

# Fiscal Year 2020-2021

# 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 eighteenth "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, 2020 through June 30, 2021.

CNE has been operating and managing the Nashville District Energy System for the past eighteen years. A five-year contract extension was negotiated and executed July 6, 2020, six months prior to the end of the existing agreement. The new contract term is from July 1, 2020 through June 30, 2025.

The new contract includes several changes. The DES is now under the supervision of Metro Water Services (MWS). The new DES liaison, Adrienne Fancher, is an EIT with MWS. The contractual guarantees have been made more stringent and CNE has assumed more maintenance responsibilities in the EDS. Other changes include new computer hardware, an upgrade to the Building Automation/Control System (BAS) and a new water treatment vendor.

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%. The safety record was 100%, as there were no accidents in the past 12 months. 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.

The COVID-19 pandemic continues to affect the way we do business. The CDC recently relaxed its mask and social distancing mandate for fully vaccinated individuals and Metro Nashville fully reopened on May 14, 2021. Building loads are beginning to return to normal. CNE Covid-19 protocols although slightly modified, but have been extended through January 3, 2022.

Most of the changes we have experienced this year have been good ones. CNE remains 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 shared objective.

Sincerely,

Tim Hestle

Plant/General Manager

ndentle



# 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 29-30. 2020. This outage was necessary to facilitate the DES-153 Manhole L Project. Several steam traps were also replaced in the tunnels during this twenty-four-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 online due to COVID-19 protocols as regular in person meetings were cancelled. Employees also received training related to plant systems, equipment and corporate programs and requirements. For the eighteenth 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 may 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:

- Metro Water Services personnel toured the AAB Tunnel and EGF September 4, 2020.
- The MNDES Advisory Board Meetings were held via WebEx the third Thursday of August 2020, November 2020, February 2021 and May 2021.



- CNE Managers toured the Omohundro Water Treatment Plant August 25, 2020.
- At the request of Metro, Stevens Environmental Consulting performed a Safety Audit of the State Tunnel August 27, 2020.
- Several pre-bid meetings for DES projects were held at the job sites during September 2020
- 100,000 gallons of propane was purchased and placed in off-site storage during September 2020
- Service was initiated to the Hyatt Centric Hotel during September 2020
- New computers were ordered October 21, 2020
- The final version of the FY20 Annual Report was issued October 26, 2020
- A RFQ was issued for plant water treatment on October 30, 2020.
- Metro's Storm Water Inspector and Metro Water's Communications Officer toured the EGF on November 23. 2020.
- A bomb, in an RV parked on 2<sup>nd</sup> Avenue, exploded at approximately 6:00 am on December 25, 2020. Fortunately, no one was injured or killed except for the bomber. The only DES customer affected was the Wildhorse Saloon. They sustained damage to their building. They were closed prior to the bombing due to the pandemic.
- The propane that was pre-purchased and placed in storage for the winter, was sold back to the supplier at a profit this year.
- Metro's Urban Forrester requested CNE wait until the fall to replace the Sycamore trees that died on the First Avenue side of the building.
- The annual test of the plant's domestic water backflow preventers was performed and they all passed on April 23, 2021.
- The EGF floor drains were water jetted and cleared the last week of April 2021.
- The oil separator manhole was cleaned out on April 30, 2021.
- CNE assisted Chem-Aqua with the installation of new chemical tanks, pumps and level indicators in April 2021.
- A quarterly water treatment review was also held with Chem-Aqua on April 29, 2021.
- Two new Metro Water Services engineers toured the EGF on June 6, 2021.
- CNE's Plant General Manager attended a webinar regarding the control of microbiological biofilms in large circulating water systems, presented by Chem-Aqua for the IDEA on June 12, 2021. Chem-Aqua is the plant's new water treatment/chemical vendor and is in the process of implementing the new technology discussed during this meeting.
- CNE is investigating ways to increase plant efficiency
- Metro Water Services replaced the plant's water meter June 4, 2021.



# 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 7, 2020 at approximately 12:30 a.m., #3 Boiler tripped due to low air pressure. The backup air compressor was placed into service and the boiler was restarted. The steam pressure went to a low of 110 psi for approximately 60 minutes during this time frame.
- On October 7, 2020, while putting #2 Deaerator into service, #2 Boiler tripped. The Boiler was immediately re-started and pressure was below 150 psi for approximately 45 minutes.
- On November 20, 2020, while working in Manhole B2, a Contractor reported a steam leak. Due to the lack of an isolation valve between Manhole B2 and the Plant, the Plant steam system had to be shutdown to isolate the leak. The leak was found to be on a steam trap strainer drain line which eventually blew out. The leak was repaired, the boilers were re-started and the system returned to normal operating pressure at 4:30 p.m. The system was below 150 psi for approximately 2 1/2 hours.
- On November 25, 2020, all online boilers tripped due to an issue with the emergency stops. CNE personnel began troubleshooting and found a shorted wire in the system. The boilers were restarted and the system was below 150 psi for approximately 2 3/4 hours.
- On November 29-30, 2020, a steam outage was scheduled with the customers for DES-153 so work could be performed in Manholes L and M. The steam system was down for 24 hours as scheduled.
- On December 2, 2020, #1 Boiler Damper linkage stuck which caused the safety valve to open. The pressure dropped to a low of 135 psi and was below 150 psi for approximately 90 minutes.
- On December 3, 2020, #4 Boiler Forced Draft Fan Motor tripped and the pressure dropped below 150 psi for approximately 2 1/2 hours. The fan motor was found to be bad and #3 Boiler was placed into service. The pressure dropped to a low of 132 psi during this swap.
- On December 9, 2020, #3 Boiler Forced Draft Fan tripped. Steam pressure dropped below 150 psi for approximately 2 hours. The fan motor and associated wiring was found to be bad. The pressure dropped to a low of 119 psi during this timeframe.
- Following the replacement of the Forced Draft Fan motor on #4 Boiler, the boiler was started December 14, 2020. It was decided it would be prudent to perform the Annual Boiler Combustion tuning prior to putting the bolier back in service. To acomplish this, the boiler was cycled up and down, in 10 percent increments, to make sure it was operating within design specifications, especially regarding O<sub>2</sub>. CNE Maintenance personnel made several adjustments to this boiler and it was below 150 psi for approximetely 5 hours. The pressure dropped to a low of 94 psi during this process.



- On December 15, 2020, following the replacement of the Forced Draft Fan motor #3 Boiler, the Boiler was started and the Annual Boiler Tune-up was performed. CNE Maintenance personnel made several adjustments to this boiler and it was below 150 psi for approximetely 2 hours. The pressure dropped to a low of 144 psi during this period.
- On December 17, 2020, the #2 Boiler Annual Boiler Tuning was performed. CNE Maintenance personnel made several adjustments to this Boiler and it was below 150 psi for approximetely 90 minutes. The pressure dropped to a low of 146 psi during this timeframe.
- On December 22, 2020, the #1 Boiler Annual Boiler Tuning was performed. CNE Maintenance personnel made several adjustments to this Boiler and it was below 150 psi for approximetely 1 3/4 hours. The pressure dropped to a low of 135 psi during this timeframe.
- On December 25, 2020, #1 Chiller did not start in sequence as commanded so another chiller had to be started. The temperature was above 43.3° for approximately 45 minutes and reached a high of 44.9°F.
- On January 15, 2021, while swapping Boilers due to the Siemens Control System upgrade, #2 Boiler tripped and the pressure dropped to a low of 133 psi for a period of approximately 45 minutes.
- On February 7, 2021, the soft water makeup control valve failed causing the boilers to trip due to low water levels. Operators immediately opened the bypass valve to control the levels in the condensate tank and DA tank. Boilers were re-started and steam service was restored. CNE Maintenance and I & E personnel responded to assist with re-lighting the boilers and restoring service to the State loop. The system was below 150 psi for approximately 3 hours. It is believed this could have been the result of a set point being changed while installing the new control system.
- On February 16, 2021, all three boilers tripped due to a false reading on the condensate tank level controller. The controller was checked and re-set and the boilers were re-started. The system was below 150 psi for approximately 2 hours.
- On March 12, 2021, the Control Air compressor unloader check valve failed which caused the boilers to trip offline. The backup air compressor was started and the boilers were placed back in service. The steam pressure dropped to a low of 40 psi and the system was below 150 psi for approximately 90 minutes.
- #4 Boiler tripped on May 26, 2021 with no indication of a cause. The unit was re-started and ran for approximately 5 hours before tripping again. The unit was shut down and #2 Boiler was started. CNE personnel began troubleshooting the unit. In order to test some of the alarm points the Boiler was re-started. The safety limit relay was replaced and the unit ran for approximately 18 hours before the boiler tripped offline. Additional troubleshooting found a timer had failed on the Safety Relay circuit. The timer was replaced and the boiler was placed back in service and continues to run as of this report. The lowest pressure on the system was recorded on May 26, 2021 at 83 psi. The other trips resulted in pressures no lower than 122 psi.
- On June 8, 2021, Trane personnel were flowing water through a chiller they were performing maintenance on. This caused the temperature to spike to a high of 45.5 degrees for approximately 32 minutes.



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

	Downtime			
	Scheduled	Unscheduled	Availability	Reliability
Boilers	1440 minutes	1645 minutes	99.41%	99.69%
Chillers	0 minutes	77 minutes	99.99%	99.99%

#### Plant Efficiency

When the annual boiler inspections were completed at the end of July 2020, 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 2020 in preparation for the heating season.

Constellation and Metro agreed upon the final version of the Metro DES annual reconciliation for FY21 on October 22, 2021. 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.

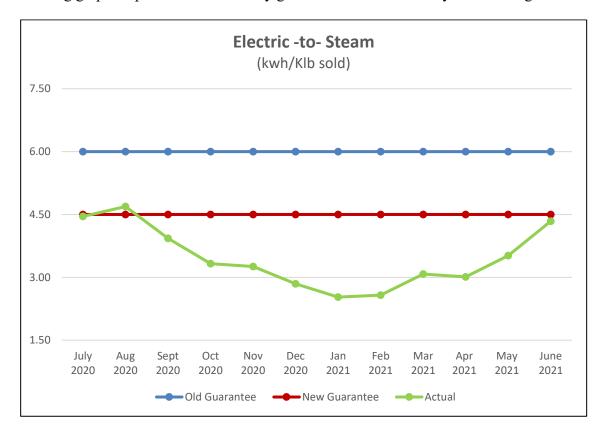
Constellation Energy's efficiency guarantees consist of five key conversion rates:

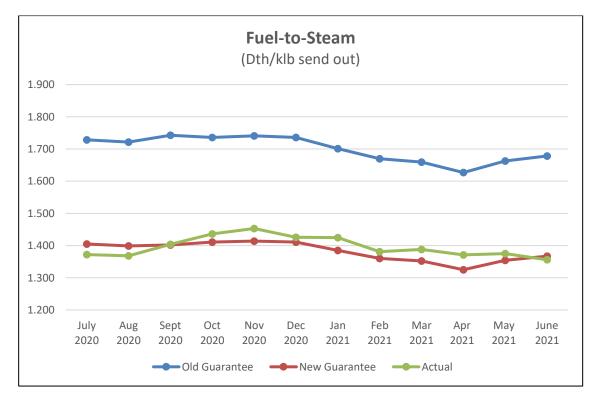
- 1. Electric-to-Steam (kWh per klb-sold)
- 2. Fuel-to-Steam (Dekatherm per klb-send-out)
- 3. Water-to-Steam (gallons)
- 4. Electric-to-Chilled Water (kWh per ton hr-sold)
- 5. Water-to-Chilled Water (gallon per ton hr-sold)

The newly negotiated guarantees are much tighter as they were reduced by 25% or more. As equipment ages, it generally becomes less efficient. CNE is currently investigating ways to operate more efficiently to meet these lofty new commitments.

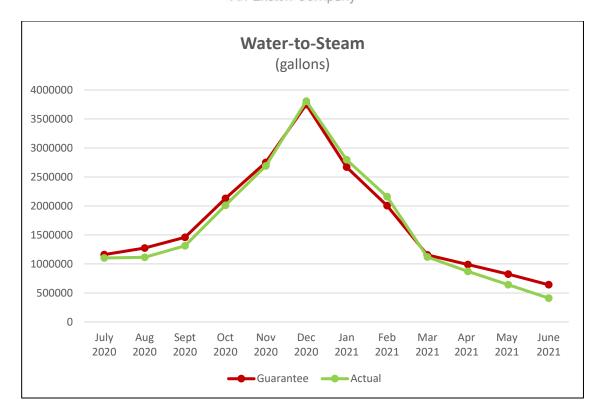


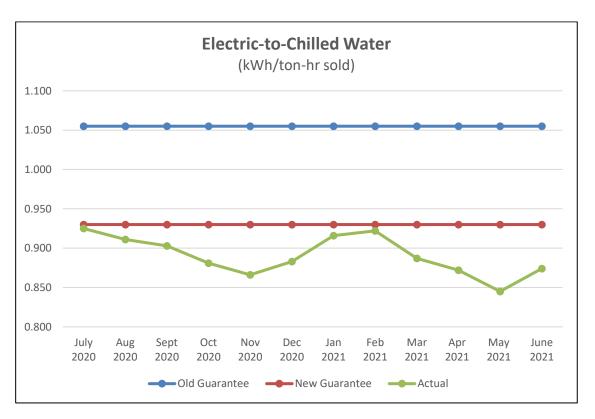
The following graphs represent the efficiency guarantee results from July 2020 through June 2021:



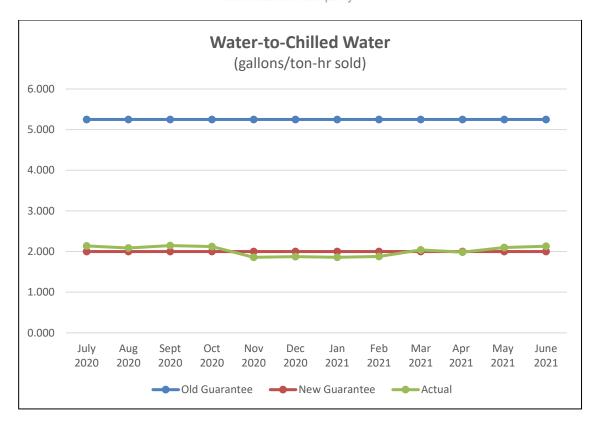














# Environmental, Health and Safety

#### **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 classes were conducted online this year due to COVID-19.

#### Regulatory Compliance

Required reporting activities were submitted as follows:

- The Semi-Annual Emissions Monitoring Report for January-June 2020 was sent to the Metro Nashville Health Department on July 7, 2020.
- The Semi-Annual Monitoring Report for July-December 2020 was sent to the Metro Health Department on January 13, 2021.
- The Title V Certificate of Compliance for 2020 was sent to the EPA on January 13, 2021. A copy was also sent to the Metro Health Department the same day.
- The Annual Emission Inventory Report for 2020 was sent to the Metro Health Department on January 31, 2021. The Annual Emission Fees were sent on February 23, 2021.
- The Tier II report was sent to the State Emergency Planning Committee, Davidson County LEPC and the Nashville Fire Department on January 25, 2021.
- The Annual Greenhouse Gas Report was sent to the U.S. EPA on February 18, 2021.
- The Metro Health Department conducted the Annual Site Inspection and Record Review on March 9, 2021. Everything was found to be in order.

#### Health

The COVID-19 Virus Pandemic became prevalent in the United States in March 2020. CNE protocols remain in effect today. Surfaces are being cleaned and disinfected daily. Everyone is encouraged to wash their hands frequently. Employees continue to participate in corporate conference calls. Non-essential office personnel continue to work from home. In person meetings are discouraged. Use conference calls, Microsoft Teams, Skype, etc. when possible.

The CDC relaxed its mask and social distancing mandate for fully vaccinated individuals. Employees are required to continue wearing the appropriate PPE and practice social distancing unless proof of vaccination is provided. Employees who voluntarily submit a copy of their vaccination card will no longer be required to wear a mask or social distance in the plant.



Metro Nashville fully reopened on May 14, 2021; however, they are still practicing social distancing for in-person meetings. Due to a recent uptick in cases and virus variants, CNE protocols have been extended through January 3, 2022.

#### 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 online due to the COVID-19 restrictions in place. 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 2020	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 2021	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:

- Employees completed CNE Retail Electric and Natural Gas compliance training
- Corporate conference call information sessions, regarding COVID-19 pandemic and company updates, were conducted weekly
- Employees completed corporate on-line security training, FERC Training ITS and Phishing Awareness Training

Training classes were not held in person this year due to COVID-19 protocols. The following safety classes were completed by CNE personnel online using the LMS (Learning Management System):

- Fire Safety
- 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
- 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.

Several things, such as, the Annual MNDES Customer Meeting and the Constellation Nashville District Energy Invitational Golf Tournament did not take place this year due to COVID-19 Restrictions. These activities build relationships, help further a positive image of the DES in the community and promote existing building owners to assist us in our sales efforts. Hopefully, these activities will return in the near future.

CNE's Customer Service Representative reviews each customer's 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 occurring again. 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, 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 #2 de-aerator tank were inspected in July 2020. #1 and #3 boilers and #1 de-aerator tank were most recently inspected in June 2021. All of the boilers received a passing grade and their respective permits have been renewed. #2 and #4 boilers and #2 de-aerator are scheduled to be re-inspected in July 2021.

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 #6, #7 and #8 Chillers. Controls and purge units were also checked for proper operation.

As part of the Preventive and Predictive maintenance program CNE had a contractor take alignment and vibration readings on all pumps, fans and motors. These readings are compared to the previous year's readings. #3 Boiler Feed Water Pump motor bearing showed some looseness and it was recommended to monitor. All other equipment readings were within acceptable limits.

Infrared testing was conducted on all electrical switchgears and starters. There were some fuses on Chiller Starters 2B, 6B, 7B and 9A that showed elevated temperatures. These were removed, cleaned



and re-installed and are operating at normal temperatures now. No other 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: \$179,462.81 (excludes salaried personnel & corporate overhead).

#### 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 2020**

- Repaired exhaust fan in #1 SWG
- Repaired cooling fan on transformer 2A
- Painted CWP's
- Repaired evaporator isolation valve on #6 chiller
- Repaired flash tank site glass
- Repaired MBC-215P chemical pump
- Repaired CWT-8396 chemical pump
- Repaired CWT-8940 chemical pump
- Demoed old wiring in #6 VFD
- Replaced louvers on transformer cabinets
- Repacked #5 Chilled Water Pump
- Replaced chilled water supply sample line and CWT-8940 feed line
- Cleared chilled water return sample line to water treatment test station
- Installed new water heater
- Restored communications with #1 Chiller
- Cleaned temperature sensor on #4 Chiller



- Replaced temperature sensors on #6 Chiller
- Replaced solenoid valves on #6 Chiller Purge Unit
- Replaced temperature sensor on #7 Chiller
- Replaced temperature sensors on #8 Chiller
- Added 300 lbs R-123 to #8 Chiller
- Leak checked #4 Chiller
- Checked purge unit on #9 Chiller
- Repaired insulation in EGF
- Replaced water meter scanner

#### August 2020

- Repaired #1 Softener flow meter
- Put low water cut outs back on #2 & #4 Boilers
- Repaired #3 Softener controls
- Cleaned cooling tower blowdown strainer
- Replaced ceiling tile in EGF
- Repaired cooling tower make-up line leak
- Replaced check valves on sulfite pump
- Repaired restroom faucets
- Checked fan controls on transformers
- Replaced chilled water supply sample line and CWT-8940 feed line
- Exterminator sprayed for insects
- Repaired insulation on Chilled Water lines above restrooms
- Repaired #1 Chiller power module & fuse
- Cleaned temperature sensor on #4 Chiller
- Replaced purge solenoid on #8 Chiller
- Replaced wire harness on #1 Chiller
- Replaced evaporator sensor on #6 Chiller
- Replaced wire harness on #3 Chiller
- Replaced purge pump out compressor on #8 Chiller
- Replaced purge drier on #6 Chiller
- Performed vibration analysis on #1 Chiller
- Had boom lift repaired

#### September 2020

- Repaired MEC 13
- Repaired MBC-215 chilled water chemical pump
- Repaired BAS failure on #4, 5 & 6 Chillers



- Closed #2 & #4 Boilers, filled & checked for leaks
- Repaired latch on front door
- Repaired display on #5 VFD
- Reset #6 VFD
- Checked meter for MCC 1
- Checked chiller water M/U meter
- Checked #1 Chiller starter
- Replaced drier filters on #6 Chiller
- Replaced evaporator temperature sensor #2 Chiller
- Replaced purge sensor #5 Chiller
- Reprogrammed controller #6 Chiller
- Restore communications with #1 Chiller

## October 2020

- Repaired chilled water sample line leaks
- Checked low water cut out switch on #3 Boiler
- Replaced flush valve on toilet in Men's Room
- Checked #1 DA low level alarm
- Rebuilt chilled water MBC-215P chemical pump
- Checked vent valve on #4 Boiler
- Repaired leaking water line in Break Room
- Removed refrigerant from #9 Chiller for gasket replacement
- Checked chiller water M/U meter
- Repaired Filming Amine chemical pump
- Repaired #2 Boiler conductivity meter
- Replaced American Flag & Metro Flag
- #2 & #4 State Boiler Inspections
- #2 Chiller Evaporator Sensor

#### November 2020

- Sent Genie lift out for repair
- Repaired chemical line leaks
- Repaired cooling tower blow down valve
- Reset fire alarm panel
- Industrial Boiler and Mechanical replaced missing refractory in #2 Boiler
- Rewired #3 Boiler
- Repaired #4 Boiler blow down meter and Low Water Cut Out switch
- Removed refrigerant from #4 Chiller for gasket replacement
- Hung curtain in boiler room



- Siemens Control System Upgrade
- Trane replaced flat gaskets on #9 Chiller, purge sensor on #8 Chiller, rebooted controller on #8 Chiller, replaced diaphragm on #6 Chiller purge unit and replaced the refrigerant temperature sensor on #5 Chiller

#### December 2020

- Repaired piping leak on DA
- Replaced condensate probe on #4 Boiler
- Rewired #3 Boiler
- Replaced #3 FD Fan Motor
- Tuned combustion on all 4 boilers
- Repaired burner igniter on #4 Boiler
- Replaced #4 FD Fan Motor
- Replaced transformer on #4 Boiler FD Fan motor starter
- Checked plant heat tracing & basin heaters
- Replaced B/D valve on #4 Boiler
- Unplugged drains in Men's Room
- Replaced flat gaskets on #4 Chiller

#### January 2021

- Checked & repaired Cooling Tower B/D Valve
- Check Genie-lift batteries
- Repaired #2 Phosphate pump
- Repaired #4 Phosphate pump
- Repair chilled water supply & return sample lines
- Replaced condensate probe on #2 Boiler/rest alarm
- Replaced condensate probe on #3 Boiler
- Repaired sight glass on #1 DA
- Re-piped #1 DA low water indicator
- #3 Boiler Control wiring
- Repaired control wiring on #2 Boiler
- #3 & #4 Boiler FD Fan Motor replacement costs
- Checked #3 Boiler O<sub>2</sub> Meter
- Repaired fire alarm
- Repaired fan motors on #15 & 18 Cooling Towers
- Replaced control transformer on #1 Cooling Tower
- Repaired motor starter on #1 Cooling Tower
- Repaired #10 Cooling Tower vibration alarm



- Repaired #2 condensate pump
- Tuned combustion on #4 Boiler
- Repair soft water M/U valve
- Have risers coated in #1, 6, 9 & 14 Cooling Towers
- Replaced flash tank sight glass
- Replace flat gaskets on #4 Chiller
- Replaced #2 Chilled Water M/U Pump

#### February 2021

- Repaired Genie-lift
- Repaired forklift
- Repaired softener controls
- Replaced #1 CWP Soft Start (WIP)
- Replaced low water cut off switch on #3 Boiler
- Rebuilt #5 BFWP
- Repaired chilled water return sample lines
- Repaired leak on 12001 Chemical Pump
- Checked motor on #4 CWP
- Replaced #3 Boiler condensate monitor probe
- #3 Boiler wiring
- Replaced winch on hydraulic pump
- Repaired #2 Boiler condensate monitor
- Repaired feed water M/U valve
- Replaced electric meter on cooling towers (WIP)
- Check heat trace, space heaters & freeze protection
- Repaired air curtain in Boiler Room

#### March 2021

- Replaced #1 CWP Soft Start
- Replaced #1 CWP Motor
- Replaced steam trap on air curtain
- Replaced oil seal on #2 BFWP
- Removed refrigerant from #8B Chiller
- Trane replaced oil filter and regulator on #8B Chiller
- Put refrigerant back in #8B Chiller
- Trane replaced oil pump relay on #9A Chiller
- Repaired isolation valve on #5 Chiller evaporator
- Repaired isolation valve on #7 Chiller evaporator



- Began removing refrigerant from #8A Chiller
- Replaced broken parking blocks in handicap spaces
- Repaired #3 Boiler continuous B/D Valve
- Repaired #2 Boiler mud drum B/D Valve
- Repaired doors on MCC-1 and MCC-2 for the Cooling Towers
- Replaced cooling tower motor junction boxes (#2, 6 & 18)
- Repaired #2 DA sample line leak
- Repaired leak on #4 Boiler safety valve
- Checked out #6 chilled water pump VFD
- Check out chilled water make-up pumps
- Assisted Southeastern Sound with Fire Alarm Control Panel Upgrade
- Assisted Siemens with Control System Upgrade
- Assisted Shermco with Control System Upgrade & meter replacement
- Replaced #8 Cooling Tower Breaker

#### **April 2021**

- Assisted with installation of new chemical tanks, pumps, etc.
- Repaired leak on #4 Boiler safety valve
- Repaired #4 Boiler low water cut out (alarm, switch, probes, etc.)
- Replaced steam drum gasket on #4 Boiler
- Repaired back-flow preventers
- Replaced #1 CWP motor (align, wire, test run, etc.)
- Repaired sink in women's restroom
- Replaced #2 Boiler conductivity probe
- Propane Fill Station Mods
- Plugged one condenser tube in #6 Chiller
- Trane reset oil pump on #4A Chiller/replaced sensors
- Removed refrigerant from #8A Chiller for Trane to make repairs
- Put refrigerant back in #8A Chiller
- Remove refrigerant from #7B Chiller (check charge)
- Put refrigerant back in #7B Chiller
- Installed filter drier on #6A Chiller
- Installed filter drier on #8B Chiller
- Checked calibrated test equipment
- Assisted Siemens repair Desigo issues
- Repaired doors on MCC-1 & MCC-2
- Check/update entry door card reader
- Cleared cooling tower blow down line



- Cleared 31955 chemical line
- Assisted HydroVac clear floor drains
- Assisted HydroVac clean out oil separator Manhole

#### May 2021

- Replaced belt on #6 roof fan
- Replaced breaker on #2 cooling tower
- Replaced switches on vaporizer
- Performed troubleshooting and repair safety circuit on #4 Boiler
- Repaired sink & ice maker in break room
- Replaced #4 Boiler Walchem conductivity probe
- Cleared cooling tower blowdown line strainer
- Trane repaired load limit on #4B Chiller
- Trane troubleshot load issue on #9 Chiller
- Repaired valve actuator on #6 Chiller Evaporator
- Put heads back on #6 Chiller

#### **June 2021**

- Repaired leak on #4 Boiler safety valve
- Repaired #4 Boiler low water cut out (alarm, switch, probes, etc.)
- Replaced steam drum gasket on #4 Boiler
- Repaired back-flow preventers
- Replaced #1 CWP motor (align, wire, test run, etc.)
- Repaired sink in women's restroom
- Replaced #2 Boiler conductivity probe
- Propane Fill Station Mods
- Trane reset oil pump on #4A Chiller/replaced sensors
- Removed refrigerant from #8A Chiller for Trane to make repairs
- Put refrigerant back in #8A Chiller
- Remove refrigerant from #7B Chiller (check charge)
- Put refrigerant back in #7B Chiller
- Install filter drier on #6A Chiller
- Install filter drier on #8B Chiller
- Checked calibrated test equipment
- Assisted Siemens repair Desigo issues
- Check/update entry door card reader
- Cleared cooling tower blow down line
- Cleared 31955 chemical line



- Assisted HydroVac clear floor drains
- Assisted HydroVac clean out oil separator Manhole

Annual maintenance costs for these activities: <u>\$657,531.15</u> (excludes salaried personnel & corporate overhead).

• Administrative functions include reports, purchase orders, material acquisition, office supplies, meetings, etc.

Annual costs for these items and activities: \$86,030.74 (excludes salaried personnel & corporate overhead).

#### EGF Emergency Repair Projects

#### **EMR20-004** Emergency FD Fan Motor Replacements

Nashville Machine replaced the FD Fan motors on #3 and 4 Boilers beginning on December 10, 2020 and finished on December 14, 2020.

# EMR21-004 #1 Condenser Water Pump Soft Start and Motor Replacement

MRG replaced the soft start March 23, 2021. The motor was replaced March 31, 2021.

#### EMR21-006 Tube leak repair in #3 Boiler

Industrial Boiler and Mechanical repaired a tube leak in the southeast corner of #3 Boiler and refractory in #1 Boiler June 3-4, 2021.

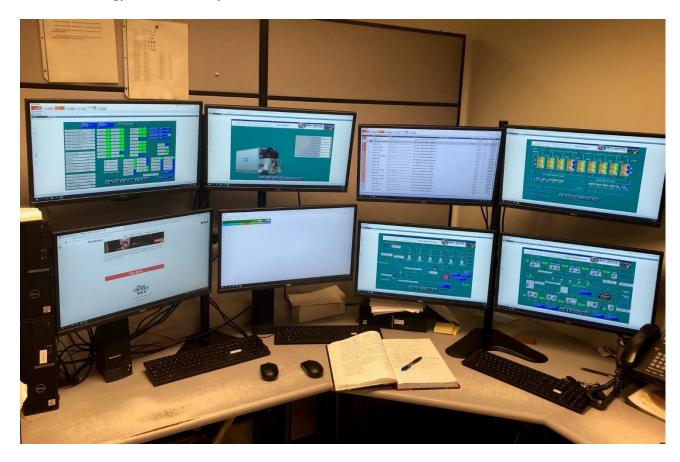
#### Information Technology System Program

The Information Technology System Program is reviewed with Metro annually. The last review was conducted on August 19, 2020. CNE replaced plant computer hardware and updated the Siemens control system March 15, 2021. An updated copy of the program is included in Exhibit 2 of this report.



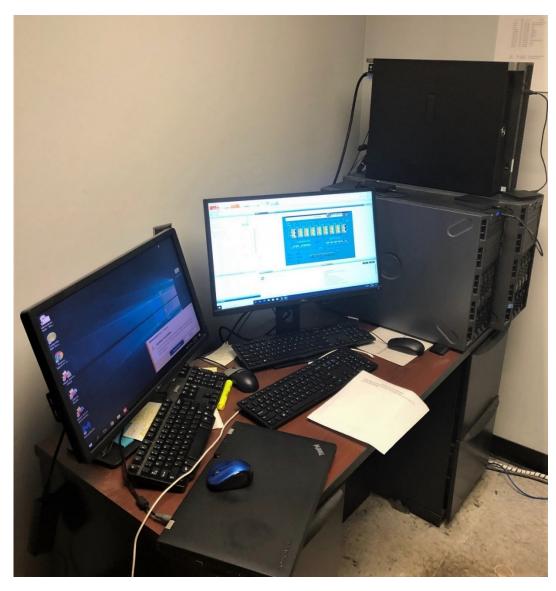
# **Modifications and Improvements**

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



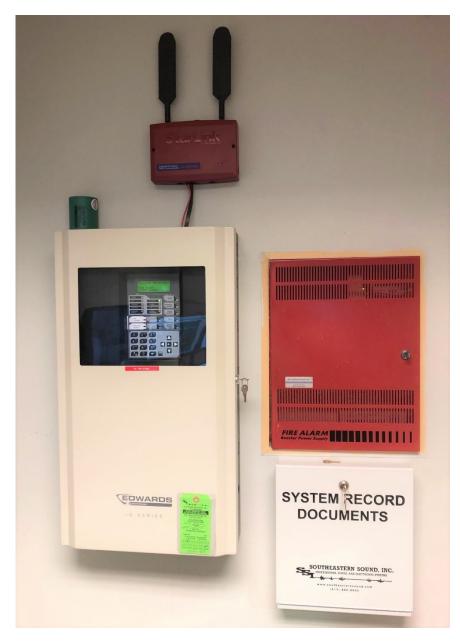
New Computers and Monitors





Siemens Control System Upgraded from Apogee Insight to Desigo CC (New Server)





Fire Alarm System Upgraded (new panel)





Parking lot Sealed and Striped





New Chemical Tanks and pumps



New Sample Station and Controllers





Siemens eCumulus equipment (for remote communications between EGF & M/H 18)



#### **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 excavate 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 remain below the 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 FY20-21.

