ 135.19	\$ -	\$ 603.55	\$ 926	.08 \$	1,031.25 \$	1.9	5 \$	10,383.87
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 722.02 \$	320.77	\$ 35.24	\$ -	\$ - :	\$ -	\$ -	\$ 4,537	.16 \$	3,497.92	6.6	2 \$	24,542.03
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 2,763.22 \$	1,089.79	\$ 54.91	\$ -	\$ - ;	\$ -	\$ 335.27	\$ 15,324	.62 \$	9,258.71	17.5	3 \$	35,836.14
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 241.19 \$	68.14	\$ 26.49	\$ -	\$ - :	\$ -	\$ 1,525.78	\$ 1,582	.78 \$	- 5	-	\$	16,002.20
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,140.19	\$ 7,825.15	3,810.18	\$ 407.14	\$ -	\$ - ;	\$ -	\$ 713.03	\$ 45,739	.61 \$	47,904.22	90.6	9 \$	197,577.82
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 235.77 \$	162.18	\$ 27.00	\$ -	\$ - :	\$ -	\$ 473.44	\$ 1,381	.78 \$	2,862.50	5.4	2 \$	16,325.64
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 7,992.04 \$	4,411.45	\$ -	\$ -	\$ 3,666.43	\$ -	\$ 5,481.17	\$ 59,371	.22 \$	64,501.14	122.1	\$ 0	390,503.03
Grand Totals:	\$ 394,585.77 \$	295,924.91	\$ 8,163.41	\$ 17,213.75	\$ 37,359.39	17,751.62	\$ 1,538.90	\$ -	\$ 9,383.41	6,736.33	\$ 14,476.10	\$ 243,608	3.37 \$	215,553.55	408.0	5 \$	1,262,703.57
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,339.29	\$ 22,964.17	\$ 37,372.63			\$ -	\$ 10,042.03	6,736.33	\$ 14,476.10	\$ 243,651	.82 \$	215,988.97	408.8	8 \$	1,499,639.84
Deviation:	\$ (88,330.96) \$	(134,789.83)	\$ (6,175.88)	\$ (5,750.42)	\$ (13.24) \$	(18.20)	\$ (719.43)	\$ -	\$ (658.62)	\$ - <u> </u>		\$ (43	.45) \$	(435.42) \$	(0.8	2) \$	(236,936.27)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam January, 2020

Number Number Customer Name	Capacity	Operating	EDS	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	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 1,113.64	642.92	\$ 88.51	\$ -	\$ 2	62.53 \$	-	\$ 1,664.33	\$ 8,362.46	\$ 8,165	.75 \$	24.57	\$ 49,009.43
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 892.98	428.48	\$ 41.37	\$ -	\$ 1	22.51 \$	-	\$ 404.84	\$ 5,495.66	\$ 4,055	.69 \$	12.20	\$ 24,910.64
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,190.44	588.83	\$ 39.87	\$ -	\$ 1	18.84 \$	719.74	\$ 222.14	\$ 7,730.44	\$ 5,911	.27 \$	17.78	\$ 29,300.70
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 197.58 \$	101.99	\$ 14.47	\$ -	\$ .	43.07 \$	258.50	\$ 191.12	\$ 1,197.97	\$ 1,102	.83 \$	3.32	\$ 7,764.47
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 319.23	185.45	\$ 14.93	\$ -	\$	44.39 \$	314.92	\$ 231.18	\$ 1,832.67	\$ 2,374	.02 \$	7.14	\$ 10,130.68
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 1,451.01	849.08	\$ 80.50	\$ -	\$ 2	38.73 \$	1,248.33	\$ 152.03	\$ 8,880.35	\$ 10,965	.60 \$	32.99	\$ 49,996.07
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 269.44 \$	288.27	\$ 42.52	\$ -	\$ 1	26.84 \$	-	\$ -	\$ 1,185.38	\$ 5,775	.28 \$	17.37	\$ 21,287.13
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 575.80 \$	225.58	\$ 37.87	\$ -	\$ 1	11.95 \$	281.00	\$ 521.25	\$ 3,624.34	\$ 1,163	.44 \$	3.50	\$ 18,918.35
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 255.43 \$	251.69	\$ 62.46	\$ -	\$ 1	84.06 \$	-	\$ -	\$ 1,680.42	\$ 4,856	.49 \$	14.61	\$ 27,867.94
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 377.42	193.56	\$ 15.23	\$ -	\$	45.12 \$	236.26	\$ -	\$ 2,866.02	\$ 2,070	.80 \$	6.23	\$ 10,757.36
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 1,201.27	626.07	\$ 50.71	\$ -	\$	- \$	-	\$ -	\$ 8,798.87	\$ 6,877	.45 \$	20.69	\$ 38,733.86
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 867.62	278.67	\$ 55.30	\$ -	\$ 1	66.95 \$	798.50	\$ 612.02	\$ 8,291.65	\$	\$	-	\$ 28,190.24
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 2,507.93	1,477.37	\$ 119.15	\$ -	\$ 3	52.55 \$	1,484.42	\$ 99.07	\$ 18,576.99	\$ 19,234	.13 \$	57.86	\$ 82,757.98
33 5th & Broadway	\$ 3,553.42 \$	6,475.26	\$ 296.59	\$ 474.98	\$ - \$	-	\$ 34.89	\$ -	\$ 1	05.33 \$	-	\$ -	\$ -	\$	\$	-	\$ 10,940.47
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 471.79	151.53	\$ 13.52	\$ -	\$	40.82 \$	230.67	\$ 85.50	\$ 2,970.83	\$ -	\$	-	\$ 8,150.16
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ - :	\$ - \$	-	\$ -	\$ -	\$	- \$	33.74	\$ -	\$ -	\$	\$	-	\$ 1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 618.87 \$	198.77	\$ 45.07	\$ -	\$ 1	36.06 \$	764.75	\$ 667.18	\$ 5,406.15	\$	\$	-	\$ 21,788.53
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 242.09 \$	117.38		-	\$ .	44.56 \$	185.58	\$ 328.07	\$ 1,644.75	\$ 1,134	.58 \$	3.41	\$ 8,489.82
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 660.09	311.22	\$ 15.64	\$ -	\$	46.75 \$	179.92	\$ -	\$ 4,312.38	\$ 2,840	.04 \$	8.54	\$ 13,352.86
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 3,413.73	1,325.79	\$ 168.88	\$ -	\$ 5	04.70 \$	-	\$ 457.23	\$ 25,058.33	\$ 6,565	.77 \$	19.75	\$ 91,217.71
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 406.37	130.52	\$ 79.53	\$ -	\$ 2	40.11 \$	-	\$ 11.43	\$ 5,381.18	\$ -	\$	-	\$ 30,869.76
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 114.05 \$			-	\$	68.56 \$	-	\$ 610.41	\$ 808.26	\$ 1,017	.81 \$	3.06	\$ 10,130.70
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ - :				-	\$	- \$	-		\$ 5,136.14		.19 \$	10.50	25,250.34
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ - :	\$ 2,877.23	1,219.05	\$ 57.04	\$ -	\$	- \$	=	\$ 357.29	\$ 16,289.93	\$ 8,443	.04 \$	25.40	\$ 36,261.07
49 Viridian Residential Tower	\$ 12,557.82 \$		\$ -	\$ - :				-	\$	- \$	-	, , , , , , ,			\$	-	\$ 16,177.27
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,287.43	\$ 7,879.24	4,040.22		-	\$	- \$	=	\$ 1,090.51	\$ 48,656.27	\$ 43,214	.60 \$	130.01	\$ 196,667.50
51 Hyatt Place Hotel	\$ 11,177.55 \$			\$ - :				-	\$	- \$	-				.05 \$	8.31	\$ 16,143.53
S1 State Government of TN	\$ 136,594.48 \$	108,363.00			,			-		59.27 \$	-	. ,				184.72	386,655.48
Grand Totals:	\$ 398,139.19 \$	302,400.17		, , , , , ,				-		63.70 \$	6,736.33					611.96	,272,766.41
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,339.29	\$ 22,964.17	\$ 37,763.67	19,250.67		-		92.32 \$	6,736.33	\$ 14,459.16	\$ 257,288.03	\$ 203,872	.96 \$		,498,269.73
Deviation:	\$ (84,777.54) \$	(128,314.57)	\$ (5,879.29)	\$ (5,128.20)	\$ (16.61) \$	(21.19)	\$ (629.37)	\$ -	\$ (2	28.62) \$	=	\$ -	\$ (54.89	) \$ (451	.67) \$	(1.37)	\$ (225,503.32)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam February, 2020

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	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 1,915.83	\$ 703.43	\$ 87.51	\$ -	\$	243.78	\$ -	\$ 1,720.35	\$ 7,818.52	\$ 7,395.70	\$	283.00	\$	48,852.84
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 1,624.30	\$ 481.64	\$ 40.93	\$ -	\$	113.75	\$ -	\$ 328.13	\$ 5,465.29	\$ 3,468.89	\$	132.74	\$	25,112.58
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,751.01	\$ 537.43	\$ 39.35	\$ -	\$	110.35	\$ 719.74	\$ 247.29	\$ 6,597.27	\$ 4,183.94	\$	160.10	\$	27,107.83
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 288.52	\$ 94.03	\$ 14.29	\$ -	\$	40.00	\$ 258.50	\$ 198.36	\$ 1,121.56	\$ 823.05	\$	31.49	\$	7,523.42
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 440.52	\$ 162.84	\$ 14.75	\$ -	\$	41.22	\$ 314.92	\$ 76.08	\$ 1,403.12	\$ 1,727.34	\$	66.10	\$	9,053.64
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 2,663.33	\$ 951.40	\$ 79.60	\$ -	\$	221.67	\$ 1,248.33	\$ 159.27	\$ 8,852.22	\$ 9,634.58	\$	368.67	\$	50,276.52
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 802.75	\$ 407.89	\$ 41.95	\$ -	\$	117.78	\$ -	\$ 525.82	\$ 2,284.05	\$ 5,861.10	\$	224.28	\$	23,847.65
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 1,000.34	\$ 275.44	\$ 37.49	\$ -	\$	103.94	\$ 281.00	\$ 512.10	\$ 3,372.60	\$ 1,619.03	\$	61.95	\$	19,637.51
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 475.27	\$ 276.71	\$ 61.90	\$ -	\$	170.91	\$ -	\$ -	\$ 1,429.49	\$ 4,330.00	\$	165.69	\$	27,472.75
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 419.19	\$ 133.83	\$ 15.06	\$ -	\$	41.90	\$ 236.26	\$ -	\$ 2,053.18	\$ 1,127.87	\$	43.16	\$	9,017.17
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 1,979.93	\$ 648.55	\$ 50.09	\$ -	\$	-	\$ -	\$ -	\$ 6,967.59	\$ 5,728.57	\$	219.21	\$	36,752.74
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 1,368.17	\$ 286.02	\$ 54.31	\$ -	\$	155.03	\$ 798.50	\$ 604.07	\$ 6,992.97	\$ -	\$	-	\$	27,378.60
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 3,825.02	\$ 1,447.89	\$ 117.92	\$ -	\$	327.37	\$ 1,484.42	\$ 307.11	\$ 11,295.76	\$ 15,826.88	\$	605.62	\$	74,086.50
33 5th & Broadway	\$ 6,480.40 \$	11,808.99	\$ 540.89	\$ 866.22	\$ - !	\$ -	\$ 62.49	\$ -	\$	178.36	\$ -	\$ -	\$ -	\$ -	\$	-	\$	19,937.35
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 814.56	\$ 170.29	\$ 13.28	\$ -	\$	37.90	\$ 230.67	\$ 83.56	\$ 2,724.26	\$ -	\$	-	\$	8,260.02
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ - !	\$ -	\$ -	\$ -	\$	-	\$ 33.74	\$ -	\$ -	\$ -	\$	-	\$	1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 936.38	\$ 195.75	\$ 44.26	\$ -	\$	126.34	\$ 764.75	\$ 654.23	\$ 4,429.11	. \$ -	\$	-	\$	21,102.50
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 339.39	\$ 116.17	\$ 14.74	\$ -	\$	41.38	\$ 185.58	\$ 364.87	\$ 1,339.01	\$ 1,103.94	\$	42.24	\$	8,321.78
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 1,083.68	\$ 326.37	\$ 15.43	\$ -	\$	43.41	\$ 179.92	\$ -	\$ 3,600.50	\$ 2,437.13	\$	93.26	\$	12,757.98
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 8,596.43	\$ 2,116.84	\$ 166.52	\$ -	\$	468.64	\$ -	\$ 133.36	\$ 29,716.54	\$ 7,806.10	\$	298.70	\$	103,006.66
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 585.38	\$ 122.38	\$ 78.11	\$ -	\$	222.95	\$ -	\$ -	\$ 3,023.44	. \$ -	\$	-	\$	28,652.88
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 183.96	\$ 72.04	\$ 22.76	\$ -	\$	63.66	\$ -	\$ -	\$ 770.49	\$ 820.07	\$	31.38	\$	9,377.68
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 1,287.69	\$ 392.43	\$ 36.04	\$ -	\$	-	\$ -	\$ -	\$ 4,218.95	\$ 3,008.52	\$	115.12	\$	24,481.05
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 4,751.03	\$ 1,285.65	\$ 56.38	\$ -	\$	-	\$ -	\$ 345.06	\$ 14,439.70	\$ 7,139.70	\$	273.20	\$	35,282.81
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 411.29	\$ 85.98	\$ 26.66	\$ -	\$	-	\$ -	\$ 1,550.89	\$ 1,682.66	\$ -	\$	-	\$	16,315.30
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,231.42	\$ 13,189.65	\$ 4,270.87	\$ 416.10	\$ -	\$	-	\$ -	\$ 1,265.27	\$ 41,725.53	\$ 36,952.09	\$	1,413.99	\$	190,412.53
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 396.56	\$ 178.46	\$ 28.01	\$ -	\$	-	\$ -	\$ 484.72	\$ 1,184.16	\$ 2,333.03	\$	89.27	\$	15,871.76
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 15,868.90	\$ 5,474.87	\$ -	\$ -	\$ 1	1,726.42	\$ -	\$ 4,229.83	\$ 60,742.38	\$ 52,672.38	\$	2,015.54	\$	387,687.80
Grand Totals:	\$ 401,066.17 \$	307,733.90	\$ 8,704.30	\$ 18,171.20	\$ 66,999.08	\$ 21,215.20	\$ 1,635.93	\$ -	\$ 4	4,596.76	\$ 6,736.33	\$ 13,790.37	\$ 235,250.35	\$ 175,999.91	. \$	6,734.71	\$ 1	,268,634.21
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,339.29	\$ 22,964.17	\$ 67,023.81	\$ 21,232.83	\$ 2,258.33	\$ -	\$ 4	4,728.54	\$ 6,736.33	\$ 13,790.37	\$ 235,294.40	\$ 176,309.54	\$	6,746.57	\$ 1	,485,055.65
Deviation:	\$ (81,850.56) \$	(122,980.84)	\$ (5,634.99)	\$ (4,792.97)	\$ (24.73)	\$ (17.63)	\$ (622.40)	\$ -	\$	(131.78)	\$ -	\$ -	\$ (44.05	) \$ (309.63	\$) \$	(11.86)	\$	(216,421.44)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam March, 2020