#### **July 2020**

- Checked calibration on 4 1/2" RTD's for 501 Union Building
- Performed annual meter certification at 501 Union Building
- Checked calibration on 4" RTD's for Parkway Tower
- Performed annual meter certification at Parkway Tower
- Checked calibration on 4" RTD's for Renaissance Ballrooms
- Checked calibration on 6" RTD's for Renaissance Hotel
- Performed annual meter certification at Hyatt Place Hotel
- Checked sump pump alarm in M/H B2
- Repaired float switch on M/H 18 sump pumps
- Installed cover near State Tunnel exhaust fans
- Repaired 7<sup>th</sup> Avenue Tunnel exhaust fan
- Investigated possible chilled water leak near M/H D
- Restored communications with Fairlane Hotel
- Restored communications with M/H 18
- Replaced lid on M/H S6
- Repaired tunnel lighting
- Pumped out M/H 9 for contractor (DES-157)
- Assisted TEG with review of M/H 9 insulation (DES-157)
- Assisted C-Tech with Gx Panel for Hyatt Centric (DES-162)
- Reviewed metering drawings for for Hyatt Centric (DES-162)
- Fabricated bracket for transmitter (DES-162)
- Met with Hyatt Centric contractor (DES-162)
- Checked Hyatt Centric metering installation progress (DES-162)
- Assisted Contractor with excavation at M/H 9 (DES-176)
- Purchased repair clamp (DES-176)
- Took measurements inside M/H 9 for TEG (DES-176)
- Assisted with Pre-bid meeting (DES-171, DES-172 & DES-174)

#### August 2020

- Repaired electric outlet in DES Tunnel
- Checked calibration on 6" RTD's for Hume-Fogg
- Checked calibration on 4" RTD's for Ryman Auditorium
- Performed annual meter certification at Ryman Auditorium
- Checked calibration on 4" RTD's for 4th & Church Building



- Performed annual meter certification at 4th & Church Building
- Trouble shoot RTD's at Supreme Court
- Performed annual meter certification at Renaissance Hotel and Renaissance Ballrooms
- Checked calibration on 6" RTD's for City Space
- Performed annual meter certification at City Space
- Repaired gate and sprayed weeds at M/H N2
- Repaired sump pump cover in AAB Tunnel
- Repaired insulation on chilled water supply line in AAB Tunnel
- Fabricated and installed trap at B-82
- Repaired guard on 7<sup>th</sup> Avenue Tunnel exhaust fan
- Installed IP Address in meter panel at 5th & Broad
- Met with John Sevier regarding DSL for meter panel
- Repaired State Tunnel communications
- Repaired State loop PRV controls
- Took water sample at M/H 22 for TEG
- Ordered new RTD's for Supreme Court
- Met with contractor at 7th & Charlotte and on 4th Ave.
- Checked isolation valves at Hyatt Centric for TEG
- Worked on deferred maintenance items
- Miscellaneous EDS Repairs were performed by BESCO
- Took measurements in M/H L for TEG (DES-153)
- Checked Hyatt Centric metering installation progress (DES-162)
- Assisted TEG with review of M/H 20 (DES-169)
- Assisted contractor with excavation & trench box (DES-176)
- Performed steam outage preparations (DES-176)
- Assisted contractor with expansion joint in M/H 9 (DES-176)
- Isolated steam for M/H 9 repairs (DES-176)
- Assisted contractor with expansion joint in M/H 9 (DES-176)
- Checked work progress at M/H 9 (DES-176)
- Assisted TEG and contractors with an additional project walk thru (DES-171, DES-172 & DES-174)

#### September 2020

- Checked Symphony Cx panel
- Checked calibration on 4" RTD's for Bridgestone Arena
- Performed annual meter certification at Hume-Fogg HS
- Performed annual meter certification at Schermerhorn
- Performed annual meter certification at Wild Horse Saloon



- Checked calibration on 6" RTD's for Cordell Hull
- Performed annual meter certification at Cordell Hull
- Replaced M/H D1 sump pump & floats
- Rewired M/H D sump pump & replaced floats
- Replaced Chilled water RTD's at Supreme Court
- Performed Gx panel updates
- Checked steam flow at Library & Archives for customer
- TN Tower condensate put to drain & lined back up when tested soft
- Worked on restoring communications with John Sevier meter panel
- Rebooted meter panel at Ryman Auditorium
- Assisted contractor with access to State Tunnel (sump pump OOC)
- Worked on deferred maintenance items
- Met with Ryman and took photos of failed chilled water pump
- Assisted with Pre-bid Meeting & walk through (DES-153)
- Witnessed chilled water hydro at Hyatt Centric (DES-162)
- Installed metering at Hyatt Centric (DES-162)
- Assisted contractor with meter set up at Hyatt Centric (DES-162)
- Lined up chilled water to Hyatt Centric (DES-162)
- Assisted contractor with punch list items in M/H 20 (DES-169)
- Took photos of completed punch list items for TEG (DES-169)
- Assisted TEG with access to Broadway Tunnel (DES-171)
- Checked location of isolation valves in Broadway Tunnel (DES-171)
- Assisted contractor with access to M/H B3 (DES-173)
- Assisted with Pre-bid Meeting & walk through (DES-173)
- Assisted TEG & contractor with access to M/H 15 (DES-175)

#### October 2020

- Repaired tunnel lighting & emergency lights
- Checked calibration on 6" RTD's for Municipal Auditorium
- Performed annual meter certification at Municipal Auditorium
- Performed annual meter certification at Nashville Public Library
- Performed annual meter certification at Bridgestone Arena
- Checked calibration on 4" RTD's for the State Capitol
- Performed annual meter certification at the State Capitol
- Checked calibration on 4" RTD's for the Fairlane Hotel
- Repaired M/H D1 sump pump & floats
- Repaired conduit at M/H D1
- Replaced belts on 7th Avenue tunnel exhaust fan



- Replaced grease lines on 7th Avenue tunnel exhaust fan
- Replaced guard on 7th Avenue tunnel exhaust fan
- Performed Gx panel updates
- Replaced sump pump in AAB Tunnel
- Removed failed condensate pump from M/H 18
- Exterminated roaches in M/H K
- Checked and repaired RTD at Bobby Hotel
- Checked communications with John Sevier Meter Panel
- Assisted TEG with access to M/H B2 (DES-159.1)
- Assisted TEG with access to M/H D1 (DES-181)
- Assisted contractor with condensate excavation (DES-181)

#### November 2020

- Reset Cx Panel at MCCC
- Performed annual meter certification at Citizens Plaza
- Performed annual meter certification at Fairlane Hotel
- Checked calibration on 6" RTD's for Sheraton Hotel
- Performed annual meter certification at Sheraton Hotel
- Checked calibration on 6" RTD's for James K. Polk
- Performed annual meter certification at James K. Polk
- Checked calibration on 6" RTD's for TN Tower
- Performed annual meter certification at TN Tower
- Checked calibration on 4" RTD's for War Memorial
- Performed annual meter certification at War Memorial
- Checked sump pump floats in M/H 10
- Rebuilt trap in M/H 10
- Assisted Contractor with insulation repairs in M/H B3
- Installed rebuilt condensate pump & motor in M/H 18
- Repaired steam leak in M/H B2 caused by ENECON
- Security for deferred maintenance repairs
- Repaired sump pump in AAB Tunnel
- Checked communications with John Sevier Meter Panel
- Assisted NMC with access to outage work locations (DES-153)
- Assisted TEG with punch list walk through (DES-159.1)
- Isolated steam to Arena (DES-171)
- Assisted TEG with Project review (DES-171)
- Restored steam service to Arena (DES-171)
- Assisted TEG with punch list walk through of M/H B3 (DES-173)



- Assisted contractor with access to M/H 4 for measurements (DES-175)
- Restored steam to Fairlane Hotel (DES-175)
- Assisted contractor with condensate excavation on 3<sup>rd</sup> Avenue (DES-181)
- Accompany TEG while anchor was being poured (DES-181)

#### December 2020

- Checked & repaired condensate pumps in M/H 18
- Replaced trap in M/H 13
- Replaced trap in M/H D
- Replaced check valves on Condensate pumps in M/H 18
- Repaired steam meter at John Sevier
- Checked steam meter at Symphony (PRV issue)
- Reconfigured alarm auto-dialer at AJ Building
- Assisted TEG with tunnel inspection after 2nd Ave. bombing
- Insulated Manhole B3
- Placed condensate to drain for modifications in M/H K & L (DES-153)
- Placed condensate return back in service (DES-153)
- Took measurements in M/H L for TEG (DES-153)
- Assisted TEG with progress review (DES-171)
- Assisted contractor with access to M/H 16A (DES-172)
- Assisted contractor with access to M/H 22B (DES-174)
- Isolated condensate for repairs outside of M/H 3 (EMR20-003)
- Condensate line replacement (EMR20-003)

#### January 2021

- Repaired tunnel lighting
- Checked calibration on 4" RTD's for Library and Archives
- Checked calibration on 6" RTD's for AAB
- Checked & repaired condensate pumps in M/H 18
- Removed #3 condensate pump from M/H 18 to have it repaired
- Investigated & restored communications with M/H 18
- Repaired loose wires on 7th Ave. Tunnel fan
- Repair State steam system air compressor
- C. K. Masonry repaired riser rings on M/H S4A
- Replaced sump pumps float in M/H 10
- Repaired trap line in M/H B9
- Repaired trap line in M/H B7
- Checked high water alarm at M/H M. No water found. Adjusted float switch to clear alarm.



- Repaired sump pump discharge piping & conduit at M/H 10 damaged by a gas line contractor
- Took water samples from inside M/H 10
- Had on-line steam leak repairs made
- Assisted TEG with M/H inspections in 2nd Avenue bombing blast zone
- Cleaned out M/H 4 and painted steel and ladder
- Cleaned out M/H 3 and painted steel
- Placed condensate to drain for repairs in M/H K & L (DES-153)
- Placed condensate return back in service (DES-153)
- Assisted TEG with review of M/H L work (DES-153)
- Assisted TEG with progress review in the tunnel (DES-172)
- Assisted TEG with access to M/H 16A (DES-172)
- Assisted TEG with access to M/H B8, B9 & B10 (DES-182)
- Assisted Structural Engineer with access to M/H B8, B9 & B10 (DES-182)
- Assisted TEG & contractor with access to M/H B9 & B10 (DES-182)

#### February 2021

- Checked calibration on 4" RTD's for Metro Courthouse
- Performed annual meter certification at Metro Courthouse
- Checked calibration on 4" RTD's for Supreme Court
- Performed annual meter certification at Supreme Court
- Performed annual meter certification at A. A. Birch
- Performed annual meter certification at Library & Archives
- Installed #3 condensate pump in M/H 18
- Restored communications with M/H 18
- Replaced 1" chilled water drain valve in M/H 18
- Began repairs to 7th Ave. Tunnel fan
- Repaired steam leak in M/H D
- M/H 10 Sump Pump Repairs
- Restored service to State steam loop
- Assisted Hume-Fogg investigate steam leak
- Assisted Cordell Hull investigate steam issue
- Put guard back on 4th Ave. Tunnel fan
- Replaced trap in State tunnel at W-18
- Replaced floats on sump pump in M/H D1
- Assisted TEG with steam leak investigation at M/H 23
- Placed condensate to drain for M/H L repairs (DES-153)
- Placed condensate return back in service (DES-153)
- Assisted Design Blasting attorneys with access to Broadway Tunnel (DES-133.1)



- Assisted TEG with project review (DES-171)
- Assisted TEG with project review (DES-172)
- Purchased Expansion Joint for M/H B10 (DES-182)
- Assisted MTI perform exploratory excavation at M/H 10 (EMR21-001)
- Assisted F. M. Sylvan repair condensate line leak outside M/H 10 (EMR21-001)
- Assisted TEG with review of steam line at M/H 10 (EMR21-001)

#### March 2021

- Checked calibration on 4" RTD's for Bobby Hotel
- Performed annual meter certification at Bobby Hotel
- Performed annual meter certification at CJC
- Repaired steam leak on Hume-Fogg building isolation valve
- Checked sump pump in M/H B2
- Corrected time on customer meters
- Replaced transformer on 7th Avenue Tunnel fan
- Replaced hinges on 7th Avenue Tunnel fan access door
- Replaced 2" condensate drain valve in 7th Ave. tunnel
- Repaired steam leak at Schermerhorn Symphony
- Reviewed tunnel repairs with contractor
- Replaced trap in 7th Ave. Tunnel at Hume-Fogg connection
- Replaced trap at B+96
- Repaired steam leak at B+65
- Repaired sump pump in M/H 18
- Tested steam isolation valve in M/H 15
- Checked internet connection with John Sevier Meter Panel
- Isolated and restored condensate in Broadway Tunnel
- Replaced trap in Parkway Tower
- Repaired #3 condensate pump in M/H 18
- Assisted TEG with project review (DES-171)
- Assisted contractor at M/H 10 (DES-185)

#### **April 2021**

- Checked calibration on 6" RTD's for 5/3 Financial
- Checked calibration on 8" RTD's for Andrew Jackson Building
- Checked calibration on 4" RTD's for Viridian
- Checked calibration on 8" RTD's for Rachel Jackson Building
- Repaired M/H 18 Sump Pump Controls
- Isolated steam to Bobby Hotel for customer to make repairs



- Restored steam to Bobby Hotel
- Furnished data for Cordell Hull Building
- Removed old 7th Avenue Tunnel fan transformer
- Helped 501 Building trouble shoot network issue with meter
- Repaired 4<sup>th</sup> Avenue tunnel exhaust fan
- Removed tempering station control valve from Fairlane Hotel
- Assisted Superior install brackets on condensate line in State Tunnel
- Checked internet connection with John Sevier Meter Panel
- Assisted TEG with pay Application #4 project review (DES-171)
- Condensate line bad at M/H 10 (DES-185)
- Assisted contractor at M/H 10 (DES-185)
- Preformed exploratory excavation in Printers Alley (DES-186)
- Made temporary repair to condensate line in Printer's Alley (DES-186)
- Restored condensate service from Bobby Hotel (DES-186)

#### May 2021

- Performed annual meter certification at 5/3 Financial
- Performed annual meter certification at Andrew Jackson Building
- Performed annual meter certification at Rachel Jackson Building
- Checked calibration on 8" RTD's for Nashville City Center
- Performed annual meter certification at Nashville City Center
- Checked calibration on 4" RTD's for John Sevier
- Performed annual meter certification at John Sevier
- Checked calibration on 6" RTD's for Hyatt Place Hotel
- Isolated and restored steam to Hyatt Place for customer to make repairs
- Isolated steam to 4th & Church for customer to make repairs
- Restored steam to War Memorial
- Installed trap line bracket in M/H B6
- Checked 7th Avenue Tunnel fan motor
- Trouble shoot network issue at 501 Building
- Trouble shoot network issue for Metro Buildings
- Re-set breaker on air compressor in Andrew Jackson building
- Restored communications with Wildhorse Saloon
- Installed new tempering station control valve at Fairlane Hotel
- Checked internet connection with John Sevier metering panel
- Assisted TEG with punch list review at M/H L and M (DES-153)
- Assisted insulation contractor at M/H L (DES-153)
- Assisted TEG with access to 4<sup>th</sup> Avenue Tunnel to create a punch list (DES-172)



- Assisted contractor with measurements in M/H B9 and B10 (DES-182)
- Isolated steam to M/H B9 & B10 (DES-182)
- Assisted TEG with progress review M/H B9 & B10 (DES-182)
- Restored steam service to MCCC (DES-182)
- Take readings on expansion joints (DES-182)
- Isolated steam to Printers Alley (DES-186)
- Restored steam to Printers Alley (DES-186)

#### **June 2021**

- Reset totalizer at the Andrew Jackson Building
- Performed annual meter certification at Viridian
- Performed annual meter certification at TSU
- Checked calibration on 8" RTD's for Hermitage Hotel
- Checked calibration on 8" RTD's for Nissan Stadium
- Performed annual meter certification at Nissan Stadium
- Checked calibration on 6" RTD's for MCCC
- Performed annual meter certification at MCCC
- Replaced discharge hose & fittings on M/H B sump pump
- Checked Hyatt Centric Meter connection
- Assisted Sheraton bypass Chilled Water heat exchanger for cleaning
- Assisted TEG with quarterly review of EDS
- Assisted TEG with access MCCC pipe chase
- Assisted TEG & ENECON with review of M/H A, B & M (DES-152)
- Assisted with pre-bid meeting for Platform & Ladder installation in M/H B1(DES-177)
- Assisted contractor with repairs outside M/H 10 (DES-185)
- Restored steam to James K. Polk Building (DES-185)
- Assisted TEG with review of work at M/H 10 (DES-185)
- Checked progress of vault repair at M/H 10 (DES-185)
- Assisted TEG with review of insulation in Printers Alley (DES-186)
- Witnessed contractor pour concrete around pipe casing in Printers Alley (DES-186)
- Checked excavation at M/H 22B (DES-187)
- Assisted TEG & Superior with review of valve & trap replacement (DES-187)
- Isolate steam on 7th Avenue for Nashville Public Library isolation valve & trap assembly replacement (DES-187)
- Assisted contractor with isolation valve & trap assembly installation DES-187)
- Restored steam to Nashville Public Library (DES-187)
- Assisted contractor with measurements in M/H 2 (DES-190)
- Isolated steam for sparge tube & trap line modifications in M/H 2 (DES-190)
- Restored steam service upon substantial completion (DES-190)

Annual maintenance costs for EDS activities: \$283,409.01 (excludes salaried personnel & corporate overhead).



#### **EDS Emergency Repair Projects**

#### EMR20-003 Emergency Excavation and Condensate leak repair at Manhole 3

CNE personnel discovered water entering the east side of Manhole 3 on December 1, 2020. The water was tested and determined to be condensate. An exploratory excavation began December 7, 2020, the line was exposed on December 9, 2020 and representative from TEG reviewed the damaged pipe. On December 14, 2020, approximately 23 feet of pipe was replaced along with the anchor plate inside the manhole and the condensate was placed back in service. The new pipe was insulated and backfilled the following day. The binder was installed on December 17, 2020. The asphalt plants were closed during the winter months and final milling and paving was completed in April 2021.

### EMR21-001 Emergency Excavation and Condensate leak repair on 5th Avenue (M/H 10)

This project began as an emergency repair, but was later given a DES project number. It is reported below as DES-185.

#### EMR21-002 Emergency Steam Leak Repair in M/H D

A steam leak was discovered January 4, 2021 while making routine monthly Manhole inspections. Superior Mechanical repaired the leak February 5, 2021.

# EMR21-003 Emergency Excavation and Steam line repair on 7th Avenue (M/H 23)

This project began as an emergency repair, but was later given a DES project number. It is reported below as DES-184.

#### **EMR21-005** Emergency Excavation Condensate Line Repair in Printers Alley

This project began as an emergency repair, but was later given a DES project number. It is reported below as DES-186.

#### **DES Projects**

Below is a brief description of the DES projects performed during FY21 in various stages of completion.

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

A pre-bid meeting was held at 9:00 a.m. September 9, 2020. The bids were received by four bidders on September 21, 2020. The project was awarded to Nashville Machine on October 27, 2020. A 24-hour steam outage took place November 29-30, 2020 to install a new condensate valve and a trap bypass line in Manhole M. A new steam trap and trap line modifications were also made in Manhole L. These items were completed as scheduled and were done to facilitate the completion of the Manhole L repair project. The remainder of this work began on December 7, 2020 and was in progress prior to the Christmas Day bombing on 2<sup>nd</sup> Avenue. The contractor was allowed to resume work on January 20, 2021. Work was completed January 25, 2021 with the exception of the insulation portion of the project. A representative from TEG reviewed



the work on January 29, 2021 and a punch list was developed. The punch list items have been completed. Insulation blankets and remaining insulation work was completed the week of March 22, 2021. Insulation blankets and remaining insulation work has been completed. A request was made to make additional insulation repairs in Manhole M. The remaining insulation work in Manhole M and Manhole L was completed May 11, 2021 and the punch list items were found to be acceptable on the following day. CNE is waiting on backup documentation from the contractor for the approved Change Order Requests.

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

This project, to repair the pipe supports and reinsulate the piping in Manhole 9, began the first quarter of FY20. A final walkthrough on the insulation punch list items was completed on July 23, 2020. Not outstanding items remain and CNE invoiced Metro for the remaining balance of this project August 19, 2020.

#### **DES-159.1** Manhole B2 Repairs

A hole in the steam line casing end cap was found to be allowing water to enter the manhole vault. This work was awarded to BESCO. Since that time, BESCO has been sold to Superior Mechanical. CNE completed the process of getting the new owner approved as a vendor. Superior Mechanical began this work on September 29, 2020. Superior Mechanical completed this work on October 9, 2020. Punchlist items were completed and CNE invoiced Metro.

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

All Metering equipment was delivered to the Mechanical Contractor on June 10, 2020 except for the metering panel. CNE has issued a Change Order to fabricate the Gx Metering panel and associated wiring and set up. This was approved in early July 2020 with installation to be completed the first week of August 2020. A meeting and walkthrough with the Contractor, Project team, TEG and CNE personnel was held on July 23, 2020. A change order was issued to install chain operators on the isolation valves inside the mechanical room. All Metering equipment has been installed and set up of the Gx Metering Panel was completed on September 18, 2020. Chilled water service was initiated to this customer on September 28, 2020.

#### **DES-169** Manhole 20 Repairs

Nashville Machine began repairing the pipe supports on August 17, 2020. The work was completed on August 20, 2020. A walkthrough was conducted on August 26, 2020 and a punch list was generated. The contractor completed the punch list items on September 15, 2020 and photos were sent to TEG for approval. TEG approved the punch list items and CNE invoiced Metro.

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

A Pre-bid Meeting for this project was held on site on July 21, 2020 with a review of the project drawings and a tunnel walkthrough. Four contractors were present. Bids were received August 17, 2020 TEG recommended Superior Mechanical be awarded the project on September 24, 2020. Superior Mechanical began this project on October



26, 2020 focusing on the anchor table at Station B65. The replacement of the anchor table required a 72-hour outage for the Bridgestone Arena. This work began on November 3, 2020 at 7:00 a.m. and was completed as scheduled. The remainder of the work for this project was in progress prior to the Christmas Day bombing on 2<sup>nd</sup> Avenue. The Contractor was allowed to resume work January 20, 2021. TEG issued several Change Directives. Work on this project is complete. The backup documentation for the two approved change order requests will be submitted the first week of July 2021.

# **DES-172** Viridian and 4<sup>th</sup> Avenue Tunnel Pipe Support Repairs

A Pre-bid Meeting for this project was held on site on July 21, 2020 with a review of the project drawings and a tunnel walkthrough. Four contractors were present. Bids were received August 17, 2020. TEG recommended Superior Mechanical be awarded the project on September 24, 2020. The proposal was approved by Metro on October 22, 2020 and the contractor began this work the week of November 16, 2020. The remainder of the work for this project was in progress prior to the Christmas Day bombing on 2<sup>nd</sup> Avenue. The Contractor's access was limited until January 20, 2021. Work has resumed since that time and should be completed by August 2021.

# **DES-173** Manhole B3 Repairs

A Pre-bid Meeting was held on September 23, 2020 onsite with a walkthrough. The bids were received on September 30, 2020. F. M. Sylvan began work on this project November 5, 2020. Work was completed on November 13, 2020. A punch list was generated following a walkthrough on November 16, 2020. The punch list items were completed on November 19, 2020. The final punch list item was completed on May 19, 2021.

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

A Pre-bid Meeting for this project was held on site on July 21, 2020 with a review of the project drawings and a tunnel walkthrough. Four contractors were present. Bids were received August 17, 2020. TEG recommended Superior Mechanical be awarded the project on September 24, 2020. The proposal was approved by Metro on October 22, 2020 and the contractor began this work the week of November 16, 2020. The remainder of the work for this project was in progress prior to the Christmas Day bombing on 2<sup>nd</sup> Avenue. The Contractor's access was limited until January 20, 2021. Work has resumed since that time and should be completed by August 2021.

#### **DES-175** Manhole 4 Condensate Return

Steam piping modifications, to eliminate the steam trap in Manhole 4, began on November 9, 2020 and were substantially completed the following day. The insulation was installed the week of November 16, 2021. A representative from TEG reviewed the work on January 11, 2021 and a punch list was developed. Punch list items were completed, and a follow-up review was conducted on January 29, 2021. All items were completed. Project is complete. CNE has issued invoice to Metro.



# DES-176 Exploratory Excavation and Condensate Line Leak Repair (MH 9)

CNE's subcontractor performed an exploratory excavation on July 6, 2020. The excavation revealed a hole in the top of the condensate pipe near the east wall of the manhole. A partial steam outage began on August 14, 2020 for the State Loop, Municipal Auditorium and St. Mary's Church to allow for the replacement of approximately 10 feet of condensate pipe and the pouring of concrete around a pipe guide. Steam service was restored at 1:00 p.m. August 16, 2021, approximately 18 hours ahead of schedule. Insulation, backfill, curb and gutter restoration, binder and dirt for the planter area were installed by August 25, 2021. Shrub replacement was completed on September 11, 2020. Milling and final paving were completed the last week in October. Backup documentation for the initial portion of the project was approved and Metro was invoiced. The backup documentation for the final milling and paving of the street was submitted and approved on February 23, 2021.

#### DES-177 Manhole B1 Ladder & Platform

A Pre-bid meeting was held on June 15, 2021 to review the Bid drawings and documents and visit the job site. Bids were due on June 25, 2021 and they were received from all 4 bidders. This project is expected to begin the first quarter of FY22.

# DES-181 Exploratory Excavation & Chilled Water/Condensate Repair on 3<sup>rd</sup> Avenue

An exploratory excavation outside of Manhole D1 began on October 19, 2020. Due to the utilities in the area and the depth of the excavation the chilled water leak was not exposed until October 22, 2020. A leak was found on a mechanical joint tee on the chilled water line. This required the isolation and draining of a section of the system which affected the following customers: A. A. Birch, Parkway Tower, CJC, Metro Courthouse and the Bobby Hotel. CNE's CSR contacted the customers and the outage began at 10:00 p.m. October 22, 2020. Chilled water was available to those customers at 3:00 a.m. October 23, 2020. The remaining mechanical joints and flanges were checked for leaks on October 26, 2020 and none were found. Backfilling began the same day and was completed on October 27, 2020.

Upon completion of the chilled water leak repair, the water entering Manhole D1 was found to be extremely hot. CNE informed Metro of this issue and it was decided to begin an additional exploratory excavation on the other side of Manhole D on October 29, 2020. This revealed several leaks in the condensate line between the anchor block and the manhole. On October 30, 2020 CNE personnel placed the following customers condensate to drain: A. A. Birch, Parkway Tower, CJC and Metro Courthouse. The condensate was returned to service on November 6, 2020 and the area was backfilled and plated. The binder was installed on November 10, 2020 and final milling and paving was completed the first week of December 2020 Project is complete. CNE has issued invoice to Metro.

#### **DES-182** Manhole B10 Expansion Joint Replacement

On January 7, 2021, during the monthly manhole inspections of Manholes B9 and B10, CNE personnel observed what appeared to be movement in some of the support beams and the expansion joint in Manhole B10 appears to be cocked at an angle.



Representatives from TEG investigated the issues and sent out preliminary drawings for the repairs. CNE was asked to review and comment on January 28, 2021. A meeting to review the Scope of Work and preliminary drawings was held on February 26, 2021. Construction Drawings were issued on March 2, 2021. Superior Mechanical hired a company to scan/locate the rebar in the manhole walls so new anchors could be installed without conflict. This work was completed on March 25, 2021. The steam and condensate going to the Music City Convention Center (MCCC) was isolated on May 17, 2021 to make repairs in M/H B9 and M/H B10. The repairs were completed and steam service was restored on May 21, 2021, fifteen hours ahead of schedule. Contractor is waiting on insulation blankets to be delivered to complete project.

# DES-184 Exploratory Excavation and Steam Line Repair 7<sup>th</sup> Avenue (M/H 23)

(EMR21-003) Steam was found to be coming out of the casing in Manhole 23 and also a vent in the parking lot at the Tennessee Tower Building during a routine inspection the last week of February 2021. The steam was isolated to the building and the steam stopped coming out of the casing almost instantly. This indicated a potential hole in the steam pipe and a decision was made to perform a thermographic survey of the area to try to locate a hot spot in the area. The hot spot was located approximately 100 feet north of the intersection of Union Street and 7<sup>th</sup> Avenue North. An exploratory excavation began March 4, 2021. The steam line was exposed the pipe on March 9, 2021. The casing was severely deteriorated in this area and TEG requested that the piping be exposed 15 feet in each direction. The line was exposed the following day. TEG issued repair specifications. Materials were ordered and the insulation repairs were made on March 23, 2021. Backfill began the same day and binder was installed on March 26, 2021. A change order will be furnished for final milling and paving when back-up documentation is approved.

#### DES-185 Emergency Excavation and Condensate leak repair on 5th Avenue (M/H 10)

(EMR21-001) CNE personnel discovered water entering Manhole 10, around the steam line casing, on the south side of the vault. An exploratory excavation began February 4, 2021. On February 9, 2021, the leak was located approximately 30 feet to the south of M/H 10. On February 10, 2021, F. M. Sylvan replaced 4 feet of 6" pipe to make the repair. The new pipe was insulated February 12, 2021.

On February 15, 2021, TEG requested the steam line penetration be exposed on the south side of the vault. This was performed February 24-25, 2021. TEG issued rehabilitation specifications and CNE ordered an 11-foot piece of pre-insulated pipe from Perma-Pipe. This pipe was delivered to F. M. Sylvan in late April.

Following an additional excavation of the condensate line, the decision was made to replace a section of this piping. This pipe was delivered to F. M. Sylvan May 24, 2021. A partial steam outage was conducted June 9, 2021 to replace a section of the steam and condensate lines on the south side of Manhole 10. This work was completed approximately 6 hours ahead of the 24-hour schedule. Once the two lines were installed, a determination was made to reinforce and repair the lower section of the southern wall of the manhole. TEG issued repair specifications and additional



excavation was required. The repairs to this portion of the project are expected to be completed by mid-July.

# DES-186 Emergency Excavation and Condensate leak repair on Printer's Alley

(EMR21-005) The monthly Thermographic inspection revealed a "hot spot" in Printer's Alley near the steam and condensate lines for the Bobby Hotel. An emergency excavation began on April 19, 2021 and a leak was found in a section of the condensate line. The contractor repaired approximately 3 feet of pipe on April 21, 2021 and condensate service was restored the same day. An additional excavation indicated more damage to the casing and condensate piping in this area. TEG furnished a repair plan and the contractor repaired this section of pipe on May 21, 2021. The insulation material for the remainder of the project has been ordered. The insulation was installed June 23, 2021and the excavation was backfilled on June 25, 2021. The only remaining item is the paving portion of this project.