Customer Number Customer Name	Capacity	Operating	EDS Improvemen t		Metro	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2 A. A. Birch	\$ 10,627.44 \$	16,134.12	\$ 739.	26 \$	1,183.90 \$	2,106.10 \$	886.27	\$ 87.51	\$ -	\$ 306.26 \$	-	\$ 1,264.25	\$ 10,734.62 \$	5,976.60	\$ -	\$ 50,046.33
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.	96 \$	552.45 \$	1,527.35 \$	575.42	\$ 40.93	\$ -	\$ 142.92 \$	-	\$ 245.03	\$ 6,745.43 \$	3,155.74	\$ -	\$ 25,889.73
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.	54 \$	535.92 \$	1,326.39 \$	524.13	\$ 39.35	\$ -	\$ 138.63 \$	719.74	\$ 129.93	\$ 6,545.72 \$	3,168.03	\$ -	\$ 25,353.27
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.	30 \$	194.25 \$	463.36 \$	177.34	\$ 14.29	\$ -	\$ 50.25 \$	258.50	\$ 152.03	\$ 2,440.82 \$	1,005.99	\$ -	\$ 9,216.20
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.	99 \$	200.18 \$	241.64 \$	97.50	\$ 14.75	\$ -	\$ 51.78 \$	314.92	\$ 40.97	\$ 1,082.88 \$	612.47	\$ -	\$ 7,263.66
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.	21 \$	1,076.53 \$	1,996.45 \$	899.81	\$ 79.60	\$ -	\$ 278.49 \$	1,248.33	\$ 152.03	\$ 9,065.41 \$	6,710.18	\$ -	\$ 46,527.75
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.	17 \$	572.01 \$	300.29 \$	211.87	\$ 41.95	\$ -	\$ 147.97 \$	-	\$ -	\$ 885.42 \$	2,349.13	\$ -	\$ 17,518.66
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.	22 \$	504.81 \$	843.92 \$	271.75	\$ 37.49	\$ -	\$ 130.59 \$	281.00	\$ 484.67	\$ 3,817.43 \$	934.78	\$ -	\$ 19,175.25
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.	29 \$	830.03 \$	751.48 \$	440.17	\$ 61.90	\$ -	\$ 214.72 \$	-	\$ -	\$ 3,859.93 \$	4,302.42	\$ -	\$ 30,193.40
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.	06 \$	203.49 \$	442.22 \$	174.19	\$ 15.06	\$ -	\$ 52.64 \$	236.26	\$ -	\$ 2,295.05 \$	1,046.47	\$ -	\$ 9,208.61
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$	- \$	1,392.50 \$	559.69	\$ 50.09	\$ -	\$ - \$	-	\$ -	\$ 7,607.23 \$	3,491.14	\$ -	\$ 34,259.45
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.	12 \$	752.89 \$	1,292.75 \$	334.48	\$ 54.31	\$ -	\$ 194.76 \$	798.50	\$ 572.27	\$ 9,656.10 \$	-	\$ -	\$ 30,022.70
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.	71 \$	1,589.82 \$	3,269.15 \$	1,351.79	\$ 117.92	\$ -	\$ 411.27 \$	1,484.42	\$ 158.51	\$ 13,757.31 \$	8,858.26	\$ -	\$ 68,257.14
33 5th & Broadway	\$ 6,480.40 \$	11,808.99	\$ 540.	39 \$	866.22 \$	- \$	-	\$ 62.49	\$ -	\$ 224.08 \$	-	\$ -	\$ - \$	-	\$ -	\$ 19,983.07
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.	94 \$	184.07 \$	674.38 \$	174.49	\$ 13.28	\$ -	\$ 47.62 \$	230.67	\$ 73.84	\$ 3,204.84 \$	-	\$ -	\$ 8,604.62
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$	- \$	- \$	-	\$ -	\$ -	\$ - \$	33.74	\$ -	\$ - \$	-	\$ -	\$ 1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.	13 \$	613.57 \$	943.53 \$	244.13	\$ 44.26	\$ -	\$ 158.72 \$	764.75	\$ 246.14	\$ 5,993.43 \$	-	\$ -	\$ 22,346.64
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.	50 \$	200.98 \$	429.10 \$	155.44	\$ 14.74	\$ -	\$ 51.99 \$	185.58	\$ 270.13	\$ 1,916.69 \$	777.76	\$ -	\$ 8,575.89
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.	52 \$	210.79 \$	1,165.68 \$	438.10	\$ 15.43	\$ -	\$ 54.53 \$	179.92	\$ -	\$ 5,157.26 \$	2,389.87	\$ -	\$ 14,379.07
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.	14 \$	2,275.93 \$	4,401.73 \$	1,313.20	\$ 166.52	\$ -	\$ 588.76 \$	-	\$ 285.77	\$ 18,862.62 \$	3,051.77	\$ -	\$ 82,373.90
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.	11 \$	1,082.78 \$	1,205.73 \$	311.97	\$ 78.11	\$ -	\$ 280.10 \$	-	\$ 34.29	\$ 8,289.75 \$	-	\$ -	\$ 34,820.57
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.	)4 \$	309.16 \$	154.27 \$	76.92	\$ 22.76	\$ -	\$ 79.98 \$	-	\$ 608.12	\$ 780.52 \$	647.99	\$ -	\$ 9,783.88
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$	- \$	990.12 \$	413.41	\$ 36.04	\$ -	\$ - \$	-	\$ -	\$ 5,155.22 \$	2,752.97	\$ -	\$ 24,770.06
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$	- \$	2,955.45 \$	1,038.37	\$ 56.38	\$ -	\$ - \$	-	\$ 359.74	\$ 12,826.08 \$	4,791.79	\$ -	\$ 29,019.90
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$	- \$	439.22 \$	113.64	\$ 26.66	\$ -	\$ - \$	-	\$ 558.82	\$ 2,314.45 \$	-	\$ -	\$ 16,010.61
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$	4,231.42 \$	9,065.01 \$	3,661.39	\$ 416.10	\$ -	\$ - \$	-	\$ 20.97	\$ 38,979.35 \$	23,040.12	\$ -	\$ 166,361.97
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$	- \$	443.13 \$	231.89	\$ 28.01	\$ -	\$ - \$	-	\$ 444.14	\$ 1,781.88 \$	2,052.54	\$ -	\$ 16,159.14
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$	- \$	13,132.52 \$	5,610.47	\$ -	\$ -	\$ 2,168.94 \$	-	\$ 5,072.51	\$ 66,423.41 \$	38,739.58	\$ -	\$ 376,104.91
Grand Totals:	\$ 401,066.17 \$	307,733.90	\$ 8,704.	30 \$	18,171.20 \$	51,953.47 \$	20,287.83	\$ 1,635.93	\$ -	\$ 5,775.00 \$	6,736.33	\$ 11,174.16	\$ 250,178.85 \$	119,855.60	\$ -	\$ 1,203,272.74
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,339.	29 \$	22,964.17 \$	51,974.00 \$	20,298.52	\$ 2,258.33	\$ -	\$ 5,940.56 \$	6,736.33	\$ 11,174.16	\$ 250,232.30 \$	119,948.58	\$ -	\$ 1,419,497.71
Deviation:	\$ (81,850.56) \$	(122,980.84)	\$ (5,634.	99) \$	(4,792.97) \$	(20.53) \$	(10.69)	\$ (622.40)	\$ -	\$ (165.56) \$	-	\$ -	\$ (53.45) \$	(92.98)	\$ -	\$ (216,224.97)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam April, 2020

Customer	Customer Name	Capacity	Operating	EDS		Metro Incremental	Water And Sewer	Chemical Treatment	Engineering		Insurance	EDS Electricity	EDS Maint Costs Alloc	ПFS	Electricity	Natural Gas		Propane	Total
2 A. A. Birch		\$ 10,627.44 \$	16,134.12	\$ 7	39.26 \$	1,183.90 \$	2,126.12	785.77	\$ 87.51	\$	-	\$ 355.02	\$ -	\$ 1,176.24	\$ 11,234.97 \$	4,792.73	\$	-	\$ 49,243.08
4 Metro Courtho	ouse	\$ 5,031.01 \$	7,528.49	\$ 3	14.96 \$	552.45	1,609.41	557.67	\$ 40.93	\$	-	\$ 165.66	\$ -	\$ 138.50	\$ 7,594.16 \$	2,697.28	\$	-	\$ 26,260.52
7 Parkway Tower	er	\$ 4,586.62 \$	7,304.17	\$ 3	34.64 \$	535.92	790.12	237.08	\$ 39.35	\$	-	\$ 160.71	\$ 719.74	\$ 163.46	\$ 5,045.90 \$	403.95	\$	-	\$ 20,321.66
9 Bobby Hotel (fk	ka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 1	21.30 \$	194.25 \$	397.04				-	\$ 58.25	\$ 258.50	\$ 150.58	\$ 2,000.34 \$			-	\$ 8,828.51
10 Fairlane Hotel (	(fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 1	24.99 \$	200.18 \$	272.24 \$	95.49	\$ 14.75	\$	-	\$ 60.03	\$ 314.92	\$ 143.39	\$ 1,351.88 \$	485.32	\$	-	\$ 7,544.77
11 Sheraton Hotel	el	\$ 9,677.90 \$	14,670.81	\$ 6	72.21 \$	1,076.53 \$	1,756.28	688.60			-	\$ 322.82	\$ 1,248.33	\$ 152.03	\$ 8,217.71 \$	4,949.56	\$	-	\$ 43,512.38
12 Municipal Audi	litorium	\$ 4,856.64 \$	7,796.21	\$ 3	57.17 \$	572.01 \$	202.47	112.06	\$ 41.95	\$	-	\$ 171.53	\$ -	\$ 841.31	\$ 947.85 \$	1,389.60	\$	-	\$ 17,288.80
21 Hermitage Hotel	tel	\$ 4,674.59 \$	6,879.00	\$ 3	15.22 \$	504.81 \$	783.85	247.38	\$ 37.49	\$	-	\$ 151.38	\$ 281.00	\$ 502.96	\$ 3,777.67 \$			-	\$ 18,861.72
24 Criminal Justice	e Center	\$ 7,904.34 \$	11,310.12	\$ 5	18.29 \$	830.03 \$	859.57	401.75	\$ 61.90	\$	-	\$ 248.90	\$ -	\$ -	\$ 4,442.50 \$	4,044.86	\$	-	\$ 30,622.26
25 501 Union Build	lding	\$ 1,843.08 \$	2,773.09	\$ 1	27.06 \$	203.49 \$	436.38	151.49	\$ 15.06	\$	-	\$ 61.02	\$ 236.26	\$ -	\$ 2,174.94 \$	738.39	\$	-	\$ 8,760.26
28 4th & Church B	Building	\$ 21,158.80 \$	-	\$	- \$		,	386.99			-	\$ -	\$ -	\$ -	\$ 7,392.92 \$	1,868.25	\$	-	\$ 31,974.38
29 Fifth-Third Fina	ancial Center	\$ 5,632.54 \$	10,263.98		70.12 \$	752.89 \$		392.41			-	\$ 225.78			\$ 10,005.64 \$		-	-	\$ 30,508.10
32 Renaissance Ho	otel	\$ 14,601.18 \$	21,664.80	\$ 9	92.71 \$	1,589.82 \$	2,184.15	629.36	\$ 117.92	\$	-	\$ 476.75	\$ 1,484.42	\$ -	\$ 10,586.47 \$	465.60	\$	-	\$ 54,793.18
33 5th & Broadwa	ay	\$ 6,480.40 \$	11,808.99	\$ 5	10.89 \$	866.22 \$	- \$	-	\$ 62.49	\$	-	\$ 259.76	\$ -	\$ -	\$ - \$	-	\$	-	\$ 20,018.75
34 Renaissance Of	ffice Tower	\$ 1,377.08 \$	2,509.41	\$ 1	14.94 \$	184.07 \$	592.16	165.60	\$ 13.28	\$	-	\$ 55.20	\$ 230.67	\$ 95.22	\$ 3,589.64 \$	-	\$	-	\$ 8,927.27
35 St. Mary's Cath	holic Church	\$ 1,012.62 \$	-		- \$						-	\$ -			\$ - \$	-	\$	-	\$ 1,046.36
36 Nashville City C	Center	\$ 4,590.28 \$	8,364.70	\$ 3	33.13 \$	613.57	1,004.08 \$	280.79	\$ 44.26	\$	-	\$ 184.00	\$ 764.75	\$ 375.69	\$ 6,025.65 \$	-	\$	-	\$ 22,630.90
38 Wildhorse Salo	oon	\$ 1,708.80 \$	2,739.18		25.50 \$	200.98 \$					-	\$ 60.27	\$ 185.58	\$ 259.25	\$ 2,109.40 \$			-	\$ 8,476.02
39 Ryman Auditor	rium	\$ 1,762.93 \$	2,872.94	\$ 1	31.62 \$	210.79 \$	1,274.99				-	\$ 63.21	\$ 179.92	\$ -	\$ 5,379.88 \$	2,347.92	\$	-	\$ 14,689.85
40 Bridgestone Are	rena	\$ 18,985.59 \$	31,020.87	\$ 1,4	21.14 \$	2,275.93	2,848.95	799.08	\$ 166.52	\$	-	\$ 682.50	\$ -	\$ 666.80	\$ 19,771.95 \$	59.70	\$	-	\$ 78,699.03
41 Nissan Stadium	n	\$ 8,100.50 \$	14,761.23	\$ 6	76.11 \$	1,082.78 \$					-	\$ 324.70	\$ -	\$ 22.86	\$ 10,122.21 \$			-	\$ 37,149.51
43 Hume-Fogg Hig	gh School	\$ 2,697.73 \$	4,213.39	\$ 1	93.04 \$	309.16 \$					-	92.71	\$ -	\$ 598.98	\$ 1,331.06 \$			-	\$ 10,027.07
44 Schermerhorn	Symphony Center	\$ 15,422.30 \$	-	\$	- \$	- \$					-	\$ -	\$ -	\$ -	\$ 2,830.63 \$	1,888.11	\$	-	\$ 21,195.80
45 Nashville Public	ic Library	\$ 6,992.09 \$	-	\$	- \$	- \$	3,733.18	1,245.43	\$ 56.38	\$	-	\$ -	\$ -	\$ 305.90	\$ 15,233.60 \$	5,049.62	\$	-	\$ 32,616.20
49 Viridian Reside	ential Tower	\$ 12,557.82 \$		\$	- \$	- \$	597.52			\$	-	\$ -	\$ -	\$ 1,280.90	\$ 3,047.29 \$	-	\$	-	\$ 17,677.29
50 Music City Cent	nter	\$ 77,567.78 \$	9,379.83	\$	- \$	4,231.42 \$	9,522.01	3,509.79	\$ 416.10	\$	-	\$ -	\$ -	\$ 775.94	\$ 54,012.92 \$	21,230.14	\$	-	\$ 180,645.93
51 Hyatt Place Hot	otel	\$ 11,177.55 \$	-	\$	- \$	- \$	136.24 \$	61.81	\$ 28.01	\$	-	\$ -	\$ -	\$ 509.52	\$ 798.01 \$	594.17	\$	-	\$ 13,305.31
S1 State Governme	nent of TN	\$ 136,594.48 \$	108,363.00	\$	- \$	- \$	13,717.02	5,102.82			-	\$ 2,514.26		,	\$ 73,929.13 \$	31,755.56	\$	-	\$ 377,146.26
Grand Totals:		\$ 401,066.17 \$	307,733.90	\$ 8,7	04.30 \$	18,171.20 \$	50,313.70	17,555.62	\$ 1,635.93	\$	-	\$ 6,694.46	\$ 6,736.33	\$ 13,838.21	\$ 272,954.32 \$	87,367.03	\$	-	\$ 1,192,771.17
Rate Calculation	n Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,3	39.29 \$	22,964.17	50,336.10	17,565.68	\$ 2,258.33	\$	-	\$ 6,886.44	\$ 6,736.33	\$ 13,838.21	\$ 273,012.67 \$	87,460.12	\$	-	\$ 1,409,028.81
Deviation:		\$ (81,850.56) \$	(122,980.84)	\$ (5,6	34.99) \$	(4,792.97) \$	(22.40) \$	(10.06)	\$ (622.40)	) \$	-	\$ (191.98)	\$ -	\$ -	\$ (58.35) \$	(93.09)	\$	-	\$ (216,257.64)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam May, 2020

Customer Number Customer Name	Capacity	Operating	EDS Improvemen t	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS	EDS Maint Costs Alloc	пFS	Electricity	Natural Gas	Propane	Total
2 A. A. Birch	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 2,061.38	\$ 715.10	\$ 87.51	\$ -	\$ 38.56 \$	-	\$ 704.14	\$ 11,331.65	\$ 2,908.04	\$ 7.70 \$	46,538.80
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 1,596.65	\$ 570.68	\$ 40.93	\$ -	\$ 18.00 \$	- :	\$ -	\$ 8,525.60	\$ 2,626.56	\$ 6.95 \$	26,842.28
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 901.77	\$ 270.01	\$ 39.35	\$ -	\$ 17.45 \$	719.74	\$ 238.90	\$ 6,674.55	\$ 317.95	\$ 0.84 \$	21,941.91
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 494.33	\$ 177.49	\$ 14.29	\$ -	\$ 6.33 \$	258.50	\$ 47.78	\$ 2,631.88	\$ 831.17	\$ 2.20 \$	9,117.59
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 388.49	\$ 124.48	\$ 14.75	\$ -	\$ 6.51 \$	314.92	\$ 134.61	\$ 2,189.10	\$ 318.81	\$ 0.84 \$	8,299.26
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 1,780.91	\$ 701.75	\$ 79.60	\$ -	\$ 35.05 \$	1,248.33	\$ -	\$ 8,732.74	\$ 4,382.99	\$ 11.60 \$	43,070.42
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 171.26	\$ 48.57	\$ 41.95	\$ -	\$ 18.63 \$	- :	\$ -	\$ 1,196.48	\$ -	\$ - \$	15,058.92
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 994.97	\$ 288.30	\$ 37.49	\$ -	\$ 16.44 \$	281.00	\$ 445.04	\$ 5,196.17	\$ 136.64	\$ 0.36 \$	19,770.03
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 899.62	\$ 382.47	\$ 61.90	\$ -	\$ 27.03 \$	- :	\$ -	\$ 4,855.38	\$ 2,837.52	\$ 7.51 \$	
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 375.61	\$ 109.08	\$ 15.06	\$ -	\$ 6.62 \$	236.26	\$ -	\$ 2,341.44	\$ 56.94	\$ 0.15 \$	8,087.88
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 831.59	\$ 235.83	\$ 50.09	\$ -	\$ - \$	- :	\$ -	\$ 6,991.60	\$ -	\$ - \$	29,267.91
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 1,403.59	\$ 398.05	\$ 54.31	\$ -	\$ 24.52 \$	798.50	\$ 222.55	\$ 11,208.10	\$ -	\$ - \$	31,229.15
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 2,680.98	\$ 910.14	\$ 117.92	\$ -	\$ 51.77 \$	1,484.42	\$ -	\$ 13,858.34	\$ 3,338.50	\$ 8.84 \$	61,299.42
33 5th & Broadway	\$ 6,480.40 \$	11,808.99	\$ 540.89	\$ 866.22	\$ 65.65	\$ 18.62	\$ 62.49	\$ -	\$ 28.21 \$	- :	\$ -	\$ 1,444.24	\$ -	\$ - \$	21,315.71
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 573.80	\$ 162.73	\$ 13.28	\$ -	\$ 6.00 \$	230.67	\$ 79.67	\$ 4,304.31	\$ -	\$ - \$	9,555.96
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	33.74	\$ -	\$ -	\$ -	\$ - \$	1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 1,236.17	\$ 350.57	\$ 44.26	\$ -	\$ 19.98 \$	764.75	\$ 90.68	\$ 9,576.08	\$ -	\$ - \$	26,034.17
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 391.34	\$ 110.98	\$ 14.74	\$ -	\$ 6.55 \$	185.58	\$ 227.25	\$ 2,131.04	\$ -	\$ - \$	7,841.94
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 1,246.13	\$ 464.93	\$ 15.43	\$ -	\$ 6.87 \$	179.92	\$ -	\$ 5,656.65	\$ 2,485.46	\$ 6.58 \$	15,040.25
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 3,543.10	\$ 1,132.05	\$ 166.52	\$ -	\$ 74.12 \$	- :	\$ 87.64	\$ 21,558.07	\$ 2,835.46	\$ 7.51 \$	83,108.00
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 2,698.26	\$ 765.21	\$ 78.11	\$ -	\$ 35.26 \$	- :	\$ 45.72	\$ 15,448.56	\$ -	\$ - \$	43,691.74
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 126.43	\$ 44.62	\$ 22.76	\$ -	\$ 10.07 \$	- :	\$ 562.40	\$ 781.66	\$ 195.53	\$ 0.52 \$	9,157.31
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 885.09	\$ 370.07	\$ 36.04	\$ -	\$ - \$	-	\$ -	\$ 4,637.82	\$ 2,653.01	\$ 7.02 \$	24,011.35
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 2,750.46	\$ 957.87			\$ - \$	- :	\$ 48.94	\$ 10,812.56	\$ 3,963.26	\$ 10.49 \$	25,592.05
49 Viridian Residential Tower	\$ 12,557.82 \$	-	\$ -	\$ -	\$ 766.61	\$ 217.41	\$ 26.66	\$ -	\$ - \$	- :	\$ 753.47	\$ 3,996.74	\$ -	\$ - \$	18,318.71
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,231.42	\$ 9,984.18	\$ 3,925.95	\$ 416.10	\$ -	\$ - \$	- :	\$ -	\$ 53,778.10	\$ 24,388.95	\$ 64.56 \$	183,736.87
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 140.15	\$ 48.79	\$ 28.01	\$ -	\$ - \$	- :	\$ 457.66	\$ 1,178.75	\$ 201.63	\$ 0.53 \$	13,233.07
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 13,014.44	\$ 4,710.19			\$ 	- :	, .	\$ 77,193.71	\$ 22,714.80	\$ 60.14 \$	366,644.22
Grand Totals:	\$ 401,066.17 \$	307,733.90	\$ 8,704.30	\$ 18,171.20	\$ 52,002.96	\$ 18,211.94	\$ 1,635.93	\$ -	\$ 727.01 \$	6,736.33	\$ 7,866.87	\$ 298,231.32	\$ 77,193.22	\$ 204.34 \$	1,198,485.49
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	, , , , , ,	\$ 22,964.17					\$ 	6,736.33	\$ 7,866.87	\$ 298,294.60	, , , , , ,		_,,
Deviation:	\$ (81,850.56) \$	(122,980.84)	\$ (5,634.99)	\$ (4,792.97)	\$ (21.82)	\$ (7.86)	\$ (622.40)	\$ -	\$ (20.90) \$	- 1	\$ -	\$ (63.28)	\$ (36.58)	\$ (0.10) \$	(216,032.30)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam June, 2020

Customer Number Customer Name	Capacity	Operating	EDS Improvemen t	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	\$ 10,627.44 \$	16,134.12	\$ 739.26	\$ 1,183.90	\$ 2,786.99	\$ 791.05	\$ 122.91	\$ -	- \$	371.52	-	\$ 568.11	\$ 18,494.04	\$ 645.32	\$	-	\$ 52,464.66
4 Metro Courthouse	\$ 5,031.01 \$	7,528.49	\$ 344.96	\$ 552.45	\$ 2,164.79	\$ 719.79	\$ 57.77	\$ -	- \$	173.36	-	\$ 85.23	\$ 13,685.67	\$ 2,366.20	\$	-	\$ 32,709.72
7 Parkway Tower	\$ 4,586.62 \$	7,304.17	\$ 334.64	\$ 535.92	\$ 1,186.05	\$ 321.13	\$ 54.35	\$ -	- \$	168.18	719.74	\$ 373.03	\$ 8,734.79	\$ -	\$	-	\$ 24,318.62
9 Bobby Hotel (fka Wells Fargo)	\$ 1,690.60 \$	2,647.47	\$ 121.30	\$ 194.25	\$ 699.49	\$ 205.04	\$ 19.87	\$ -	- \$	60.96	258.50	\$ -	\$ 4,664.76	\$ 276.93	\$	-	\$ 10,839.17
10 Fairlane Hotel (fka 401 Union)	\$ 1,753.48 \$	2,728.10	\$ 124.99	\$ 200.18	\$ 531.51	\$ 148.56	\$ 20.53	\$ -	- \$	62.81	314.92	\$ 131.68	\$ 3,502.35	\$ 82.21	\$	-	\$ 9,601.32
11 Sheraton Hotel	\$ 9,677.90 \$	14,670.81	\$ 672.21	\$ 1,076.53	\$ 2,231.25	\$ 699.65	\$ 111.84	\$ -	- \$	337.82	1,248.33	\$ 123.07	\$ 13,042.16	\$ 1,691.16	\$	-	\$ 45,582.73
12 Municipal Auditorium	\$ 4,856.64 \$	7,796.21	\$ 357.17	\$ 572.01	\$ 575.31	\$ 155.77	\$ 57.79	\$ -	- \$	179.51	-	\$ 164.60	\$ 4,276.39	\$ -	\$	-	\$ 18,991.40
21 Hermitage Hotel	\$ 4,674.59 \$	6,879.00	\$ 315.22	\$ 504.81	\$ 1,227.46	\$ 333.68	\$ 53.23	\$ -	- \$	158.41	281.00	\$ 384.08	\$ 7,658.66	\$ 23.75	\$	-	\$ 22,493.89
24 Criminal Justice Center	\$ 7,904.34 \$	11,310.12	\$ 518.29	\$ 830.03	\$ 1,218.06	\$ 413.17	\$ 88.76	\$ -	- \$	260.47	-	\$ 289.77	\$ 7,300.31	\$ 1,475.85	\$	-	\$ 31,609.17
25 501 Union Building	\$ 1,843.08 \$	2,773.09	\$ 127.06	\$ 203.49	\$ 482.11	\$ 130.54	\$ 21.21	\$ -	- \$	63.86	236.26	\$ -	\$ 3,701.98	\$ -	\$	-	\$ 9,582.68
28 4th & Church Building	\$ 21,158.80 \$	-	\$ -	\$ -	\$ 1,629.99	\$ 441.33	\$ 69.66	\$ -	- \$	\$ - \$	-	\$ -	\$ 13,436.71	\$ -	\$	-	\$ 36,736.49
29 Fifth-Third Financial Center	\$ 5,632.54 \$	10,263.98	\$ 470.12	\$ 752.89	\$ 1,900.98	\$ 514.70	\$ 71.73	\$ -	- \$	236.27	798.50	\$ 87.43	\$ 17,052.92	\$ -	\$	-	\$ 37,782.06
32 Renaissance Hotel	\$ 14,601.18 \$	21,664.80	\$ 992.71	\$ 1,589.82	\$ 4,573.06	\$ 1,416.05	\$ 166.94	\$ -	- \$	498.89	1,484.42	\$ -	\$ 25,921.25	\$ 3,148.69	\$	-	\$ 76,057.81
33 5th & Broadway	\$ 6,480.40 \$	11,808.99	\$ 540.89	\$ 866.22	\$ 583.79	\$ 158.07	\$ 82.52	\$ -	- \$	271.83	-	\$ -	\$ 4,548.33	\$ -	\$	-	\$ 25,341.04
34 Renaissance Office Tower	\$ 1,377.08 \$	2,509.41	\$ 114.94	\$ 184.07	\$ 809.63	\$ 219.21	\$ 17.54	\$ -	- \$	57.76	230.67	\$ 64.13	\$ 6,554.60	\$ -	\$	-	\$ 12,139.04
35 St. Mary's Catholic Church	\$ 1,012.62 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	- \$	\$ - \$	33.74	\$ -	\$ -	\$ -	\$	-	\$ 1,046.36
36 Nashville City Center	\$ 4,590.28 \$	8,364.70	\$ 383.13	\$ 613.57	\$ 2,069.24	\$ 560.26	\$ 58.45	\$ -	- \$	192.55	764.75	\$ 110.12	\$ 17,227.26	\$ -	\$	-	\$ 34,934.31
38 Wildhorse Saloon	\$ 1,708.80 \$	2,739.18	\$ 125.50	\$ 200.98	\$ 404.90	\$ 109.63	\$ 20.32	\$ -	- \$	63.07	185.58	\$ 248.05	\$ 2,543.90	\$ -	\$	-	\$ 8,349.91
39 Ryman Auditorium	\$ 1,762.93 \$	2,872.94	\$ 131.62	\$ 210.79	\$ 1,322.81	\$ 464.27	\$ 21.15	\$ -	- \$	66.14	179.92	\$ -	\$ 7,311.55	\$ 1,878.48	\$	-	\$ 16,222.60
40 Bridgestone Arena	\$ 18,985.59 \$	31,020.87	\$ 1,421.14	\$ 2,275.93	\$ 6,228.62	\$ 1,977.28	\$ 228.02	\$ -	- \$	714.22	-	\$ -	\$ 42,428.48	\$ 5,148.73	\$	-	\$ 110,428.88
41 Nissan Stadium	\$ 8,100.50 \$	14,761.23	\$ 676.11	\$ 1,082.78	\$ 4,086.74	\$ 1,106.51	\$ 103.15	\$ -	- \$	339.79	-	\$ 11.43	\$ 26,272.13	\$ -	\$	-	\$ 56,540.37
43 Hume-Fogg High School	\$ 2,697.73 \$	4,213.39	\$ 193.04	\$ 309.16	\$ 251.98	\$ 88.64	\$ 31.65	\$ -	- \$	97.02	-	\$ 473.24	\$ 1,811.75	\$ 361.46	\$	-	\$ 10,529.06
44 Schermerhorn Symphony Center	\$ 15,422.30 \$	-	\$ -	\$ -	\$ 1,100.18	\$ 458.51	\$ 49.81	\$ -	- \$	\$ - \$	-	\$ -	\$ 8,052.61	\$ 2,843.75	\$	-	\$ 27,927.16
45 Nashville Public Library	\$ 6,992.09 \$	-	\$ -	\$ -	\$ 2,647.73	\$ 817.44	\$ 78.91	\$ -	- \$	\$ - \$	-	\$ 73.42	\$ 14,866.99	\$ 1,779.92	\$	-	\$ 27,256.50
49 Viridian Residential Tower	\$ 12,557.82 \$	=	\$ -	\$ -	\$ 970.96	\$ 262.89	\$ 35.21	\$ -	- \$	\$ - \$	-	\$ 571.38	\$ 5,734.58	\$ -	\$	-	\$ 20,132.84
50 Music City Center	\$ 77,567.78 \$	9,379.83	\$ -	\$ 4,231.42	\$ 11,344.21	\$ 4,107.25	\$ 574.75	\$ -	- \$	5 - 5	-	\$ -	\$ 74,853.98	\$ 18,335.72	\$	-	\$ 200,394.94
51 Hyatt Place Hotel	\$ 11,177.55 \$	-	\$ -	\$ -	\$ 484.57	\$ 179.77	\$ 40.34	\$ -	- \$	\$ - \$	-	\$ 281.81	\$ 2,604.75	\$ 859.72	\$	-	\$ 15,628.51
S1 State Government of TN	\$ 136,594.48 \$	108,363.00	\$ -	\$ -	\$ 18,822.31	\$ 6,249.99	\$ -	\$ -	- \$	2,631.08	-	\$ 2,539.08	\$ 130,893.76	\$ 20,424.60	\$	-	\$ 426,518.30
Grand Totals:	\$ 401,066.17 \$	307,733.90	\$ 8,704.30	\$ 18,171.20	\$ 72,334.72	\$ 23,050.18	\$ 2,258.41	\$ -	- \$	7,005.52	6,736.33	\$ 6,579.66	\$ 487,176.66	\$ 61,342.49	\$	-	\$ 1,402,159.54
Rate Calculation Totals:	\$ 482,916.73 \$	430,714.74	\$ 14,339.29	\$ 22,964.17	\$ 72,358.36	\$ 23,056.52	\$ 2,258.33	\$ -	- \$	7,206.46	6,736.33	\$ 6,579.66	\$ 487,255.27	\$ 61,342.50	\$	-	\$ 1,617,728.36
Deviation:	\$ (81,850.56) \$	(122,980.84)	\$ (5,634.99)	\$ (4,792.97	) \$ (23.64)	\$ (6.34)	\$ 0.08	\$ -	- \$	(200.94)	-	\$ -	\$ (78.61)	\$ (0.01)	\$	-	\$ (215,568.82)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam Fiscal Year 19 - 20 True Up