#### DES-187 Exploratory Excavation & Steam Line Repair on 7th Ave (M/H 22B-NPL)

Due to excessive water infiltration around the steam line casing in Manhole 22B, an exploratory excavation began in early June 2021. Due to several utilities in the area, an excessive amount of hand digging to remove the fill and concrete around the steam line has been required. Approximately 10 feet of the steam line has been exposed and shows deterioration of the outer casing in several locations which is allowing ground water to infiltrate. TEG has requested the excavation be extended north prior to making a determination as to the extent of repairs that will be required.

#### **DES-190** Manhole 2 Sparge Tube & Trap Line Modifications

The project to re-configure the steam trap and sparge tube arrangement in Manhole 2 was completed on June 30, 2021. The existing sparge tube was removed and a new one was installed in the horizontal plane. The steam trap assembly was re-routed to give additional clearance from the manhole floor.



# **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**

- Deferred Maintenance items, called out in the contract renewal, have been completed. An
  additional item regarding CNE having three excavation contractors approved to do work in the
  EDS is in progress. One of three has been approved. Three others have been sent prequalification paperwork.
- CNE carried over several EDS Maintenance items to FY22. Required items are to be completed by September 30, 2021.
- Locate and repair chilled water leaks in the EDS.
- State of Tennessee to complete repairs to their steam tunnel.

# **Recommendations for FY 21**

- Install electric hoist to access Broadway tunnel in 5<sup>th</sup> & Broadway parking garage
- Add expansion loops to steam and condensate lines in Broadway tunnel to allow access to tunnel from 5<sup>th</sup> & Broadway parking garage
- 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 333 Union Hotel to be built on the SE corner of 4<sup>th</sup> Avenue and Union Street
  - o River North Development & Oracle
- Potential projects that should be customer funded:
  - o Install a side stream filter on the chilled water system
  - 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. The table was re-evaluated September 24, 2020 and no changes were made.

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 usually participates in meetings and social events with business groups, engineers and developers throughout the year. They also provide presentations and tours of the EGF to point out the positive attributes of the system. These activities were curtailed this past year due to COVID-19-19 restrictions.



#### Utilities and Fuel Procurement

During FY20-21, 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. and TEG. 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 June 2023. 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 FY20-21:

#### **Natural Gas**

Month	Quantity (DT)	Unit Cost	Amount
July 2020	25,097.90	\$ 2.132290	\$ 53,516.01
August	24,177.10	\$ 2.485016	\$ 60,080.47
September	27,031.40	\$ 3.353750	\$ 90,656.55
October	38,610.60	\$ 2.628670	\$ 101,494.52
November	50,524.50	\$ 3.466520	\$ 175,144.17
December	75,662.10	\$ 3.237896	\$ 244,986.01
January 2021	79,658.60	\$ 3.033108	\$ 241,613.12
February	79,400.30	\$ 3.885228	\$ 308,488.25
March	52,567.60	\$ 3.269037	\$ 171,845.44
April	42,901.00	\$ 3.169951	\$ 135,994.08
May	35,714.00	\$ 3.405200	\$ 121,613.30
June	24,543.10	\$ 3.521294	\$ 86,423.46
Total	555,888.20	\$ 3.2234	\$ 1,791,855.38



DES purchased 100,000 gallons of propane October 2, 2020. TARGA stored this propane at their facility in the event it would be needed for a natural gas curtailment. Since the plant did not have a natural gas curtailment, the propane was sold back to TARGA March 10, 2021.

The following is a report of propane used:

#### **Propane**

Month	Quantity (DT)	Unit Cost	Amount
July 2020	16	\$ 25.5553	\$ 408.88
August	8	\$ 25.5553	\$ 204.44
September	8	\$ 25.5565	\$ 204.45
October	33	\$ 24.7809	\$ 817.77
November	57	\$ 25.1069	\$ 1,431.09
December	41	\$ 24.9319	\$ 1,022.21
January 2021	33	\$ 24.9314	\$ 822.74
February	90	\$ 24.9873	\$ 2,248.86
March	66	\$ 9.9177	\$ 654.57
April	0	\$ -	\$ -
May	0	\$ -	\$ -
June	0	\$ -	\$ -
Total	352	\$ 22.2017	\$ 7,815.01

<sup>\*</sup>The quantities reported here are what was billed to the customers. The customer propane credit is not included in this table.



During FY20-21, 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 and Exhibit 1 of this report.

# **Electricity**

Month	Quantity (Kwh)	Unit Cost	Amount
July 2020	7,473,900	\$ 0.073573	\$ 549,875.87
August	6,288,968	\$ 0.078992	\$ 496,777.12
September	4,683,560	\$ 0.088596	\$ 414,944.77
October	3,179,624	\$ 0.083498	\$ 265,491.20
November	2,596,552	\$ 0.085347	\$ 221,609.08
December	2,160,732	\$ 0.089183	\$ 192,701.32
January 2021	2,186,968	\$ 0.088482	\$ 193,507.28
February	2,053,548	\$ 0.092239	\$ 189,417.79
March	2,987,796	\$ 0.079263	\$ 236,821.09
April	3,403,764	\$ 0.094363	\$ 321,190.97
May	4,485,684	\$ 0.085088	\$ 381,676.35
June	6,438,824	\$ 0.083602	\$ 538,297.52
			_
Total	47,939,920	\$ 0.083486	\$ 4,002,310.36



The following table indicates the water purchased during FY20-21 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 the calendar month.

#### Water & Sewer

Month	Quantity (Kgal)	Unit Cost	Amount
July 2020	16,828,504	\$ 0.006247	\$ 105,119.51
August	19,635,748	\$ 0.006237	\$ 122,476.97
September	15,827,680	\$ 0.006251	\$ 98,931.09
October	12,029,336	\$ 0.006265	\$ 75,367.43
November	8,256,424	\$ 0.006292	\$ 51,947.49
December	9,607,312	\$ 0.006285	\$ 60,379.05
January 2021	7,387,996	\$ 0.006305	\$ 46,581.81
February	6,335,560	\$ 0.006585	\$ 41,720.23
March	6,141,080	\$ 0.006580	\$ 40,405.40
April	7,833,804	\$ 0.006564	\$ 51,418.38
May	8,776,284	\$ 0.006583	\$ 57,777.73
June	13,175,272	\$ 0.006524	\$ 85,951.19
Total	131,835,000	\$ 0.006357	\$ 838,076.28



# 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 FY20-21.

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

Monthly Reconciliation charts from July 2020 to June 2021 are found in this appendix. The final chart is a Summary Reconciliation table for FY20-21. 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 1.01%, \$204,461 was charged in FY20-21 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 (\$81,645).
  - o Water and Sewer Actual costs charged by Metro Water Services
- Energy Charges
  - o 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)	20	Andrew Jackson	34	A. A. Birch
2	Parkway Tower	21	Cordell Hull	35	Metro Courthouse
3	Sheraton Hotel	22	John Sevier	36	Municipal Auditorium
4	Hermitage Hotel	23	War Memorial	37	Downtown Detention Center (fka CJC)
5	501 Union Building	24	Library & Archives	38	Bridgestone Arena
6	4 <sup>th</sup> & Church Building	25	Supreme Court	39	Nissan Stadium
7	Fifth-Third Financial Center	26	State Capitol	40	Hume-Fogg High School
8	Renaissance Hotel	27	James K. Polk	41	Nashville Public Library
9	City Space (fka Ren. Office Tower)	28	Citizens Plaza	42	Music City Center
10	St. Mary's Catholic Church	29	Tennessee Tower		
11	Nashville City Center	30	Tennessee State University		
12	Wildhorse Saloon	31	Tennessee Performing Arts Center		
13	Ryman Auditorium	32	Legislative Plaza		
14	Schermerhorn Symphony Center	33	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)				
19	Hyatt Centric Hotel				



# Appendix 2

#### Metro Nashville District Energy System Revenues Chilled Water and Steam

Fiscal Year Ending June 30, 2021

Customer No.	Customer		uly		August		September		October		November		December		anuary		ebruary		March		April		Иау	June (including	rue Up)	<sup>-</sup> otal	
	A. A. Birch	\$	52,646.25	\$	51,687.48	\$	50,027.74	\$	49,587.98	\$	48,339.38	\$	44,394.50	\$	42,463.47	\$	46,961.25	\$	49,531.47	\$	50,867.20	\$	45,301.40 \$		42.64 \$	581,8	350.76
4	Metro Courthouse	\$	29,585.74	\$	31,667.37	\$	29,666.96	\$	25,828.73	\$	25,140.58	\$	24,563.24	\$	24,490.57	\$	25,195.34	\$	23,030.60	\$	22,815.29	\$	25,250.50 \$	28,6	09.13 \$	315,8	344.05
7	Parkway Tower	\$	23,614.48	\$	24,649.43	\$	24,550.11	\$	21,884.08	\$	27,202.89	\$	31,807.97	\$	29,818.18	\$	26,401.82	\$	26,400.22	\$	24,889.35	\$	24,617.48 \$	22,7	89.73 \$	308,6	525.74
9	Bobby Hotel	\$	12,406.38	\$	11,731.93	\$	10,396.17	\$	7,876.68	\$	6,727.66	\$	6,007.00	\$	6,058.77	\$	6,176.50	\$	7,294.16	\$	8,076.55	\$	9,806.50 \$	11,9	78.37 \$	104,5	536.67
10	Fairlane Hotel	\$	9,849.04	\$	9,786.93	\$	8,827.16	\$	8,046.16	\$	8,055.46	\$	8,094.83	\$	8,041.25	\$	8,823.60	\$	6,627.84	\$	7,247.25	\$	7,998.17 \$	9,1	92.55 \$	100,5	590.24
11	Sheraton Hotel	\$	49,205.05	\$	47,334.81	\$	50,342.05	\$	48,232.90	\$	47,226.46	\$	50,447.99	\$	43,828.42	\$	42,038.06	\$	37,266.35	\$	35,289.93	\$	48,262.85 \$	44,2	62.87 \$	543,7	737.74
12	Municipal Auditorium	\$	22,981.96	\$	23,963.36	\$	20,382.01	\$	20,203.58	\$	22,467.14	\$	28,110.98	\$	27,367.10	\$	28,553.60	\$	19,296.61	\$	17,294.63	\$	16,228.55 \$	18,8	89.03 \$	265,7	738.55
21	Hermitage Hotel	\$	23,232.41	\$	21,792.30	\$	21,395.39	\$	17,634.69	\$	19,221.27	\$	18,242.16	\$	16,817.90	\$	16,331.37	\$	15,736.03	\$	17,193.23	\$	18,715.63 \$	20,2	55.07 \$	226,5	567.45
24	Criminal Justice Center	\$	31,997.57	\$	31,513.52	\$	31,469.85	\$	28,843.93	\$	29,859.10	\$	34,258.70	\$	31,546.32	\$	33,520.99	\$	26,265.88	\$	28,040.22	\$	28,942.85 \$	30,2	73.68 \$	366,5	532.61
25	501 Union Building	\$	9,402.30	\$	10,500.40	\$	8,613.95	\$	8,245.97	\$	6,280.30	\$	8,469.44	\$	8,544.95	\$	8,891.05	\$	8,245.10	\$	8,635.72	\$	8,831.57 \$	8,7	16.48 \$	103,3	377.23
28	4th & Church Building	\$	38,624.01	\$	40,157.13	\$	35,161.32	\$	28,534.73	\$	33,524.12	\$	34,763.75	\$	35,033.42	\$	37,246.96	\$	33,232.94	\$	34,414.20	\$	30,749.42 \$	39,0	22.00 \$	420,4	464.00
29	Fifth-Third Financial Center	\$	34,250.52	\$	42,784.12	\$	35,870.94	\$	29,338.83	\$	29,097.13	\$	25,854.67	\$	25,332.40	\$	25,335.68	\$	27,509.15	\$	28,276.04	\$	30,058.35 \$	34,8	45.67 \$	368,5	553.50
32	Renaissance Hotel	\$	85,600.84	\$	80,403.18	\$	80,735.94	\$	70,027.88	\$	69,077.28	\$	69,267.86	\$	66,717.04	\$	72,927.95	\$	64,684.28	\$	72,371.02	\$	76,960.03 \$	86,5	80.57 \$	895,3	353.87
33	5th & Broadway	\$	31,930.68	\$	33,335.18	\$	31,162.30	\$	25,113.81	\$	23,403.81	\$	24,094.34	\$	25,919.29	\$	24,353.65	\$	32,099.71	\$	41,785.96	\$	47,555.00 \$	66,8	83.55 \$	407,6	537.28
34	Renaissance Office Tower	\$	12,409.90	\$	14,663.56	\$	12,078.62	\$	10,342.03	\$	8,712.02	\$	8,880.55	\$	9,368.26	\$	7,099.66	\$	8,071.59	\$	8,927.81	\$	9,808.03 \$	12,1	41.55 \$	122,5	503.58
35	St. Mary's Catholic Church	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83	\$	1,056.83 \$	1,0	56.83 \$	12,6	581.96
36	Nashville City Center	\$	33,526.80	\$	38,684.55	\$	30,921.46	\$	24,143.55	\$	21,786.58	\$	18,794.45	\$	19,321.07	\$	19,217.53	\$	19,709.64	\$	23,546.45	\$	25,259.41 \$	30,9	98.56 \$	305,9	910.05
38	Wildhorse Saloon	\$	8,341.57	\$	8,389.47	\$	8,475.91	\$	8,244.93	\$	8,068.55	\$	7,638.45	\$	7,408.53	\$	7,565.31	\$	8,269.27	\$	8,102.22	\$	8,592.65 \$	10,5	86.53 \$	99,6	583.39
39	Ryman Auditorium	\$	16,140.32	\$	14,997.74	\$	16,123.14	\$	15,030.31	\$	14,865.51	\$	14,327.66	\$	15,272.83	\$	14,711.61	\$	15,237.94	\$	15,517.02	\$	15,930.01 \$	16,3	97.87 \$	184,5	551.96
40	Bridgestone Arena	\$	145,798.70	\$	98,590.15	\$	80,102.65	\$	66,405.95	\$	63,054.68	\$	71,118.62	\$	75,774.72	\$	77,285.65	\$	95,165.55	\$	103,054.82	\$	113,540.97 \$	84,8	41.43 \$	1,074,7	/33.89
41	Nissan Stadium	\$	59,542.93	\$	56,566.29	\$	52,834.44	\$	41,494.07	\$	34,222.84	\$	25,085.28	\$	25,563.66	\$	26,071.98	\$	30,092.50	\$	37,820.29	\$	43,669.10 \$	57,7	12.48 \$	490,6	575.86
43	Hume-Fogg High School	\$	10,345.46	\$	12,133.78	\$	11,366.86	\$	9,640.91	\$	9,796.08	\$	12,056.10	\$	11,622.68	\$	11,988.16	\$	9,783.09	\$	9,709.15	\$	10,024.69 \$	9,0	26.96 \$	127,4	493.92
44	Schermerhorn Symphony Center	\$	26,874.58	\$	30,502.10	\$	29,747.78	\$	25,734.48	\$	23,834.65	\$	22,859.66	\$	22,243.97	\$	23,431.51	\$	21,541.31	\$	24,665.28	\$	27,437.99 \$	30,9	16.37 \$	309,7	789.68
45	Nashville Public Library	\$	29,472.30	\$	30,220.28	\$	37,969.41	\$	35,352.76	\$	35,645.15	\$	34,625.72	\$	33,439.65	\$	31,746.51	\$	26,814.79	\$	33,262.89	\$	27,956.40 \$	30,4	15.10 \$	386,9	920.96
49	Viridian Residential Tower	\$	22,038.89	\$	21,213.11	\$	19,327.30	\$	16,656.33	\$	16,001.60	\$	14,722.25	\$	13,463.35	\$	13,261.99	\$	16,004.45	\$	16,883.78	\$	18,235.18 \$	22,6	09.32 \$	210,4	417.55
50	Music City Center	\$	186,020.60	\$	189,373.12	\$	187,481.37	\$	164,416.34	\$	178,369.44	\$	181,633.99	\$	179,689.95	\$	194,771.26	\$	158,079.90	\$	169,274.81	\$	170,317.63 \$	216,6	85.57 \$	2,176,1	13.98
51	Hyatt Place Hotel	\$	16,731.43	\$	16,646.98	\$	17,966.07	\$	16,437.94	\$	16,021.02	\$	16,043.13	\$	15,641.81	\$	17,119.01	\$	16,777.22	\$	15,728.04	\$	18,877.66 \$	18,0	92.39 \$	202,0	082.70
52	Hyatt Centric	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	5,003.26	\$	3,524.14 \$	5,6	65.68 \$	14,1	193.08
S1	State Government of TN	\$	435,478.26	\$	444,350.17	\$	419,632.74	\$	378,580.97	\$	392,042.72	\$	428,280.50	\$	426,545.07	\$	446,810.92	\$	393,118.41	\$	391,558.87	\$	407,479.20 \$	444,4	10.12 \$	5,008,2	187.95
	Grand Totals	\$ 1	1,459,105.80	\$ 1	,438,695.27	\$ 1	,363,686.47	\$ 1,	,202,937.35	\$ :	1,219,100.25	\$ 1	,265,500.62	\$ :	1,248,391.46	\$ 1	1,294,895.75	\$ 1	1,196,942.83	\$ 1	,261,308.11	\$ 1	1,320,988.19 \$	1,463,8	98.10 \$	15,735,4	150.20



# Appendix 3

#### Metro Nashville District Energy System Revenues Chilled Water and Steam Fiscal Year Ending June 30, 2021

Customer Number	Customer Name	Capacity	Operating	EDS Improvement	Metro	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2	A. A. Birch	\$ 127,540.32 \$	165,504.48 \$	8,959.80 \$	11,263.55 \$	30,240.80	\$ 8,485.44	\$ 2,880.88	\$ 757.05	\$ 3,452.24 \$	- :	10,440.44	\$ 148,048.51	\$ 63,977.20 \$	300.05 \$	581,850.76
4	Metro Courthouse	\$ 60,377.48 \$	77,230.08 \$	4,180.92 \$	5,255.88 \$	19,988.82	\$ 6,209.24	\$ 1,353.99	\$ 354.10	\$ 1,610.94 \$	- :	1,505.90	\$ 93,290.07	\$ 44,292.57 \$	194.06 \$	315,844.05
7	Parkway Tower	\$ 55,044.32 \$	74,919.00 \$	4,055.76 \$	5,098.64 \$	19,700.64	\$ 6,092.34	\$ 1,274.11	\$ 340.08	\$ 1,562.72 \$	8,723.04	2,134.35	\$ 88,580.89	\$ 40,916.52 \$	183.33 \$	308,625.74
9	Bobby Hotel	\$ 20,288.92 \$	27,156.00 \$	1,470.12 \$	1,848.13 \$	6,573.15	\$ 1,594.86	\$ 465.50	\$ 123.60	\$ 566.44 \$	3,132.96	825.23	\$ 33,957.96	\$ 6,514.29 \$	19.51 \$	104,536.67
10	Fairlane Hotel	\$ 21,043.64 \$	27,983.52 \$	1,515.00 \$	1,904.43 \$	5,231.92	\$ 1,464.53	\$ 481.30	\$ 127.49	\$ 583.72 \$	3,816.96	942.62	\$ 24,894.98	\$ 10,546.02 \$	54.11 \$	100,590.24
11	Sheraton Hotel	\$ 116,144.96 \$	150,494.28 \$	8,147.16 \$	10,242.04 \$	27,860.49	\$ 9,571.90	\$ 2,621.62	\$ 688.55	\$ 3,139.20 \$	15,129.96	2,735.44	\$ 98,626.02	\$ 97,934.21 \$	401.91 \$	543,737.74
12	Municipal Auditorium	\$ 58,284.80 \$	79,964.52 \$	4,329.00 \$	5,442.04 \$	10,738.91	\$ 3,724.34	\$ 1,354.68	\$ 362.53	\$ 1,667.99 \$	- :	3,944.16	\$ 49,146.06	\$ 46,534.91 \$	244.61 \$	265,738.55
21	Hermitage Hotel	\$ 56,100.08 \$	70,569.84 \$	3,820.44 \$	4,802.70 \$	11,899.40	\$ 2,960.67	\$ 1,247.56	\$ 324.47	\$ 1,472.03 \$	3,405.96	4,695.44	\$ 56,190.41	\$ 9,036.70 \$	41.75 \$	226,567.45
24	Criminal Justice Center	\$ 94,860.48 \$	116,034.72 \$	6,281.64 \$	7,896.78 \$	13,864.63	\$ 4,881.63	\$ 2,080.56	\$ 536.06	\$ 2,420.38 \$	- :	1,474.42			253.42 \$	366,532.61
25	501 Union Building	\$ 22,118.88 \$	28,447.08 \$	1,540.08 \$	1,935.92 \$	4,851.60	\$ 1,316.02	\$ 497.33	\$ 130.31	\$ 593.38 \$	2,862.96	13.29	\$ 29,908.04	\$ 9,124.03 \$	38.31 \$	103,377.23
28	4th & Church Building	\$ 256,453.56 \$	- \$	- \$	- \$	17,561.60	\$ 4,711.70	\$ 1,632.79	\$ 433.05	\$ - \$	- :	-	\$ 106,591.06	\$ 32,911.87 \$	168.37 \$	420,464.00
29	Fifth-Third Financial Center	\$ 67,596.44 \$	105,250.92 \$	5,697.84 \$	7,162.93 \$	,	\$ 4,260.69	\$ 1,681.32	\$ 468.29	\$ 2,195.44 \$	9,678.00	6,546.58			- \$	368,553.50
32	Renaissance Hotel	\$ 175,229.40 \$	222,249.36 \$	12,031.68 \$	15,125.35 \$	56,343.80	\$ 16,536.32	\$ 3,912.95	\$ 1,020.46	\$ 4,635.92 \$	17,991.12	969.46	\$ 240,602.78	\$ 128,155.49 \$	549.78 \$	895,353.87
33	5th & Broadway	\$ 77,771.52 \$	121,094.04 \$	6,555.48 \$	8,241.12 \$	,	\$ 5,780.91	\$ 1,934.40	\$ 538.78	\$ 2,525.92 \$	- :	6,794.58			- \$	407,637.28
34	Renaissance Office Tower	\$ 16,526.44 \$	25,732.44 \$	1,393.08 \$	1,751.29 \$	11,805.76	\$ 2,797.53	\$ 411.11	\$ 114.49	\$ 536.77 \$	2,796.00	436.68	\$ 58,201.99	\$ - \$	- \$	122,503.58
35	St. Mary's Catholic Church	\$ 12,273.00 \$	- \$	- \$	- \$		\$ - :	r	\$ -	\$ - \$	408.96		т		- \$	12,681.96
36	Nashville City Center	\$ 55,088.20 \$	85,774.92 \$	4,643.52 \$	5,837.44 \$	17,617.27	\$ 3,802.29	\$ 1,370.17	\$ 381.63	\$ 1,789.20 \$	9,269.04	2,083.60	\$ 118,252.77	\$ - \$	- \$	305,910.05
38	Wildhorse Saloon	\$ 20,507.44 \$	28,095.48 \$	1,521.00 \$	1,912.07 \$	6,168.89	\$ 1,624.66	\$ 476.34	\$ 127.41	\$ 586.06 \$	2,249.04	1,753.14			34.13 \$	99,683.39
39	Ryman Auditorium	\$ 21,157.00 \$	29,466.48 \$	1,595.28 \$	2,005.38 \$	16,098.53	\$ 5,036.47	\$ 495.62	\$ 133.28	\$ 614.64 \$	2,180.88	362.09	\$ 68,147.57	\$ 37,105.16 \$	153.58 \$	184,551.96
40	Bridgestone Arena	\$ 227,847.00 \$	318,165.24 \$	17,224.08 \$	21,652.93 \$	63,232.57	\$ 15,711.25	\$ 5,344.90	\$ 1,438.47	\$ 6,636.67 \$	- :	3,780.53	\$ 341,067.95	\$ 52,365.10 \$	267.20 \$	1,074,733.89
41	Nissan Stadium	\$ 97,214.40 \$	151,367.52 \$	8,194.44 \$	10,301.40 \$	33,073.87	\$ 6,734.31	\$ 2,418.06	\$ 673.47	\$ 3,157.40 \$	- :	776.83	\$ 176,764.16	\$ - \$	- \$	490,675.86
43	Hume-Fogg High School	\$ 32,375.52 \$	43,218.60 \$	2,339.64 \$	2,941.22 \$	4,011.89	\$ 1,331.64	\$ 742.02	\$ 196.78	\$ 901.49 \$	- :	5,048.29	\$ 21,263.94	\$ 13,062.42 \$	60.47 \$	127,493.92
44	Schermerhorn Symphony Center	\$ 186,920.64 \$	- \$	- \$	- \$	12,124.62				- \$	- :	-	\$ 64,760.97	\$ 40,100.75 \$	159.08 \$	309,789.68
45	Nashville Public Library	\$ 84,742.56 \$	- \$	- \$	- \$	42,687.74	\$ 12,984.91			- \$	- :	1,763.27	,		305.53 \$	386,920.96
49	Viridian Residential Tower	\$ 152,199.12 \$	- \$	- \$	- \$	6,716.57	\$ 1,355.45		\$ 229.88	- \$	- :	12,321.79			- \$	210,417.55
50	Music City Center	\$ 930,813.36 \$	113,683.68 \$	- \$	40,269.01 \$	117,723.95	\$ 39,728.04	\$ 13,472.24	\$ 3,596.17	\$ - \$	- :	8,788.76	\$ 547,667.10	\$ 358,789.60 \$	1,582.07 \$	2,176,113.98
51	Hyatt Place Hotel	\$ 135,468.24 \$	- \$	- \$	- \$	6,441.56	\$ 2,354.97	\$ 945.44	\$ 242.63	\$ - \$	- :	4,230.21	\$ 24,270.91	\$ 28,020.00 \$	108.74 \$	202,082.70
52	Hyatt Centric	\$ 10,493.57 \$	- \$	- \$	- \$	475.25			\$ 114.49	- \$	- :	-	-,		- \$	14,193.08
S1	State Government of TN	\$ 1,639,133.76 \$	1,313,359.80 \$	- \$	- \$	218,955.16	\$ 70,228.38		\$ 5,364.58	\$ 24,448.77 \$	- :	51,933.79	\$ 1,071,061.51	\$ 611,119.70 \$	2,682.50 \$	5,008,287.95
I	Grand Totals	\$ 4,831,615.05 \$	3,375,762.00 \$	105,495.96 \$	172,890.25 \$	,	,	\$ 53,112.77	\$ 19,617.13	\$ 65,097.32 \$	81,644.88	136,300.89	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$ 1,761,247.46 \$	7,802.51 \$	15,735,450.20
	Rate Calculation Totals	\$ 5,813,907.05 \$	4,637,332.92 \$		218,479.05 \$	826,832.56			\$ 19,635.80	66,963.86 \$		136,300.89	, , , , , , , ,	\$ 1,763,690.63 \$	,	18,098,505.72
	Deviation	\$ (982,292.00) \$	(1,261,570.92) \$	(68,295.96) \$	(45,588.80) \$	(326.65)	\$ (142.16)	\$ 174.43	\$ (18.67)	\$ (1,866.54) \$	- !	-	\$ (672.58)	\$ (2,443.17) \$	(12.50) \$	(2,363,055.52)

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

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	\$ 10,628.38 \$	13,792.04	\$ 746.65 \$	1,208.37	\$ 3,740.54	\$ 663.56	\$ 169.15	\$ -	\$ 348.34 \$	- 5	282.76	\$ 21,006.69	\$ 59.32	\$ 0.45	\$ 52,646.25
4 Metro Courthouse	\$ 5,031.47 \$	6,435.84	\$ 348.41 \$	563.86	\$ 2,261.30	\$ 520.91	\$ 79.50	\$ -	\$ 162.54 \$	- 5	112.62	\$ 12,062.86	\$ 1,991.31	\$ 15.12	\$ 29,585.74
7 Parkway Tower	\$ 4,587.04 \$	6,243.25	\$ 337.98 \$	546.99	\$ 1,571.68	\$ 281.81	\$ 74.81	\$ -	\$ 157.69 \$	726.92	201.28	\$ 8,810.50	\$ 73.97	\$ 0.56	\$ 23,614.48
9 Bobby Hotel	\$ 1,690.75 \$	2,263.00	\$ 122.51 \$	198.27	\$ 1,078.06	\$ 227.94	\$ 27.33	\$ -	\$ 57.15 \$	261.08	-	\$ 5,859.31	\$ 616.30	\$ 4.68	\$ 12,406.38
10 Fairlane Hotel	\$ 1,753.65 \$	2,331.96		204.31		\$ 129.70	\$ 28.26	\$ -	\$ 58.90 \$	318.08		\$ 4,057.51	\$ 32.91	\$ 0.25	
11 Sheraton Hotel	\$ 9,678.76 \$	12,541.19	\$ 678.93 \$	1,098.78	\$ 3,256.19	\$ 685.04	\$ 153.93	\$ -	\$ 316.75 \$	1,260.83	-	\$ 17,715.85	\$ 1,805.09	\$ 13.71	\$ 49,205.05
12 Municipal Auditorium	\$ 4,857.08 \$	6,663.71	\$ 360.75 \$	583.83	\$ 1,479.46	\$ 261.42	\$ 79.54	\$ -	\$ 168.31 \$	- 5	207.15	\$ 8,314.02	\$ 6.64	\$ 0.05	\$ 22,981.96
21 Hermitage Hotel	\$ 4,675.02 \$	5,880.82	\$ 318.37 \$	515.24	\$ 1,620.95	\$ 286.53	\$ 73.25	\$ -	\$ 148.53 \$	283.83	312.11	\$ 9,108.57	\$ 9.12	\$ 0.07	
24 Criminal Justice Center	\$ 7,905.06 \$	9,669.56	\$ 523.47 \$	847.18	\$ 1,703.47	\$ 364.08	\$ 122.16	\$ -	\$ 244.22 \$	- 5	335.28	\$ 9,237.60	\$ 1,037.61	\$ 7.88	\$ 31,997.57
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34 \$	207.69	\$ 664.59	\$ 117.25	\$ 29.20	\$ -	\$ 59.87 \$	238.58	7.25	\$ 3,735.70	\$ -	\$ -	+ -,
28 4th & Church Building	\$ 21,371.13 \$	- 5	\$ - \$	-	\$ 2,524.01	\$ 445.30	\$ 95.87	\$ -	\$ - \$	- 5	-	\$ 14,187.70	\$ -	\$ -	\$ 38,624.01
29 Fifth-Third Financial Center	\$ 5,633.05 \$	8,770.91	\$ 474.82 \$	768.45	\$ 2,563.60	\$ 452.28	\$ 98.72	\$ -	\$ 221.52 \$	806.50	50.41	\$ 14,410.26	\$ -	\$ -	\$ 34,250.52
32 Renaissance Hotel	\$ 14,602.49 \$	18,520.78	\$ 1,002.64 \$	1,622.67	\$ 6,794.04	\$ 1,319.98	\$ 229.75	\$ -	\$ 467.78 \$	1,499.26	-	\$ 37,545.11	\$ 1,981.30	\$ 15.04	\$ 85,600.84
33 5th & Broadway	\$ 6,480.98 \$	10,091.17	\$ 546.29 \$	884.12	\$ 1,994.80	\$ 351.93	\$ 113.58	\$ -	\$ 254.87 \$	- 5	-	\$ 11,212.94	\$ -	\$ -	\$ 31,930.68
34 Renaissance Office Tower	\$ 1,377.21 \$	2,144.37	\$ 116.09 \$	187.88	\$ 1,217.07	\$ 214.72	\$ 24.14	\$ -	\$ 54.16 \$	233.00	-	\$ 6,841.26	\$ -	\$ -	\$ 12,409.90
35 St. Mary's Catholic Church	\$ 1,022.75 \$	- 5	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ - \$	34.08	-	\$ -	\$ -	\$ -	\$ 1,056.83
36 Nashville City Center	\$ 4,590.69 \$	7,147.91	\$ 386.96 \$	626.25	\$ 2,904.23	\$ 512.38	\$ 80.45	\$ -	\$ 180.53 \$	772.42	-	\$ 16,324.98	\$ -	\$ -	\$ 33,526.80
38 Wildhorse Saloon	\$ 1,708.96 \$	2,341.29	\$ 126.75 \$	205.13	\$ 507.11	\$ 90.18	\$ 27.97	\$ -	\$ 59.13 \$	187.42	229.11	\$ 2,846.73	\$ 11.70	\$ 0.09	\$ 8,341.57
39 Ryman Auditorium	\$ 1,763.09 \$	2,455.54	\$ 132.94 \$	215.14	\$ 1,550.41	\$ 336.30	\$ 29.10	\$ -	\$ 62.02 \$	181.74	-	\$ 8,381.39	\$ 1,024.87	\$ 7.78	\$ 16,140.32
40 Bridgestone Arena	\$ 18,987.29 \$	26,513.77	\$ 1,435.34 \$	2,322.96	\$ 12,817.44	\$ 2,955.82	\$ 313.83	\$ -	\$ 669.65 \$	- 5	-	\$ 68,357.48	\$ 11,339.02	\$ 86.10	\$ 145,798.70
41 Nissan Stadium	\$ 8,101.22 \$	12,613.96	\$ 682.87 \$	1,105.15	\$ 5,381.25	\$ 949.38	\$ 141.98	\$ -	\$ 318.59 \$	- 5	-	\$ 30,248.53	\$ -	\$ -	\$ 59,542.93
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97 \$	315.54	\$ 404.28	\$ 94.39	\$ 43.57	\$ -	\$ 90.97 \$	- 5	372.87	\$ 2,150.00	\$ 376.50	\$ 2.86	\$ 10,345.46
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	- 5	\$ - \$	-	\$ 1,372.52	\$ 398.66	\$ 68.57	\$ -	\$ - \$	- 5	-	\$ 6,883.28	\$ 2,555.43	\$ 19.40	\$ 26,874.58
45 Nashville Public Library	\$ 7,061.88 \$	- 5	\$ - \$	-	\$ 3,153.70	\$ 609.49	\$ 108.60	\$ -	\$ - \$	- 5	219.98	\$ 17,445.09	\$ 866.98	\$ 6.58	\$ 29,472.30
49 Viridian Residential Tower	\$ 12,683.26 \$	- 5	\$ - \$	-	\$ 1,263.78	\$ 222.96	\$ 48.46	\$ -	\$ - \$	- 5	716.60	\$ 7,103.83	\$ -	\$ -	\$ 22,038.89
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ - \$	4,318.86	\$ 12,333.81	\$ 3,002.40	\$ 791.03	\$ -	\$ - \$	- 5	-	\$ 64,937.97	\$ 13,492.66	\$ 102.45	\$ 186,020.60
51 Hyatt Place Hotel	\$ 11,289.02 \$	- 5	\$ - \$	-	\$ 663.81	\$ 162.72	\$ 55.51	\$ -	\$ - \$	- 5	321.06	\$ 3,488.99	\$ 744.67	\$ 5.65	\$ 16,731.43
52 Hyatt Centric	\$ - \$	- 5	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ - \$	- 5	-	\$ -	\$ -	\$ -	\$ -
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ - \$	=	\$ 25,499.99	\$ 5,468.05	\$ -	\$ -	\$ 2,466.92 \$	- 5	1,870.10	\$ 138,187.38	\$ 15,824.53	\$ 120.16	\$ 435,478.26
Grand Totals	\$ 401,760.41 \$	281,313.50	\$ 8,791.33 \$	18,546.67	\$ 101,045.83	\$ 21,125.18	\$ 3,108.26	\$ -	\$ 6,568.44 \$	6,803.74	5,322.10	\$ 550,461.53	\$ 53,849.93	\$ 408.88	\$ 1,459,105.80
Rate Calculation Totals	\$ 483,618.25 \$	386,444.41	\$ 14,482.66 \$	23,438.75	\$ 101,073.41	\$ 21,130.08	\$ 3,108.33	\$ -	\$ 6,756.78 \$	6,803.74	5,322.10	\$ 550,616.68	\$ 53,849.90	\$ 408.88	\$ 1,657,053.97
Deviation:	\$ (81,857.84) \$	(105,130.91)	\$ (5,691.33) \$	(4,892.08)	\$ (27.58)	\$ (4.90)	\$ (0.07)	\$ -	\$ (188.34) \$	- 5	-	\$ (155.15)	\$ 0.03	\$ -	\$ (197,948.17)

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

Oustomer Number Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	nsurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2 A. A. Birch	\$ 10,628.38 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 4,817.50	\$ 836.84	\$ 169.15	\$ - \$	363.30	\$ - :	304.51	\$ 18,757.35	\$ 63.18	\$ 0.21	\$ 51,687.48
4 Metro Courthouse	\$ 5,031.47 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 3,034.07	\$ 668.46	\$ 79.50	\$ - \$	169.53	\$ - :	64.36	\$ 12,861.34	\$ 2,402.40	\$ 8.13	\$ 31,667.37
7 Parkway Tower	\$ 4,587.04 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 2,148.42	\$ 371.51	\$ 74.81	\$ - \$	164.45	\$ 726.92	7.60	\$ 9,440.46	\$ -	\$ - 5	\$ 24,649.43
9 Bobby Hotel	\$ 1,690.75 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 1,326.69	\$ 273.80	\$ 27.33	\$ - \$	59.61	\$ 261.08	-	\$ 4,764.94	\$ 741.44	\$ 2.51	\$ 11,731.93
10 Fairlane Hotel	\$ 1,753.65 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 857.15	\$ 151.50	\$ 28.26	\$ - \$	61.43	\$ 318.08	102.08	\$ 3,797.17	\$ 54.90	\$ 0.19	\$ 9,786.93
11 Sheraton Hotel	\$ 9,678.76 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 4,476.35	\$ 888.18	\$ 153.93	\$ - \$	330.36	\$ 1,260.83	-	\$ 14,314.55	\$ 1,906.50	\$ 6.45	\$ 47,334.81
12 Municipal Auditorium	\$ 4,857.08 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 1,753.42	\$ 303.34	\$ 79.54	\$ - \$	175.53	\$ - :	273.44	\$ 8,910.42	\$ 2.29	\$ 0.01	\$ 23,963.36
21 Hermitage Hotel	\$ 4,675.02 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 1,952.79	\$ 337.87	\$ 73.25	\$ - \$	154.91	\$ 283.83	350.78	\$ 7,246.22	\$ 3.19	\$ 0.01	\$ 21,792.30
24 Criminal Justice Center	\$ 7,905.06 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 2,131.03	\$ 458.54	\$ 122.16	\$ - \$	254.72	\$ - !	331.24	\$ 7,761.35	\$ 1,504.12	\$ 5.09	\$ 31,513.52
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 744.78	\$ 128.79	\$ 29.20	\$ - \$	62.45	\$ 238.58	6.04	\$ 4,740.70	\$ -	\$ - 5	\$ 10,500.40
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 3,116.28	\$ 538.88	\$ 95.87	\$ - \$	-	\$ - :	-	\$ 15,034.97	\$ -	\$ - 5	\$ 40,157.13
29 Fifth-Third Financial Center	\$ 5,633.05 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 3,055.73	\$ 528.41	\$ 98.72	\$ - \$	231.04	\$ 806.50	252.07	\$ 22,164.42	\$ -	\$ - 5	\$ 42,784.12
32 Renaissance Hotel	\$ 14,602.49 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 9,215.34	\$ 1,863.47	\$ 229.75	\$ - \$	487.87	\$ 1,499.26	-	\$ 26,834.20	\$ 4,509.45	\$ 15.26	\$ 80,403.18
33 5th & Broadway	\$ 6,480.98 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 2,842.97	\$ 491.62	\$ 113.58	\$ - \$	265.82	\$ - !	-	\$ 11,618.63	\$ -	\$ - 5	\$ 33,335.18
34 Renaissance Office Tower	\$ 1,377.21 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 1,767.72	\$ 305.68	\$ 24.14	\$ - \$	5 56.49	\$ 233.00	-	\$ 8,450.98	\$ -	\$ - 5	\$ 14,663.56
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	-	\$ 34.08	-	\$ -	\$ -	\$ - 5	\$ 1,056.83
36 Nashville City Center	\$ 4,590.69 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 3,480.39	\$ 601.84	\$ 80.45	\$ - \$	188.29	\$ 772.42	11.74	\$ 20,797.61	\$ -	\$ - 5	\$ 38,684.55
38 Wildhorse Saloon	\$ 1,708.96 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 720.29	\$ 124.55	\$ 27.97	\$ - \$	61.68	\$ 187.42	207.36	\$ 2,678.07	\$ -	\$ - 5	\$ 8,389.47
39 Ryman Auditorium	\$ 1,763.09 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 2,011.93	\$ 426.37	\$ 29.10	\$ - \$	64.68	\$ 181.74	-	\$ 6,401.93	\$ 1,310.84	\$ 4.44	\$ 14,997.74
40 Bridgestone Arena	\$ 18,987.29 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 8,380.45	\$ 1,736.66	\$ 313.83	\$ - \$	698.42	\$ - !	-	\$ 33,382.21	\$ 4,802.97	\$ 16.25	\$ 98,590.15
41 Nissan Stadium	\$ 8,101.22 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 6,901.52	\$ 1,193.43	\$ 141.98	\$ - \$	332.27	\$ - !	41.43	\$ 25,452.46	\$ -	\$ - 5	\$ 56,566.29
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 635.79	\$ 135.12	\$ 43.57	\$ - \$	94.87	\$ - !	364.59	\$ 3,627.82	\$ 420.58	\$ 1.42	\$ 12,133.78
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 1,896.47	\$ 510.47	\$ 68.57	\$ - \$	-	\$ - :	-	\$ 9,390.12	\$ 3,049.43	\$ 10.32	\$ 30,502.10
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 4,666.18	\$ 949.74	\$ 108.60	\$ - \$	-	\$ - :	266.94	\$ 14,772.33	\$ 2,386.53	\$ 8.08	\$ 30,220.28
49 Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 1,436.76	\$ 248.45	\$ 48.46	\$ - \$	-	\$ - :	1,001.98	\$ 5,794.20	\$ -	\$ - 5	\$ 21,213.11
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.86	\$ 16,189.41	\$ 3,816.70	\$ 791.03	\$ - \$	-	\$ - !	-	\$ 60,164.54	\$ 16,993.66	\$ 57.50	\$ 189,373.12
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 805.61	\$ 201.65	\$ 55.51	\$ - \$	-	\$ - :	337.00	\$ 2,913.10	\$ 1,041.57	\$ 3.52	\$ 16,646.98
52 Hyatt Centric	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	-	\$ - :	-	\$ -	\$ - :	\$ - :	\$ -
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 30,023.10	\$ 6,342.66	\$ -	\$ - 5	2,572.91	\$ - :	2,994.81	\$ 137,081.62	\$ 19,228.89	\$ 65.05	\$ 444,350.17
Grand Totals	\$ 401,760.41 \$	281,313.50	\$ 8,791.33	\$ 18,546.67	\$ 120,388.14	\$ 24,434.53	\$ 3,108.26	\$ - \$	6,850.63	\$ 6,803.74	6,917.97	\$ 499,153.71	\$ 60,421.94	\$ 204.44	\$ 1,438,695.27
Rate Calculation Totals	\$ 483,618.25 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 120,425.18	\$ 24,440.94	\$ 3,108.33	\$ - 9	7,047.03	\$ 6,803.74	6,917.97	\$ 499,156.36	\$ 60,421.97	\$ 204.44	\$ 1,636,510.03
Deviation	\$ (81,857.84) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.08)	\$ (37.04)	\$ (6.41)	\$ (0.07)	\$ - \$	(196.40)	\$ - :	-	\$ (2.65)	\$ (0.03)	\$ - 5	\$ (197,814.76)

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

Customer Number	Customer Name	Capacity	Operating	EDS Improveme nt	Metro		Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS		Electricity	Natural Gas		Propane	Total
2	A. A. Birch	\$ 10,628.38 \$	13,792.04	\$ 746.6	5 \$ :	1,208.37 \$	3,734.99 \$	715.97	\$ 169.15	\$ -	\$ 363.30 \$	=	\$ 478	.52 \$	16,601.63	\$ 1,585.1	.6 \$	3.58 \$	50,027.74
4	Metro Courthouse	\$ 5,031.47 \$	6,435.84	\$ 348.4	1 \$	563.86 \$	2,512.09 \$	687.65	\$ 79.50	\$ -	\$ 169.53 \$	-	\$ 183	.41 \$	10,255.27	\$ 3,392.2	7 \$	7.66 \$	29,666.96
7	Parkway Tower	\$ 4,587.04 \$	6,243.25	\$ 337.9	3 \$	546.99 \$	1,979.78 \$	426.81	\$ 74.81	\$ -	\$ 164.45 \$	726.92	\$ 182	.29 \$	7,902.60	\$ 1,374.0	19 \$	3.10 \$	24,550.11
9	Bobby Hotel	\$ 1,690.75 \$	2,263.00	\$ 122.5	1 \$	198.27 \$	981.17 \$	188.37	\$ 27.33	\$ -	\$ 59.61 \$	261.08	\$	- \$	4,183.47	\$ 419.6	6 \$	0.95 \$	10,396.17
10	Fairlane Hotel	\$ 1,753.65 \$	2,331.96	\$ 126.2	5 \$	204.31 \$	689.90 \$	126.53	\$ 28.26	\$ -	\$ 61.43 \$	318.08	\$	- \$	2,958.08	\$ 228.1	19 \$	0.52 \$	8,827.16
11	Sheraton Hotel	\$ 9,678.76 \$	12,541.19	\$ 678.9	3 \$ 1	1,098.78 \$	3,885.52 \$	1,042.66	\$ 153.93	\$ -	\$ 330.36 \$	1,260.83	\$ 26	.24 \$	14,622.96	\$ 5,010.5	7 \$	11.32 \$	50,342.05
12	Municipal Auditorium	\$ 4,857.08 \$	6,663.71	\$ 360.7	5 \$	583.83 \$	1,126.99 \$	175.41	\$ 79.54	\$ -	\$ 175.53 \$	=	\$ 377	.02 \$	5,962.31	\$ 19.8	30 \$	0.04 \$	20,382.01
21	Hermitage Hotel	\$ 4,675.02 \$	5,880.82	\$ 318.3	7 \$	515.24 \$	1,685.88 \$	260.45	\$ 73.25	\$ -	\$ 154.91 \$	283.83	\$ 378	.40 \$	7,161.62	\$ 7.5	58 \$	0.02 \$	21,395.39
24	Criminal Justice Center	\$ 7,905.06 \$	9,669.56	\$ 523.4	7 \$	847.18 \$	1,750.33 \$	477.19	\$ 122.16	\$ -	\$ 254.72 \$	-	\$ 214	.09 \$	7,359.07	\$ 2,341.7	3 \$	5.29 \$	31,469.85
25	501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.3	4 \$	207.69 \$	530.46 \$	88.33	\$ 29.20	\$ -	\$ 62.45 \$	238.58	\$	- \$	3,040.54	\$ 74.3	36 \$	0.17 \$	8,613.95
28	4th & Church Building	\$ 21,371.13 \$	-	\$ -	-	- \$	2,168.66 \$	334.17		-	\$ - \$	-	\$	- \$	11,191.49	\$ -	\$	- \$	35,161.32
29	Fifth-Third Financial Center	\$ 5,633.05 \$	8,770.91	\$ 474.8	2 \$	768.45 \$	2,576.20 \$	396.97	\$ 98.72	\$ -	\$ 231.04 \$	806.50	\$ 288	.08 \$	15,826.20	\$ -	\$	- \$	35,870.94
32	Renaissance Hotel	\$ 14,602.49 \$	18,520.78	\$ 1,002.6	4 \$ 1	1,622.67 \$	7,175.17 \$	1,710.40	\$ 229.75	\$ -	\$ 487.87 \$	1,499.26	\$	- \$	27,043.72	\$ 6,825.7	7 \$	15.42 \$	80,735.94
33	5th & Broadway	\$ 6,480.98 \$	10,091.17	\$ 546.2	9 \$	884.12 \$	2,255.88 \$	347.61	\$ 113.58	\$ -	\$ 265.82 \$	-	\$	- \$	10,176.85	\$ -	\$	- \$	31,162.30
34	Renaissance Office Tower	\$ 1,377.21 \$	2,144.37	\$ 116.0	\$	187.88 \$	1,468.72 \$	226.32	\$ 24.14	\$ -	\$ 56.49 \$	233.00	\$	- \$	6,244.40	\$ -	\$	- \$	12,078.62
35	St. Mary's Catholic Church	\$ 1,022.75 \$		•	\$	- \$	- \$			\$ -	\$ - \$		\$	- \$	-	\$ -	\$	- \$	1,056.83
36	Nashville City Center	\$ 4,590.69 \$	7,147.91		5 \$	626.25 \$	2,500.51 \$	385.30		-	\$ 188.29 \$			.47 \$	14,084.21		\$	- \$	30,921.46
38	Wildhorse Saloon	\$ 1,708.96 \$	2,341.29	\$ 126.7	5 \$	205.13 \$	671.82 \$	105.40	\$ 27.97	\$ -	\$ 61.68 \$	187.42	\$ 211	.71 \$	2,806.56	\$ 21.1	17 \$	0.05 \$	8,475.91
39	Ryman Auditorium	\$ 1,763.09 \$	2,455.54	\$ 132.9	4 \$	215.14 \$	1,841.67 \$	484.14		-	\$ 64.68 \$		\$	- \$	6,688.62	\$ 2,261.3	7 \$	5.11 \$	16,123.14
40	Bridgestone Arena	\$ 18,987.29 \$	26,513.77	\$ 1,435.3	4 \$ 2	2,322.96 \$	4,659.52 \$	1,028.63	\$ 313.83	\$ -	\$ 698.42 \$	-	\$	- \$	20,628.92	\$ 3,506.0	5 \$	7.92 \$	80,102.65
41	Nissan Stadium	\$ 8,101.22 \$	12,613.96			1,105.15 \$	5,348.12 \$	824.09		-	\$ 332.27 \$			.15 \$			\$	- \$	52,834.44
43	Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.9	7 \$	315.54 \$	528.33 \$	124.18		-	\$ 94.87 \$	-	\$ 383	.23 \$				1.09 \$	11,366.86
	Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$	- \$	1,733.20 \$	572.99		-	\$ - \$	-	Ÿ	- \$	.,			7.80 \$	29,747.78
	Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$	- \$	5,061.08 \$	1,374.64		-	\$ - \$	-		.71 \$	,	, .	7 \$	15.16 \$	37,969.41
49	Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$	- \$	970.18 \$	149.49	\$ 48.46	\$ -	\$ - \$	-	\$ 1,236	.62 \$	4,239.29	\$ -	\$	- \$	19,327.30
50	Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4	1,318.86 \$	12,926.35 \$	3,956.58	\$ 791.03	\$ -	\$ - \$	-	т	- \$	56,221.98	\$ 22,175.0	7 \$	50.08 \$	187,481.37
51	Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$	- \$	974.90 \$	329.17	\$ 55.51	\$ -	\$ - \$	-	\$ 277	.79 \$	3,015.40	\$ 2,019.7	2 \$	4.56 \$	17,966.07
52	Hyatt Centric	\$ - \$		\$ -	\$	- \$		-		\$ -	\$ - \$			- \$			\$	- \$	-
S1	State Government of TN	\$ 136,594.48 \$	109,446.65		\$	- \$	24,558.38 \$	6,317.82		\$ -	\$ 2,572.91 \$		\$ 3,845			,		64.58 \$	419,632.74
	Grand Totals	\$ 401,760.41 \$	281,313.50	\$ 8,791.3		3,546.67 \$	96,295.80 \$	22,857.27		-	\$ 6,850.63 \$			.62 \$	418,057.88			204.42 \$	1,363,686.47
	Rate Calculation Totals	\$ 483,618.25 \$	386,444.41	\$ 14,482.6		3,438.75 \$	96,329.22 \$	22,864.09		\$ -	\$ 7,047.03 \$	.,	\$ 8,590	.62	418,129.45			204.44 \$	1,561,586.46
Щ.	Deviation	\$ (81,857.84) \$	(105,130.91)	\$ (5,691.3	3) \$ (4	1,892.08) \$	(33.42) \$	(6.82)	\$ (0.07)	\$ -	\$ (196.40) \$	=	\$	- \$	(71.57)	\$ (19.5	53) \$	(0.02) \$	(197,899.99)

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

Oustomer 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	\$ 10,628.38 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 3,451.77	\$ 1,111.90	\$ 169.15	\$	- \$	269.53 \$	- \$	659.78	\$ 11,315.82	\$ 6,183.87	\$ 50.72	\$ 49,587.98
4 Metro Courthouse	\$ 5,031.47 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 2,160.41	\$ 673.03	\$ 79.50	\$	- \$	125.77 \$	- \$	51.48	\$ 6,956.48	\$ 3,374.80	\$ 27.68	25,828.73
7 Parkway Tower	\$ 4,587.04 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 1,618.20	\$ 423.67	\$ 74.81	\$	- \$	122.01 \$	726.92 \$	398.77	\$ 6,012.32	\$ 785.68	\$ 6.44	21,884.08
9 Bobby Hotel	\$ 1,690.75 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 548.69	\$ 137.49	\$ 27.33	\$	- \$	44.23 \$	261.08 \$	53.79	\$ 2,395.63	\$ 132.82	\$ 1.09	7,876.68
10 Fairlane Hotel	\$ 1,753.65 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 526.84	\$ 148.79	\$ 28.26	\$	- \$	45.57 \$	318.08 \$	107.39	\$ 1,960.13	\$ 490.90	\$ 4.03	8,046.16
11 Sheraton Hotel	\$ 9,678.76 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 3,538.62	\$ 1,161.57	\$ 153.93	\$	- \$	245.09 \$	1,260.83 \$	124.64	\$ 10,885.74	\$ 6,808.98	\$ 55.84	\$ 48,232.90
12 Municipal Auditorium	\$ 4,857.08 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 1,110.68	\$ 359.41	\$ 79.54	\$	- \$	130.23 \$	- \$	401.87	\$ 3,614.71	\$ 2,025.16	\$ 16.61	20,203.58
21 Hermitage Hotel	\$ 4,675.02 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 1,086.72	\$ 261.88	\$ 73.25	\$	- \$	114.93 \$	283.83 \$	428.11	\$ 3,958.69	\$ 37.52	\$ 0.31	3 17,634.69
24 Criminal Justice Center	\$ 7,905.06 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 1,289.47	\$ 453.73	\$ 122.16	\$	- \$	188.97 \$	- \$	28.28	\$ 4,649.53	\$ 3,140.76	\$ 25.76	28,843.93
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 417.85	\$ 119.14	\$ 29.20	\$	- \$	46.33 \$	238.58 \$	-	\$ 2,427.78	\$ 413.84	\$ 3.39	\$ 8,245.97
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 969.70	\$ 258.05	\$ 95.87	\$	- \$	- \$	- \$	-	\$ 5,274.18	\$ 561.20	\$ 4.60	28,534.73
29 Fifth-Third Financial Center	\$ 5,633.05 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 1,825.90	\$ 437.11	\$ 98.72	\$	- \$	171.41 \$	806.50 \$	597.76	\$ 9,754.20	\$ -	\$ - 5	29,338.83
32 Renaissance Hotel	\$ 14,602.49 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 5,241.81	\$ 1,574.02	\$ 229.75	\$	- \$	361.95 \$	1,499.26 \$	17.95	\$ 18,386.65	\$ 6,911.23	\$ 56.68	5 70,027.88
33 5th & Broadway	\$ 6,480.98 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 1,232.21	\$ 294.98	\$ 113.58	\$	- \$	197.21 \$	- \$	-	\$ 5,273.27	\$ -	\$ - 5	\$ 25,113.81
34 Renaissance Office Tower	\$ 1,377.21 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 1,241.65	\$ 297.24	\$ 24.14	\$	- \$	41.91 \$	233.00 \$	21.13	\$ 4,657.41	\$ -	\$ - 5	5 10,342.03
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$	- \$	34.08 \$	-	\$ -	\$ -	\$ - 5	1,056.83
36 Nashville City Center	\$ 4,590.69 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 1,561.37	\$ 373.78	\$ 80.45	\$	- \$	139.69 \$	772.42 \$	-	\$ 8,464.03	\$ -	\$ - 5	24,143.55
38 Wildhorse Saloon	\$ 1,708.96 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 643.28	\$ 160.54	\$ 27.97	\$	- \$	45.75 \$	187.42 \$	198.66	\$ 2,456.25	\$ 141.77	\$ 1.16	\$ 8,244.93
39 Ryman Auditorium	\$ 1,763.09 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 1,767.29	\$ 540.88	\$ 29.10	\$	- \$	47.99 \$	181.74 \$	-	\$ 5,324.62	\$ 2,551.06	\$ 20.92	5 15,030.31
40 Bridgestone Arena	\$ 18,987.29 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 2,599.83	\$ 719.54	\$ 313.83	\$	- \$	518.16 \$	- \$	500.62	\$ 10,373.39	\$ 2,103.96	\$ 17.26	66,405.95
41 Nissan Stadium	\$ 8,101.22 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 2,897.85	\$ 693.72	\$ 141.98	\$	- \$	246.52 \$	- \$	113.93	\$ 14,896.87	\$ -	\$ - 5	\$ 41,494.07
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 303.52	\$ 87.87	\$ 43.57	\$	- \$	70.38 \$	- \$	455.73	\$ 1,537.70	\$ 329.42	\$ 2.70	9,640.91
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 1,388.18	\$ 478.26	\$ 68.57	\$	- \$	- \$	- \$	-	\$ 5,036.68	\$ 3,160.15	\$ 25.92	25,734.48
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 5,180.54	\$ 1,536.51	\$ 108.60	\$	- \$	- \$	- \$	313.90	\$ 14,681.95	\$ 6,416.75	\$ 52.63	35,352.76
49 Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 418.38	\$ 100.16	\$ 48.46	\$	- \$	- \$	- \$	1,528.33	\$ 1,877.74	\$ -	\$ - 5	16,656.33
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.86	\$ 11,071.50	\$ 3,674.80	\$ 791.03	\$	- \$	- \$	- \$	356.87	\$ 34,798.36	\$ 22,181.58	\$ 181.92	\$ 164,416.34
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 693.33	\$ 243.58	\$ 55.51	\$	- \$	- \$	- \$	334.26	\$ 2,128.00	\$ 1,680.46	\$ 13.78	\$ 16,437.94
52 Hyatt Centric	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$	- \$	- \$	-	\$ -	\$ -	\$ - 5	\$ -
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 19,072.85	\$ 5,958.75	\$ -	\$	- \$	1,908.82 \$	- \$	4,835.30	\$ 70,355.59	\$ 30,161.16	\$ 247.37	378,580.97
Grand Totals	\$ 401,760.41 \$	281,313.50	\$ 8,791.33	\$ 18,546.67	\$ 73,858.44	\$ 22,280.40	\$ 3,108.26	\$	- \$	5,082.45 \$	6,803.74 \$	11,528.55	\$ 269,453.72	\$ 99,593.07	\$ 816.81	1,202,937.35
Rate Calculation Totals	\$ 483,618.25 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 73,892.22	\$ 22,294.01	\$ 3,108.33	\$	- \$	5,228.27 \$	6,803.74 \$	11,528.55	\$ 269,507.48	\$ 99,712.69	\$ 817.77	1,400,877.13
Deviation	\$ (81,857.84) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.08)	\$ (33.78)	\$ (13.61)	\$ (0.07)	\$	- \$	(145.82) \$	- \$	=	\$ (53.76)	\$ (119.62)	\$ (0.96)	\$ (197,939.78)