Customer Number Customer Name	Capacity	Operating	EDS Improvemen t	Metro	Water And Sewer	Chemical Treatment	Engineering	Insurance	SCI	Electricity	EDS Maint Costs Alloc	ПFS	Electricity	Natural Gas	Propane	Total
2 A. A. Birch	\$ (650.08) \$	(952.93)	\$ (43.66) \$	(1,460.96) \$	(269.86) \$	-	\$ 1,798.48 \$	621.20	\$	(15.93) \$	-	\$ (14.13) \$	(262.49) \$	(176.60) \$	775.11	\$ (651.85)
4 Metro Courthouse	\$ (311.07) \$	(449.31)	\$ (20.59) \$	(682.08) \$	(184.04) \$	-	\$ 847.23 \$	290.49	\$	(7.51) \$	-	\$ - \$	(174.31) \$	(111.08) \$	487.56	\$ (314.71)
7 Parkway Tower	\$ (270.25) \$	(416.91)	\$ (19.10) \$	(660.27) \$	(155.91) \$	-	\$ 789.05 \$	279.29	\$	(6.97) \$	-	\$ (13.07) \$	(140.78) \$	(80.41) \$	352.93	\$ (342.40)
9 Bobby Hotel (fka Wells Fargo)	\$ (108.55) \$	(166.74)	\$ (7.64) \$	(240.48) \$	(80.51) \$	=	\$ 289.74 \$	101.47	\$	(2.79) \$	-	\$ - \$	(70.09) \$	(36.34) \$	159.48	\$ (162.45)
10 Fairlane Hotel (fka 401 Union)	\$ (105.26) \$	(158.33)	\$ (7.25) \$	(246.80) \$	(58.05) \$	-	\$ 299.26 \$	104.66	\$	(2.64) \$	-	\$ (5.93) \$	(57.86) \$	(40.76) \$	178.89	\$ (100.07)
11 Sheraton Hotel	\$ (592.68) \$	(867.43)	\$ (39.75) \$	(1,328.54) \$	(273.57) \$	-	\$ 1,636.98 \$	564.98	\$	(14.49) \$	-	\$ (6.39) \$	(309.76) \$	(265.84) \$	1,166.79	\$ (329.70)
12 Municipal Auditorium	\$ (284.29) \$	(442.48)	\$ (20.27) \$	(704.56) \$	(85.83) \$	-	\$ 837.84 \$	297.76	\$	(7.39) \$	-	\$ (5.22) \$	(108.41) \$	(105.71) \$	463.97	\$ (164.59)
21 Hermitage Hotel	\$ (292.55) \$	(415.56)	\$ (19.04) \$	(623.64) \$	(120.41) \$	-	\$ 782.87 \$	266.10	\$	(6.94) \$	-	\$ (21.54) \$	(95.18) \$	(35.17) \$	154.34	\$ (426.72)
24 Criminal Justice Center	\$ (504.41) \$	(697.35)	\$ (31.97) \$	(1,026.44) \$	(94.04) \$	=	\$ 1,311.62 \$	439.39	\$	(11.65) \$	-	\$ - \$	(130.53) \$	(139.21) \$	611.01	\$ (273.58)
25 501 Union Building	\$ (113.50) \$	(164.86)	\$ (7.56) \$	(251.19) \$	(59.30) \$	-	\$ 311.00 \$	106.91	\$	(2.75) \$	-	\$ (0.76) \$	(56.96) \$	(37.36) \$	163.96	\$ (112.37)
28 4th & Church Building	\$ - \$	- :	\$ - \$	- \$	(201.65) \$	-	\$ 1,014.51 \$	355.52	\$	- \$	-	\$ - \$	(182.95) \$	(105.73) \$	464.05	\$ 1,343.75
29 Fifth-Third Financial Center	\$ (292.71) \$	(533.39)	\$ (24.43) \$	(923.73) \$	(205.47) \$	-	\$ 1,017.83 \$	385.43	\$	(8.91) \$	-	\$ (2.48) \$	(132.24) \$	- \$	-	\$ (720.10)
32 Renaissance Hotel	\$ (908.39) \$	(1,300.95)	\$ (59.62) \$	(1,963.45) \$	(527.79) \$	-	\$ 2,451.98 \$	836.99	\$	(21.73) \$	-	\$ - \$	(512.45) \$	(343.52) \$	1,507.75	\$ (841.18)
33 5th & Broadway	\$ - \$	- :	\$ - \$	(1,017.77) \$	(7.59) \$	-	\$ 1,011.68 \$	443.45	\$	- \$	-	\$ - \$	(4.88) \$	- \$	-	\$ 424.89
34 Renaissance Office Tower	\$ (71.56) \$	(130.41)	\$ (5.98) \$	(225.85) \$	(101.63) \$	-	\$ 248.84 \$	94.23	\$	(2.18) \$	=	\$ - \$	(65.41) \$	- \$	=	\$ (259.95)
35 St. Mary's Catholic Church	\$ - \$	- :	\$ - \$	- \$	- \$	-	\$ - \$	-	\$	- \$	-	\$ - \$	- \$	- \$	=	\$ -
36 Nashville City Center	\$ (238.54) \$	(434.70)	\$ (19.91) \$	(752.81) \$	(206.69) \$	-	\$ 829.48 \$	314.11	\$	(7.26) \$	-	\$ - \$	(133.02) \$	- \$	-	\$ (649.34)
38 Wildhorse Saloon	\$ (100.15) \$	(155.62)	\$ (7.13) \$	(247.55) \$	(67.32) \$	-	\$ 294.70 \$	104.64	\$	(2.61) \$	-	\$ (12.06) \$	(57.91) \$	(29.00) \$	127.29	\$ (152.72)
39 Ryman Auditorium	\$ (101.89) \$	(161.32)	\$ (7.39) \$	(259.50) \$	(134.23) \$	=	\$ 305.72 \$	109.49	\$	(2.69) \$	-	\$ - \$	(128.28) \$	(83.30) \$	365.60	\$ (97.79)
40 Bridgestone Arena	\$ (1,094.88) \$	(1,738.75)	\$ (79.66) \$	(2,801.69) \$	(758.14) \$	=	\$ 3,295.84 \$	1,181.85	\$	(29.04) \$	-	\$ - \$	(592.15) \$	(207.22) \$	909.53	\$ (1,914.31)
41 Nissan Stadium	\$ (420.96) \$	(767.10)	\$ (35.13) \$	(1,328.49) \$	(356.97) \$	-	\$ 1,463.74 \$	554.31	\$	(12.81) \$	-	\$ - \$	(229.74) \$	- \$	=	\$ (1,133.15)
43 Hume-Fogg High School	\$ (161.46) \$	(243.85)	\$ (11.17) \$	(381.13) \$	(24.72) \$	-	\$ 460.97 \$	161.55	\$	(4.07) \$	-	\$ (13.07) \$	(26.95) \$	(21.97) \$	96.41	\$ (169.46)
44 Schermerhorn Symphony Center	\$ - \$	- :	\$ - \$	- \$	(133.76) \$	-	\$ 723.43 \$	255.74	\$	- \$	-	\$ - \$	(139.23) \$	(105.66) \$	463.75	\$ 1,064.27
45 Nashville Public Library	\$ - \$	- :	\$ - \$	- \$	(390.12) \$	-	\$ 1,152.68 \$	400.18	\$	- \$	=	\$ - \$	(362.55) \$	(221.63) \$	972.75	\$ 1,551.31
49 Viridian Residential Tower	\$ - \$	- :	\$ - \$	- \$	(92.68) \$	=	\$ 499.62 \$	189.20	\$	- \$	-	\$ - \$	(59.65) \$	- \$	=	\$ 536.49
50 Music City Center	\$ - \$	- :	\$ - \$	(4,971.72) \$	(1,479.75) \$	-	\$ 8,343.03 \$	2,953.34	\$	- \$	-	\$ - \$	(1,518.12) \$	(1,124.95) \$	4,937.49	\$ 7,139.32
51 Hyatt Place Hotel	\$ - \$	-	\$ - \$	- \$	(51.47) \$	-	\$ 597.25 \$	198.84	\$	- \$	-	\$ - \$	(66.98) \$	(67.32) \$	295.47	\$ 905.79
S1 State Government of TN	\$ - \$	-	\$ - \$	- \$	(1,707.09) \$	-	\$ - \$	4,401.64	\$	(113.06) \$	-	\$ - \$	(1,838.69) \$	(1,471.43) \$	6,458.29	\$ 5,729.66
Grand Totals:	\$ (6,623.18) \$	(10,197.99)	\$ (467.25) \$	(22,098.65) \$	(7,828.59) \$	-	\$ 32,615.37 \$	16,012.76	\$	(283.42) \$	-	\$ (94.65) \$	(7,457.57) \$	(4,810.21) \$	21,112.42	\$ 9,879.04
Rate Calculation Totals:	\$ (6,623.18) \$	(10,197.99)	\$ (467.25) \$	(31,743.38) \$	(7,830.36) \$	-	\$ 32,615.28 \$	16,012.76	\$	(283.42) \$	-	\$ (94.65) \$	(7,462.17) \$	(4,816.78) \$	21,141.30	\$ 250.16
Deviation:	\$ - \$	- :	\$ - \$	(9,644.73) \$	(1.77) \$	-	\$ (0.09) \$	=	\$	- \$		\$ - \$	(4.60) \$	(6.57) \$	28.88	\$ 9,628.88



# Appendix 4

NASHVILLE, TENNESSEE

# **CNE INVOICE RECONCILIATION - FY 2019 - 2020**

6 SALI	ES SUMMARY	FROM CUSTOMER MET	ER READS						1	2	3	4	5	6	
7 MC	ONTH		7	8	9	10	11	12	1	2	3	4	5	6	
8 <b>ST</b>	TEAM SALES	Previously invoiced, lbs	14,513,110	14,554,805	14,935,443	26,074,541	45,457,344	47,815,057	50,970,916	49,772,037	31,703,058	23,088,128	15,955,207	11,387,052	346,2
9		Reconciled, Ibs	14,513,110	14,554,805	14,935,443	26,074,541	45,457,344	47,815,057	50,970,916	49,772,037	31,703,058	23,088,128	15,955,207	11,387,052	346,2
10 <b>CH</b>	HW SALES	Previously invoiced, ton-hrs	8,278,822	8,347,846	8,064,402	5,183,697	2,892,663	2,964,511	2,748,643	2,731,800	3,095,897	2,747,534	3,757,215	6,028,226	56,8
11		Reconciled, ton-hrs	8,278,822	8,347,846	8,064,402	5,183,697	2,892,663	2,964,511	2,748,643	2,731,800	3,095,897	2,747,534	3,757,215	6,028,226	56,8
12 SUM	MARY FROM	<b>CUSTOMER METER REA</b>	IDS from INVOICES (	paste link)											
13 ST	TART DATE		07/01/19	08/01/19	09/01/19	10/01/19	11/01/19	12/01/19	01/01/20	02/01/20	03/01/20	04/01/20	05/01/20	06/01/20	0
14 EN	ND DATE		07/31/19	08/31/19	09/30/19	10/31/19	11/30/19	12/31/19	01/31/20	02/29/20	03/31/20	04/30/20	05/31/20	06/30/20	0
	HW SALES	ton-hrs	8,278,822	8,347,846	8,064,402	5,183,697	2,892,663	2,964,511	2,748,643	2,731,800	3,095,897	2,747,534	3,757,215	6,028,226	56,8
16 CH	HW SENDOUT	ton-hrs	8,846,400	8,970,400	8,533,500	5,466,200	3,011,800	3,088,300	2,858,400	2,849,500	3,273,400	2,863,000	3,978,500	6,369,700	60,
17 CH	HW ELECTRIC	kWh	7,774,499	7,848,290	7,424,367	4,653,667	2,708,316	2,813,958	2,605,555	2,541,011	2,953,224	2,531,675	3,224,940	5,427,489	52,
	HW MUW	galls	16,670,000	16,703,000	16,745,000	9,735,000	4,811,000	4,810,000	4,297,000	4,154,000	5,235,000	4,968,000	6,826,000	11,528,000	106,4
	TEAM SALES	mlbs	14,513	14,555	14,935	26,075	45,457	47,815	50,971	49,772	31,703	23,088	15,955	11,387	
	TEAM SENDOUT	mlbs	21,197	21,030	21,226	32,069	50,288	51,617	54,821	53,248	37,196	29,160	23,017	18,081	4
21 ST	TEAM PRODUCTIO	N mlbs	25,634	25,364	25,624	37,493	58,993	59,726	64,624	64,605	44,030	34,434	27,477	22,384	4
	ATURAL GAS	mmBtu	28,073	28,209	28,672	44,050	68,490	71,394	74,741	73,851	51,460	40,102	31,673	25,000	
	ROPANE	mmBtu	0	16	25	41	49	16	25	270	0	0	8	0	
	TEAM ELECTRIC	kWh	55,871	54,732	54,079	88,671	122,003	127,340	141,237	125,169	98,510	80,736	62,675	50,632	1,0
25 CC	ONDENSATE RETU	JRN galls	2,003,900	1,951,500	1,833,300	2,961,400	4,322,400	4,382,200	4,554,000	4,221,800	2,901,800	2,539,700	1,979,100	1,267,900	34,9
26		mlbs	16,344	15,916	14,952	24,153	35,253	35,741	37,142	34,432	23,667	20,713	16,141	10,341	
27		°F	201 °F	201 °F	188 °F	179 °F	176 °F	180 °F	175 °F	176 °F	181 °F	191 °F	201 °F	188 °F	
28 ST	TEAM MUW	galls	647,030	674,100	819,600	1,053,930	2,007,280	2,064,440	2,290,620	2,440,790	1,788,890	1,157,480	932,650	981,770	16,8
29		mlbs	5,400	5,626	6,840	8,795	16,751	17,228	19,116	20,369	14,929	9,660	7,783	8,193	1
	ays in Service		31	31	30	31	30	31	31	29	31	30	31	30	
	ficiency - Cooling	kWh/ton-hr-Sold	0.939	0.940	0.921	0.898	0.936	0.949	0.948	0.930	0.954	0.921	0.858	0.900	
32 Eff	ficiency - Heating	Dth/klb-Sendout	1.324	1.342	1.352	1.375	1.363	1.383	1.364	1.392	1.383	1.375	1.376	1.383	
33															
34	·	·				·	·	·		<u>-</u>		·	<u>-</u>		

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NASHVILLE, TENNESSEE

REV: 1 DATE: 10/20/20

An Exelon Company	NA:	SHVILLE, TEN	INESSEE										
<b>CNE INVOICE RECONCILIA</b>	TION - FY 2	019 - 202	20										
UTILITY INVOICES (Paste Link)													
Month of Service	7	8	9	10	11	12	1	2	3	4	5	6	T
ELECTRIC SERVICE (NES)		2442242		10/1/00/10		121112212		244222	24/222		1 (2.2.)	-10.1.10.000	
Service Dates From	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	3/31/2020	4/30/2020	5/31/2020	7/:
To PEAK Demand kW	7/31/2019 16,400	8/31/2019 16,400	9/30/2019 15,344	10/31/2019 14,952	11/30/2019 6,060	12/31/2019 6,060	1/31/2020 6,440	2/29/2020 6,060	3/31/2020 6,552	4/30/2020 9,016	5/31/2020 9,408	6/30/2020 13,664	1
Service Period Use kWh	7.901.964	7.967.064	7.528.192	4.814.684	2.912.504	3.037.720	2.829.736	2.744.196	3.137.820	2.695.448	3.375.120	5.556.180	54.
Service Period Ose KWIII Service Period Charge \$	\$ 616,480.85	\$ 627,700.16	\$ 585,806.12	\$ 459,318.66	\$ 220,058.09	\$ 234,507.54	\$ 247,265.65	\$ 224,751.19	\$ 250,232.30	\$ 273,012.67	\$ 298,294.60	\$ 487,255.27	\$ 4,5
Average Charge \$/kWh	\$ 0.078000	\$ 0.078800	\$ 0.077800	\$ 0.095400	\$ 0.075600	\$ 0.077200	\$ 0.087400	\$ 0.081900	\$ 0.079700	\$ 0.101300	\$ 0.088400	\$ 0.087700	\$ 7,5
NATURAL GAS SERVICE	7 00.000				*								*
Service Dates From	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020	7/
То	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020	5/1/2020	5/31/2020	6/30/2020	6/3
JTILITY CEPS INVOICE DATA EN Start	2,892	29,305	55,800	82,750	120,364	184,593	251,481	321,331	390,151	438,107	475,501	505,166	
Ending	29,305	55,800	82,750	124,157	184,593	251,481	321,331	390,151	438,107	475,501	505,166	528,647	
UTILITY METER Multiplier	10	10	10	10	10	10	10	10	10	10	10	10	
HEAT FACTOR	1.063	1.065	1.064	1.064	1.066	1.067	1.070	1.073	1.073	1.072	1.068	1.065	
Service Period Use CCF	264,130	264,950	269,500	414,069	642,290	668,880	698,500	688,200	479,560	373,940	296,650	234,810	5,2
Dth	28,073.3	28,208.7	28,672.1	44,049.9	68,490.0	71,394.2	74,740.9	73,851.4	51,460.1	40,101.7	31,672.7	24,999.5	56
Service Period Charges													
CONSULTANTS \$	\$6,474.24	\$6,556.35	\$6,556.35	\$6,556.35	\$6,556.35 \$ 25.075.60	\$6,556.35	\$6,556.35 \$ 26.858.31	\$6,556.35	\$6,556.35	\$6,556.35	\$6,556.35	\$6,556.35	78
NASHVILLE GAS \$ CNEG \$	\$ 13,549.01 \$ 63,335.32	\$ 13,587.62 \$ 59,270.98	\$ 13,719.77 \$ 62,573.68	\$ 18,105.43 \$ 104,775.36	\$ 25,075.60 \$ 175,808.38	\$ 25,903.86 \$ 175,399.74	\$ 26,858.31 \$ 161,841.12	\$ 26,604.64 \$ 136,343.00	\$ 20,218.78 \$ 93,173.45	\$ 16,979.43 \$ 63,924.34	\$ 14,607.15 \$ 56,066.30	\$ 11,958.79 \$ 42,827.36	1,19
TOTAL \$	\$ 63,335.32 \$ 83.358.57	\$79,414.95	\$ 82,849.80	\$ 129,437,14	\$ 207.440.33	\$ 207,859.95	\$ 195,255.78	\$ 169.503.99	\$ 93,173.45 \$ 119.948.58	\$ 87,460,12	\$ 77,229.80	\$ 42,827.36 \$ 61.342.50	\$ 1,18
Average Charge \$/Dth	\$ 2.9693	\$ 2.8153	\$ 2.8896	\$ 2.9384	\$ 3.0288	\$ 2.9114	\$ 2.6124	\$ 2.2952	\$ 2.3309	\$ 2.1810	\$ 77,229.80	\$ 2.4537	\$ 1,
WATER SERVICE (DOMESTIC AND PLANT)	ÿ 2.9093	ψ 2.0155	ψ 2.0090	ÿ 2.9304	φ 3.0200	ψ 2.9114	\$ 2.0124	ÿ 2.2902	ÿ 2.5509	\$ 2.1010	ÿ 2.4304	φ 2.4557	ų.
Service Dates From	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	3/31/2020	4/30/2020	5/31/2020	7/
To	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020	6/3
UTILITY CEPS INVOICE DATA ENTRY		0.0	0,00,000						0.0				
DOMESTIC Start													
Ending													
PLANT METER #1 Start													
Ending													
PLANT METER #2 Start													
Ending													
Service Period Use													
DOMESTIC CCF	8	15	31	32	22	18	23	29	23	20	32	25	
PLANT METER #1 CCF	23,139	20,550	24,885	23,334	11,390	10,730	11,007	11,873	11,025	10,678	10,974	15,412	1:
PLANT METER #2 CCF	20.447	00.505	04.040	00.000	44.440	10.710	44.000	44.000	44.040	40.000	44.000	45 407	
TOTAL CCF PLANT ONLY CCF	23,147	20,565 20,550	24,916 24,885	23,366 23,334	11,412 11,390	10,748	11,030 11,007	11,902 11,873	11,048	10,698	11,006 10,974	15,437 15,412	1:
GALLONS GALLONS	23,139 17,307,972	15.371.400	24,885 18.613.980	17.453.832	8,519,720	10,730 8.026.040	11,007 8.233.236	11,873 8.881.004	11,025 8.246,700	10,678 7.987.144	10,974 8.208.552	15,412	138
Service Period Charges	17,307,972	10,371,400	10,013,980	17,403,832	0,019,720	0,020,040	0,233,230	0,001,004	0,240,700	1,901,144	0,208,332	11,028,176	138
DOMESTIC WATER \$	\$ 45.47	\$ 60.45	\$ 94.69	\$ 96.83	\$ 75.43	\$ 66.87	\$ 77.57	\$ 117.66	\$ 101.16	\$ 92.91	\$ 125.91	\$ 106.66	\$
SEWER \$	\$ 91.65	\$ 121.89	\$ 191.01	\$ 195.33	\$ 152.13	\$ 134.85	\$ 156.45	\$ 297.03	\$ 261.93	\$ 244.38	\$ 314.58	\$ 273.63	\$
PLANT WATER \$	\$ 44,462.68	\$ 39.568.69	\$ 47,775.34	\$ 44,841.97	\$ 22.245.58	\$ 20,995.46	\$ 21,521.48	\$ 37,882.69	\$ 35,188.31	\$ 34,085.16	\$ 35.033.59	\$ 49,101.87	\$ 4
SEWER\$	\$ 18,855.84	\$ 16,746.62	\$ 20,280.46	\$ 19,015.58	\$ 9,281.22	\$ 8,743.32	\$ 8,968.26	\$ 17,362.80	\$ 16,122.60	\$ 15,613.65	\$ 16,040.70	\$ 22,534.20	\$ 1
STATE FEE @ 10%	\$ 300.00	\$ 300.00	\$ 300.00	\$ 342.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 510.00	\$ 342.00	\$
TOTAL	\$ 63,755.64	\$ 56,797.65	\$ 68,641.50	\$ 64,491.71	\$ 32,054.36	\$ 30,240.50	\$ 31,023.76	\$ 55,960.18	\$ 51,974.00	\$ 50,336.10	\$ 52,024.78	\$ 72,358.36	\$ 6
PLANT, WATER ONLY \$	\$ 44,462.68	\$ 39,568.69	\$ 47,775.34	\$ 44,841.97	\$ 22,245.58	\$ 20,995.46	\$ 21,521.48	\$ 37,882.69	\$ 35,188.31	\$ 34,085.16	\$ 35,033.59	\$ 49,101.87	\$ 4
Average Charge \$/kGall	\$ 2.5689	\$ 2.5742	\$ 2.5666	\$ 2.5692	\$ 2.6111	\$ 2.6159	\$ 2.6140	\$ 4.2656	\$ 4.2670	\$ 4.2675	\$ 4.2679	\$ 4.2593	\$
		-	<u>-</u>		-		·	· · · · · · · · · · · · · · · · · · ·	-			-	<del>-</del>
MONTHLY FEAs	0	0	0	0	0	0	0	0	0	0	0	0	
Service Dates From	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020	7,
To	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020	6/3
STEAM ELECTRIC	\$608.46	\$642.28	\$691.08	\$1,616.27	\$2,848.93	\$3,079.49	\$3,596.18	\$3,551.51	\$1,827.46	\$1,463.53	\$730.60	\$387.96	\$21
FUEL GAS	\$3,918.12	\$3,464.42	\$3,719.12	\$5,171.42	\$9,109.90	\$8,129.02	\$8,617.18	\$6,805.55	\$4,833.70	\$3,418.02	\$2,925.71	\$2,528.54	\$62
WATER	\$19.82	\$25.89	\$36.47	\$33.24	\$60.48	\$100.41	\$117.18	\$200.34	\$107.64	\$23.41	\$29.37	\$106.27	\$1
CHW ELECTRIC	\$18,726.69	\$18,912.04	\$21,018.25	\$19,410.08	\$6,505.89	\$6,064.79	\$6,426.20	\$6,991.70	\$6,230.27	\$9,323.91	\$16,357.78	\$20,486.17	\$15
EHEL GAS	\$0.00	¢0.00	¢0.00	en no	60.00	en nn	¢0.00	¢0.00	¢0.00	<b>¢</b> 0.00	¢0.00	¢0.00	