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

Number Number Customer Name	Capacity	Operating	EDS Improvement	Metro	Water And Sewer		Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	ПFS	Flootnicity	Electricity	Natural Gas	Propane		Total
2 A. A. Birch	\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.	7 \$ 2,12	6.42 \$	1,216.52	\$ 169.15	\$ -	\$ 343.69	\$ -	\$ 986.04	\$ 8	8,154.43	\$ 8,893.03	\$ 74.6	9 \$	48,339.38
4 Metro Courthouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.	6 \$ 1,43	1.59 \$	757.49	\$ 79.50	\$ -	\$ 160.38	\$ -	\$ 109.40	\$ !	5,752.04	\$ 4,433.39	\$ 37.2	3 \$	25,140.58
7 Parkway Tower	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.	9 \$ 1,79	2.01 \$	926.20	\$ 74.81	\$ -	\$ 155.57	\$ 726.92	\$ 30.38	\$ 6	6,745.82	\$ 4,994.00	\$ 41.9	4 \$	27,202.89
9 Bobby Hotel	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.	7 \$ 20	2.83 \$	89.26	\$ 27.33	\$ -	\$ 56.40	\$ 261.08	\$ 139.07	\$ :	1,503.97	\$ 171.76	\$ 1.4	4 \$	6,727.66
10 Fairlane Hotel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.	1 \$ 35	5.05 \$	197.92	\$ 28.26	\$ -	\$ 58.11	\$ 318.08	\$ 98.11	\$ :	1,218.91	\$ 1,353.50	\$ 11.3	7 \$	8,055.46
11 Sheraton Hotel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.	8 \$ 2,23	4.47 \$	1,271.59	\$ 153.93	\$ -	\$ 312.53	\$ 1,260.83	\$ 196.79	\$ 8	8,547.21	\$ 9,174.42	\$ 77.0	5 \$	47,226.46
12 Municipal Auditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.	3 \$ 77	3.79 \$	536.32	\$ 79.54	\$ -	\$ 166.05	\$ -	\$ 522.02	\$ 2	2,276.01	\$ 5,601.02	\$ 47.0	4 \$	22,467.14
21 Hermitage Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.	4 \$ 91	7.39 \$	436.06	\$ 73.25	\$ -	\$ 146.55	\$ 283.83	\$ 419.83	\$ 3	3,947.17	\$ 1,594.37	\$ 13.3	9 \$	19,221.27
24 Criminal Justice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.	8 \$ 95	3.80 \$	622.02	\$ 122.16	\$ -	\$ 240.96	\$ -	\$ -	\$ 3	3,007.60	\$ 5,917.62	\$ 49.7	0 \$	29,859.10
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.	9 \$ 16	4.01 \$	83.28	\$ 29.20	\$ -	\$ 59.07	\$ 238.58	\$ -	\$	733.43	\$ 419.35	\$ 3.5	2 \$	6,280.30
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 1,02	0.91 \$	582.49	\$ 95.87	\$ -	\$ - :	\$ -	\$ -	\$ 6	6,188.20	\$ 4,230.00	\$ 35.5	2 \$	33,524.12
29 Fifth-Third Financial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.	5 \$ 1,22	6.96 \$	498.77	\$ 98.72	\$ -	\$ 218.57	\$ 806.50	\$ 604.97	\$ 9	9,995.43	\$ -	\$ -	\$	29,097.13
32 Renaissance Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.	7 \$ 3,44	3.50 \$	1,902.88	\$ 229.75	\$ -	\$ 461.53	\$ 1,499.26	\$ 233.39	\$ 12	2,746.33	\$ 12,705.42	\$ 106.7	0 \$	69,077.28
33 5th & Broadway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.	2 \$ 65	5.36 \$	266.41	\$ 113.58	\$ -	\$ 251.47	\$ -	\$ -	\$ 4	4,114.46	\$ -	\$ -	\$	23,403.81
34 Renaissance Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.	8 \$ 80	3.16 \$	326.49	\$ 24.14	\$ -	\$ 53.44	\$ 233.00	\$ 31.69	\$ 3	3,414.56	\$ -	\$ -	\$	8,712.02
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$	- \$	-	\$ -	\$ -	\$ - :	\$ 34.08	\$ -	\$	- :	\$ -	\$ -	\$	1,056.83
36 Nashville City Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.	5 \$ 88	6.75 \$	360.48	\$ 80.45	\$ -	\$ 178.12	\$ 772.42	\$ -	\$ 6	6,756.56	\$ -	\$ -	\$	21,786.58
38 Wildhorse Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.	3 \$ 45	2.08 \$	208.99	\$ 27.97	\$ -	\$ 58.35	\$ 187.42	\$ 147.91	\$ :	1,961.52	\$ 636.84	\$ 5.3	5 \$	8,068.55
39 Ryman Auditorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.	4 \$ 1,22	4.05 \$	642.05	\$ 29.10	\$ -	\$ 61.19	\$ 181.74	\$ 31.76	\$ 4	4,449.61	\$ 3,648.67	\$ 30.6	4 \$	14,865.51
40 Bridgestone Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.	6 \$ 1,94	8.89 \$	839.65	\$ 313.83	\$ -	\$ 660.72	\$ -	\$ 932.18	\$ 7	7,892.79	\$ 1,197.27	\$ 10.0	5 \$	63,054.68
41 Nissan Stadium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.	5 \$ 1,18	1.28 \$	480.21	\$ 141.98	\$ -	\$ 314.33	\$ -	\$ 82.86	\$ 9	9,519.01	\$ -	\$ -	\$	34,222.84
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.	4 \$ 20	4.35 \$	121.59	\$ 43.57	\$ -	\$ 89.75	\$ -	\$ 488.88	\$ :	1,056.98	\$ 972.77	\$ 8.1	7 \$	9,796.08
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 70	0.62 \$	395.48	\$ 68.57	\$ -	\$ - :	\$ -	\$ -	\$ 4	4,274.71	\$ 2,795.08	\$ 23.4	7 \$	23,834.65
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 3,80	5.35 \$	1,878.36	\$ 108.60	\$ -	\$ - :	\$ -	\$ 361.35	\$ 13	3,987.94	\$ 8,371.37	\$ 70.3	0 \$	35,645.15
49 Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 23	3.85 \$	95.06	\$ 48.46	\$ -	\$ - :	\$ -	\$ 1,471.26	\$ :	1,469.71	\$ -	\$ -	\$	16,001.60
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.	6 \$ 8,81	8.90 \$	4,932.61	\$ 791.03	\$ -	\$ - :	\$ -	\$ 699.74	\$ 37	7,444.42	\$ 34,036.61	\$ 285.8	5 \$	178,369.44
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 39	1.56 \$	253.15	\$ 55.51	\$ -	\$ - :	\$ -	\$ 418.97	\$ :	1,219.22	\$ 2,373.66	\$ 19.9	3 \$	16,021.02
52 Hyatt Centric	\$ - \$	-	\$ -	\$ -	\$	- \$	-	\$ -	\$ -	\$ - :	\$ -	\$ -	\$	-	\$ -	\$ -	\$	-
S! State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 14,38	9.19 \$	8,088.58	\$ -	\$ -	\$ 2,434.00	\$ -	\$ 6,275.61	\$ 5	7,784.56	\$ 56,554.69	\$ 474.9	6 \$	392,042.72
Grand Totals	\$ 401,759.98 \$	281,313.50	\$ 8,791.33	\$ 18,546.	7 \$ 52,33	8.12 \$	28,009.91	\$ 3,108.26	\$ -	\$ 6,480.78	\$ 6,803.74	\$ 14,282.21	\$ 226	6,162.60	\$ 170,074.84	\$ 1,428.3	1 \$	1,219,100.25
Rate Calculation Totals	\$ 483,617.56 \$	386,444.41	\$ 14,482.66	\$ 23,438.	5 \$ 52,36	6.78 \$	28,034.64	\$ 3,108.33	\$ -	\$ 6,666.53	\$ 6,803.74	\$ 14,282.21	\$ 226	6,200.04	\$ 170,403.53	\$ 1,431.0	9 \$	1,417,280.27
Deviation	\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.	8) \$ (2	8.66) \$	(24.73)	\$ (0.07)	\$ -	\$ (185.75)	\$ -	\$ -	\$	(37.44)	\$ (328.69)	\$ (2.7	8) \$	(198,180.02)

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

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	\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 1,692.73	\$ 638.31	\$ 169.15	\$ -	\$ 330.90 \$	-	\$ 1,508.06	\$ 4,9	55.93 \$	8,687.38	\$ 36.63	3 \$	44,394.50
4 Metro Courthouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 1,420.53	\$ 487.95	\$ 79.50	\$ -	\$ 154.41 \$	-	\$ 270.29	\$ 4,7	56.12 \$	4,993.82	\$ 21.06	5 \$	24,563.24
7 Parkway Tower	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 2,342.71	\$ 783.56	\$ 74.81	\$ -	\$ 149.79 \$	726.92	\$ 98.74	\$ 8,6	68.51 \$	7,217.25	\$ 30.44	1 \$	31,807.97
9 Bobby Hotel	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 161.47	\$ 47.42	\$ 27.33	\$ -	\$ 54.29 \$	261.08	\$ 167.93	\$ 8	32.02 \$	180.18	\$ 0.76	5 \$	6,007.00
10 Fairlane Hotel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 314.55	\$ 127.43	\$ 28.26	\$ -	\$ 55.95 \$	318.08	\$ 132.58	\$ 6	54.64 \$	2,038.59	\$ 8.60	\$	8,094.83
11 Sheraton Hotel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 2,782.24	\$ 1,012.76	\$ 153.93	\$ -	\$ 300.89 \$	1,260.83	\$ 144.32	\$ 8,2	15.38 \$	12,527.17	\$ 52.83	3 \$	50,447.99
12 Municipal Auditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 1,218.27	\$ 548.25	\$ 79.54	\$ -	\$ 159.88 \$	-	\$ 281.73	\$ 2,7	83.89 \$	10,529.67	\$ 44.40	\$	28,110.98
21 Hermitage Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 840.87	\$ 268.74	\$ 73.25	\$ -	\$ 141.09 \$	283.83	\$ 403.25	\$ 2,8	44.90 \$	1,988.41	\$ 8.39	\$	18,242.16
24 Criminal Justice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 1,444.99	\$ 587.46	\$ 122.16	\$ -	\$ 231.99 \$	-	\$ -	\$ 3,4	21.79 \$	9,465.16	\$ 39.93	L \$	34,258.70
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 370.88	\$ 134.82	\$ 29.20	\$ -	\$ 56.88 \$	238.58	\$ -	\$ 1,4	21.12 \$	1,661.10	\$ 7.00	\$	8,469.44
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 1,324.45	\$ 505.18	\$ 95.87	\$ -	\$ - \$	-	\$ -	\$ 4,3	62.97 \$	7,074.32	\$ 29.83	\$	34,763.75
29 Fifth-Third Financial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 1,130.06	\$ 305.65	\$ 98.72	\$ -	\$ 210.44 \$	806.50	\$ 849.83	\$ 6,8	06.26 \$	i -	\$ -	\$	25,854.67
32 Renaissance Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 3,308.21	\$ 1,263.00	\$ 229.75	\$ -	\$ 444.35 \$	1,499.26	\$ 305.20	\$ 8,6	69.60 \$	17,725.22	\$ 74.75	5 \$	69,267.86
33 5th & Broadway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 965.92	\$ 261.25	\$ 113.58	\$ -	\$ 242.11 \$	-	\$ -	\$ 4,5	08.95 \$	-	\$ -	\$	24,094.34
34 Renaissance Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 828.59	\$ 224.11	\$ 24.14	\$ -	\$ 51.45 \$	233.00	\$ 63.39	\$ 3,6	30.33 \$	i -	\$ -	\$	8,880.55
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	34.08	\$ -	\$	- \$	i -	\$ -	\$	1,056.83
36 Nashville City Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 722.84	\$ 195.51	\$ 80.45	\$ -	\$ 171.50 \$	772.42	\$ 598.67	\$ 3,5	01.26 \$	i -	\$ -	\$	18,794.45
38 Wildhorse Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 472.78	\$ 159.24	\$ 27.97	\$ -	\$ 56.17 \$	187.42	\$ -	\$ 8	36.54 \$	1,509.84	\$ 6.37	7 \$	7,638.45
39 Ryman Auditorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 1,205.26	\$ 409.46	\$ 29.10	\$ -	\$ 58.91 \$	181.74	\$ 85.76	\$ 3,7	55.65 \$	4,018.14	\$ 16.94	1 \$	14,327.66
40 Bridgestone Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 2,542.57	\$ 767.73	\$ 313.83	\$ -	\$ 636.13 \$	-	\$ 897.66	\$ 12,8	32.26 \$	3,852.89	\$ 16.25	5 \$	71,118.62
41 Nissan Stadium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 470.37	\$ 127.22	\$ 141.98	\$ -	\$ 302.64 \$	-	\$ 82.86	\$ 1,4	57.04 \$	i -	\$ -	\$	25,085.28
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 469.16	\$ 178.92	\$ 43.57	\$ -	\$ 86.41 \$	-	\$ 472.31	\$ 1,4	80.56 \$	2,504.59	\$ 10.56	5 \$	12,056.10
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 783.30	\$ 282.40	\$ 68.57	\$ -	\$ - \$	-	\$ -	\$ 2,7	38.47 \$	3,395.88	\$ 14.32	2 \$	22,859.66
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 4,082.94	\$ 1,278.06	\$ 108.60	\$ -	\$ - \$	-	\$ 29.66	\$ 13,6	65.51 \$	8,363.80	\$ 35.27	7 \$	34,625.72
49 Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 30.77	\$ 8.32	\$ 48.46	\$ -	\$ - \$	-	\$ 1,775.66	\$ 1	75.78 \$	i -	\$ -	\$	14,722.25
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.86	\$ 9,697.39	\$ 3,557.09	\$ 791.03	\$ -	\$ - \$	-	\$ 2,798.97	\$ 28,2	68.73 \$	44,970.86	\$ 189.64	1 \$	181,633.99
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 375.48	\$ 161.79	\$ 55.51	\$ -	\$ - \$	-	\$ 491.83	\$ 7	57.88 \$	2,899.39	\$ 12.23	3 \$	16,043.13
52 Hyatt Centric	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	-	\$ -	\$	- \$	i -	\$ -	\$	-
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 19,377.80	\$ 7,034.35	\$ -	\$ -	\$ 2,343.41 \$	-	\$ 6,051.45	\$ 60,7	48.71 \$	86,319.65	\$ 364.00	\$	428,280.50
Grand Totals	\$ 401,759.98 \$	281,313.50	\$ 8,791.33	\$ 18,546.67	\$ 60,377.13	\$ 21,355.98	\$ 3,108.26	\$ -	\$ 6,239.59 \$	6,803.74	\$ 17,510.15	\$ 196,7	50.80 \$	241,923.31	\$ 1,020.18	3 \$	1,265,500.62
Rate Calculation Totals	\$ 483,617.56 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 60,420.15	\$ 21,377.62	\$ 3,108.33	\$ -	\$ 6,418.57 \$	6,803.74	\$ 17,510.15	\$ 196,7	94.20 \$	242,399.33	\$ 1,022.23	1 \$	1,463,837.68
Deviation	\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.08)	\$ (43.02)	\$ (21.64)	\$ (0.07)	\$ -	\$ (178.98) \$	<u> </u>	\$	\$	43.40) \$	(476.02)	\$ (2.03	3) \$	(198,337.06)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam January, 2021

Oustomer Number Customer Name	Capacity	Operating	EDS Improvement	Metro Incremental	Water And Sewer	Chemical Treatment	Engineering	nsurance		EDS Electricity	EDS Maint Costs Alloc	пгѕ	Electricity	Natural Gas	Propane		Total
2 A. A. Birch	\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 941.72	\$ 642.26	\$ 169.15	\$	-	\$ 310.60	\$ -	\$ 1,696.57	\$ 4,861.09	\$ 7,440.60	\$ 26.07	\$	42,463.47
4 Metro Courthouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 1,147.44	\$ 732.10	\$ 79.50	\$	-	\$ 144.94	\$ -	\$ 250.98	\$ 4,827.57	\$ 4,911.27	\$ 17.21	. \$	24,490.57
7 Parkway Tower	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 1,819.06	\$ 1,146.73	\$ 74.81	\$	-	\$ 140.60	\$ 726.92	\$ 121.53	\$ 7,406.13	\$ 6,643.88	\$ 23.28	\$	29,818.18
9 Bobby Hotel	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 130.45	\$ 81.85	\$ 27.33	\$	-	\$ 50.96	\$ 261.08	\$ 173.18	\$ 613.15	\$ 444.69	\$ 1.56	, \$	6,058.77
10 Fairlane Hotel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 235.99	\$ 161.09	\$ 28.26	\$	-	\$ 52.52	\$ 318.08	\$ 116.67	\$ 829.74	\$ 1,876.18	\$ 6.57	\$	8,041.25
11 Sheraton Hotel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 1,506.87	\$ 1,022.00	\$ 153.93	\$	-	\$ 282.43	\$ 1,260.83	\$ 708.46	\$ 3,418.56	\$ 11,437.62	\$ 40.08	\$	43,828.42
12 Municipal Auditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 927.95	\$ 668.99	\$ 79.54	\$	-	\$ 150.07	\$ -	\$ 265.15	\$ 2,467.91	\$ 10,306.03	\$ 36.11	. \$	27,367.10
21 Hermitage Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 538.87	\$ 332.34	\$ 73.25	\$	-	\$ 132.44	\$ 283.83	\$ 397.73	\$ 2,303.39	\$ 1,361.85	\$ 4.77	\$	16,817.90
24 Criminal Justice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 857.27	\$ 601.74	\$ 122.16	\$	-	\$ 217.76	\$ -	\$ -	\$ 2,594.21	\$ 8,179.28	\$ 28.66	, \$	31,546.32
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 299.66	\$ 194.90	\$ 29.20	\$	-	\$ 53.38	\$ 238.58	\$ -	\$ 1,585.01	\$ 1,588.79	\$ 5.57	\$	8,544.95
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 873.49	\$ 586.52	\$ 95.87	\$	-	\$ -	\$ -	\$ -	\$ 5,942.14	\$ 6,142.75	\$ 21.52	\$	35,033.42
29 Fifth-Third Financial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 715.22	\$ 419.14	\$ 98.72	\$	-	\$ 197.52	\$ 806.50	\$ 950.66	\$ 6,497.43	\$ -	\$ -	\$	25,332.40
32 Renaissance Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 2,372.03	\$ 1,586.97	\$ 229.75	\$	-	\$ 417.09	\$ 1,499.26	\$ 215.44	\$ 8,383.12	\$ 16,208.07	\$ 56.79	\$	66,717.04
33 5th & Broadway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 1,106.39	\$ 648.38	\$ 113.58	\$	-	\$ 227.26	\$ -	\$ -	\$ 5,821.15	\$ -	\$ -	\$	25,919.29
34 Renaissance Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 721.68	\$ 422.93	\$ 24.14	\$	-	\$ 48.29	\$ 233.00	\$ 66.91	\$ 4,025.77	\$ -	\$ -	\$	9,368.26
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ 34.08	\$ -	\$ -	\$ -	\$ -	\$	1,056.83
36 Nashville City Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 537.60	\$ 315.05	\$ 80.45	\$	-	\$ 160.97	\$ 772.42	\$ 586.93	\$ 4,115.85	\$ -	\$ -	\$	19,321.07
38 Wildhorse Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 342.18	\$ 219.06	\$ 27.97	\$	-	\$ 52.73	\$ 187.42	\$ -	\$ 666.14	\$ 1,525.56	\$ 5.35	, \$	7,408.53
39 Ryman Auditorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 1,075.68	\$ 682.94	\$ 29.10	\$	-	\$ 55.30	\$ 181.74	\$ 69.88	\$ 4,269.76	\$ 4,326.57	\$ 15.16	, \$	15,272.83
40 Bridgestone Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 2,625.76	\$ 1,598.89	\$ 313.83	\$	-	\$ 597.10	\$ -	\$ 759.56	\$ 15,655.00	\$ 4,947.94	\$ 17.34	\$	75,774.72
41 Nissan Stadium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 336.08	\$ 196.96	\$ 141.98	\$	-	\$ 284.07	\$ -	\$ -	\$ 2,101.40	\$ -	\$ -	\$	25,563.66
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 355.08	\$ 235.72	\$ 43.57	\$	-	\$ 81.10	\$ -	\$ 472.31	\$ 1,342.58	\$ 2,274.33	\$ 7.97	\$	11,622.68
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 613.31	\$ 396.87	\$ 68.57	\$	-	\$ -	\$ -	\$ -	\$ 2,494.43	\$ 3,083.27	\$ 10.80	, \$	22,243.97
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 3,344.28	\$ 2,056.49	\$ 108.60	\$	-	\$ -	\$ -	\$ 19.77	\$ 12,865.82	\$ 7,954.94	\$ 27.87	7 \$	33,439.65
49 Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 69.74	\$ 40.87	\$ 48.46	\$	-	\$ -	\$ -	\$ -	\$ 621.02	\$ -	\$ -	\$	13,463.35
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.86	\$ 7,572.19	\$ 4,966.49	\$ 791.03	\$	-	\$ -	\$ -	\$ 1,812.33	\$ 29,490.39	\$ 43,544.66	\$ 152.58	\$	179,689.95
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 264.05	\$ 186.03	\$ 55.51	\$	-	\$ -	\$ -	\$ 487.28	\$ 775.47	\$ 2,575.43	\$ 9.02	\$	15,641.81
52 Hyatt Centric	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 15,030.04	\$ 9,871.25	\$ -	\$	-	\$ 2,199.64	\$ -	\$ 5,147.31	\$ 60,423.94	\$ 87,525.07	\$ 306.69	\$	426,545.07
Grand Totals	\$ 401,759.98 \$	281,313.50	\$ 8,791.33	\$ 18,546.67	\$ 46,360.08	\$ 30,014.56	\$ 3,108.26	\$	-	\$ 5,856.77	\$ 6,803.74	\$ 14,318.65	\$ 196,398.17	\$ 234,298.78	\$ 820.97	7 \$	1,248,391.46
Rate Calculation Totals	\$ 483,617.56 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 46,391.24	\$ 30,038.92	\$ 3,108.33	\$	-	\$ 6,024.74	\$ 6,803.74	\$ 14,318.65	\$ 196,442.03	\$ 234,807.72	\$ 822.75	, \$	1,446,741.50
Deviation	\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.08)	\$ (31.16)	\$ (24.36)	\$ (0.07)	\$	-	\$ (167.97)	\$ -	\$ -	\$ (43.86	\$ (508.94)	\$ (1.78	3) \$	(198,350.04)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam February, 2021

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	\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 1,114.02 \$	452.96	\$ 169.15	\$ -	\$ 264.38	\$ -	\$ 1,493.56	\$ 7,378.1	\$ 9,642.2	2 \$	71.38	\$	46,961.25
4 Metro Courthouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 1,023.16	353.49	\$ 79.50	\$ -	\$ 123.37	\$ -	\$ 199.50	\$ 4,923.7	\$ 6,068.0	7 \$	44.92	\$	25,195.34
7 Parkway Tower	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 1,464.56	489.82	\$ 74.81	\$ -	\$ 119.68	\$ 726.92	\$ 281.04	\$ 3,505.8	5 \$ 7,964.9	2 \$	58.97	\$	26,401.82
9 Bobby Hotel	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 115.37 \$	38.42	\$ 27.33	\$ -	\$ 43.38	\$ 261.08	\$ 173.18	\$ 618.4	\$ 620.2	2 \$	4.59	\$	6,176.50
10 Fairlane Hotel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 222.39	107.72	\$ 28.26	\$ -	\$ 44.70	\$ 318.08	\$ 90.15	\$ 879.8	\$ 2,696.3	8 \$	19.96	\$	8,823.60
11 Sheraton Hotel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 547.35 \$	432.93	\$ 153.93	\$ -	\$ 240.41	\$ 1,260.83	\$ -	\$ 1,183.1	\$ 14,117.2	8 \$	104.52	\$	42,038.06
12 Municipal Auditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 636.18 \$	391.62	\$ 79.54	\$ -	\$ 127.74	\$ -	\$ 348.01	\$ 2,986.5	\$ \$ 11,433.9	8 \$	84.65	\$	28,553.60
21 Hermitage Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 375.11 \$	120.78	\$ 73.25	\$ -	\$ 112.73	\$ 283.83	\$ 414.30	\$ 1,716.7	\$ 1,831.6	4 \$	13.56	\$	16,331.37
24 Criminal Justice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 609.01	355.77	\$ 122.16	\$ -	\$ 185.36	\$ -	\$ 80.79	\$ 3,054.8	\$ 10,093.1	2 \$	74.72	\$	33,520.99
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 256.42 \$	98.99	\$ 29.20	\$ -	\$ 45.44	\$ 238.58	\$ -	\$ 1,673.3	3 \$ 1,984.4	9 \$	14.69	\$	8,891.05
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 748.15 \$	345.53	\$ 95.87	\$ -	\$ -	\$ -	\$ -	\$ 6,306.3	\$ 8,318.4	0 \$	61.58	\$	37,246.96
29 Fifth-Third Financial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 639.41	135.86	\$ 98.72	\$ -	\$ 168.13	\$ 806.50	\$ 921.85	\$ 6,918.0	) \$ -	\$	-	\$	25,335.68
32 Renaissance Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 2,188.87	962.89	\$ 229.75	\$ -	\$ 355.03	\$ 1,499.26	\$ 197.48	\$ 9,386.1	\$ 22,195.6	6 \$	164.32	\$	72,927.95
33 5th & Broadway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 1,121.70 \$	238.33	\$ 113.58	\$ -	\$ 193.44	\$ -	\$ -	\$ 4,684.0	'\$ -	\$	-	\$	24,353.65
34 Renaissance Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 773.24 \$	164.30	\$ 24.14	\$ -	\$ 41.11	\$ 233.00	\$ 84.52	\$ 1,953.8	L\$ -	\$	-	\$	7,099.66
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ - 5	-	\$ -	\$ -	\$ -	\$ 34.08	\$ -	\$ -	\$ -	\$	-	\$	1,056.83
36 Nashville City Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 446.02 \$	94.77	\$ 80.45	\$ -	\$ 137.02	\$ 772.42	\$ 551.71	\$ 4,383.3		\$	-	\$	19,217.53
38 Wildhorse Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 330.16 \$	107.84	\$ 27.97	\$ -	\$ 44.88	\$ 187.42	\$ -	\$ 791.9	\$ 1,680.5	4 \$	12.44	\$	7,565.31
39 Ryman Auditorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 845.37 \$	293.82	\$ 29.10	\$ -	\$ 47.07	\$ 181.74	\$ 82.58	\$ 3,536.0	\$ 5,091.5	3 \$	37.69	\$	14,711.61
40 Bridgestone Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 2,917.85	806.41	\$ 313.83	\$ -	\$ 508.25	\$ -	\$ 690.51	\$ 14,415.3	\$ 8,312.5	9 \$	61.54	\$	77,285.65
41 Nissan Stadium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 756.39 \$	160.71	\$ 141.98	\$ -	\$ 241.80	\$ -	\$ 82.86	\$ 2,185.0	'\$-	\$	-	\$	26,071.98
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 287.42 \$	125.67	\$ 43.57	\$ -	\$ 69.04	\$ -	\$ 468.16	\$ 1,282.6	\$ 2,880.3	1 \$	21.32	\$	11,988.16
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 522.65	222.50	\$ 68.57	\$ -	\$ -	\$ -	\$ -	\$ 2,035.0	\$ 4,969.2	7 \$	36.79	\$	23,431.51
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 2,786.47	798.17	\$ 108.60	\$ -	\$ -	\$ -	\$ -	\$ 11,733.3	\$ 9,190.0	2 \$	68.04	\$	31,746.51
49 Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 61.18 \$	13.00	\$ 48.46	\$ -	\$ -	\$ -	\$ -	\$ 456.0	) \$ -	\$	-	\$	13,261.99
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.86	\$ 6,327.82	2,711.31	\$ 791.03	\$ -	\$ -	\$ -	\$ 2,666.02	\$ 29,522.0	\$ \$ 60,941.5	5 \$	451.17	\$	194,771.26
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 262.89 \$	144.54	\$ 55.51	\$ -	\$ -	\$ -	\$ 469.06	\$ 914.7	\$ \$ 3,953.9	9 \$	29.27	\$	17,119.01
52 Hyatt Centric	\$ - \$	-	\$ -	\$ -	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 13,957.28 \$	5,416.56	\$ -	\$ -	\$ 1,872.35	\$ -	\$ 5,732.59	\$ 63,701.1	\$ 109,280.8	4 \$	809.03	\$	446,810.92
Grand Totals	\$ 401,759.98 \$	281,313.50	\$ 8,791.33	\$ 18,546.67	\$ 41,336.44	15,584.71	\$ 3,108.26	\$ -	\$ 4,985.31	\$ 6,803.74	\$ 15,027.87	\$ 192,125.7	\$ 303,267.0	2 \$	2,245.15	\$ 1,	,294,895.75
Rate Calculation Totals	\$ 483,617.56 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 41,356.19 \$	15,599.86	\$ 3,108.33	\$ -	\$ 5,128.22	\$ 6,803.74	\$ 15,027.87	\$ 192,164.8	\$ 303,762.1	5 \$	2,248.86	\$ 1	,493,183.49
Deviation	\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.08)	\$ (19.75) \$	(15.15)	\$ (0.07)	\$ -	\$ (142.91)	\$ -	\$ -	\$ (39.1	2) \$ (495.1	3) \$	(3.71)	\$	(198,287.74)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam March, 2021

Customer Number Customer Name	Capacity	Operating	EDS Improveme nt	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	\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 1,641.39	\$ 505.16	\$ 169.15	\$ -	\$ 256.48 \$	-	\$ 841.04	\$	10,420.00	\$ 9,286.52	\$	36.32	\$	49,531.47
4 Metro Courthouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 947.43	\$ 262.54	\$ 79.50	\$ -	\$ 119.68 \$	-	\$ 77.23	\$	5,300.96	\$ 3,848.65	\$	15.05	\$	23,030.60
7 Parkway Tower	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 1,187.89	\$ 327.85	\$ 74.81	\$ -	\$ 116.10 \$	726.92	\$ 189.89	\$	7,286.50	\$ 4,756.42	\$	18.60	\$	26,400.22
9 Bobby Hotel	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 281.75	\$ 65.55	\$ 27.33	\$ -	\$ 42.08 \$	261.08	\$ 70.85	\$	1,776.42	\$ 492.65	\$	1.93	\$	7,294.16
10 Fairlane Hotel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 163.22	\$ 45.34	\$ 28.26	\$ -	\$ 43.37 \$	318.08	\$ 71.59	\$	870.13	\$ 669.08	\$	2.62	\$	6,627.84
11 Sheraton Hotel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 261.98	\$ 249.19	\$ 153.93	\$ -	\$ 233.22 \$	1,260.83	\$ -	\$	813.83	\$ 10,255.62	\$	40.11	\$	37,266.35
12 Municipal Auditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 322.80	\$ 141.38	\$ 79.54	\$ -	\$ 123.92 \$	-	\$ 348.01	\$	1,785.67	\$ 4,014.24	\$	15.70	\$	19,296.61
21 Hermitage Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 411.17	\$ 87.88	\$ 73.25	\$ -	\$ 109.36 \$	283.83	\$ 486.12	\$	2,579.68	\$ 314.08	\$	1.23	\$	15,736.03
24 Criminal Justice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 407.99	\$ 161.84	\$ 122.16	\$ -	\$ 179.82 \$	-	\$ 96.95	\$	2,139.21	\$ 4,196.26	\$	16.41	\$	26,265.88
25 501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 250.76	\$ 69.43	\$ 29.20	\$ -	\$ 44.09 \$	238.58	\$ -	\$	2,043.51	\$ 1,015.70	\$	3.97	\$	8,245.10
28 4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 881.98	\$ 250.83	\$ 95.87	\$ -	\$ - \$	-	\$ -	\$	6,700.52	\$ 3,917.29	\$	15.32	\$	33,232.94
29 Fifth-Third Financial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 937.94	\$ 186.71	\$ 98.72	\$ -	\$ 163.11 \$	806.50	\$ 576.16	\$	9,092.80	\$ -	\$	-	\$	27,509.15
32 Renaissance Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 2,493.95	\$ 716.61	\$ 229.75	\$ -	\$ 344.42 \$	1,499.26	\$ -	\$	12,147.88	\$ 11,459.07	\$	44.82	\$	64,684.28
33 5th & Broadway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 1,471.82	\$ 292.98	\$ 113.58	\$ -	\$ 187.66 \$		\$ 2,021.80	) \$	10,009.34	\$ -	\$	-	\$	32,099.71
34 Renaissance Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 561.12	\$ 111.70	\$ 24.14	\$ -	\$ 39.88 \$	233.00	\$ 59.87	, \$	3,216.34	\$ -	\$	-	\$	8,071.59
35 St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	34.08	\$ -	\$	=	\$ -	\$	-	\$	1,056.83
36 Nashville City Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 677.95	\$ 134.95	\$ 80.45	\$ -	\$ 132.93 \$	772.42	\$ 93.91	\$	5,065.23	\$ -	\$	-	\$	19,709.64
38 Wildhorse Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 379.05	\$ 91.76	\$ 27.97	\$ -	\$ 43.54 \$	187.42	\$ 194.31	\$	2,110.87	\$ 848.91	\$	3.32	\$	8,269.27
39 Ryman Auditorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 974.03	\$ 267.07	\$ 29.10	\$ -	\$ 45.67 \$	181.74	\$ 44.47	, \$	5,305.15	\$ 3,809.11	\$	14.90	\$	15,237.94
40 Bridgestone Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 4,968.52	\$ 1,158.49	\$ 313.83	\$ -	\$ 493.06 \$		\$ -	\$	30,117.76	\$ 8,820.10	\$	34.49	\$	95,165.55
41 Nissan Stadium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 932.70	\$ 185.66	\$ 141.98	\$ -	\$ 234.58 \$	-	\$ 82.86	\$	6,011.55	\$ -	\$	-	\$	30,092.50
43 Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 165.84	\$ 54.54	\$ 43.57	\$ -	\$ 66.98 \$		\$ 451.59	\$	1,065.47	\$ 1,120.70	\$	4.38	\$	9,783.09
44 Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 448.96	\$ 139.78	\$ 68.57	\$ -	\$ - \$	. <u>-</u>	\$ -	\$	2,673.78	\$ 2,623.24	\$	10.26	\$	21,541.31
45 Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 2,135.21	\$ 531.17	\$ 108.60	\$ -	\$ - \$	-	\$ -	\$	11,432.48	\$ 5,523.85	\$	21.60	\$	26,814.79
49 Viridian Residential Tower	\$ 12,683.26 \$	=	\$ -	\$ -	\$ 243.46	\$ 48.46	\$ 48.46	\$ -	\$ - \$	-	\$ 1,369.79	\$	1,611.02	\$ -	\$	-	\$	16,004.45
50 Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,318.86	\$ 5,452.26	\$ 1,630.04	\$ 791.03	\$ -	\$ - \$		\$ 454.83	\$	29,929.61	\$ 28,350.97	\$	110.88	\$	158,079.90
51 Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 318.05	\$ 116.25	\$ 55.51	\$ -	\$ - \$		\$ 373.43	\$	1,859.06	\$ 2,755.12	\$	10.78	\$	16,777.22
52 Hyatt Centric																	\$	-
S1 State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 11,021.82	\$ 3,327.18	\$ -	\$ -	\$ 1,816.42 \$	-	\$ 4,691.76	\$	67,010.11	\$ 58,979.33	\$	230.66	\$	393,118.41
Grand Totals	\$ 401,759.98 \$	281,313.50	\$ 8,791.33	\$ 18,546.67	\$ 39,941.04	\$ 11,160.34	\$ 3,108.26	\$ -	\$ 4,836.37 \$	6,803.74	\$ 12,596.46	\$	240,374.88	\$ 167,056.91	\$	653.35	\$ 1	,196,942.83
Rate Calculation Totals	\$ 483,617.56 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 39,953.42	\$ 11,168.90	\$ 3,108.33	\$ -	\$ 4,975.01 \$	6,803.74	\$ 12,596.46	\$	240,409.69	\$ 167,368.65	\$	654.57	\$ 1	,395,022.15
Deviation	\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,892.08)	\$ (12.38)	\$ (8.56)	\$ (0.07)	\$ -	\$ (138.64) \$	-	\$ -	\$	(34.81)	\$ (311.74)	\$	(1.22)	\$	(198,079.32)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam April, 2021

Customer	ustomer		apacity	Sperating	:DS nproveme It	ncremental	Vater And Sewer	Chemical Treatment	ingineering	nsurance		EDS	DS Maint costs Alloc	ПFS	lectricity		Vatural Gas	ropane			otal
0	A. A. Birch	Ś	10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 2,067.37 \$	466.86	\$ 169.15	s -	\$		<u>шо</u> -		\$ 12,791	58 \$	8,045.31	S	-	Ś	50,867.20
	Metro Courthouse	Ś	5,031.45 \$	6,435.84				215.45			- s						2,755.59		-	- 1	22,815.29
7	Parkway Tower	Ś	4,587.02 \$	6,243.25				271.50			- \$						3,728.33		-	Ś	24,889.35
	Bobby Hotel	\$	1,690.74 \$	2,263.00	\$ 122.51			67.17			- \$						664.44		-	\$	8,076.55
	Fairlane Hotel	\$	1,753.63 \$	2,331.96				48.27			- \$					.00 \$	522.41		-	\$	7,247.25
11	Sheraton Hotel	\$	9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 269.85 \$	190.30	\$ 153.93	\$ -	- \$	232.32	\$ 1,260.83	\$ -	\$ 805	.84 \$	8,379.22	\$	-	\$	35,289.93
12	Municipal Auditorium	\$	4,857.06 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 278.40 \$	85.52	\$ 79.54	\$ -	- \$	123.44	\$ -	\$ 381.16	\$ 1,514	.87 \$	2,366.35	\$	-	\$	17,294.63
21	Hermitage Hotel	\$	4,675.00 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 604.24 \$	103.35	\$ 73.25	\$ -	- \$	108.94	\$ 283.83	\$ 425.35	\$ 3,728	.83 \$	476.01	\$	-	\$	17,193.23
24	Criminal Justice Center	\$	7,905.03 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 638.17 \$	168.91	\$ 122.16	\$ -	- \$	179.12	\$ -	\$ 8.08	\$ 4,090	.12 \$	3,888.42	\$	-	\$	28,040.22
25	501 Union Building	\$	1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 338.56 \$	70.64	\$ 29.20	\$ -	- \$	43.91	\$ 238.58	\$ -	\$ 2,377	.34 \$	987.63	\$	-	\$	8,635.72
28	4th & Church Building	\$	21,371.13 \$	-	\$ -	\$ -	\$ 1,134.37 \$	225.00	\$ 95.87	\$ -	- \$	-	\$ -	\$ -	\$ 8,939	.22 \$	2,648.61	\$	-	\$	34,414.20
29	Fifth-Third Financial Center	\$	5,633.03 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 1,104.49 \$	173.55	\$ 98.72	\$ -	- \$	162.48	\$ 806.50	\$ 590.56	\$ 9,692	.53 \$	-	\$	-	\$	28,276.04
32	Renaissance Hotel	\$	14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 3,451.36 \$	728.94	\$ 229.75	\$ -	- \$	343.08	\$ 1,499.26	\$ -	\$ 19,797	.93 \$	10,572.18	\$	-	\$	72,371.02
33	5th & Broadway	\$	6,480.95 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 2,515.71 \$	395.30	\$ 113.58	\$ -	- \$	186.93	\$ -	\$ 1,839.51	\$ 18,732	.40 \$	=	\$	-	\$	41,785.96
34	Renaissance Office Tower	\$	1,377.20 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 687.26 \$	107.99	\$ 24.14	\$ -	- \$	39.72	\$ 233.00	\$ 38.74	\$ 3,971	.42 \$	-	\$	-	\$	8,927.81
35	St. Mary's Catholic Church	\$	1,022.75 \$	=	\$ -	\$ -	\$ - \$	=	\$ -	\$ -	- \$	- :	\$ 34.08	\$ -	\$	\$	=	\$	-	\$	1,056.83
36	Nashville City Center	\$	4,590.68 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 920.93 \$	144.71	\$ 80.45	\$ -	- \$	132.41	\$ 772.42	\$ 82.17	\$ 8,661	.56 \$	-	\$	-	\$	23,546.45
38	Wildhorse Saloon	\$	1,708.95 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 435.40 \$	73.33	\$ 27.97	\$ -	- \$	43.37	\$ 187.42	\$ 194.31	\$ 2,480	.06 \$	278.24	\$	-	\$	8,102.22
39	Ryman Auditorium	\$	1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 1,135.03 \$	238.43	\$ 29.10	\$ -	- \$	45.49	\$ 181.74	\$ 31.76	\$ 5,884	.95 \$	3,403.82	\$	-	\$	15,517.02
40	Bridgestone Arena	\$	18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 6,592.82 \$	1,086.70	\$ 313.83	\$ -	- \$	491.15	\$ -	\$ -	\$ 42,435	.94 \$	2,875.08	\$	-	\$	103,054.82
41	Nissan Stadium	\$	8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 1,701.29 \$	267.33	\$ 141.98	\$ -	- \$	233.67	\$ -	\$ 103.58	\$ 12,869	.27 \$	-	\$	-	\$	37,820.29
43	Hume-Fogg High School	\$	2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 205.25 \$	43.21	\$ 43.57	\$ -	- \$	66.71	\$ -	\$ 406.02	\$ 1,513	.39 \$	620.98	\$	-	\$	9,709.15
44	Schermerhorn Symphony Center	\$	15,576.72 \$	-	\$ -	\$ -	\$ 609.08 \$	137.93	\$ 68.57	\$ -	- \$	- :	\$ -	\$ -	\$ 5,881	.02 \$	2,391.96	\$	-	\$	24,665.28
45	Nashville Public Library	\$	7,061.88 \$	-	\$ -	\$ -	\$ 3,142.11 \$	608.94	\$ 108.60	\$ -	- \$	- :	\$ -	\$ 264.96	\$ 15,549	.94 \$	6,526.46	\$	-	\$	33,262.89
49	Viridian Residential Tower	\$	12,683.26 \$	-	\$ -	\$ -	\$ 425.55 \$	66.87	\$ 48.46	\$ -	- \$	- :	\$ -	\$ 1,128.81	\$ 2,530	.83 \$	-	\$	-	\$	16,883.78
50	Music City Center	\$	77,567.78 \$	9,473.64	\$ -	\$ 4,292.66	\$ 7,227.51 \$	1,581.27	\$ 791.03	\$ -	- \$	- :	\$ -	\$ -	\$ 43,097	.48 \$	25,243.44	\$	-	\$	169,274.81
	Hyatt Place Hotel	\$	11,289.02 \$	-	\$ -	\$ -	\$ 377.77 \$	101.31		\$ -	- \$	- :	\$ -	\$ 309.67	\$ 1,218	.37 \$	2,376.39	\$	-	\$	15,728.04
52	Hyatt Centric	\$	4,711.02 \$	-	\$ -	\$ -	\$ 11.73 \$	1.84	\$ 24.14	\$ -	- \$	- :	\$ -	\$ -	\$ 254	.53 \$	-	\$	=	\$	5,003.26
S1	State Government of TN	\$	136,594.48 \$	109,446.65	\$ -	\$ -	\$ 12,717.94 \$	2,749.50	\$ -	\$ -	- \$	1,809.33	\$ -	\$ 4,222.10	\$ 81,468	.15 \$	42,550.72	\$	-	\$	391,558.87
	Grand Totals	\$	406,471.00 \$	281,313.50				10,420.12			- \$	,			\$ 327,087	.27 \$	131,301.59		-		1,261,308.11
	Rate Calculation Totals	\$	488,328.58 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 51,581.35 \$	10,425.24	\$ 3,108.33	\$ -	- \$	4,955.73	\$ 6,803.74	\$ 11,084.93	\$ 327,142	.63 \$	131,432.45	\$	-	\$ '	1,459,228.80
1	Deviation	\$	(81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,918.28)	\$ (17.14) \$	(5.12)	\$ 24.07	\$ -	- \$	(138.18)	\$ -	\$ -	\$ (55	.36) \$	(130.86)	\$	-	\$	(197,920.69)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam May, 2021

Customer	Customer Name	Capacity	Operating	EDS Improveme nt	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		\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.37	\$ 1,631.22	\$ 428.76	\$ 169.15	\$ -	\$ 156.33 \$	-	\$ 884.54	\$ 13,558.1	7 \$ 2,097.	82 \$	-	\$ 45,301.40
4 Metro Court	thouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.86	\$ 1,112.37	\$ 335.79	\$ 79.50	\$ -	\$ 72.95 \$	-	\$ 135.15	\$ 8,030.2	9 \$ 3,104.	89 \$	-	\$ 25,250.50
7 Parkway Tov	wer	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.99	\$ 1,139.86	\$ 341.19	\$ 74.81	\$ -	\$ 70.76 \$	726.92	\$ 197.48	\$ 7,281.3	5 \$ 3,069.	87 \$	-	\$ 24,617.48
9 Bobby Hotel	·l	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.27	\$ 511.06	\$ 143.37	\$ 27.33	\$ -	\$ 25.65 \$	261.08	\$ -	\$ 3,557.5	7 \$ 1,005.	92 \$	-	\$ 9,806.50
10 Fairlane Hote	tel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.31	\$ 319.82	\$ 83.32	\$ 28.26	\$ -	\$ 26.43 \$	318.08	\$ 53.03	\$ 2,370.2	6 \$ 382.	82 \$	-	\$ 7,998.17
11 Sheraton Ho	otel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ 2,267.29	\$ 775.28	\$ 153.93	\$ -	\$ 142.15 \$	1,260.83	\$ 1,534.99	\$ 8,297.0	2 \$ 9,833.	72 \$	-	\$ 48,262.85
12 Municipal Au	uditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.83	\$ 351.10	\$ 85.83	\$ 79.54	\$ -	\$ 75.53 \$	-	\$ 381.16	\$ 2,587.8	4 \$ 202.	20 \$	-	\$ 16,228.55
21 Hermitage H	Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.24	\$ 695.54	\$ 182.09	\$ 73.25	\$ -	\$ 66.66 \$	283.83	\$ 408.78	\$ 4,749.9	5 \$ 866.	10 \$	-	\$ 18,715.63
24 Criminal Just	tice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.18	\$ 732.64	\$ 264.03	\$ 122.16	\$ -	\$ 109.60 \$	-	\$ 129.26	\$ 4,941.3	9 \$ 3,698.	53 \$	-	\$ 28,942.85
25 501 Union B	Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	\$ 350.05	\$ 105.58	\$ 29.20	\$ -	\$ 26.87 \$	238.58	\$ -	\$ 2,557.9	2 \$ 973.	51 \$	-	\$ 8,831.57
28 4th & Church	th Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 864.90	\$ 198.50	\$ 95.87	\$ -	\$ - \$	-	\$ -	\$ 8,219.0	2 \$ -	\$	-	\$ 30,749.42
29 Fifth-Third Fi	inancial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.45	\$ 1,135.51	\$ 260.61	\$ 98.72	\$ -	\$ 99.41 \$	806.50	\$ 633.77	\$ 11,376.6	2 \$ -	\$	-	\$ 30,058.35
32 Renaissance	e Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.67	\$ 3,986.40	\$ 1,194.58	\$ 229.75	\$ -	\$ 209.93 \$	1,499.26	\$ -	\$ 23,303.4	5 \$ 10,788.	14 \$	-	\$ 76,960.03
33 5th & Broads	łway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.12	\$ 3,214.29	\$ 737.71	\$ 113.58	\$ -	\$ 114.38 \$	-	\$ 1,706.93	\$ 23,665.5	8 \$ -	\$	-	\$ 47,555.00
34 Renaissance	e Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.88	\$ 668.82	\$ 153.50	\$ 24.14	\$ -	\$ 24.30 \$	233.00	\$ 38.74	\$ 4,839.9	9 \$ -	\$	-	\$ 9,808.03
35 St. Mary's Ca	atholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$	34.08	\$ -	\$ -	\$ -	\$	-	\$ 1,056.83
36 Nashville City	ty Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.25	\$ 1,031.39	\$ 236.71	\$ 80.45	\$ -	\$ 81.02 \$	772.42	\$ -	\$ 10,305.6	2 \$ -	\$	-	\$ 25,259.41
38 Wildhorse Sa	Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.13	\$ 473.33	\$ 110.92	\$ 27.97	\$ -	\$ 26.54 \$	187.42	\$ 192.86	\$ 3,103.3	3 \$ 88.	16 \$	-	\$ 8,592.65
39 Ryman Audit	itorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 1,049.13	\$ 331.45	\$ 29.10	\$ -	\$ 27.83 \$	181.74	\$ 15.88	\$ 6,230.7	4 \$ 3,497.	44 \$	-	\$ 15,930.01
40 Bridgestone	Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.96	\$ 7,857.62	\$ 1,803.44	\$ 313.83	\$ -	\$ 300.52 \$	-	\$ -	\$ 54,004.7	3 \$ 1.	53 \$	-	\$ 113,540.97
41 Nissan Stadio	ium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.15	\$ 2,406.17	\$ 552.24	\$ 141.98	\$ -	\$ 142.97 \$	-	\$ 103.58	\$ 17,818.9	9 \$ -	\$	-	\$ 43,669.10
43 Hume-Fogg I	High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.54	\$ 224.23	\$ 68.25	\$ 43.57	\$ -	\$ 40.82 \$	-	\$ 368.73	\$ 1,821.6	1 \$ 647.	46 \$	-	\$ 10,024.69
44 Schermerhor	orn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 831.93	\$ 301.15	\$ 68.57	\$ -	\$ - \$	-	\$ -	\$ 6,408.0	7 \$ 4,251.	55 \$	-	\$ 27,437.99
45 Nashville Pul	ıblic Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 2,328.91	\$ 648.94	\$ 108.60	\$ -	\$ - \$	-	\$ -	\$ 13,393.6	2 \$ 4,414.	45 \$	-	\$ 27,956.40
49 Viridian Resi	idential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 488.19	\$ 112.04	\$ 48.46	\$ -	\$ - \$	-	\$ 1,166.86	\$ 3,736.3	7 \$ -	\$	-	\$ 18,235.18
50 Music City Co	Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,306.58	\$ 6,760.54	\$ 2,153.42	\$ 791.03	\$ -	\$ - \$	-	\$ -	\$ 46,049.0	3 \$ 23,215.	61 \$	-	\$ 170,317.63
51 Hyatt Place H	Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 557.76	\$ 209.42	\$ 55.51	\$ -	\$ - \$	-	\$ 255.02	\$ 3,370.5	6 \$ 3,140.	37 \$	-	\$ 18,877.66
52 Hyatt Centric	ic	\$ 2,198.48 \$	-	\$ -	\$ -	\$ 117.22	\$ 26.90	\$ 11.26	\$ -	\$ - \$	-	\$ -	\$ 1,170.2	8 \$ -	\$	-	\$ 3,524.14
S1 State Govern	nment of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 12,873.72	\$ 4,108.58	\$ -	\$ -	\$ 1,107.13 \$	-	\$ 4,309.82	\$ 94,524.1	2 \$ 44,514.	70 \$	-	\$ 407,479.20
Grand Totals	s	\$ 403,958.46 \$	281,313.50	\$ 8,791.33	\$ 18,534.39	\$ 55,981.01	\$ 15,953.60	\$ 3,119.52	\$ -	\$ 2,947.78 \$	6,803.74	\$ 12,516.58	\$ 391,273.4	9 \$ 119,794.	79 \$	-	\$ 1,320,988.19
Rate Calculat	ation Totals	\$ 485,816.04 \$	386,444.41	\$ 14,482.66	\$ 23,438.75	\$ 55,998.32	\$ 15,958.85	\$ 3,108.33	\$ -	\$ 3,032.18 \$	6,803.74	\$ 12,516.58	\$ 391,336.9	9 \$ 119,846.	00 \$	-	\$ 1,518,782.85
Deviation		\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33)	\$ (4,904.36)	\$ (17.31)	\$ (5.25)	\$ 11.19	\$ -	\$ (84.40) \$	-	\$ -	\$ (63.5	0) \$ (51.	21) \$	-	\$ (197,794.66)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam June, 2021

Customer Number	Customer Name	Capacity	Operating	EDS Improveme nt	Metro	Water And Sewer		Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas		Propane	Total
2	A. A. Birch	\$ 10,628.35 \$	13,792.04	\$ 746.65	\$ 1,208.3	\$ 3,1:	16.60 \$	806.34	\$ 169.15	\$ -	\$ 189.90 \$	=	\$ 609.03	\$ 18,295.28	\$ 1,956.2	8 \$	-	\$ 51,517.99
4	Metro Courthouse	\$ 5,031.45 \$	6,435.84	\$ 348.41	\$ 563.8	\$ 1,7	70.09 \$	514.38	\$ 79.50	\$ -	\$ 88.62 \$	=	\$ -	\$ 11,441.54	\$ 2,991.5	3 \$	-	\$ 29,265.22
7	Parkway Tower	\$ 4,587.02 \$	6,243.25	\$ 337.98	\$ 546.9	\$ 1,22	22.00 \$	301.69	\$ 74.81	\$ -	\$ 85.97 \$	726.92	\$ 220.27	\$ 8,808.56	\$ 284.7	9 \$	-	\$ 23,440.25
9	Bobby Hotel	\$ 1,690.74 \$	2,263.00	\$ 122.51	\$ 198.2	\$ 84	18.69 \$	234.22	\$ 27.33	\$ -	\$ 31.16 \$	261.08	\$ -	\$ 5,522.03	\$ 1,020.7	7 \$	-	\$ 12,219.80
10	Fairlane Hotel	\$ 1,753.63 \$	2,331.96	\$ 126.25	\$ 204.3	. \$ 54	16.49 \$	136.92	\$ 28.26	\$ -	\$ 32.11 \$	318.08	\$ 29.17	\$ 3,742.73	\$ 194.0	9 \$	-	\$ 9,444.00
11	Sheraton Hotel	\$ 9,678.74 \$	12,541.19	\$ 678.93	\$ 1,098.78	\$ \$ 2,67	74.89 \$	840.40	\$ 153.93	\$ -	\$ 172.69 \$	1,260.83	\$ -	\$ 9,856.08	\$ 6,623.7	6 \$	-	\$ 45,580.22
12	Municipal Auditorium	\$ 4,857.06 \$	6,663.71	\$ 360.75	\$ 583.8	\$ \$ 69	95.51 \$	166.85	\$ 79.54	\$ -	\$ 91.76 \$	=	\$ 157.44	\$ 5,963.42	\$ -	\$	-	\$ 19,619.87
21	Hermitage Hotel	\$ 4,675.00 \$	5,880.82	\$ 318.37	\$ 515.2	\$ 1,1:	10.68 \$	282.70	\$ 73.25	\$ -	\$ 80.98 \$	283.83	\$ 270.68	\$ 6,860.01	\$ 541.7	8 \$	-	\$ 20,893.34
24	Criminal Justice Center	\$ 7,905.03 \$	9,669.56	\$ 523.47	\$ 847.1	\$ \$ 1,26	54.88 \$	366.32	\$ 122.16	\$ -	\$ 133.14 \$	=	\$ 250.45	\$ 8,127.26	\$ 2,096.3	9 \$	-	\$ 31,305.84
25	501 Union Building	\$ 1,843.24 \$	2,370.59	\$ 128.34	\$ 207.69	) \$ 43	37.14 \$	104.87	\$ 29.20	\$ -	\$ 32.64 \$	238.58	\$ -	\$ 3,579.13	\$ -	\$	- 1	\$ 8,971.42
28	4th & Church Building	\$ 21,371.13 \$	-	\$ -	\$ -	\$ 1,83	39.38 \$	441.25	\$ 95.87	\$ -	\$ - \$	=	\$ -	\$ 14,271.54	\$ -	\$	-	\$ 38,019.17
29	Fifth-Third Financial Center	\$ 5,633.03 \$	8,770.91	\$ 474.82	\$ 768.4	\$ 1,94	11.00 \$	465.63	\$ 98.72	\$ -	\$ 120.77 \$	806.50	\$ 230.46	\$ 16,559.86	\$ -	\$	-	\$ 35,870.15
32	Renaissance Hotel	\$ 14,602.43 \$	18,520.78	\$ 1,002.64	\$ 1,622.6	\$ 6,36	3.24 \$	1,712.58	\$ 229.75	\$ -	\$ 255.02 \$	1,499.26	\$ -	\$ 36,448.93	\$ 6,202.5	1 \$	-	\$ 88,459.81
33	5th & Broadway	\$ 6,480.95 \$	10,091.17	\$ 546.29	\$ 884.13	\$ 6,06	52.73 \$	1,454.41	\$ 113.58	\$ -	\$ 138.95 \$	=	\$ 1,226.34	\$ 41,041.51	\$ -	\$	-	\$ 68,040.05
34	Renaissance Office Tower	\$ 1,377.20 \$	2,144.37	\$ 116.09	\$ 187.8	\$ \$ 1,0	11.08 \$	242.55	\$ 24.14	\$ -	\$ 29.53 \$	233.00	\$ 31.69	\$ 6,969.12	\$ -	\$	-	\$ 12,366.65
35	St. Mary's Catholic Church	\$ 1,022.75 \$	-	\$ -	\$ -	\$	- \$	-	\$ -	\$ -	\$ - \$	34.08	\$ -	\$ -	\$ -	\$	-	\$ 1,056.83
36	Nashville City Center	\$ 4,590.68 \$	7,147.91	\$ 386.96	\$ 626.2	\$ 1,86	52.52 \$	446.81	\$ 80.45	\$ -	\$ 98.43 \$	772.42	\$ -	\$ 15,812.93	\$ -	\$	-	\$ 31,825.36
38	Wildhorse Saloon	\$ 1,708.95 \$	2,341.29	\$ 126.75	\$ 205.1	\$ \$ 7:	10.46 \$	172.85	\$ 27.97	\$ -	\$ 32.24 \$	187.42	\$ 176.91	\$ 5,071.62	\$ 80.6	4 \$	-	\$ 10,842.23
39	Ryman Auditorium	\$ 1,763.08 \$	2,455.54	\$ 132.94	\$ 215.14	\$ 1,33	31.13 \$	383.56	\$ 29.10	\$ -	\$ 33.81 \$	181.74	\$ -	\$ 7,944.74	\$ 2,141.1	.6 \$	-	\$ 16,611.94
40	Bridgestone Arena	\$ 18,987.23 \$	26,513.77	\$ 1,435.34	\$ 2,322.9	\$ 4,9	70.41 \$	1,209.29	\$ 313.83	\$ -	\$ 365.09 \$	=	\$ -	\$ 31,065.73	\$ 564.0	5 \$	-	\$ 87,747.70
41	Nissan Stadium	\$ 8,101.19 \$	12,613.96	\$ 682.87	\$ 1,105.1	\$ 4,59	99.39 \$	1,103.36	\$ 141.98	\$ -	\$ 173.69 \$	=	\$ 20.72	\$ 30,620.21	\$ -	\$	-	\$ 59,162.52
43	Hume-Fogg High School	\$ 2,697.96 \$	3,601.55	\$ 194.97	\$ 315.5		06.10 \$	62.18	\$ 43.57	\$ -	\$ 49.59 \$	=	\$ 343.87	\$ 1,493.34	\$ 424.6	3 \$	-	\$ 9,433.30
44	Schermerhorn Symphony Center	\$ 15,576.72 \$	-	\$ -	\$ -	\$ 1,15	6.30 \$	407.92	\$ 68.57	\$ -	\$ - \$	-	\$ -	\$ 8,630.77	\$ 4,351.1	1 \$	-	\$ 30,191.39
45	Nashville Public Library	\$ 7,061.88 \$	-	\$ -	\$ -	\$ 2,78	33.15 \$	714.40	\$ 108.60	\$ -	\$ - \$	-	\$ -	\$ 16,959.95	\$ 1,557.9	6 \$	-	\$ 29,185.94
49	Viridian Residential Tower	\$ 12,683.26 \$	-	\$ -	\$ -	\$ 1,04	11.17 \$	249.77	\$ 48.46	\$ -	\$ - \$	=	\$ 925.88	\$ 7,161.61	\$ -	\$	-	\$ 22,110.15
50	Music City Center	\$ 77,567.78 \$	9,473.64	\$ -	\$ 4,298.89	\$ 12,68	30.83 \$	3,745.33	\$ 791.03	\$ -	\$ - \$	=	\$ -	\$ 87,946.64	\$ 23,443.0	0 \$	-	\$ 219,947.14
51	Hyatt Place Hotel	\$ 11,289.02 \$	-	\$ -	\$ -	\$ 73	17.14 \$	245.36	\$ 55.51	\$ -	\$ - \$	=	\$ 154.84	\$ 2,622.92	\$ 2,444.0	1 \$	-	\$ 17,528.80
52	Hyatt Centric	\$ 3,584.07 \$	-	\$ -	\$ -	\$ 34	13.34 \$	82.37	\$ 18.36	\$ -	\$ - \$	-	\$ -	\$ 1,399.37	\$ -	\$	-	\$ 5,427.51
S1	State Government of TN	\$ 136,594.48 \$	109,446.65	\$ -	\$ -	\$ 19,20	08.08 \$	5,545.10	\$ -	\$ -	\$ 1,344.93 \$	-	\$ 1,957.05	\$ 132,509.61	\$ 31,241.5	2 \$	-	\$ 437,847.42
	Grand Totals	\$ 405,344.05 \$	281,313.50	\$ 8,791.33	\$ 18,526.7	\$ 82,5	14.42 \$	22,439.41	\$ 3,126.62	\$ -	\$ 3,581.02 \$	6,803.74	\$ 6,604.80	\$ 546,726.44	\$ 88,159.9	8 \$	-	\$ 1,473,932.01
	Rate Calculation Totals	\$ 487,201.63 \$	386,444.41	\$ 14,482.66	\$ 23,438.7	\$ 82,53	37.50 \$	22,445.02	\$ 3,108.33	\$ -	\$ 3,683.77 \$	6,803.74	\$ 6,604.80	\$ 546,799.26	\$ 88,159.9	8 \$	-	\$ 1,671,709.85
	Deviation	\$ (81,857.58) \$	(105,130.91)	\$ (5,691.33	) \$ (4,912.0	5) \$ (2	23.08) \$	(5.61)	\$ 18.29	\$ -	\$ (102.75) \$	=	\$ -	\$ (72.82)	\$ -	\$	-	\$ (197,777.84)

#### Metro Nashville District Energy System Revenues Chilled Water and Steam Fiscal Year 20 - 21 True Up

Customer Number Customer Name		Capacity		Operating		EDS Improveme nt	Metro	Water And Sewer	Chemical Treatment	Engineering	Insurance	EDS Electricity	EDS Maint Costs Alloc	TIFS	Electricity	Natural Gas	Propane	Total
2 A. A. Birch		\$	-	\$ -	Ş	ŝ -	\$ (3,236.89) \$	164.53	\$ -	\$ 851.08	\$ 757.05	\$ -	\$ -	\$ -	\$ (47.63)	\$ 36.51	\$ -	\$ (1,475.35)
4 Metro Courthouse		\$	-	\$ -	\$	\$ -	\$ (1,510.44) \$	106.78	\$ -	\$ 399.99	\$ 354.10	\$ -	\$ -	\$ -	\$ (31.10)	\$ 24.58	\$ -	\$ (656.09)
7 Parkway Tower		\$	-	\$ -	\$	\$ -	\$ (1,465.24) \$	105.43	\$ -	\$ 376.39	\$ 340.08	\$ -	\$ -	\$ -	\$ (30.50)	\$ 23.32	\$ -	\$ (650.52)
9 Bobby Hotel		\$	-	\$ -	\$	\$ -	\$ (531.11) \$	34.05	\$ -	\$ 137.54	\$ 123.60	\$ -	\$ -	\$ -	\$ (8.95)	\$ 3.44	\$ -	\$ (241.43)
10 Fairlane Hotel		\$	-	\$ -	\$	\$ -	\$ (547.29) \$	28.23	\$ -	\$ 142.18	\$ 127.49	\$ -	\$ -	\$ -	\$ (8.13)	\$ 6.07	\$ -	\$ (251.45)
11 Sheraton Hotel		\$	-	\$ -	\$	\$ -	\$ (2,943.32) \$	158.87	\$ -	\$ 774.46	\$ 688.55	\$ -	\$ -	\$ -	\$ (50.17)	\$ 54.26	\$ -	\$ (1,317.35)
12 Municipal Auditorium		\$	-	\$ -	\$	\$ -	\$ (1,563.92) \$	64.36	\$ -	\$ 400.20	\$ 362.53	\$ -	\$ -	\$ -	\$ (21.54)	\$ 27.53	\$ -	\$ (730.84)
21 Hermitage Hotel		\$	-	\$ -	\$	\$ -	\$ (1,380.18) \$	59.19	\$ -	\$ 368.56	\$ 324.47	\$ -	\$ -	\$ -	\$ (15.36)	\$ 5.05	\$ -	\$ (638.27)
24 Criminal Justice Center		\$	-	\$ -	\$	\$ -	\$ (2,269.38) \$	81.58	\$ -	\$ 614.64	\$ 536.06	\$ -	\$ -	\$ -	\$ (26.55)	\$ 31.49	\$ -	\$ (1,032.16)
25 501 Union Building		\$	-	\$ -	\$	\$ -	\$ (556.36) \$	26.44	\$ -	\$ 146.93	\$ 130.31	\$ -	\$ -	\$ -	\$ (7.52)	\$ 5.26	\$ -	\$ (254.94)
28 4th & Church Building		\$	-	\$ -	\$	\$ -	\$ - \$	95.32	\$ -	\$ 482.35	\$ 433.05	\$ -	\$ -	\$ -	\$ (27.19)	\$ 19.30	\$ -	\$ 1,002.83
29 Fifth-Third Financial Center		\$	-	\$ -	\$	\$ -	\$ (2,058.47) \$	90.90	\$ -	\$ 496.68	\$ 468.29	\$ -	\$ -	\$ -	\$ (21.88)	\$ -	\$ -	\$ (1,024.48)
32 Renaissance Hotel		\$	-	\$ -	Ş	\$ -	\$ (4,346.69) \$	309.88	\$ -	\$ 1,155.95	\$ 1,020.46	\$ -	\$ -	\$ =.	\$ (90.31)	\$ 71.47	\$ -	\$ (1,879.24)
33 5th & Broadway		\$	-	\$ -	\$	\$ -	\$ (2,368.32) \$	133.82	\$ -	\$ 571.44	\$ 538.78	\$ -	\$ -	\$ -	\$ (32.22)	\$ -	\$ -	\$ (1,156.50)
34 Renaissance Office Tower		\$	-	\$ -	\$	\$ -	\$ (503.27) \$	55.65	\$ -	\$ 121.43	\$ 114.49	\$ -	\$ -	\$ -	\$ (13.40)	\$ -	\$ -	\$ (225.10)
35 St. Mary's Catholic Church		\$	-	\$ -	\$	\$ -	\$ - \$	- :	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Nashville City Center		\$	-	\$ -	\$	\$ -	\$ (1,677.56) \$	84.77	\$ -	\$ 404.77	\$ 381.63	\$ -	\$ -	\$ =	\$ (20.41)	\$ -	\$ -	\$ (826.80)
38 Wildhorse Saloon		\$	-	\$ -	\$	\$ -	\$ (549.49) \$	30.95	\$ -	\$ 140.70	\$ 127.41	\$ -	\$ -	\$ -	\$ (8.06)	\$ 2.79	\$ -	\$ (255.70)
39 Ryman Auditorium		\$	-	\$ -	\$	\$ -	\$ (576.30) \$	87.55	\$ -	\$ 146.42	\$ 133.28	\$ -	\$ -	\$ -	\$ (25.60)	\$ 20.58	\$ -	\$ (214.07)
40 Bridgestone Arena		\$	-	\$ -	\$	\$ -	\$ (6,222.59) \$	350.89	\$ -	\$ 1,578.94	\$ 1,438.47	\$ -	\$ -	\$ -	\$ (93.63)	\$ 41.65	\$ -	\$ (2,906.27)
41 Nissan Stadium		\$	-	\$ -	\$	\$ -	\$ (2,960.40) \$	161.46	\$ -	\$ 714.30	\$ 673.47	\$ -	\$ -	\$ -	\$ (38.87)	\$ -	\$ -	\$ (1,450.04)
43 Hume-Fogg High School		\$	-	\$ -	\$	\$ -	\$ (845.26) \$	22.54	\$ -	\$ 219.18	\$ 196.78	\$ -	\$ -	\$ -	\$ (7.07)	\$ 7.49	\$ -	\$ (406.34)
44 Schermerhorn Symphony Co	enter	\$	-	\$ -	\$	\$ -	\$ - \$	68.10	\$ -	\$ 344.95	\$ 311.42	\$ -	\$ -	\$ -	\$ (21.16)	\$ 21.67	\$ -	\$ 724.98
45 Nashville Public Library		\$	-	\$ -	\$	\$ -	\$ - \$	217.82	\$ -	\$ 546.37	\$ 487.61	\$ -	\$ -	\$ -	\$ (60.83)	\$ 38.19	\$ -	\$ 1,229.16
49 Viridian Residential Tower		\$	-	\$ -	\$	\$ -	\$ - \$	33.56	\$ -	\$ 243.81	\$ 229.88	\$ -	\$ -	\$ =	\$ (8.08)	\$ -	\$ -	\$ 499.17
50 Music City Center		\$	-	\$ -	\$	\$ -	\$ (11,498.86) \$	665.44	\$ -	\$ 3,979.88	\$ 3,596.17	\$ -	\$ -	\$ -	\$ (204.13)	\$ 199.93	\$ -	\$ (3,261.57)
51 Hyatt Place Hotel		\$	-	\$ -	\$	\$ -	\$ - \$	39.21	\$ -	\$ 279.32	\$ 242.63	\$ -	\$ -	\$ -	\$ (12.79)	\$ 15.22	\$ -	\$ 563.59
52 Hyatt Centric		\$	-	\$ -	Ş	\$ -	\$ - \$	2.96	\$ -	\$ 121.43	\$ 114.49	\$ -	\$ -	\$ =.	\$ (0.71)	\$ -	\$ -	\$ 238.17
S1 State Government of TN		\$	=	\$ -	\$	\$ -	\$ - \$	1,224.97	\$ -	\$ -	\$ 5,364.58	\$ -	\$ -	\$ -	\$ (370.41)	\$ 343.56	\$ -	\$ 6,562.70
Grand Totals		\$	-	\$ -	\$	\$ -	\$ (49,611.34) \$	4,505.25	\$ -	\$ 15,759.89	\$ 19,617.13	\$ -	\$ -	\$ -	\$ (1,304.20)	\$ 999.36	\$ -	\$ (10,033.91)
Rate Calculation Totals		\$	-	\$ -	\$	\$ -	\$ (62,785.95) \$	4,507.58		\$ 15,638.38	\$ 19,635.80	\$ -	\$ -	\$ -	\$ (1,305.06)	\$ 1,000.79	\$ -	\$ (23,308.46)
Deviation		\$	-	\$ -	Ş	\$ -	\$ 13,174.61 \$	(2.33)	\$ -	\$ 121.51	\$ (18.67)	\$ -	\$ -	\$ -	\$ 0.86	\$ (1.43)	\$ -	\$ 13,274.55