64	CHW ELECTRIC	\$18,726.69	\$18,912.04	\$21,018.25	\$19,410.08	\$6,505.89	\$6,064.79	\$6,426.20	\$6,991.70	\$6,230.27	\$9,323.91	\$16,357.78	\$20,486.17	\$156,453.77
65	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
66	WATER	\$17,205.38	\$17,454.46	\$16,423.94	\$11,227.04	\$6,773.18	\$7,031.72	\$6,622.73	\$10,863.29	\$11,753.77	\$10,089.45	\$13,762.40	\$21,426.64	\$150,634.00
67		\$ 40,478.47	\$ 40,499.09	\$ 41,888.86	\$ 37,458.05	\$ 25,298.38	\$ 24,405.43	\$ 25,379.47	\$ 28,412.39	\$ 24,752.84	\$ 24,318.32	\$ 33,805.86	\$ 44,935.58	\$391,632.74
68														
69	STEAM CAPACITY TEST ADJUSTMENTS													
70	Month	7	8	9	10	11	12							TOTAL
70 71		7	8	9	10	11	12							TOTAL
70 71 72	Month	7	8	9	10	11	12							TOTAL 0
70 71 72 73	Month NATURAL GAS	7	8	9	10	11	12							0 0
70 71 72 73 74	Month NATURAL GAS USAGE CREDIT MCF Dth \$	7	8	9	10	11	12							0 0 0 \$ -
70 71 72 73 74 75	Month NATURAL GAS	7	8	9	10	11	12							0 0 0 5 -



REV: 1 DATE: 07/23/20

4	CNE INVOICE RECONC	ILIATIO	N - FY 2	019 - 202	20						
78	WATER										
79	USAGE CREDIT kGallor	ı									0
80											\$ -
81	PLANT STEAM										
82	SEND-OUT CREDIT mlb										0
83											
84											

Month		7	8	9	10	11	12	1	2	3	4	5	6	T(
DATE OF READIN		7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020	7/1
coincides with Cus	stomer Dates) To	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020	6/3
ELECTRIC METER														
SWG-2A	Start Reading	33,478.70	34,644.04	35,679.50	36,602.72	36,658.38	36,658.38	36,658.38	37,131.05	37,481.78	38,038.24	38,782.96	39,214.07	
	End Reading	34,644.04	35,679.50	36,602.72	36,658.38	36,658.38	36,658.38	37,131.05	37,481.78	38,038.24	38,782.96	39,214.07	40,120.76	
Perio	d Use in units = 1,000 x kWh	1,165,340	1,035,460	923,220	55,660	0	0	472,670	350,730	556,460	744,720	431,110	906,690	
SWG-2B	Start Reading	81,707.65	83,316.80	85,518.44	87,785.62	89,486.28	90,799.99	92,189.07	92,852.54	93,577.16	94,558.19	95,626.29	96,179.27	
	End Reading	83,316.80	85,518.44	87,785.62	89,486.28	90,799.99	92,189.07	92,852.54	93,577.16	94,558.19	95,626.29	96,179.27	97,418.39	
	d Use in units = 1,000 x kWh	1,609,150	2,201,640	2,267,180	1,700,660	1,313,710	1,389,080	663,470	724,620	981,030	1,068,100	552,980	1,239,120	
SWG-3A	Start Reading	68,821.95	70,445.75	71,896.28	73,143.96	74,110.79	74,774.15	75,484.53	75,901.88	76,325.17	76,392.54	76,416.93	77,660.13	
	End Reading	70,445.75	71,896.28	73,143.96	74,110.79	74,774.15	75,484.53	75,901.88	76,325.17	76,392.54	76,416.93	77,660.13	79,391.43	
	d Use in units = 1,000 x kWh	1,623,800	1,450,530	1,247,680	966,830	663,360	710,380	417,350	423,290	67,370	24,390	1,243,200	1,731,300	
SWG-3B	Start Reading	152,456.70	154,203.08	155,737.20	157,145.21	157,909.45	157,964.17	158,002.74	158,399.02	158,807.54	159,343.23	159,345.82	159,622.83	
	End Reading	154,203.08	155,737.20	157,145.21	157,909.45	157,964.17	158,002.74	158,399.02	158,807.54	159,343.23	159,345.82	159,622.83	160,077.96	
	d Use in units = 1,000 x kWh	1,746,380	1,534,120	1,408,010	764,240	54,720	38,570	396,280	408,520	535,690	2,590	277,010	455,130	
SWG-4A	Start Reading	17,459,762.00	17,748,255.00	18,071,056.00	18,441,747.00	18,878,488.00	19,215,283.00	19,547,212.00	19,844,467.00	19,988,122.00	20,166,654.00	20,307,493.00	20,385,154.00	
	End Reading	17,748,255.00	18,071,056.00	18,441,747.00	18,878,488.00	19,215,283.00	19,547,212.00	19,844,467.00	19,988,122.00	20,166,654.00	20,307,493.00	20,385,154.00	20,504,174.00	
	d Use in units = 1 x kWh	288,493	322,801	370,691	436,741	336,795	331,929	297,255	143,655	178,532	140,839	77,661	119,020	
SWG-4B	Start Reading	4,534,315.00	4,819,274.00	5,113,708.00	5,348,211.00	5,370,662.00	5,370,662.00	5,370,662.00	5,388,170.00	5,544,928.00	5,710,629.00	5,852,898.00	6,028,012.00	
	End Reading	4,819,274.00	5,113,708.00	5,348,211.00	5,370,662.00	5,370,662.00	5,370,662.00	5,388,170.00	5,544,928.00	5,710,629.00	5,852,898.00	6,028,012.00	6,362,944.00	
	d Use in units = 1 x kWh	284,959	294,434	234,503	22,451	0	0	17,508	156,758	165,701	142,269	175,114	334,932	
SWG-5A	Start Reading	9,271,530.00	9,618,071.00	9,950,539.00	10,269,774.00	10,593,568.00	10,757,217.00	10,849,855.00	11,004,893.00	11,062,641.00	11,168,760.00	11,252,108.00	11,396,377.00	
	End Reading	9,618,071.00	9,950,539.00	10,269,774.00	10,593,568.00	10,757,217.00	10,849,855.00	11,004,893.00	11,062,641.00	11,168,760.00	11,252,108.00	11,396,377.00	11,587,010.00	
	d Use in units = 1 x kWh	346,541	332,468	319,235	323,794	163,649	92,638	155,038	57,748	106,119	83,348	144,269	190,633	
SWG-5B	Start Reading	11,158,410.00	11,344,828.00	11,510,223.00	11,653,450.00	11,660,055.00	11,692,560.00	11,798,790.00	11,842,119.00	11,976,338.00	12,118,092.00	12,235,275.00	12,305,109.00	
	End Reading	11,344,828.00	11,510,223.00	11,653,450.00	11,660,055.00	11,692,560.00	11,798,790.00	11,842,119.00	11,976,338.00	12,118,092.00	12,235,275.00	12,305,109.00	12,418,439.00	
Perio	d Use in units = 1 x kWh	186,418	165,395	143,227	6,605	32,505	106,230	43,329	134,219	141,754	117,183	69,834	113,330	
MCC-1	Start Reading	13,575.70	31,860.90	41,007.00	52,223.90	17,974.80	82,531.50	43,540.80	78,429.00	23,921,043.10	24,008,344.30	24,189,613.80	24,282,071.00	
	End Reading	231,860.90	241,007.00	252,223.90	217,974.80	82,531.50	143,540.80	78,429.00	121,043.10	24,008,344.30	24,089,613.80	24,282,071.00	24,412,871.40	
	d Use in units = 1 x kWh	218,285	209,146	211,217	165,751	64,557	61,009	34,888	42,614	87,301	81,270	92,457	130,800	
MCC-2	Start Reading	41,436.60	98,465.50	52,897.00	5,229.00	68,398.50	1,438.60	39,268.60	200.20	23,056,093.30	23,142,933.40	23,225,388.80	23,443,544.40	
·	End Reading	298,465.50	352,897.00	305,229.00	168,398.50	101,438.60	39,268.60	100,200.20	56,093.30	23,142,933.40	23,225,388.80	23,243,544.40	23,606,554.70	
	d Use in units = 1 x kWh	257,029	254,432	252,332	163,170	33,040	37,830	60,932	55,893	86,840	82,455	18,156	163,010	
MCC-3	Start Reading	79,667.10	92,260.80	29,131.60	54,321.00	67,288.50	67,893.60	74,410.20	57,645.00	5,611,270.80	5,657,443.00	5,688,197.30	5,626,518.50	
	End Reading	92,260.80	129,131.60	54,321.00	67,288.50	167,893.60	174,410.20	157,645.00	111,270.80	5,657,443.00	5,688,197.30	5,726,518.50	5,670,648.90	
	d Use in units = 1 x kWh	12,594	36,871	25,189	12,968	100,605	106,517	83,235	53,626	46,172	30,754	38,321	44,130	
MCC-4	Start Reading	77,027.70	19,960.50	37,489.60	66,039.00	40,840.50	60,203.10	78,966.70	34,477.00	8,103,939.50	8,254,753.80	8,203,342.00	8,325,034.00	
·	End Reading	119,960.50	37,489.60	66,039.00	140,840.50	60,203.10	78,966.70	134,477.00	103,939.50	8,154,753.80	8,303,342.00	8,225,034.00	8,331,133.40	
Perio	d Use in units = 1 x kWh	42,933	17,529	28,549	74,802	19,363	18,764	55,510	69,463	50,814	48,588	21,692	6,099	
NOTES:														

130														
131	OTHER METERS (Paste Link)													
132	FT_6120: Propane Gas Available for Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,150.00	9,180.00	9,180.00	9,180.00	9,090.00	
133	Ending Inventory	0.00	180.00	270.00	450.00	540.00	180.00	270.00	9,180.00	9,180.00	9,180.00	9,090.00	9,090.00	
134	Period Use in units = Gallons	0.00	-180.00	-270.00	-450.00	-540.00	-180.00	-270.00	2,970.00	0.00	0.00	90.00	0.00	1,170
135	Period Use in units = Gallons Per DT	10.989	10.989	10.989	10.989	10.989	10.989	10.989	10.989	10.989	10.989	10.989	10.989	
136	FIQY_3000: Stm Sendout Start Reading	282,572	303,769	324,799	346,025	378,094	428,382	6,179,999	6,234,820	6,288,068	6,325,264	6,354,424	6,377,441	
137	End Reading	303,769	324,799	346,025	378,094	428,382	6,179,999	6,234,820	6,288,068	6,325,264	6,354,424	6,377,441	6,395,522	
138	Period Use in units = 1 x MLB	21,197	21,030	21,226	32,069	50,288	51,617	54,821	53,248	37,196	29,160	23,017	18,081	412,950
139	WQ_1800: CHW Sendout Start Reading	370,274	458,738	548,442	633,777	688,439	718,557	749,440	778,024	916,059,053	919,416,702	923,873,800	930,361,158	
140	End Reading	458,738	548,442	633,777	688,439	718,557	749,440	778,024	806,519	919,416,702	923,873,800	930,361,158	937,628,491	
141	Period Use in units = 1 x TON-HRS	8,846,400	8,970,400	8,533,500	5,466,200	3,011,800	3,088,300	2,858,400	2,849,500	3,273,400	2,863,000	3,978,500	6,369,700	60,109,100
142	1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =	12,977,300	14,981,200	16,932,700	18,766,000	21,727,400	26,049,800	30,432,000	34,986,000	439,207,800	442,109,600	444,649,300	446,628,400	
143	End Reading	14,981,200	16,932,700	18,766,000	21,727,400	26,049,800	30,432,000	34,986,000	39,207,800	442,109,600	444,649,300	446,628,400	447,896,300	
144	Period Use in units = 1 x GALL	2,003,900	1,951,500	1,833,300	2,961,400	4,322,400	4,382,200	4,554,000	4,221,800	2,901,800	2,539,700	1,979,100	1,267,900	34,919,000
145	11 4_2110119	291,588	294,345	297,042	299,372	302,920	308,009	313,300	318,624	323,598	327,117	330,408	333,133	
146	End Reading	294,345	297,042	299,372	302,920	308,009	313,300	318,624	323,598	327,117	330,408	333,133	334,750	
147	Period Use in units = 1 x mmBtu	2,757	2,697	2,330	3,548	5,089	5,291	5,324	4,974	3,519	3,291	2,725	1,617	43,162
148		201 °F	201 °F	188 °F	179 °F	176 °F	180 °F	175 °F	176 °F	181 °F	191 °F	201 °F	188 °F	183 °F
149	1 = 10001	2,007,860	2,654,890	3,328,990	4,148,590	5,202,520	7,209,800	9,274,240	1,564,860	164,005,650	165,794,540	166,952,020	177,884,670	
150	End Reading	2,654,890	3,328,990	4,148,590	5,202,520	7,209,800	9,274,240	11,564,860	4,005,650	165,794,540	166,952,020	167,884,670	178,866,440	
151	Period Use in units = 1 x GALL	647,030	674,100	819,600	1,053,930	2,007,280	2,064,440	2,290,620	2,440,790	1,788,890	1,157,480	932,650	981,770	16,858,580



REV: 1 DATE: 10/20/20

PST EXECUT COMpany													
<b>CNE INVOICE RECONC</b>	ILIATION - FY 2	2019 - 202	20										
FT_4200: MUW, CW. Start Reading	45,064,000	61,734,000	78,437,000	95,182,000	4,917,000	9,728,000	14,538,000	1,575,835,000	1,579,989,000	1,585,224,000	1,590,192,000	1,597,018,000	
End Reading	61,734,000	78,437,000	95,182,000	104,917,000	9,728,000	14,538,000	1,575,835,000	1,579,989,000	1,585,224,000	1,590,192,000	1,597,018,000	1,608,546,000	
Period Use in units = 1 x GALL	16,670,000	16,703,000	16,745,000	9,735,000	4,811,000	4,810,000	4,297,000	4,154,000	5,235,000	4,968,000	6,826,000	11,528,000	106,482,000
FT_4100: MUW, CHW. Start Reading	89,346,500	90,655,700	91,949,800	93,364,800	94,860,100	96,326,000	97,866,300	99,414,100	101,191,900	103,050,100	104,934,200	106,902,700	
	90,655,70	91,949,800	93,364,800	94,860,100	94,860,100	97,866,300	99,414,100	101,191,900	103,050,100	104,934,200	106,902,700	109,008,500	
Period Use in units = 1 x GALL	1,309,20	1,294,100	1,415,000	1,495,300	0	1,540,300	1,547,800	1,777,800	1,858,200	1,884,100	1,968,500	2,105,800	18,196,100
2" PLANT WATER Start Reading in 10 x scft	2,484,900	2,484,900	2,484,900	2,484,900	2,484,900	0	1,737	4,603	7,466	10,500	13,455	16,550	
UTILITY METER Start Reading in 10 x scft	2,484,90	2,484,900	2,484,900	2,484,900	2,484,900	1,737	4,603	7,466	10,500	13,455	16,550	19,904	
Period Use in units = 1 x SCFT		0	0	0	0	1,737	2,866	2,863	3,034	2,955	3,095	3,354	19,904
6" PLANT WATER Start Reading	388,79	411,905	435,100	458,750	473,600	483,382	492,405	500,445	2,509,095	2,518,145	2,526,115	2,536,200	
UTILITY METER End Reading	411,90	5 435,100	458,750	473,600	483,382	492,405	500,445	509,095	2,518,145	2,526,115	2,536,200	2,552,535	
Period Use in units = 1 x SCFT	23,119	5 23,195	23,650	14,850	9,782	9,023	8,040	8,650	9,050	7,970	10,085	16,335	163,745
2" DOMESTIC WATER Start Reading	3,962.0	3,970.0	4,003.0	4,035.0	4,061.0	4,077.0	4,099.0	4,124.0	4,149,000.0	4,171,000.0	4,204,000.0	4,227,000.0	
UTILITY METER End Reading	3,970.0	4,003.0	4,035.0	4,061.0	4,077.0	4,099.0	4,124.0	4,149.0	4,171,000.0	4,204,000.0	4,227,000.0	4,251,000.0	
Period Use in units = 1 x SCFT		33	32	26	16	22	25	25	22,000	33,000	23,000	24,000	102,187
	CNE INVOICE RECONC  FT_4200: MUW, CW.  Start Reading End Reading Period Use in units = 1 x GALL  FT_4100: MUW, CHW.  Start Reading End Reading End Reading End Reading End Reading In 0x soft UTILITY METER Start Reading in 10 x soft Period Use in units = 1 x SGFL  UTILITY METER Start Reading Start Reading 11 x SGFT  UTILITY METER End Reading Period Use in units = 1 x SCFT  Start Reading Start	CNE INVOICE RECONCILIATION - FY 2           FT_4200: MUW, CW.         Start Reading         45,064,000           End Reading         61,734,000           Period Use in units = 1 x GALL         16,670,000           FT_4100: MUW, CHW.         Start Reading         89,334,650           End Reading         90,655,701           Period Use in units = 1 x GALL         1,309,200           2" PLANT WATER         Start Reading in 10 x scft         2,484,900           UTILITY METER         Start Reading in 10 x Scft         2,484,900           Period Use in units = 1 x SCFT         1 x SCFT         383,879           UTILITY METER         End Reading         411,900           Period Use in units = 1 x SCFT         23,111           2" DOMESTIC WATER         Start Reading         3,962,0           UTILITY METER         End Reading         3,970,0	CNE INVOICE RECONCILIATION - FY 2019 - 202           FT_4200: MUW, CW.         Start Reading         45,064,000         61,734,000           FT_4200: MUW, CW.         Start Reading         61,734,000         78,437,000           Period Use in units = 1 x GALL         16,670,000         16,703,000           FT_4100: MUW, CHW.         Start Reading         99,655,700         91,949,800           Period Use in units = 1 x GALL         1,309,200         1,294,100           2" PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900           UTILITY METER         Start Reading in 10 x scft         2,484,900         2,484,900           Period Use in units = 1 x SCFT         0         0         0           6" PLANT WATER         Start Reading         38,789         411,905           UTILITY METER         End Reading         411,905         435,100           Period Use in units = 1 x SCFT         23,115         23,195           2" DOMESTIC WATER         Start Reading         3,962,0         3,970,0           UTILITY METER         End Reading         3,970,0         4,003,0	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_4200: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000           End Reading         61,734,000         78,437,000         95,182,000           Period Use in units = 1 x GALL         16,670,000         16,703,000         16,745,000           FT_4100: MUW, CHW.         Start Reading         89,346,500         90,655,700         91,949,800           Feriod Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000           2" PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900           UTILITY METER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900           Period Use in units = 1 x SCFT         0         0         0           6" PLANT WATER         Start Reading         388,790         411,905         435,100           UTILITY METER         End Reading         411,905         435,100           UTILITY METER         End Reading         411,905         435,100           UTILITY METER         End Reading         3,962,0         3,970,0         4,003,0           """>UTILITY METER         End Reading         3,962,0         3,970,0         4,0	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_4200: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         97,355,000           FT_4100: MUW, CHW.         Start Reading         93,346,500         90,655,700         91,949,800         93,364,800           Period Use in units =         1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300           2" PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900           UTILITY METER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900           Period Use in units =         1 x SCFT         0         0         0         0           OF "PLANT WATER         Start Reading         388,780         411,905         435,100         458,750           UTILITY METER         End Reading         411,905         435,100         458,750         473,600           Period Use in units =         1 x SCFT         23,115         23,195         23,650         14,850           UTILITY METER         End Readin	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_4200: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         97,355,000         4,811,000           FT_4100: MUW, CHW.         Start Reading         93,346,500         90,655,700         91,949,800         93,364,800         94,860,100           Period Use in units =         1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0           2" PLANT WATER         Start Reading in 10 x scft         2,484,900 <td< th=""><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_4200: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000           Period Use in units = 1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000           FT_4100: MUW, CHW.         Start Reading         89,346,500         90,655,700         91,949,800         93,364,800         94,860,100         97,866,300           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         97,866,300           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300</th></td<> <th>CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000           Period Use in units =         1 x GALL         16,670,000         16,733,000         95,182,000         104,917,000         9,728,000         14,538,000         1,575,835,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000           FT_410: MUW, CHW.         Star Reading         99,345,500         90,655,700         91,949,800         93,364,800         94,860,100         96,326,000         97,866,300           Period Use in units =         1 x GALL         1,309,200         1,294,100         1,415,000         94,860,100         97,866,300         99,414,100           Period Use in units =         1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         1,547,800           2*PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737         4,603           <t< th=""><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000         1,575,835,000           Period Use in units = 1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000         4,154,000           FT_410: MUW, CHW.         Start Reading         89,346,500         90,655,700         91,949,800         93,364,800         94,860,100         97,866,300         99,414,100           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         1,577,800           2" PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737         4,603         7,466           Period Use in units = 1 x SCFT         0         0         0         0         0         1,737         2,866         2,863           UTILITY METER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737</th><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000         1,575,835,000         1,579,989,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000         4,158,000         1,575,835,000         1,585,224,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,297,000         4,154,000         5,235,000         1,191,900         9,735,000         4,810,000         4,297,000         4,154,000         5,235,000         1,191,900         9,735,000         4,810,000         4,297,000         4,154,000         5,235,000         9,861,000         9,866,300         9,866,300         9,866,300         9,866,300         9,841,410         101,191,900         101,191,900         101,191,900         103,050,100         1,948,400         2,484,900         2,484,900         2,484,900         9,866,100         9,866,300         9,841,410         101,191,900         103,050,100         1,572,800         1,577,800         1,572,800         1,777,800</th></t<><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_420: MUW, CW. Start Reading</th><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_4200: MUW, CW. Start Reading</th><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_420: MUW, CW. Start Reading</th></th>	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_4200: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000           Period Use in units = 1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000           FT_4100: MUW, CHW.         Start Reading         89,346,500         90,655,700         91,949,800         93,364,800         94,860,100         97,866,300           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         97,866,300           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300         0         1,540,300	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000           Period Use in units =         1 x GALL         16,670,000         16,733,000         95,182,000         104,917,000         9,728,000         14,538,000         1,575,835,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000           FT_410: MUW, CHW.         Star Reading         99,345,500         90,655,700         91,949,800         93,364,800         94,860,100         96,326,000         97,866,300           Period Use in units =         1 x GALL         1,309,200         1,294,100         1,415,000         94,860,100         97,866,300         99,414,100           Period Use in units =         1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         1,547,800           2*PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737         4,603 <t< th=""><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000         1,575,835,000           Period Use in units = 1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000         4,154,000           FT_410: MUW, CHW.         Start Reading         89,346,500         90,655,700         91,949,800         93,364,800         94,860,100         97,866,300         99,414,100           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         1,577,800           2" PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737         4,603         7,466           Period Use in units = 1 x SCFT         0         0         0         0         0         1,737         2,866         2,863           UTILITY METER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737</th><th>CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000         1,575,835,000         1,579,989,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000         4,158,000         1,575,835,000         1,585,224,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,297,000         4,154,000         5,235,000         1,191,900         9,735,000         4,810,000         4,297,000         4,154,000         5,235,000         1,191,900         9,735,000         4,810,000         4,297,000         4,154,000         5,235,000         9,861,000         9,866,300         9,866,300         9,866,300         9,866,300         9,841,410         101,191,900         101,191,900         101,191,900         103,050,100         1,948,400         2,484,900         2,484,900         2,484,900         9,866,100         9,866,300         9,841,410         101,191,900         103,050,100         1,572,800         1,577,800         1,572,800         1,777,800</th></t<> <th>CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_420: MUW, CW. Start Reading</th> <th>CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_4200: MUW, CW. Start Reading</th> <th>CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_420: MUW, CW. Start Reading</th>	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000         1,575,835,000           Period Use in units = 1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000         4,154,000           FT_410: MUW, CHW.         Start Reading         89,346,500         90,655,700         91,949,800         93,364,800         94,860,100         97,866,300         99,414,100           Period Use in units = 1 x GALL         1,309,200         1,294,100         1,415,000         1,495,300         0         1,540,300         1,577,800           2" PLANT WATER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737         4,603         7,466           Period Use in units = 1 x SCFT         0         0         0         0         0         1,737         2,866         2,863           UTILITY METER         Start Reading in 10 x scft         2,484,900         2,484,900         2,484,900         2,484,900         2,484,900         1,737	CNE INVOICE RECONCILIATION - FY 2019 - 2020           FT_420: MUW, CW.         Start Reading         45,064,000         61,734,000         78,437,000         95,182,000         4,917,000         9,728,000         14,538,000         1,575,835,000         1,579,989,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,810,000         4,297,000         4,158,000         1,575,835,000         1,585,224,000           Period Use in units =         1 x GALL         16,670,000         16,703,000         16,745,000         9,735,000         4,811,000         4,297,000         4,154,000         5,235,000         1,191,900         9,735,000         4,810,000         4,297,000         4,154,000         5,235,000         1,191,900         9,735,000         4,810,000         4,297,000         4,154,000         5,235,000         9,861,000         9,866,300         9,866,300         9,866,300         9,866,300         9,841,410         101,191,900         101,191,900         101,191,900         103,050,100         1,948,400         2,484,900         2,484,900         2,484,900         9,866,100         9,866,300         9,841,410         101,191,900         103,050,100         1,572,800         1,577,800         1,572,800         1,777,800	CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_420: MUW, CW. Start Reading	CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_4200: MUW, CW. Start Reading	CNE INVOICE RECONCILIATION - FY 2019 - 2020  FT_420: MUW, CW. Start Reading