# Appendix 4

34 35 NASHVILLE, TENNESSEE

#### **CNE INVOICE RECONCILIATION - FY 2020 - 2021** SALES SUMMARY FROM CUSTOMER METER READS 20.483.32 29.397.05 48.937.474 51.930.212 53,540,952 11.577.42 13.133.42 20,227,044 STEAM SALES 11,619,16 10.970.72 31.964.418 329,530,454 Previously invoiced, lbs Reconciled, lbs 11,619,164 10,970,72 13,133,428 20,483,32 29,397,05 48,937,474 51,930,212 53,540,952 31,964,418 25,749,231 20,227,044 11,577,42 329,530,454 CHW SALES 51,534,304 10 Previously invoiced, ton-hrs 7,942,92 6,776,8 5,048,82 3,435,719 2,792,87 2,178,68 2,135,870 1,986,86 3,153,31 3,713,80 5,137,88 7,230,67 Reconciled, ton-hrs 7,942,922 6,776,85 5,048,825 3,435,719 2,792,873 2,178,689 2,135,876 1,986,868 3,153,315 3,713,809 5,137,885 7,230,672 51,534,304 SUMMARY FROM CUSTOMER METER READS from INVOICES START DATE 07/01/20 END DATE 06/30/21 14 01/31/2 04/30/2 07/31/ 09/30/2 10/31/2 03/31/2 05/31/2 11/30. 02/28/2 06/30/2 3,713,809 4,011,000 15 CHW SALES ton-hrs 7,942,922 6,776,85 5,048,825 3,435,719 2,792,87 2,178,689 2,135,876 1,986,868 3,153,315 5,137,885 7,230,672 51,534,304 CHW SENDOUT 8,467,60 7,257,60 5,433,10 3,727,80 2,988,20 12,318,400 2,313,600 2,136,80 3,454,30 5,371,100 7,565,10 16 ton-hrs 65,044,600 1,924,47 3,455,00 1,955,520 3,530,000 51,930 3,240,21 6,620,00 25,74 17 CHW ELECTRIC kWh 7,346,67 6,176,2 4,558,3 2,417,6 1,831,72 2,797,0 4,339,43 6,320,4 45,933,745 18 CHW MUW 16,071,00 13,218,00 6,371,00 4,827,0 29,3 3,287,00 53,54 5,675,0 9,852,00 97,351,000 galls 19 STEAM SALES mlbs 11,61 329,530 57,56 68,29 STEAM SENDOUT 18,30 17,67 19,25 26,91 34,82 53,088 55,926 37,93 31,283 25,970 18,097 20 mlbs 396,827 22,44 32,27 41,61 64,48 20,80 21 STEAM PRODUCTION mlbs 21,12 23,75 66,998 46,11 38,15 30,67 476,739 NATURAL GAS 27,03 38,61 22 mmBtu 25,09 24,17 50,52 75,662 79,40 35,714 24,54 555,889 79,659 PROPANE 23 mmBtu 352 51,74 139,743 STEAM ELECTRIC 1,013,374 CONDENSATE RETURN 1,448,60 1,235,20 1,059,70 1,091,70 1,877,60 3,248,100 4,535,100 5,314,70 3,645,40 2,466,90 1,661,50 30,560,300 galls 2,975,80 10,07-168 °I 1,091,30 mlbs 8,64 191 ° 15,31 179° 26,491 170 °F 29,73° 24,270 217 °F 20,12 189 ° 249,246 36,988 175 °F 187 °F 180° 27 186 °I 185.6 STEAM MUW ,104,28 2,664,17 406,68 galls 2,138,17 ,109,82 19,841,970 10,851 16,607 31,462 5,305 3,394 29 mlbs 9,107 9,216 22,23 23,108 17,844 9,262 7,200 165,587 30 Days in Service 365 0.911 0.903 0.881 0.916 0.874 0.925 0.866 0.883 0.922 0.887 0.872 0.845 0.89132367 31 Efficiency - Cooling kWh/ton-hr-Sold Efficiency - Heating Dth/klb-Sendout 1.372 1.368 1.404 1.436 1.453 1.426 1.425 1.381 1.388 1.371 1.375 1.356 1.40172040 33



REV: 1 DATE: 10/22/21

### **CNE INVOICE RECONCILIATION - FY 2020 - 2021**

Month of Service	te Link)	7	8	9	10	11	12	1	2	3	4	5	6	TO
ELECTRIC SERVICE (NES)		,	•	9	10	- ''	12	'	2	3	4	3		10
Service Dates	From	6/30/2020	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30
Service Dates	To	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2020	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	
PEAK Demand	kW	13,888	13,384	11,928	8,232	6,620	6,620	6,620	6,620	6,620	10,024	11,816	14,336	6/30
	kWh			4,683,560								4,485,684		
Service Period Use	kvvn	7,473,900	6,288,968		3,179,624	2,596,552	2,160,732	2,186,968	2,053,548	2,987,796	3,403,764		6,438,824	47,9
Service Period Charge	\$	\$ 549,875.87	\$ 496,777.12	\$ 414,944.77	\$ 265,491.20	\$ 221,609.08	\$ 192,701.32	\$ 193,507.28	\$ 189,417.79	\$ 236,821.09	\$ 321,190.97	\$ 381,676.35	\$ 538,297.52	\$ 4,00
Average Charge	\$/kWh	\$ 0.073600	\$ 0.079000	\$ 0.088600	\$ 0.083500	\$ 0.085300	\$ 0.089200	\$ 0.088500	\$ 0.092200	\$ 0.079300	\$ 0.094400	\$ 0.085100	\$ 0.083600	\$
NATURAL GAS SERVICE	<u> </u>	<u> </u>												
Service Dates	From	7/1/2020	8/1/2020	9/1/2020	10/1/2020	11/1/1930	12/1/2020	1/1/2021	2/1/2021	3/1/2021	4/1/2021	5/1/2021	6/1/2021	11/
	To	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/1930	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	6/3
JTILITY LDC INVOICE DATA	Start	528,647	552,235	574,925	600,250	636,386	683,389	753,583	827,611	901,578	950,520	990,442	1,023,762	
	Ending	552,235	574,925	600,250	636,386	683,389	753,583	827,611	901,578	950,520	990,442	1,023,762	1,046,626	
JTILITY METER Multiplier		10	10	10	10	10	10	10	10	10	10	10	10	
HEAT FACTOR		1.064	1.066	1.067	1.068	1.075	1.078	1.076	1.073	1.074	1.075	1.072	1.073	
Service Period Use	CCF	235,880	226,900	253,250	361,360	470,030	701,940	740,280	739,670	489,420	399,220	333,200	228,640	5,17
	Dth	25.097.9	24,177,1	27.031.4	38,610,6	50.524.5	75.662.1	79.658.6	79,400.3	52.567.6	42.901.0	35,714.0	24,543.1	555
Service Period Charges		-,	·											
CONSULTANTS	\$	\$5,983,00	\$5,983,00	\$5,983,00	\$5,983,00	\$5,983.00	\$5,983.00	\$5,983,00	\$5,983,00	\$5,983.00	\$5,983,00	\$5,983,00	\$5,983.00	71,7
NASHVILLE LDC	\$	\$ 11,983.99	\$ 11,748.12	\$ 12,479.32	\$ 15,445.53	\$ 18,497.50	\$ 24,936.96	\$ 26,653.68	\$ 24,037.29	\$ 21,836.51	\$ 19,092.23	\$ 17,090.26	\$ 14,850.04	218
CNEG	\$	\$ 35,549.02	\$ 42.349.35	\$ 72,194.23	\$ 80.065.99	\$ 150.663.67	\$ 214.066.05	\$ 208.976.44	\$ 278.467.96	\$ 144.025.93	\$ 110.918.85	\$ 98,540.04	\$ 67.148.60	1,502
TOTAL	\$	\$ 53,516.01	\$60,080.47	\$ 90,656.55	\$ 101,494.52	\$ 175,144.17	\$ 244,986.01	\$ 241,613.12	\$ 308,488.25	\$ 171,845.44	\$ 135,994.08	\$ 121,613.30	\$ 87,981.64	\$ 1,79
Average Charge	\$/Dth	\$ 2.1323	\$ 2.4850	\$ 3.3537	\$ 2.6287	\$ 175,144.17	\$ 3.2379	\$ 3.0331	\$ 3.8852	\$ 3.2690	\$ 3.1700	\$ 121,613.30	\$ 3.5848	\$ 1,7
WATER SERVICE (DOMESTIC AN		\$ 2.1323	φ 2.4630	φ 3.333 <i>1</i>	φ 2.020 <i>1</i>	\$ 3.4003	φ 3.2319	\$ 3.0331	φ 3.0002	\$ 3.2090	<b>э</b> 3.1700	\$ 3.4032	\$ 3.3646	φ
the state of the s	<del></del>	0/00/0000	7/04/0000	0/04/0000	0.000.0000	40/04/0000	4.4 (0.0 (0.0.0.0	10/01/0000	1 (0.1 (0.0.0.1	0/00/0004	0/04/0004	4 (0.0 (0.004	5/04/0004	0/0
Service Dates	From	6/30/2020	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/3
	То	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	6/3
JTILITY CEPS INVOICE DATA EN														
DOMESTIC	Start													
	Ending													
PLANT METER #1	Start													
	Ending													
PLANT METER #2	Start													
	Ending													
Service Period Use														
DOMESTIC	CCF	22	18	14	19	14	21	16	24	17	28	36	29	2
PLANT METER #1	CCF	22,498	26,251	21,160	16,082	11,038	12,844	9,877	8,470	8,210	10,473	11,733	17,614	17
PLANT METER #2	CCF			· ·				•			•	·		
TOTAL	CCF	22,520	26,269	21,174	16,101	11,052	12,865	9,893	8,494	8,227	10,501	11,769	17,643	17
PLANT ONLY	CCF	22,498	26,251	21.160	16.082	11,038	12.844	9,877	8,470	8,210	10.473	11,733	17,614	17
	GALLONS	16,828,504	19,635,748	15,827,680	12,029,336	8,256,424	9,607,312	7,387,996	6,335,560	6,141,080	7,833,804	8,776,284	13,175,272	131,
Service Period Charges	ONELONO	10,020,004	10,000,140	10,027,000	12,020,000	0,200,424	3,007,012	1,001,000	0,000,000	0,141,000	7,000,004	0,770,204	10,170,272	101,
DOMESTIC DOMESTIC	WATER \$	\$ 98.41	\$ 87.41	\$ 76.41	\$ 90.16	\$ 76.41	\$ 95.66	\$ 81.91	\$ 108.06	\$ 235.84	\$ 119.50	\$ 142.38	\$ 122.36	e
DOMESTIC	SEWER \$	\$ 256.08	\$ 232.68	\$ 209.28	\$ 238.53	\$ 209.28	\$ 250.23	\$ 220.98	\$ 278.40	\$ 88.04	\$ 302.72	\$ 351.36	\$ 308.80	- 0
DIANT	WATER \$	\$ 62,041.43	\$ 72,362.18	\$ 58,361.93	\$ 44,397.43	\$ 209.28	\$ 250.23	\$ 220.98 \$ 27,333.68	\$ 24,403.01	\$ 23,659.41	\$ 302.72	\$ 33,735.19	\$ 50,554.85	\$ 4
PLANT				\$ 58,361.93 \$ 30.940.65										
	SEWER\$	Ψ 02,004.00	\$ 38,387.70	7 00,010.00	\$ 23,517.00	\$ 16,140.15	\$ 18,778.50	\$ 14,437.80	\$ 12,865.28	\$ 12,476.16	\$ 15,917.44	\$ 17,832.64	\$ 26,764.16	¥ -
STATE FEE @	10%	\$ 9,829.04	\$ 11,407.00	\$ 9,342.82	\$ 7,124.31	\$ 4,995.22	\$ 5,761.73	\$ 4,507.44	\$ 4,065.48	\$ 3,945.95	\$ 4,947.13	\$ 5,716.16	\$ 8,201.02	\$
TOTAL		\$ 105,119.51	\$ 122,476.97	\$ 98,931.09	\$ 75,367.43	\$ 51,947.49	\$ 60,379.05	\$ 46,581.81	\$ 41,720.23	\$ 40,405.40	\$ 51,418.38	\$ 57,777.73	\$ 85,951.19	\$ 8
PLANT, WATER ONLY	\$	\$ 62,041.43	\$ 72,362.18	\$ 58,361.93	\$ 44,397.43	\$ 30,526.43	\$ 35,492.93	\$ 27,333.68	\$ 24,403.01	\$ 23,659.41	\$ 30,131.59	\$ 33,735.19	\$ 50,554.85	\$ 4
Average Charge	\$/kGall	\$ 3.6867	\$ 3.6852	\$ 3.6873	\$ 3.6908	\$ 3.6973	\$ 3.6944	\$ 3.6997	\$ 3.8518	\$ 3.8526	\$ 3.8464	\$ 3.8439	\$ 3.8371	\$
MONTHLY FEAs		0	0	0	0	0	0	0	0	0	0	0	0	
Service Dates	From	7/1/2020	8/1/2020	9/1/2020	10/1/2020	11/1/2020	12/1/2020	1/1/2021	2/1/2021	3/1/2021	4/1/2021	5/1/2021	6/1/2021	7/1
	To	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	6/3
STEAM ELECTRIC	10	\$10.05	-\$163.77	\$165.24	\$501.98	\$779.24	\$1,794.10	\$2,255.40	\$2,372.53	\$900.47	\$982.63	\$611.51	\$38.96	\$10
FUEL GAS		\$333.89	\$341.50	-\$131.06	-\$1,781.83	-\$4,740.64	-\$2.586.68	-\$6,805.40	-\$4,726.10	-\$4,476.79	-\$4.561.63	-\$1,767.30	\$178.34	-\$30
WATER		\$53.54	\$145.93	\$134.76	\$109.86	\$55.29	-\$212.44	-\$467.15	-\$595.54	\$33.96	\$112.97	\$175.79	\$220.88	-\$2
CHW ELECTRIC		\$730.76	\$2,543.01	\$3,019.44	\$3,514.40	\$3,811.72	\$2,283.48	\$661.58	\$366.38	\$2,688.13	\$5,083.46	\$9,291.22	\$8,462.78	\$42
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	\$
WATER		-\$4,099.54	-\$2,197.72	-\$2,736.63	-\$1,585.07	\$364.00	\$253.54	\$276.58	\$231.50	-\$485.94	\$50.00	-\$1,955.20	-\$3,634.57	-\$15

B M	ONTHLY FEA	S		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Service Date	S	From	7/1/2020	8/1/2020	9/1/2020	10/1/2020	11/1/2020	12/1/2020	1/1/2021	2/1/2021	3/1/2021	4/1/2021	5/1/2021	6/1/2021	7/1/2020
0			To	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	6/30/2021
1	STEAM	ELECTRIC		\$10.05	-\$163.77	\$165.24	\$501.98	\$779.24	\$1,794.10	\$2,255.40	\$2,372.53	\$900.47	\$982.63	\$611.51	\$38.96	\$10,248.34
2		FUEL GAS		\$333.89	\$341.50	-\$131.06	-\$1,781.83	-\$4,740.64	-\$2,586.68	-\$6,805.40	-\$4,726.10	-\$4,476.79	-\$4,561.63	-\$1,767.30	\$178.34	-\$30,723.70
3		WATER		\$53.54	\$145.93	\$134.76	\$109.86	\$55.29	-\$212.44	-\$467.15	-\$595.54	\$33.96	\$112.97	\$175.79	\$220.88	-\$232.15
4	CHW	ELECTRIC		\$730.76	\$2,543.01	\$3,019.44	\$3,514.40	\$3,811.72	\$2,283.48	\$661.58	\$366.38	\$2,688.13	\$5,083.46	\$9,291.22	\$8,462.78	\$42,456.36
5		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
6		WATER		-\$4,099.54	-\$2,197.72	-\$2,736.63	-\$1,585.07	\$364.00	\$253.54	\$276.58	\$231.50	-\$485.94	\$50.00	-\$1,955.20	-\$3,634.57	-\$15,519.05
7				\$ (2,971.30)	\$ 668.95	\$ 451.75	\$ 759.34	\$ 269.61	\$ 1,532.00	\$ (4,078.99)	\$ (2,351.23)	\$ (1,340.17)	\$ 1,667.43	\$ 6,356.02	\$ 5,266.39	\$6,229.80

69	STEAM CAPACITY TEST ADJUSTM	ENTS									
70	Month		7 8	9	10	11	12				TOTAL
71	NATURAL GAS										
72	USAGE CREDIT MCF										0
73	Dth										0
74	\$										\$ -
						,	-73-				



130

NASHVILLE, TENNESSEE

REV: 1 DATE: 10/22/21

4	CNE INVOICE R	ECONCI	LIATION	- FY 20	020 - 20	21						
75	ELECTRIC											
76	USAGE CREDIT	kWh										0
77		\$										\$ -
78	WATER											
79	USAGE CREDIT	kGallon										0
80		\$										\$ -
81	PLANT STEAM											
82	SEND-OUT CREDIT	mlb										0
83												
84												

lonth		7	8	9	10	11	12	1	2	3	4	5	6	
ATE OF READING		7/1/2020	8/1/2020	9/1/2020	10/1/2020	11/1/2020	12/1/2020	1/1/2021	2/1/2021	3/1/2021	4/1/2021	5/1/2021	6/1/2021	
coincides with Cus		7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	(
LECTRIC METER										<u> </u>				
SWG-2A	Start Reading	40,120.76	41,781.47	43,401.30	44,664.96	46,003.51	46,570.29	47,468.18	47,780.35	48,315.39	49,097.39	50,215.90	50,643.77	
	End Reading	41,781.47	43,401.30	44,664.96	46,003.51	46,570.29	47,468.18	47,780.35	48,315.39	49,097.39	50,215.90	50,643.77	51,059.86	
	d Use in units = 1,000 x kWh	1,660,710	1,619,830	1,263,660	1,338,550	566,780	897,890	312,170	535,040	782,000	1,118,510	427,870	416,090	
SWG-2B	Start Reading	97,418.39	98,588.41	99,432.45	100,158.46	100,231.05	100,717.89	101,244.60	102,418.67	103,178.76	104,589.00	105,984.23	107,061.64	
	End Reading	98,588.41	99,432.45	100,158.46	100,231.05	100,717.89	101,244.60	102,418.67	103,178.76	104,589.00	105,984.23	107,061.64	108,414.00	
	d Use in units = 1,000 x kWh	1,170,020	844,040	726,010	72,590	486,840	526,710	1,174,070	760,090	1,410,240	1,395,230	1,077,410	1,352,360	
SWG-3A	Start Reading	79,391.43	81,283.87	83,427.77	84,919.60	85,838.67	86,629.19	86,629.19	86,629.19	86,629.19	86,629.19	86,638.66	87,114.12	
	End Reading	81,283.87	83,427.77	84,919.60	85,838.67	86,629.19	86,629.19	86,629.19	86,629.19	86,629.19	86,638.66	87,114.12	88,840.73	
	d Use in units = 1,000 x kWh	1,892,440	2,143,900	1,491,830	919,070	790,520	0	0	0	0	9,470	475,460	1,726,610	
SWG-3B	Start Reading	160,077.96	161,198.38	161,354.38	161,401.00	161,401.00	161,416.70	161,416.70	161,416.70	161,512.75	161,512.75	161,538.22	162,897.11	
	End Reading	161,198.38	161,354.38	161,401.00	161,401.00	161,416.70	161,416.70	161,416.70	161,512.75	161,512.75	161,538.22	162,897.11	164,327.22	
	d Use in units = 1,000 x kWh	1,120,420	156,000	46,620	0	15,700	0	0	96,050	0	25,470	1,358,890	1,430,110	
SWG-4A	Start Reading	20,504,174.00	20,841,753.00	21,052,113.00	21,268,733.00	21,520,315.00	21,601,725.00	21,676,758.00	21,769,451.00	21,858,278.00	21,977,312.00	22,114,260.00	22,318,875.00	
	End Reading	20,841,753.00	21,052,113.00	21,268,733.00	21,520,315.00	21,601,725.00	21,676,758.00	21,769,451.00	21,858,278.00	21,977,312.00	22,114,260.00	22,318,875.00	22,724,696.00	
Period	d Use in units = 1 x kWh	337,579	210,360	216,620	251,582	81,410	75,033	92,693	88,827	119,034	136,948	204,615	405,821	
SWG-4B	Start Reading	6,362,944.00	6,631,012.00	6,978,977.00	7,192,347.00	7,230,406.00	7,369,881.00	7,493,523.00	7,589,014.00	7,681,390.00	7,818,689.00	7,972,638.00	8,202,637.00	
	End Reading	6,631,012.00	6,978,977.00	7,192,347.00	7,230,406.00	7,369,881.00	7,493,523.00	7,589,014.00	7,681,390.00	7,818,689.00	7,972,638.00	8,202,637.00	8,383,430.00	
	d Use in units = 1 x kWh	268,068	347,965	213,370	38,059	139,475	123,642	95,491	92,376	137,299	153,949	229,999	180,793	
SWG-5A	Start Reading	11,587,010.00	11,819,910.00	12,045,403.00	12,177,235.00	12,245,721.00	12,420,879.00	12,539,898.00	12,720,144.00	12,884,926.00	13,073,252.00	13,269,656.00	13,489,325.00	
	End Reading	11,819,910.00	12,045,403.00	12,177,235.00	12,245,721.00	12,420,879.00	12,539,898.00	12,720,144.00	12,884,926.00	13,073,252.00	13,269,656.00	13,489,325.00	13,787,226.00	
	d Use in units = 1 x kWh	232,900	225,493	131,832	68,486	175,158	119,019	180,246	164,782	188,326	196,404	219,669	297,901	
SWG-5B	Start Reading	12,418,439.00	12,570,913.00	12,716,989.00	12,849,865.00	12,983,564.00	12,987,887.00	13,054,832.00	13,054,832.00	13,054,834.00	13,054,834.00	13,075,959.00	13,123,449.00	
	End Reading	12,570,913.00	12,716,989.00	12,849,865.00	12,983,564.00	12,987,887.00	13,054,832.00	13,054,832.00	13,054,834.00	13,054,834.00	13,075,959.00	13,123,449.00	13,176,160.00	
Period	d Use in units = 1 x kWh	152,474	146,076	132,876	133,699	4,323	66,945	0	2	0	21,125	47,490	52,711	
MCC-1	Start Reading	12,871.40	18,947.70	22,206.10	64,833.00	49,432.20	13,242.10	56,473.80	94,771.10	23,929,812.30	24,068,875.00	24,234,308.00	24,448,632.00	
	End Reading	218,947.70	222,206.10	164,833.00	149,432.20	113,242.10	56,473.80	94,771.10	129,812.30	23,968,875.00	24,134,308.00	24,348,632.00	24,639,769.00	
Period	d Use in units = 1 x kWh	206,076	203,258	142,627	84,599	63,810	43,232	38,297	35,041	73,619	65,433	114,324	191,137	
MCC-2	Start Reading	6,554.70	65,976.20	99,629.00	49,505.50	23,952.80	75,330.60	4,884.10	25,314.10	23,046,548.10	23,190,478.95	23,267,718.70	23,410,062.38	
	End Reading	265,976.20	299,629.00	249,505.50	123,952.80	75,330.60	104,884.10	25,314.10	46,548.10	23,090,478.95	23,267,718.70	23,410,062.38	23,635,545.47	
Period	d Use in units = 1 x kWh	259,422	233,653	149,877	74,447	51,378	29,554	20,430	21,234	43,931	77,240	142,344	225,483	
MCC-3	Start Reading	70,648.90	97,601.20	24,414.00	46,653.20	77,803.80	17,357.40	73,096.60	10,098.30	5,644,027.70	5,688,584.26	5,616,225.02	5,628,518.54	
	End Reading	97,601.20	124,414.00	46,653.20	77,803.80	117,357.40	73,096.60	110,098.30	44,027.70	5,688,584.26	5,716,225.02	5,628,518.54	5,634,569.16	
Period	d Use in units = 1 x kWh	26,952	26,813	22,239	31,151	39,554	55,739	37,002	33,929	44,557	27,641	12,294	6,051	
MCC-4	Start Reading	31,133.40	55,597.40	79,848.50	8,763.00	44,745.00	99,302.20	80,294.80	72,253.80	8,173,515.30	8,225,905.44	8,271,594.98	8,320,992.82	
	End Reading	55,597.40	79,848.50	108,763.00	44,745.00	99,302.20	180,294.80	172,253.80	173,515.30	8,225,905.44	8,271,594.98	8,320,992.82	8,364,845.57	
Period	d Use in units = 1 x kWh	24,464	24,251	28,915	35,982	54,557	80,993	91,959	101,262	52,390	45,690	49,398	43,853	
NOTES:						•	•			•	•			

131 OTHER METERS (Paste Link)													
132 FT_6120: Propane Gas Available for Use	9,090.00	8,910.00	8,820.00	8,730.00	8,370.00	7,740.00	7,290.00	6,930.00	14,945.00	14,220.00	14,220.00	14,220.00	
133 Ending Inventory	8,910.00	8,820.00	8,730.00	8,370.00	7,740.00	7,290.00	6,930.00	5,940.00	14,220.00	14,220.00	14,220.00	14,220.00	
134 Period Use in units = Gallons	180.00	90.00	90.00	360.00	630.00	450.00	360.00	990.00	725.00	0.00	0.00	0.00	3,875
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	695,522	713,825	731,501	750,755	777,668	812,489	865,577	921,503	979,068	1,016,999	1,048,282	1,074,252	
137 End Reading	713,825	731,501	750,755	777,668	812,489	865,577	921,503	979,068	1,016,999	1,048,282	1,074,252	1,092,349	
138 Period Use in units = 1 x MLB	18,303	17,676	19,254	26,913	34,821	53,088	55,926	57,565	37,931	31,283	25,970	18,097	396,827
139 WQ_1800: CHW Sendout Start Reading	971,365	56,041	128,617	182,948	220,226	150,108	273,292	296,428	915,570,330	918,929,788	923,398,366	929,899,650	
140 End Reading	1,056,041	128,617	182,948	220,226	250,180	273,292	296,428	317,796	918,929,788	923,398,366	929,899,650	937,178,937	
141 Period Use in units = 1 x TON-HRS	8,467,600	7,257,600	5,433,100	3,727,800	2,988,200	12,318,400	2,313,600	2,136,800	3,454,300	4,011,000	5,371,100	7,565,100	65,044,600
142 FT_8100: Cond. Return Start Reading	47,896,300	49,131,500	50,191,200	51,282,900	52,731,500	54,609,100	57,857,200	62,392,300	467,707,000	471,352,400	474,328,200	476,795,100	
143 End Reading	49,131,500	50,191,200	51,282,900	52,731,500	54,609,100	57,857,200	62,392,300	67,707,000	471,352,400	474,328,200	476,795,100	478,456,600	
144 Period Use in units = 1 x GALL	1,235,200	1,059,700	1,091,700	1,448,600	1,877,600	3,248,100	4,535,100	5,314,700	3,645,400	2,975,800	2,466,900	1,661,500	30,560,300
145 WQ_8100: Cond. Return Start Reading	334,750	336,119	337,494	338,954	340,770	343,024	1,733	7,030	13,761	18,461	22,949	26,111	
<del>-</del>		•	•	'			•			•	•		*