168																
169	PERFORMANCE CALCULATION	INS														
170	Month		7	8	9	10	11	12	13	14	15	16	17	18		TOTAL
171	ELECTRIC-to-STEAM CONVERSION															
172	Emainutility	kWh	7,901,964	7,967,064	7,528,192	4,814,684	2,912,504	3,037,720	2,829,736	2,744,196	3,137,820	2,695,448	3,375,120	5,556,180		54,500,628
173	Echw,metered	kWh	7,726,395	7,800,426	7,377,295	4,605,901	2,662,336	2,767,666	2,558,720	2,498,047	2,906,797	2,487,164	3,081,791	5,383,966		51,856,504
174	Esteam,metered	kWh	55,527	54,400	53,738	87,770	119,968	125,281	138,745	123,089	96,986	79,342	60,013	50,229		1,045,088
175	Esteam,unmetered	kWh	844	766	694	2,206	5,363	5,971	6,485	5,520	4,143	3,795	4,149	1,103		41,039
176	CAPACITY TEST ADJUSTMEN	IT, kWh	0	0	0	0	0	0	0	0	0	0	0	0		0
177	Esteam,total	kWh	56,371	55,166	54,432	89,976	125,331	131,252	145,230	128,609	101,129	83,137	64,162	51,332		1,086,127
178	Customer Steam, Sn+e	Ibs	14,513,110	14,554,805	14,935,443	26,074,541	45,457,344	47,815,057	50,970,916	49,772,037	31,703,058	23,088,128	15,955,207	11,387,052		346,226,698
179	nelec, actual	(Wh/klb	3.884	3.790	3.644	3.451	2.757	2.745	2.849	2.584	3.190	3.601	4.021	4.508		3.137
180	FUEL GAS-to-STEAM CONVERSION															
181	Metered Plant Steam Send-out	lbs	21,197,000	21,030,000	21,226,000	32,069,000	50,288,000	51,617,000	54,821,000	53,248,000	37,196,000	29,160,000	23,017,000	18,081,000		412,950,000
182	CAPACITY TEST ADJUSTME	ENT, Ibs	0	0	0	0	0	0	0	0	0	0	0	0		0
183	ADJUSTED Plant Steam SO	lbs	21,197,000	21,030,000	21,226,000	32,069,000	50,288,000	51,617,000	54,821,000	53,248,000	37,196,000	29,160,000	23,017,000	18,081,000		412,950,000
184	Natural Gas use, NG	Dth	28,073.3	28,208.7	28,672.1	44,049.9	68,490.0	71,394.2	74,740.9	73,851.4	51,460.1	40,101.7	31,672.7	24,999.5		565,714.5
185	Propane Gas use, P	gallon	0	-180	-270	-450	-540	-180	-270	2,970	0	0	90	0		1,170
186	•	Dth	0	-16	-25	-41	-49	-16	-25	270	0	0	8	0		106
187	CAPACITY TEST ADJUSTME	NT, 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
188	TOTAL FUEL GAS USE	Dth	28,073.3	28,192.3	28,647.5	44,008.9	68,441.0	71,378.2	74,715.9	74,121.7	51,460.1	40,101.7	31,680.7	24,999.5		565,820.9
189	nhhv,actual	Dth/klb	1.324	1.341	1.350	1.372	1.361	1.383	1.363	1.392	1.383	1.375	1.376	1.383		1.3700
190	Condensate Return, CR	gallon	2,003,900	1,951,500	1,833,300	2,961,400	4,322,400	4,382,200	4,554,000	4,221,800	2,901,800	2,539,700	1,979,100	1,267,900		34,919,000
191	· q	% of SO	77.10%	75.68%	70.44%	75.31%	70.10%	69.24%	67.75%	64.66%	63.63%	71.03%	70.13%	57.19%		68.97%
192	Condensate Return Energy	mmBtu	2,757	2,697	2,330	3,548	5,089	5,291	5,324	4,974	3,519	3,291	2,725	1,617		43,162
193	Condensate Return Temperature	avg	201 °F	201 °F	188 °F	179 °F	176 °F	180 °F	175 °F	176 °F	181 °F	191 °F	201 °F	188 °F		183 °F
194	nhhv,guarantee	Dth/klb												GUARAN	NTEED MAX RATE	1.687
195															CES FEA RATE	1.598
196	WATER-to-STEAM CONVERSION															
197	Metered Steam Makeup, MW	Gallons	647,030	674,100	819,600	1,053,930	2,007,280	2,064,440	2,290,620	2,440,790	1,788,890	1,157,480	932,650	981,770		16,858,580
198	CAPACITY TEST ADJUSTMENT,	Gallons	0	0	0	0	0	0	0	0	0	0	0	0		0
199	ADJUSTED Steam Makeup, MW	Gallons	647,030	674,100	819,600	1,053,930	2,007,280	2,064,440	2,290,620	2,440,790	1,788,890	1,157,480	932,650	981,770		16,858,580
200	Actual Steam Makeup, nwater	Gallons	653,500	680,841	827,796	1,064,469	2,027,353	2,085,084	2,313,526	2,465,198	1,806,779	1,169,055	941,977	991,588		17,027,166
201	Guarantee Steam Makeup, nguar.	Gallons	684,357	721,070	884,636	1,116,218	2,120,003	2,238,626	2,492,830	2,653,062	1,907,681	1,190,995	969,503	1,091,392		18,070,373
202	ELECTRICITY-to-CHW CONVERSION															
203	Emainutility	kWh	7,901,964	7,967,064	7,528,192	4,814,684	2,912,504	3,037,720	2,829,736	2,744,196	3,137,820	2,695,448	3,375,120	5,556,180		54,500,628
204	CAPACITY TEST ADJUSTMEN	IT, kWh	0	0	0	0	0	0	0	0	0	0	0	0		0
205	Echw,metered	kWh	7,726,395	7,800,426	7,377,295	4,605,901	2,662,336	2,767,666	2,558,720	2,498,047	2,906,797	2,487,164	3,081,791	5,383,966		51,856,504
206	Esteam,total	kWh	56,371	55,166	54,432	89,976	125,331	131,252	145,230	128,609	101,129	83,137	64,162	51,332		1,086,127
207	Echw,unmetered	kWh	119,198	111,472	96,465	118,807	124,837	138,802	125,786	117,540	129,894	125,147	229,167	120,882		1,557,997
208		kWh	7,845,593	7,911,898	7,473,760	4,724,708	2,787,173	2,906,468	2,684,506	2,615,587	3,036,691	2,612,311	3,310,958	5,504,848		53,414,501
200	Echw,total				8.064.402	5.183.697	2,892,663	2,964,511	2,748,643	2,731,800	3,095,897	2,747,534	3,757,215	6,028,226		56,841,256
209		Ton-hrs	8,278,822	8,347,846	0,004,402											
209	Customer CHW, CHWs+e	Ton-hrs n/ton-hr	8,278,822 0.948	8,347,846 0.948	0.927	0.911	0.964	0.980	0.977	0.957	0.981	0.951	0.881	0.913		0.940
	Customer CHW, CHWs+e		-, -,-	-,- ,	-,,	0.911	0.964	0.980	0.977		0.981	0.951	0.881	0.913		0.940
209 210	Customer CHW, CHWs+e nelec, actual kWh CW-to-CHW CONVERSION		-, -,-	-,- ,	-,,	9,735,000	0.964 4,811,000	0.980 4,810,000	4,297,000	0.957 4,154,000	5,235,000	4,968,000	0.881 6,826,000	0.913 11,528,000		106,482,000
209 210 211	Customer CHW, CHWs+e nelec, actual kWh CW-to-CHW CONVERSION Condenser Water Makeup, CM	n/ton-hr	0.948 16,670,000 8,278,822	0.948 16,703,000 8,347,846	0.927 16,745,000 8,064,402	9,735,000 5,183,697	4,811,000 2,892,663	4,810,000 2,964,511	4,297,000 2,748,643	4,154,000 2,731,800	5,235,000 3,095,897	4,968,000 2,747,534		11,528,000 6,028,226		106,482,000 56,841,256
209 210 211 212	Customer CHW, CHWs+e nelec, actual kWh CW-to-CHW CONVERSION Condenser Water Makeup, CM	Gallons Ton-hrs	0.948	0.948	0.927	9,735,000	4,811,000	4,810,000	4,297,000	4,154,000	5,235,000	4,968,000	6,826,000	11,528,000		106,482,000
209 210 211 212 213	Customer CHW, CHWs+e nelec, actual kWr CW-to-CHW CONVERSION Condenser Water Makeup, CM Customer CHW, CHWs+e	Gallons Ton-hrs	0.948 16,670,000 8,278,822	0.948 16,703,000 8,347,846	0.927 16,745,000 8,064,402	9,735,000 5,183,697	4,811,000 2,892,663	4,810,000 2,964,511	4,297,000 2,748,643	4,154,000 2,731,800	5,235,000 3,095,897	4,968,000 2,747,534	6,826,000 3,757,215	11,528,000 6,028,226		106,482,000 56,841,256

217	METER CHECKS AND ESTIMATES													
218	WATER METER CHECKS	7	8	9	10	11	12	1	2	3	4	5	6	TOTAL
219	Utility Meters - Utility Dates gallons	17,307,972	15,371,400	18,613,980	17,453,832	8,519,720	8,026,040	8,233,236	8,881,004	8,246,700	7,987,144	8,208,552	11,528,176	138,377,756
220	Utility Meters - Customer Dates gallons	172,900	173,499	176,902	111,078	73,169	80,485	81,577	86,117	90,388	81,719	98,586	147,274	1,373,695
221	variance (line 184-line 183) gallons	-17,135,072	-15,197,901	-18,437,078	-17,342,754	-8,446,551	-7,945,555	-8,151,659	-8,794,887	-8,156,312	-7,905,425	-8,109,966	-11,380,902	-137,004,061
222	% of TOTAL (line 183)	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99.01%
223	Plant Meters													1



REV: 1 DATE: 07/23/20

3	An Exelon Company	NA	SHVILLE, TENN	IESSEE							_			
4	CNE INVOICE RECONC	ILIATION - FY 2	2019 - 2020	)										
224	CHW gallor	s 1,309,200	1,294,100	1,415,000	1,495,300	0	1,540,300	1,547,800	1,777,800	1,858,200	1,884,100	1,968,500	2,105,800	18,196,100
225	CW gallor	s 16,670,000	16,703,000	16,745,000	9,735,000	4,811,000	4,810,000	4,297,000	4,154,000	5,235,000	4,968,000	6,826,000	11,528,000	106,482,000
226	STEAM gallor	s 647,030	674,100	819,600	1,053,930	2,007,280	2,064,440	2,290,620	2,440,790	1,788,890	1,157,480	932,650	981,770	16,858,580
227	TOTAL gallon	s 18,626,230	18,671,200	18,979,600	12,284,230	6,818,280	8,414,740	8,135,420	8,372,590	8,882,090	8,009,580	9,727,150	14,615,570	141,536,680
228	variance (line 191-line 184) gallor	s 18,453,330	18,497,701	18,802,698	12,173,152	6,745,111	8,334,255	8,053,843	8,286,473	8,791,702	7,927,861	9,628,564	14,468,296	140,162,985
229	% of TOTAL (line 184	10673%	6 10662%	10629%	10959%	9218%	10355%	9873%	9622%	9727%	9701%	9767%	9824%	10203.36%
230	•			•				•						
231	CW MUW CHECK	1 7	7 8	9	10	11	12	1	2	3	4	5	6	TOTAL
232	CHW Send-out ton-hi	s 8,846,400	8,970,400	8,533,500	5,466,200	3,011,800	3,088,300	2,858,400	2,849,500	3,273,400	2,863,000	3,978,500	6,369,700	60,109,100
233	CW MUW Rate gall/ton-l	ır 1.884	1.862	1.962	1.781	1.597	1.557	1.503	1.458	1.599	1.735	1.716	1.810	1.771
234														
235	FINAL MAKEUP WATER RESULTS	7	7 8	9	10	11	12	1	2	3	4	5	6	TOTAL
236	CHW gallor	s 1,309,200	1,294,100	1,415,000	1,495,300	0	1,540,300	1,547,800	1,777,800	1,858,200	1,884,100	1,968,500	2,105,800	18,196,100
237	CW gallor		16,703,000	16,745,000	9,735,000	4,811,000	4,810,000	4,297,000	4,154,000	5,235,000	4,968,000	6,826,000	11,528,000	106,482,000
238	STEAM gallor	s 647,030	674,100	819,600	1,053,930	2,007,280	2,064,440	2,290,620	2,440,790	1,788,890	1,157,480	932,650	981,770	16,858,580
239	TOTAL gallon	s 18,626,230	18,671,200	18,979,600	12,284,230	6,818,280	8,414,740	8,135,420	8,372,590	8,882,090	8,009,580	9,727,150	14,615,570	141,536,680
240	variance gallor			18,802,698	12,173,152	6,745,111	8,334,255	8,053,843	8,286,473	8,791,702	7,927,861	9,628,564	14,468,296	140,162,985
241	% of TOTAL (line 184	10673%	120%	101%	70%	79%	104%	98%	0%	0%	99%	117%	126%	101%
242														
243	STEAM PLANT MASS BALANCE CK	7	7 8	9	10	11	12	1	2	3	4	5	6	TOTAL
244	STEAM SENDOUT kib		7 21,030	21,226	32,069	50,288	51,617	54,821	53,248	37,196	29,160	23,017	18,081	412,950
245	STEAM PRODUCTION klb	- <b></b>	1 25,364	25,624	37,493	58,993	59,726	64,624	64,605	44,030	34,434	27,477	22,384	490,388
246		-4,437	7 -4,334	-4,398	-5,424	-8,705	-8,109	-9,803	-11,357	-6,834	-5,274	-4,460	-4,303	
247	CALC'D LOSSES													
248	BLOWDO' 4% klb			1,025	1,500	2,360	2,389	2,585	2,584	1,761	1,377	1,099	895	19,616
249	DEA VENT 0.50% kib	-4		128	187	295	299	323	323	220	172	137	112	2,452
250	TOTAL CALC'D LOSSES kib	s 1,154	1,141	1,153	1,687	2,655	2,688	2,908	2,907	1,981	1,550	1,236	1,007	22,067
251														
252	CONDENSATE RETURN gallor		1,951,500	1,833,300	2,961,400	4,322,400	4,382,200	4,554,000	4,221,800	2,901,800	2,539,700	1,979,100	1,267,900	34,919,000
253	8.15585 klb	- <del></del>		14,952	24,153	35,253	35,741	37,142	34,432	23,667	20,713	16,141	10,341	284,794
254	STEAM MUW 8.3453 klb	s 5,400	5,626	6,840	8,795	16,751	17,228	19,116	20,369	14,929	9,660	7,783	8,193	140,690
255														
256	TOTAL LEAVING PLANT kit			22,379	33,756	52,943	54,305	57,729	56,155	39,177	30,710	24,253	19,088	435,017
257	TOTAL ENTERING PLANT kib	-4		21,792	32,948	52,004	52,969	56,258	54,801	38,595	30,373	23,924	18,534	425,484
258	OVERAGE / SHORTFALL kib		-630	-587	-808	-938	-1,336	-1,471	-1,354	-582	-337	-329	-554	-9,533
259	FINAL COMPENSATE DETURN ON OUR ATION	-2.7%	-2.8%	-2.6%	-2.4%	-1.8%	-2.5%	-2.5%	-2.4%	-1.5%	-1.1%	-1.4%	-2.9%	-2.19%
260	FINAL CONDENSATE RETURN CALCULATION RECALC'D TOTAL ENTERING kill	#	00.007	22.050	24.700	54.504	55.004	50.464	57.040	40.050	24.624	04.004	40.004	
261	RECALC'D TOTAL ENTERING kits RECALC'D COND. RETURN kits	-1	1 22,837	23,050 16,211	34,769 25,974	54,531 37,780	55,934 38,705	59,461 40,345	57,840 37,471	40,353 25,424	31,631	24,981 17,198	19,661	
262		- <del></del>	17,211								21,971		11,468	
263	gallor	s 2,160,582	2 2,110,259	1,987,609	3,184,648	4,632,210	4,745,727	4,946,761	4,594,341	3,117,253	2,693,931	2,108,649	1,406,078	
264														



#### **CNE INVOICE RECONCILIATION - FY 2019 - 2020**

SUMMARY		ELECTRIC FEA	FUEL GAS FEA	WATER FEA	System TOTAL		Include FEA	
STEAM SYSTEM		\$20,573.29	\$62,458.75	\$815.53	\$83,847.57		in INVOICE	
CHILLED WATER	SYSTEM	\$136,009.65	\$0.00	\$150,044.87	\$286,054.52		(YES/NO)	
TOTAL		\$156,582.94	\$62,458.75	\$150,860.40	\$369,902.09		YES	
ELECTRICITY-TO-								
CONTRACTUAL G		6.000	kWh per mlb sold		ONUS CALCULATION		PENALTY	BONUS
	Inaccuracy Buffer	0%		RATE VARI		kWh per mlb sold	0.000	2.863
GUARANTEED MA		6.000	kWh per mlb sold	STEAM SO		346,227 mlb	2	004.000
CEPS FUEL EFFIC		6.000	kWh per mlb sold		in kWh = RATE VARIA		0	991,233
CEPS ACTUAL CO	INVERSION RATE	3.137	kWh per mlb sold		ELECTRIC PRICE ALTY / BONUS	\$0.0830 / kWh	<b>(</b> 0.00	<b>600 570 (</b>
						niana and Danie at	\$0.00	\$20,573.2
FUEL 040 TO 0TE	414 0010/5001	O.N.		NOTE	: Penalty at 100% of va	ariance and Bonus at A	25% of variance	
FUEL GAS-TO-STE				ONE BENIAL TWE			DENIAL TV	DOMINO
		s by Condensate Ret			ONUS CALCULATION		PENALTY	BONUS
Given Con	densate Return at	69%	of Send-out	RATE VARI		Dth. per mlb sold	0.000	0.228
CHADANTEED MA	V OLIANITITY	183 °F	avg. Temp.	STEAM SE		412,950 mlb	0	04.450
GUARANTEED MA		1.687	Dth.per mlb sold		in Dth. = RATE VARIA		0	94,153
CEPS FUEL EFFIC		1.598 1.370	Dth.per mlb sold Dth.per mlb sold		FUEL PRICE ALTY / BONUS	\$2.6535 / Dth.	\$0.00	\$62,458.7
CEPS ACTUAL CC	JNVERSION RATE	1.370	Dtn.per mib soid			ninna and Danie at		\$62,458.
WATER TO STEAM	4 CONVEDEION			NOTE	: Penalty at 100% of va	ariance and Bonus at A	25% of variance	
WATER-TO-STEAM		. 5 6	,	A			551115	
	SUARANTEE (varie	s by Plant Send-out,	see below))		ONUS CALCULATION		PENALTY	BONUS
PLANT LOSSES VOLUMETRIC CO	NIVEDOLONI	15% 7.4805			in gallons = GMQ - CE WATER PRICE	\$3.1270 / kGall	0	1,043,20
CONDENSATE RE		8.15585	gallons per cft gall per lb		ALTY / BONUS	\$3.1270 / KGall	\$0.00	\$815.53
GUARANTEED MA		18,070,373			ge water pice excludes	cowor	\$0.00	φο 13.33
CEPS ACTUAL US		17,027,166	gallons gallons	Avera	ge water pice excludes	Sewer.		
CEFS ACTUAL 03	DC	17,027,100	yalloris	NOTE	: Penalty at 100% of va	ariance and Ronus at '	25% of variance	
ELECTRICITY-TO-	CHILLED WATE	D CONVEDSION		NOTE	r enaity at 100 % of ve	ariance and bonds at a	2078 OF VARIANCE	
CONTRACTUAL G		1.055	kWh per ton-hr sold	CNE PENALTY/E	ONUS CALCULATION	J	PENALTY	BONUS
	Inaccuracy Buffer	0%	KWII per torrii 30iu	RATE VARI		kWh per ton-hr sold	0.000	0.115
GUARANTEED MA		1.055	kWh per ton-hr sold		ATER SOLD	56,841,256 ton-hrs	0.000	0.110
CEPS FUEL EFFIC		1.055	kWh per ton-hr sold		in kWh = RATE VARIA		0	6,553,02
CEPS ACTUAL CO		0.940	kWh per ton-hr sold		ELECTRIC PRICE	\$0.0830 / kWh	· ·	0,000,02
02. 07.0.07.2 00	) <u></u>	0.0.0	KTTT POT TOTT THE COLU		ALTY / BONUS	φοιοσσο / κττιι	\$0.00	\$136,009.
					: Penalty at 100% of va	ariance and Bonus at 2		ψ.ου,ουυ.
WATER-TO-CHILL	FD WATER CON	VFRSION						
CONTRACTUAL G		5.250	gall per ton-hr sold	CNE PENALTY/E	ONUS CALCULATION	ı	PENALTY	BONUS
	Inaccuracy Buffer	0%	gail per terrir sola	RATE VARI		gall per ton-hr sold	0.000	3.377
GUARANTEED MA		5.250	gall per ton-hr sold		ATER SOLD	56,841,256 ton-hrs	0.000	0.0
CEPS FUEL EFFIC		5.250	gall per ton-hr sold		in gallons = RATE VAR		0	191,934,5
CEPS ACTUAL CO		1.873	gall per ton-hr sold		WATER PRICE	\$3.1270 / kGall		.,,0
			0 1		ALTY / BONUS		\$0.00	\$150,044.
				NOTE	: Penalty at 100% of va	ariance and Bonus at 2	25% of variance	
			•		•			
COMPARISON	PREVIOUSLY	BILLED VS_R	ECONCILED AM	OUNTS				
STEAM SYSTEM	-KEVIOUSE I	DIEEED VO. IX	CONTRACTOR AND		CHILLED WATER	SYSTEM		
	CALCULATED	RECONCILED	VARIANCE		CHILLED WATER	CALCULATED	RECONCILED	VARIAN
					EL FOTDIO			
ELECTRIC	\$21,043.75	\$20,573.29	(\$470.46)		ELECTRIC	\$156,453.77	\$136,009.65	(\$20,444.1
FUEL GAS	\$62,640.70	\$62,458.75	(\$181.95)		FUEL GAS	\$0.00	\$0.00	\$0.00
WATER	\$860.52 <b>\$84,544.97</b>	\$815.53	(\$44.99)		WATER	\$150,634.00	\$150,044.87	(\$589.13
TOTAL		\$83,847.57	(\$697.40)		TOTAL	\$307,087.77	\$286,054.52	(\$21,033.2

COMPARISO	N PREVIOUSLY	BILLED VS. RE	CONCILED AN	IOUNTS				
STEAM SYSTEM					CHILLED WATER	SYSTEM		
	CALCULATED	RECONCILED	VARIANCE			CALCULATED	RECONCILED	VARIANCE
ELECTRIC	\$21,043.75	\$20,573.29	(\$470.46)		ELECTRIC	\$156,453.77	\$136,009.65	(\$20,444.12)
FUEL GAS	\$62,640.70	\$62,458.75	(\$181.95)		FUEL GAS	\$0.00	\$0.00	\$0.00
WATER	\$860.52	\$815.53	(\$44.99)		WATER	\$150,634.00	\$150,044.87	(\$589.13)
TOTAL	\$84,544.97	\$83,847.57	(\$697.40)		TOTAL	\$307,087.77	\$286,054.52	(\$21,033.25)

٠.						
65	COMPARISO	N AMOUNT CO	LLECTED BY ME	TRO VS 97-13	CAP	
66		FEA COLLEC		METRO PAID	METRO OWES	
67		STEAM	CHILLED WATER	TOTAL	CNE	CUSTOMER
68	ELECTRIC	\$16,634.20	\$104,055.64	\$120,689.84		
69	FUEL GAS	\$48,934.73	\$0.00	\$48,934.73		
70	WATER	\$593.83	\$93,601.74	\$94,195.57		
71	TOTAL	\$66,162.76	\$197,657.38	\$263,820.14	\$243,710.83	\$20,109.31
72						



# Exhibit 1



#### **EXHIBIT 1 - CALCULATION DETAIL FOR PLANT PERFORMANCE PER APPENDIX 19**

#### **ELECTRICITY-TO-STEAM CONVERSION**

(1)	E (MainUtility)	= total electric use per main utility meters		54,500,628 kWh					
(2)	E (Steam, mete	ered) = metered electric use for steam plant		1,045,088 kWh					
		MCC-3	590,982						
		MCC-4	454,106						
(3)	E (CHW,mete	red) = metered electric use for chilled water plant		51,856,504 kWh					
		SWGR-2A	6,642,060						
		SWGR-2B	15,710,740						
		SWGR-3A	10,569,480						
		SWGR-3B	7,621,260						
		SWGR-4A	3,044,412						
		SWGR-4B	1,828,629						
		SWGR-5A	2,315,480						
		SWGR-5B	1,260,029						
		MCC-1	1,399,296						
		MCC-2	1,465,118						
(4)		tered = un-metered electric use for steam plant = $[(2)/(1)]x[(1)-(2)$ -	(3) ]	30,663 kWh *					
(5)	Echw,unmeter	red = un-metered electric use for chilled water plant = (1) - (2) - (3) - (4)	-	1,568,373 kWh *					
(6)	Esteam,total =	total electric use for steam plant = (2) + (4)		1,075,751 kWh *					
(7)	(7) Customer Steam Sales, metered + unmetered 346,226,698 lbs								

n (elec): Actual Steam Plant Electric Conversion = (6) / [ (7) x 0.001 ] =

#### **NATURAL GAS-TO-STEAM CONVERSION**

(8)	NG = Total Na	tural Gas Use per main utility meters		565,714.5 Dth
(9)	P = Total Prop	ane Gas		106 Dth
(10)	HHV = Higher	Heating Value of Propane		1.002052 Btu/scft
(11)	SO = Plant Ste	eam Send Out		6,097,673,000 lbs***
		Meter Reading at the beginning, n-1	282,572	
		Meter Reading at the end, n	6,395,522	
		Units of Measure	1 x SCFT	

### n (HHV): Actual Plant Efficiency = $[(8) + (9) \times (10)]/[(11) \times 0.001)]$ =

0.093 Dth/klb

3.107 kWh/klb

(12)	CR = Condensate Return per plant meter			34,919,000 gallons **
		Meter Reading at the beginning, n-1	12,977,300	
		Meter Reading at the end, n	447,896,300	
		Units of Measure	1 x SCFT	
(13)	13) H = Condensate Return energy			43,162 mmBtu
		Meter Reading at the beginning, n-1	291,588	
		Meter Reading at the end, n	334,750	
		Units of Measure	1 x MMBTU	

#### T (cr,avg): Average Condensate Return Temperature =

184 °F

#### **WATER-TO-STEAM CONVERSION**

(14)	MW = Steam system makeup water plant meter			16,858,580 gallons
		Meter Reading at the beginning, n-1	2,007,860	
		Meter Reading at the end, n	178,866,440	
		Units of Measure	1 x SCFT	



#### **EXHIBIT 1 - CALCULATION DETAIL FOR PLANT PERFORMANCE PER APPENDIX 19**

n (water): Actual steam plant water use = (14) \* 1.01 = 17,027,166 gallons

G (water): Guaranteed steam plant water use = [ (11) / 8.15585 - (12) = 819,633,846 gallons

#### **ELECTRICITY-TO-CHILLED WATER CONVERSION**

(15) E (chw,total) = Total CHW Electric use = (3) + (5) = 53,424,877 kWh \*

(16) Customer CHW Sales, metered + unmetered 56,841,256 kWh

n (elec): Actual chilled water plant electric conversion = (15) / (16) = 0.940 kw/ton

#### **CONDENSER WATER-TO-CHILLED WATER CONVERSION**

(17)	CM = Condenser water makeup plant meter			1,563,482,000 gallons **
I	Meter Reading at the beginning, n-1		45,064,000	
		Meter Reading at the end, n	1,608,546,000	
		Units of Measure	1 x GALL	

#### n (water): Actual chilled water plant conversion = (17) / (16) =

27.506 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".
  - \*\*\* Meter Change out



# 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:

#### **Equipment**

Server

Dell PowerEdge T620/duel Xeon e5-2640 2.5GHz Processor/ 4x4 GB RAM/4x1TB SATA HDs/PERC H310/ RAID 5 Configuration/DVD drive

<u>Firewall</u>

Sonicwall TZ 400

Desktop Computer

Lenovo ThinkCentre M92P Series with Intel i5 Processor, 4 GB Ram, AMD Radon HD 7350 graphics adapter, 500 GB HD & DVDRW

Monitor

Dell Professional P2312H 23" Ultra Sharp LCD Flat Panel

Laptop Computer

Lenovo ThinkPad L530 notebook, with Intel i7 3520 QM Processor, 15.6 HD Display, 8 GB Ram, 500 GB HD, DVDRW, Centrino N2230 & Bluetooth

**Docking Station** 

ThinkPad MiniDock replicator

Ultra slim keyboard & mouse

Per industry standards, computer hardware should be replaced every three to five years. This equipment was most recently replaced in 2013. The mother board on the Siemens server was replaced under warranty in 2016. The CNE server was replaced with a solid-state Dell T330 in 2018. An equipment inventory is located on page 5 of this document.

CNE has a performance contract with Metro to operate and manage 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:

<b>Operating System</b>	Microsoft 8 R2 Server/Microsoft Server 2016
Data base	Microsoft SQL 2008
AntiVirus	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	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
<b>Internet Connection</b>	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 daily. 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, backed up their Server data to Mozy. Mozy was purchased by Carbonite, so now Metro's data is backed up to Carbonite daily.

If issues cause data not to transfer, CNE will assist a Metro Representative with trouble shooting. CNE personnel check to see if there have been any software security updates and make corrections to reestablish connectivity. Metro checks their backup at least once per month. From time to time, Metro has to purge old data 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) 8P8RMN2 (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	1-24" 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	8-17" Flat Panels	1-each
Control Room (SE-2)	1 Desktop	ESO6826516	1-17" Flat Panel	1-each
Control Room (Security)	1 Desktop	BYPC8M2	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
- Ricoh Copier (Leased)

# Exhibit 4

## 2020 Inventory

Quantity	Description	Location
4	4 inch 150# Buttweld Valves	Connex
5	ATS 2 inch TP2W-121 300°F 150 psi 8 inch travel	Connex
1	ATS 3 inch TP2W-121 300°F 150 psi 4 inch travel	Connex
1	ATS 18 inch TP2W-131 500°F 300 psi 12 inch Travel	Chiller Alley
1	Re-wound Toshiba 350HP CWP Motor	Chiller Alley
1	Trane Chiller Seal Ring	Maintenance Shop
1	Trane Chiller Vane Actuator	Maintenance Shop
1	Trane Motor Changeout Gasket Kit	Maintenance Shop
1	Trane Heater Element	Maintenance Shop
1	Trane Vane Operator Assembly	Maintenance Shop
1	Trane Chiller Oil Regulator Valve	Maintenance Shop
12	Trane Chiller Oil Filters	Maintenance Shop
1 Lot	Goulds Pumps Misc. Gaskets, o-rings, etc	Maintenance Shop
1	Shaft Sleeve- CWP	Maintenance Shop
Various	Misc Pipe Fittings from 1/4 to 1 1/2	Maintenance Shop
Various	Misc Bolts, Nuts and washers from 1/4 to 1 inch	Maintenance Shop
Various	Misc Plate and flat bar	Maintenance Shop
Various	Misc Pipe from 3/8 to 3 inch	Maintenance Shop
2	Shaft Sleeves- BFWP	Maintenance Shop
1	175# Boiler Safety Valve	Mezzanine
1	185# Boiler Safety Valve	Mezzanine
1	35# Deaerator Safety Valve	Mezzanine
1	60 HP Cooling Tower Fan Motor	Mezzanine
1	Cooling Tower Fan Shaft	Mezzanine
2	Cooling Tower Belts	Mezzanine
1	Weil 460V Sump Pump	Mezzanine
1	Weil 208V Sump Pump	Mezzanine
6	Temperature Sensors- Trane	Maintenance Office
5	Wiring Harnesses- Trane	Maintenance Office
5	Solenoid Valves-Trane	Maintenance Office
1	Chiller Purge Unit- Trane	Mezzanine
6	Air Compressor Filters	Maintenance Office
2	Differential Gauges- Air Compressor	Maintenance Office
2	Pressure Switch- Air Compressor	I&E Lab
6	Weksler Thermometer 30/240F	Main Electrical Room
6	Weksler Thermometer 0/120F	Main Electrical Room
2	Weksler Thermometer 50/550F	Main Electrical Room
10	Trerice Thermometer 0/100F	Main Electrical Room
4	Trerice Thermometer 50/550F	Main Electrical Room
1	Siemens Control Valve 1" 274-03131	Main Electrical Room
1	Siemens Control Valve 2" 274-03134	Main Electrical Room
11	Brass Temperature Wells (assorted lengths)	Main Electrical Room
3	Stainless Temperature Wells (assorted lengths)	Main Electrical Room
2	Trerice Steam Pressure Gauge 0-300 psi	Main Electrical Room
4	Trerice CHW Pressure Gauge 0-300 psi	Main Electrical Room
4	Steam Pressure Pigtails	Main Electrical Room

## 2020 Inventory

Quantity	Description	Location
8	Yokogawa Steam & CHW Converter Cables	Main Electrical Room
1	Yokogawa Pressure Transmitter 0-200 psi	Main Electrical Room
1	Yokogawa Pressure Transmitter 0-290 psi	Main Electrical Room
1	Yokogawa Temperature Transmitter	Main Electrical Room
1	DP Transmitter for Manhole 18	Main Electrical Room
2	Yokogawa Steam Flow Converter	Main Electrical Room
2	Yokogawa Mag Flow Converter	Main Electrical Room
6	Yokogawa Transmitter Mounting Brackets	Main Electrical Room
1	Yokogawa 6 inch MV Steam Flow Meter	Main Electrical Room
1	Yokogawa 10 inch Mag Flow Meter	Main Electrical Room
1	Yokogawa ADMAG AXF Flow Meter	Main Electrical Room
1	Yokogawa 2 inch MV Steam Flow Meter	Main Electrical Room
2	Maxon Gas Valves for Boilers	Main Electrical Room
3	Hubbell Replacement High Bay Lenses	Main Electrical Room
1	Siemens Load Center 12-24 120/208 VAC MLO Panel	Main Electrical Room
1	ABZ028 Valve Actuator	Main Electrical Room
1	ABZ015 Valve Actuator	Main Electrical Room
1	100 ft of SOOW 6/4 Cable for Temporary Boiler	Main Electrical Room
4	DAMAR 400 watt Metal Halide Ballasts	Main Electrical Room
4	DAMAR 175 watt Metal Halide Ballasts	Main Electrical Room
5	DAMAR Compact Flourescent Ballasts	Main Electrical Room
5	DAMAR Compact Flourescent Bulbs	Main Electrical Room
4	DAMAR 400 watt Metal Halide Bulbs	Main Electrical Room
5	DAMAR 175 watt Metal Halide Bulbs	Main Electrical Room
2	Tunnel Light Fixtures	I&E Lab
40	GE F32T8 Lamps	Main Electrical Room
5	GE F96T8 Lamps	Main Electrical Room
Various	Miscellaneous Electrical Wire sizes and amounts	Main Electrical Room
Various	Miscellaneous Instrumentation Wire sizes and amounts	Main Electrical Room
2	Johnson Controls Pressure Switches	Main Electrical Room
1	Coilhouse 27FC4-M Air Pressure Regulator	Main Electrical Room
6	Pressure Gauge 0-30 psi	I&E Lab
12	Pressure Gauge 0-100 psi	I&E Lab
6	Pressure Gauge 0-160 psi	I&E Lab
1	Pressure Gauge 0-300 psi	I&E Lab
6	Pressure Gauge 0-600 psi	I&E Lab
2	Siemens AEM Micro Server	I&E Lab
2	Mercoid Switches	I&E Lab
Various	Misc. Electrical Switches	I&E Lab
Various	Misc. Electrical Relays	I&E Lab
Various	Misc. Electrical Connectors	I&E Lab
2	United Electric DP Switches	I&E Lab
1	Fire-eye Boiler Flame Scanner	I&E Lab
2	Power Supply for Chiller Starters	I&E Lab
1	Power Supply for CX/GX Panels	I&E Lab
1	Boiler Gas Valve Rebuild Kit	I&E Lab

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## 2020 Inventory

Quantity	Description	Location
1	Chiller Flow Switch IFM	I&E Lab
Various	Misc. Breakers	I&E Lab
1	Flow Meter for Water Softeners	I&E Lab
1	Netbiter Temp Data Collection at Customer Bldgs.	I&E Lab
Various	Misc. Fire Alarm Parts	I&E Lab
18	Glass Fuse Holders	I&E Lab
5	Misc Control Transformers	I&E Lab
3	E-Stop pushbuttons	I&E Lab
Various	Misc. Tunnel Radio Parts	I&E Lab
1	GE 750 Multilin Relay	I&E Lab
1	GE 850 Multilin Relay	I&E Lab
1	WEG Propane Pump Motor	Mezzanine
1	Cooling Tower Basin Heater	I&E Lab

Note: Miscellaneous nuts, bolts, pipe fittings, consumable items, etc. are not included

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