Ford Docading	220.440	227.404	220.054	240.770	242.024	4.700	7.000	40.704	40.404	00.040	00.444	00.440	1
End Reading	336,119	337,494	338,954	340,770	343,024	1,733	7,030	13,761	18,461	22,949	26,111	28,119	
Period Use in units = 1 x mmBtu	1,369	1,375	1,460	1,816	2,254	3,644	5,297	6,731	4,700	4,488	3,162	2,008	38,30
Condensate Return Temp	168 °F	191 °F	196 °F	186 °F	179 °F	170 °F	175 °F	187 °F	190 °F	217 °F	189 °F	180 °F	186 °
FT_4500: MUW, Stm. Start Reading	8,866,440	9,957,740	1,062,020	2,362,250	4,352,210	7,016,380	786,440	3,555,390	165,693,560	166,803,380	167,666,100	178,301,730	
End Reading	9,957,740	11,062,020	2,362,250	4,352,210	7,016,380	10,786,440	3,555,390	5,693,560	166,803,380	167,666,100	168,301,730	178,708,410	
Period Use in units = 1 x GALL	1,091,300	1,104,280	1,300,230	1,989,960	2,664,170	3,770,060	2,768,950	2,138,170	1,109,820	862,720	635,630	406,680	19,841,97
FT_4200: MUW, CW. Start Reading	51,546,000	67,617,000	80,835,000	90,774,000	97,145,000	1,972,000	5,427,000	1,565,957,000	1,569,244,000	1,574,919,000	1,581,539,000	1,591,391,000	
End Reading	67,617,000	80,835,000	90,774,000	97,145,000	101,972,000	5,427,000	1,565,957,000	1,569,244,000	1,574,919,000	1,581,539,000	1,591,391,000	1,605,897,000	
Period Use in units = 1 x GALL	16,071,000	13,218,000	9,939,000	6,371,000	4,827,000	3,455,000	3,530,000	3,287,000	5,675,000	6,620,000	9,852,000	14,506,000	97,351,000
FT_4100: MUW, CHW. Start Reading	9,008,500	11,327,200	13,726,500	16,037,600	17,552,100	17,918,100	18,545,800	18,989,400	119,435,100	120,193,300	120,948,700	121,962,600	
End Reading	11,327,200	13,726,500	16,037,600	17,552,100	17,918,100	18,545,800	18,989,400	19,435,100	120,193,300	120,948,700	121,962,600	123,286,600	
Period Use in units = 1 x GALL	2,318,700	2,399,300	2,311,100	1,514,500	366,000	627,700	443,600	445,700	758,200	755,400	1,013,900	1,324,000	14,278,100
2" PLANT WATER Start Reading in 10 x scft	19,904	23,689	27,345	30,795	34,076	36,170	38,315	41,351	43,925	46,779	49,736	53,100	
UTILITY METER Start Reading in 10 x scft	23,689	27,345	30,795	34,076	36,170	38,315	41,351	43,925	46,779	49,736	53,100	53,436	
Period Use in units = 1 x SCFT	3,785	3,656	3,450	3,281	2,094	2,145	3,036	2,574	2,854	2,957	3,364	336	33,533
6" PLANT WATER Start Reading	552,535	574,935	593,845	608,765	618,935	627,535	636,030	642,180	2,647,685	2,655,255	2,663,630	2,676,010	
UTILITY METER End Reading	574,935	593,845	608,765	618,935	627,535	636,030	642,180	647,685	2,655,255	2,663,630	2,676,010	2,020,623	
Period Use in units = 1 x SCFT	22,400	18,910	14,920	10,170	8,600	8,495	6,150	5,505	7,570	8,375	12,380	21,943	145,418
2" DOMESTIC WATER Start Reading	4,251.0	4,270.0	4,285.0	4,304.0	4,320.0	4,337.0	4,354.0	4,369.0	4,397.0	4,424.0	4,454.0	4,487.0	
UTILITY METER End Reading	4,270.0	4,285.0	4,304.0	4,320.0	4,337.0	4,354.0	4,369.0	4,397.0	4,424.0	4,454.0	4,487.0	4,517.0	
Period Use in units = 1 x SCFT	19	15	19	16	17	17	15	28	27	30	33	30	26

PERFORMANCE CALCULATIONS Month	7	8	9	10	11	12	13	14	15	16	17	18	
ELECTRIC-to-STEAM CONVERSION				.0									
Emainutility kWh	7,473,900	6,288,968	4,683,560	3,179,624	2,596,552	2,160,732	2,186,968	2,053,548	2,987,796	3,403,764	4,485,684	6,438,824	
Echw.metered kWh	7.300.109	6,130,575	4,515,321	2,981,082	2,375,394	1.882.024	1,913,397	1,793,442	2,754,448	3,199,779	4,298,071	6,279,016	
Esteam.metered kWh	51.416	51.064	51,154	67,133	94,111	136,732	128,961	135,191	96,947	73.331	61,692	49,904	
Esteam.unmetered kWh	326	378	483	994	1,644	3,011	2,774	2,821	1,477	915	588	327	
CAPACITY TEST ADJUSTMENT, kWh	0	0	0	0	0	0	0	0	0	0	0	0	
Esteam.total kWh	51.742	51,442	51,637	68,127	95.755	139,743	131.735	138.012	98.424	74.246	62,280	50,231	
Customer Steam, Sn+e lbs	11,619,164	10,970,722	13,133,428	20,483,325	29,397,057	48,937,474	51,930,212	53,540,952	31,964,418	25,749,231	20,227,044	11,577,427	
nelec, actual kWh/klb	4.453	4,689	3,932	3,326	3.257	2.856	2,537	2.578	3.079	2.883	3.079	4,339	
FUEL GAS-to-STEAM CONVERSION			0.000	0.020	0.201						0.0.0		
Metered Plant Steam Send-out lbs	18.303.000	17,676,000	19,254,000	26,913,000	34,821,000	53,088,000	55,926,000	57,565,000	37,931,000	31,283,000	25,970,000	18,097,000	
CAPACITY TEST ADJUSTMENT, Ibs	0	0	0	0	0	0	0	0	0	0	0	0	
ADJUSTED Plant Steam SO lbs	18.303.000	17.676.000	19,254,000	26,913,000	34,821,000	53.088.000	55,926,000	57,565,000	37,931,000	31,283,000	25,970,000	18,097,000	
Natural Gas use, NG Dth	25,097.9	24,177.1	27,031.4	38,610.6	50,524.5	75,662.1	79,658.6	79,400.3	52,567.6	42,901.0	35,714.0	24,543.1	
Propane Gas use, P gallon	180	90	90	360	630	450	360	990	725	0	0	0	
Dth	16	8	8	33	57	41	33	90	66	0	0	0	
CAPACITY TEST ADJUSTMENT, Dth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL FUEL GAS USE Dth	25,114.3	24.185.3	27.039.6	38.643.4	50,581.5	75,703.1	79,691.6	79,490.4	52.633.6	42,901.0	35,714.0	24.543.1	
nhhv,actual Dth/klb	1.372	1,368	1,404	1.436	1.453	1,426	1,425	1.381	1.388	1,371	1.375	1.356	
Condensate Return, CR gallon	1,235,200	1,059,700	1.091.700	1,448,600	1.877.600	3,248,100	4,535,100	5,314,700	3,645,400	2,975,800	2,466,900	1,661,500	
% of SO	55.04%	48.90%	46.24%	43.90%	43.98%	49.90%	66.14%	75.30%	78.38%	77.58%	77.47%	74.88%	
Condensate Return Energy mmBtu	1.369	1,375	1,460	1,816	2,254	3,644	5,297	6,731	4,700	4,488	3,162	2.008	
Condensate Return Temperature avg	168 °F	191 °F	196 °F	186 °F	179 °F	170 °F	175 °F	187 °F	190 °F	217 °F	189 °F	180 °F	
nhhv,guarantee Dth/klb							1			1		GUARANTEE	D MAX RATE
75	-											C	S FEA RATE
WATER-to-STEAM CONVERSION													
Metered Steam Makeup, MW Gallons	1,091,300	1,104,280	1,300,230	1,989,960	2,664,170	3,770,060	2,768,950	2,138,170	1,109,820	862,720	635,630	406,680	
CAPACITY TEST ADJUSTMENT, Gallons	0	0	0	0	0	0	0	0	0	0	0	0	
ADJUSTED Steam Makeup, MW Gallons	1,091,300	1,104,280	1,300,230	1,989,960	2,664,170	3,770,060	2,768,950	2,138,170	1,109,820	862,720	635,630	406,680	
Actual Steam Makeup, nwater Gallons	1,102,213	1,115,323	1,313,232	2,009,860	2,690,812	3,807,761	2,796,640	2,159,552	1,120,918	871,347	641,986	410,747	
Guarantee Steam Makeup, nguar. Gallons	1,160,299	1,273,716	1,459,418	2,128,926	2,750,628	3,750,257	2,670,373	2,004,938	1,156,178	988,829	824,915	641,008	
ELECTRICITY-to-CHW CONVERSION													<u> </u>
Emainutility kWh	7,473,900	6,288,968	4,683,560	3,179,624	2,596,552	2,160,732	2,186,968	2,053,548	2,987,796	3,403,764	4,485,684	6,438,824	
CAPACITY TEST ADJUSTMENT, kWh	0	0	0	0	0	0	0	0	0	0	0	0	
Echw,metered kWh	7,300,109	6,130,575	4,515,321	2,981,082	2,375,394	1,882,024	1,913,397	1,793,442	2,754,448	3,199,779	4,298,071	6,279,016	1
Esteam,total kWh	51,742	51,442	51,637	68,127	95,755	139,743	131,735	138,012	98,424	74,246	62,280	50,231	
Echw.unmetered kWh	46,563	45,664	43,046	44.840	42,266	42,451	42,123	38,281	42,622	40.431	41,361	41,439	
Echw.total kWh	7,346,672	6,176,239	4,558,367	3,025,922	2,417,660	1,924,475	1,955,520	1,831,723	2,797,070	3,240,210	4,339,432	6,320,455	
Customer CHW, CHWs+e Ton-hrs	7,942,922	6,776,851	5.048.825	3.435.719	2,792,873	2,178,689	2,135,876	1,986,868	3.153.315	3,713,809	5.137.885	7.230.672	1
nelec, actual kWh/ton-hr	0.925	0.911	0.903	0.881	0.866	0.883	0.916	0.922	0.887	0.872	0.845	0.874	
	0.020			2.201	2.250	2.230	2.2.0		2.201		2.2.10	****	
CW-to-CHW CONVERSION				7.004.000	5 400 000	4,082,700	2.072.000	3,732,700	6,433,200	7,375,400	10,782,000	15,406,000	
	17.001 000	14.148.000	10.839.0001	7.301.0001									
Cond Water Makeup incl loss , CM Gallons Customer CHW, CHWs+e Ton-hrs	17,001,000 7,942,922	14,148,000 6,776,851	10,839,000 5,048,825	7,301,000 3,435,719	5,193,000 2,792,873	2,178,689	3,973,600 2,135,876	1.986.868	3,153,315	3,713,809	5,137,885	7,230,672	



REV: 1 DATE: 10/22/21

## **CNE INVOICE RECONCILIATION - FY 2020 - 2021**

217															
217	METER CHECKS AND EST	IMATES													
218	WATER METER CHECKS		7	8	9	10	11	12	1	2	3	4	5	6	TOTAL
219	Utility Meters - Utility Dates	gallons	16,828,504	19,635,748	15,827,680	12,029,336	8,256,424	9,607,312	7,387,996	6,335,560	6,141,080	7,833,804	8,776,284	13,175,272	131,835,000
220	Utility Meters - Customer Dates	gallons	195,864	168,794	137,408	100,613	79,991	79,587	68,711	60,431	77,972	84,763	117,765	166,647	1,338,546
221	variance (line 184-line 183)	gallons	-16,632,640	-19,466,954	-15,690,272	-11,928,723	-8,176,433	-9,527,725	-7,319,285	-6,275,129	-6,063,108	-7,749,041	-8,658,519	-13,008,625	-130,496,454
222		AL (line 183)	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-99%	-98.98%
223	Plant Meters														
224	CHW	gallons	2,318,700	2,399,300	2,311,100	1,514,500	366,000	627,700	443,600	445,700	758,200	755,400	1,013,900	1,324,000	14,278,100
225	CW	gallons	16,071,000	13,218,000	9,939,000	6,371,000	4,827,000	3,455,000	3,530,000	3,287,000	5,675,000	6,620,000	9,852,000	14,506,000	97,351,000
226	STEAM	gallons	1,091,300	1,104,280	1,300,230	1,989,960	2,664,170	3,770,060	2,768,950	2,138,170	1,109,820	862,720	635,630	406,680	19,841,970
227	TOTAL	gallons	19,481,000	16,721,580	13,550,330	9,875,460	7,857,170	7,852,760	6,742,550	5,870,870	7,543,020	8,238,120	11,501,530	16,236,680	131,471,070
228	variance (line 191-line 184)	gallons	19,285,136	16,552,786	13,412,922	9,774,847	7,777,179	7,773,173	6,673,839	5,810,439	7,465,048	8,153,357	11,383,765	16,070,033	130,132,524
229	% of TOT	AL (line 184)	115%	84%	85%	81%	94%	81%	90%	92%	122%	104%	130%	122%	98.71%
230 231	CW MUW CHECK		7	o l	9	10	11	12	41	al	اه ا	41	<b>E</b> I	- 1	TOTAL
232	CHW Send-out	ton-hrs	8.467.600	7.257.600	5.433.100	3.727.800	2.988.200	12.318.400	2,313,600	2.136.800	3,454,300	4,011,000	5.371.100	7.565.100	65,044,600
232	CW MUW Rate	gall/ton-hr	1,898	1,257,600	1,829	1,709	2,988,200	0.280	2,313,600	2,136,800	3,454,300	4,011,000	5,371,100	7,565,100	1,497
234	CVV IVIOVV Rate	gaii/t011-111	1.090	1.021	1.029	1.709	1.015	0.200	1.520	1.330	1.043	1.030	1.034	1.917	1.497
235	FINAL MAKEUP WATER RESULTS	1	7	8	9	10	11	12	1	2	3	4	5	6	TOTAL
236	CHW	gallons	2,318,700	2,399,300	2,311,100	1,514,500	366,000	627,700	443.600	445,700	758,200	755,400	1,013,900	1,324,000	14,278,100
237	CW	gallons	16,071,000	13,218,000	9,939,000	6,371,000	4,827,000	3,455,000	3,530,000	3,287,000	5,675,000	6,620,000	9,852,000	14,506,000	97,351,000
238	STEAM	gallons	1,091,300	1,104,280	1,300,230	1,989,960	2,664,170	3,770,060	2,768,950	2,138,170	1,109,820	862,720	635,630	406,680	19,841,970
239	TOTAL	gallons	19,481,000	16,721,580	13,550,330	9,875,460	7,857,170	7,852,760	6.742.550	5,870,870	7,543,020	8,238,120	11,501,530	16,236,680	131,471,070
240	variance	gallons	19,285,136	16,552,786	13,412,922	9,774,847	7,777,179	7,773,173	6,673,839	5,810,439	7,465,048	8,153,357	11,383,765	16,070,033	130,132,524
241	% of TOT	AL (line 184)	115%	84%	85%	81%	94%	81%	90%	0%	0%	104%	130%	122%	99%
242												•			·
243	STEAM PLANT MASS BALANCE CK		7	8	9	10	11	12	1	2	3	4	5	6	TOTAL
244	STEAM SENDOUT	klbs	18,303	17,676	19,254	26,913	34,821	53,088	55,926	57,565	37,931	31,283	25,970	40.007	396,827
245	STEAM PRODUCTION	klbs												18,097	
246		KIDS	22,440	21,128	23,755	32,272	41,619	64,483	66,998	68,297	46,115	38,150	30,678	20,804	476,739
		KIDS	22,440 -4,137	21,128 -3,452	23,755 -4,501	32,272 -5,359	41,619 -6,798	64,483 -11,395	66,998 -11,072	68,297 -10,732	46,115 -8,184				476,739
247	CALC'D LOSSES		-4,137	-3,452	-4,501	-5,359	-6,798	-11,395	-11,072	-10,732	-8,184	38,150 -6,867	30,678 -4,708	20,804 -2,707	
248	BLOWDO\ 4%	klbs	-4,137 898	-3,452 845	-4,501 950	-5,359 1,291	-6,798 1,665	-11,395 2,579	-11,072 2,680	-10,732 2,732	-8,184 1,845	38,150 -6,867 1,526	30,678 -4,708 1,227	20,804 -2,707 832	19,070
248 249	BLOWDO\ 4% DEA VENT 0.50%	klbs klbs	-4,137 898 112	-3,452 845 106	-4,501 950 119	-5,359 1,291 161	-6,798 1,665 208	-11,395 2,579 322	-11,072 2,680 335	-10,732 2,732 341	-8,184 1,845 231	38,150 -6,867 1,526 191	30,678 -4,708 1,227 153	20,804 -2,707 832 104	19,070 2,384
248 249 250	BLOWDO\ 4%	klbs	-4,137 898	-3,452 845	-4,501 950	-5,359 1,291	-6,798 1,665	-11,395 2,579	-11,072 2,680	-10,732 2,732	-8,184 1,845	38,150 -6,867 1,526	30,678 -4,708 1,227	20,804 -2,707 832	19,070
248 249 250 251	BLOWDO\ 4%  DEA VENTO.50%  TOTAL CALC'D LOSSES	kibs kibs kibs	-4,137 898 112 1,010	-3,452 845 106 951	-4,501 950 119 1,069	-5,359 1,291 161 1,452	-6,798 1,665 208 1,873	-11,395 2,579 322 2,902	-11,072 2,680 335 3,015	-10,732 2,732 341 3,073	-8,184 1,845 231 2,075	38,150 -6,867 1,526 191 1,717	30,678 -4,708 1,227 153 1,381	20,804 -2,707 832 104 936	19,070 2,384 21,453
248 249 250 251 252	BLOWDO\4%  DEA VENT 0.50%  TOTAL CALC'D LOSSES  CONDENSATE RETURN	klbs klbs klbs	-4,137 898 112 1,010	-3,452 845 106 951 1,059,700	-4,501 950 119 1,069	-5,359 1,291 161 1,452 1,448,600	-6,798 1,665 208 1,873 1,877,600	-11,395 2,579 322 2,902 3,248,100	-11,072 2,680 335 3,015 4,535,100	-10,732 2,732 341 3,073 5,314,700	-8,184 1,845 231 2,075 3,645,400	38,150 -6,867 1,526 191 1,717 2,975,800	30,678 -4,708 1,227 153 1,381 2,466,900	20,804 -2,707 832 104 936	19,070 2,384 21,453 30,560,300
248 249 250 251 252 253	BLOWDO\4% DEA VENTO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN 8.15585	klbs klbs klbs gallons klbs	-4,137 898 112 1,010 1,235,200 10,074	-3,452 845 106 951 1,059,700 8,643	-4,501 950 119 1,069 1,091,700 8,904	-5,359 1,291 161 1,452 1,448,600 11,815	-6,798 1,665 208 1,873 1,877,600 15,313	2,579 322 2,902 3,248,100 26,491	-11,072 2,680 335 3,015 4,535,100 36,988	-10,732 2,732 341 3,073 5,314,700 43,346	-8,184 1,845 231 2,075 3,645,400 29,731	38,150 -6,867 1,526 191 1,717 2,975,800 24,270	30,678 -4,708 1,227 153 1,381 2,466,900 20,120	20,804 -2,707 832 104 936 1,661,500 13,551	19,070 2,384 21,453 30,560,300 249,245
248 249 250 251 252 253 254	BLOWDO\4%  DEA VENT 0.50%  TOTAL CALC'D LOSSES  CONDENSATE RETURN	klbs klbs klbs	-4,137 898 112 1,010	-3,452 845 106 951 1,059,700	-4,501 950 119 1,069	-5,359 1,291 161 1,452 1,448,600	-6,798 1,665 208 1,873 1,877,600	-11,395 2,579 322 2,902 3,248,100	-11,072 2,680 335 3,015 4,535,100	-10,732 2,732 341 3,073 5,314,700	-8,184 1,845 231 2,075 3,645,400	38,150 -6,867 1,526 191 1,717 2,975,800	30,678 -4,708 1,227 153 1,381 2,466,900	20,804 -2,707 832 104 936	19,070 2,384 21,453 30,560,300
248 249 250 251 252 253 254 255	BLOWDO14% DEA VENTIO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN 8.15585 STEAM MUW 8.3453	kibs kibs kibs gallons kibs	4,137 898 112 1,010 1,235,200 10,074 9,107	-3,452 845 106 951 1,059,700 8,643 9,216	-4,501 950 119 1,069 1,091,700 8,904 10,851	-5,359 1,291 161 1,452 1,448,600 11,815 16,607	-6,798 1,665 208 1,873 1,877,600 15,313 22,233	2,579 322 2,902 3,248,100 26,491 31,462	-11,072 2,680 335 3,015 4,535,100 36,988 23,108	-10,732 2,732 341 3,073 5,314,700 43,346 17,844	-8,184 1,845 231 2,075 3,645,400 29,731 9,262	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200	30,678 -4,708 -1,227 -153 -1,381 -2,466,900 -20,120 -5,305	20,804 -2,707 832 104 936 1,661,500 13,551 3,394	19,070 2,384 21,453 30,560,300 249,245 165,587
248 249 250 251 252 253 254 255 256	BLOWDO: 4%	kibs kibs kibs gallons kibs kibs	4,137 898 112 1,010 1,235,200 10,074 9,107	-3,452 845 106 951 1,059,700 8,643 9,216 18,627	-4,501 950 119 1,069 1,091,700 8,904 10,851 20,323	-5,359 1,291 161 1,452 1,448,600 11,815 16,607	-6,798 1,665 208 1,873 1,877,600 15,313 22,233 36,694	-11,395 2,579 322 2,902 3,248,100 26,491 31,462 55,990	-11,072 2,680 335 3,015 4,535,100 36,988 23,108	-10,732 2,732 341 3,073 5,314,700 43,346 17,844	-8,184 1,845 231 2,075 3,645,400 29,731 9,262 40,006	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200 33,000	30,678 -4,708 1,227 153 1,381 2,466,900 20,120 5,305 27,351	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280
248 249 250 251 252 253 254 255 256 257	BLOWDO14% DEA VENTO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN  8.15585 STEAM MUW 8.3453 TOTAL LEAVING PLANT TOTAL ENTERING PLANT	kibs kibs kibs gallons kibs kibs kibs kibs	4,137 898 112 1,010 1,235,200 10,074 9,107 19,313 19,181	-3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858	-4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755	-5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 26,421	-6,798 1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547	2,579 322 2,902 3,248,100 26,491 31,462 55,990 57,953	-11,072 2,680 335 3,015 4,535,100 36,988 23,108 58,941 60,095	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190	-8,184 1,845 231 2,075 3,645,400 29,731 9,262 40,006 38,993	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470	30,678 -4,708 -1,227 -153 -1,381 -2,466,900 -20,120 -5,305 -27,351 -25,424	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832
248 249 250 251 252 253 254 255 256 257 258	BLOWDO: 4%	kibs kibs kibs gallons kibs kibs	4,137 898 112 1,010 1,235,200 10,074 9,107 19,313 19,811 -131	3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858 -768	-4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755 -568	-5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 28,421 56	-6,798 1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547 853	-11,395 2,579 322 2,902 3,248,100 26,491 31,462 55,990 57,953 1,964	-11,072 2,680 335 3,015 4,535,100 36,988 23,108 58,941 60,095 1,154	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190 551	-8,184 1,845 231 2,075 3,645,400 29,731 9,262 40,006 38,993 -1,013	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470 -1,530	30,678 -4,708 1,227 153 1,381 2,466,900 20,120 5,305 27,351 25,424 -1,926	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945 -2,088	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832 -3,448
248 249 250 251 252 253 254 255 256 257 258 259	BLOWDO14% DEA VENTIO.50% TOTAL CALCD LOSSES  CONDENSATE RETURN 8.15585 STEAM MUW 8.3453  TOTAL LEAVING PLANT TOTAL ENTERING PLANT OVERAGE / SHORTFALL	kibs kibs kibs gallons kibs kibs kibs kibs kibs	4,137 898 112 1,010 1,235,200 10,074 9,107 19,313 19,181	-3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858	-4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755	-5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 26,421	-6,798 1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547	2,579 322 2,902 3,248,100 26,491 31,462 55,990 57,953	-11,072 2,680 335 3,015 4,535,100 36,988 23,108 58,941 60,095	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190	-8,184 1,845 231 2,075 3,645,400 29,731 9,262 40,006 38,993	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470	30,678 -4,708 -1,227 -153 -1,381 -2,466,900 -20,120 -5,305 -27,351 -25,424	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832
248 249 250 251 252 253 254 255 256 257 258 259 260	BLOWDO14% DEA VENTO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN  8.15585 STEAM MUW 8.3453  TOTAL LEAVING PLANT TOTAL ENTERING PLANT OVERAGE / SHORTFALL  FINAL CONDENSATE RETURN CAL	kibs kibs kibs gallons kibs kibs kibs kibs kibs cutations	4,137 898 112 1,010 1,235,200 10,074 9,107 19,313 19,181 -131 -0.7%	-3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858 -768 -4,1%	4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755 -568 -2,8%	5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 28,421 56 0,2%	-6,798  1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547 853 2,3%	-11,395 2,579 322 2,902 3,248,100 26,491 31,462 55,990 57,953 1,964 3,5%	-11,072 2,680 335 3,015 4,535,100 36,988 23,108 58,941 60,005 1,154 2,0%	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190 551 0,9%	-8,184  1,845 231 2,075 3,645,400 29,731 9,262 40,006 38,993 -1,013 -2,5%	38.150 -6.867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470 -1,530 -4.6%	30,678 -4,708 -1,227 153 1,381 2,466,900 20,120 5,305 27,351 25,424 -1,926 -7,0%	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945 -2,088 -11,0%	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832 -3,448
248 249 250 251 252 253 254 255 256 257 258 259 260 261	BLOWDOI-4% DEA VENTIO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN 8.15585 STEAM MUW 8.3453  TOTAL LEAVING PLANT TOTAL ENTERING PLANT OVERAGE / SHORTFALL  FINAL CONDENSATE RETURN CAL RECALC D TOTAL ENTERING	kibs kibs kibs gallons kibs kibs kibs kibs kibs kibs kibs kib	4,137 898 112 1,010 1,235,200 10,074 9,107 19,313 19,811 -131	3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858 -768	-4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755 -568	-5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 28,421 56	-6,798 1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547 853 2,3%	-11,395 -2,579 -322 -2,902 -3,248,100 -26,491 -31,462 -55,990 -57,953 -1,964 -3,5% -57,669	-11,072 2,680 335 3,015 4,535,100 36,988 23,108 58,941 60,095 1,154 2,0% 60,709	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190 551	-8,184 1,845 231 2,075 3,645,400 29,731 9,262 40,006 38,993 -1,013	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470 -1,530 4,6%	30,678 4,708 4,708 1,227 153 1,381 2,466,900 20,120 5,306 27,351 25,424 -1,926 -7,0% 28,171	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945 -2,088 -11,0%	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832 -3,448
248 249 250 251 252 253 254 255 256 257 258 259 260 261 262	BLOWDO14% DEA VENTO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN  8.15585 STEAM MUW 8.3453  TOTAL LEAVING PLANT TOTAL ENTERING PLANT OVERAGE / SHORTFALL  FINAL CONDENSATE RETURN CAL	kibs kibs kibs gallons kibs kibs kibs kibs kibs cutations	4,137  898 112 1,010 1,235,200 10,074 9,107 19,313 19,181 -131 -0.7%	3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858 -768 -4,1% 19,186	-4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755 -568 -2,8% 20,903	5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 28,421 56 0,2%	-6,798  1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547 853 2,3%	-11,395 2,579 322 2,902 3,248,100 26,491 31,462 55,990 57,953 1,964 3,5%	-11,072 2,680 335 3,015 4,535,100 36,988 23,108 58,941 60,005 1,154 2,0%	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190 551 0,9%	-8,184 1,845 231 2,075 3,645,400 29,731 9,262 40,006 38,993 -1,013 -2,5% 41,206	38.150 -6.867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470 -1,530 -4.6%	30,678 -4,708 -1,227 153 1,381 2,466,900 20,120 5,305 27,351 25,424 -1,926 -7,0%	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945 -2,088 -11,0%	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832 -3,448
248 249 250 251 252 253 254 255 256 257 258 259 260 261	BLOWDOI-4% DEA VENTIO.50% TOTAL CALC'D LOSSES  CONDENSATE RETURN 8.15585 STEAM MUW 8.3453  TOTAL LEAVING PLANT TOTAL ENTERING PLANT OVERAGE / SHORTFALL  FINAL CONDENSATE RETURN CAL RECALC D TOTAL ENTERING	klbs klbs klbs gallons klbs klbs klbs klbs klbs klbs klbs klb	-4,137  888 112 1,010 1,235,200 10,074 9,107 19,313 19,181 -131 -0.7% 19,892 10,785	-3,452 845 106 951 1,059,700 8,643 9,216 18,627 17,858 -768 -4.1% 19,186 9,970	4,501 950 119 1,069 1,091,700 8,904 10,851 20,323 19,755 -568 -2,8% 20,933 10,082	5,359 1,291 161 1,452 1,448,600 11,815 16,607 28,365 28,421 56 0,2%	-6,798 1,665 208 1,873 1,877,600 15,313 22,233 36,694 37,547 853 2,3% 37,795 15,561	-11,395 -2,579 -322 -2,902 -3,248,100 -26,491 -31,462 -55,990 -57,953 -1,964 -3,5% -57,669 -26,207	-11,072  2,680 335 3,015  4,535,100 36,988 23,108 58,941 60,095 1,154 2,0% 60,709 37,601	-10,732 2,732 341 3,073 5,314,700 43,346 17,844 60,638 61,190 551 0,9%	-8,184  1,845 231 2,075  3,645,400 29,731 9,262 40,006 38,993 -1,013 -2,5% 41,206 31,945	38,150 -6,867 1,526 191 1,717 2,975,800 24,270 7,200 33,000 31,470 -1,530 -4,6% 33,990 26,790	30,678 -4,708 -1,227 -153 -1,381 -2,466,900 -20,120 -5,305 -2,351 -2,544 -1,926 -7,0% -2,8171 -2,2,667	20,804 -2,707 832 104 936 1,661,500 13,551 3,394 19,033 16,945 -2,088 -11,0%	19,070 2,384 21,453 30,560,300 249,245 165,587 418,280 414,832 -3,448

REV: 1 DATE: 10/22/21

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## **CNE INVOICE RECONCILIATION - FY 2020 - 2021**

CLIMANA DV	ELECTRIC FEA	L FUEL CAC FEA	WATER FEA	Contain TOTAL	Г	Include FFA	
SUMMARY	ELECTRIC FEA	FUEL GAS FEA	WATER FEA	System TOTAL		Include FEA	
STEAM SYSTEM	\$9,799.44	(\$28,164.73)	\$719.01	(\$17,646.28)		in INVOICE	
CHILLED WATER SYSTEM	\$41,600.20	\$0.00	(\$11,962.63)	\$29,637.57		(YES/NO)	
TOTAL	\$51,399.64	(\$28,164.73)	(\$11,243.62)	\$11,991.29		YES	
ELECTRICITY-TO-STEAM CONVE	PSION						
CONTRACTUAL GUARANTEE	4.500	kWh per mlb sold	CNE PENALTY/E	ONUS CALCULATIO	N	PENALTY	BONUS
Metering Inaccuracy Buffer	0%		RATE VARI		kWh per mlb sold	0.000	1.424794
GUARANTEED MAX QUANTITY	4.500000	kWh per mlb sold	STEAM SO		329,530.454 mlb	0.000	
CEPS FUEL EFFICIENCY ADJUSTM	4.500000	kWh per mlb sold		in kWh = RATE VARIA		0	469,513
CEPS ACTUAL CONVERSION RATE	3.075206	kWh per mlb sold		ELECTRIC PRICE	\$0.083486 / kWh		,
				ALTY / BONUS	***************************************	\$0.00	\$9,799,44
					ariance and Bonus at 2	5% of variance	*-,
FUEL GAS-TO-STEAM CONVERSI	ON	<u>.</u>					
CONTRACTUAL GUARANTEE (varie	s by Condensate Ret	urn, see below)	CNE PENALTY/E	ONUS CALCULATION	N	PENALTY	BONUS
Given Condensate Return at	63%	of Send-out	RATE VARI	ANCE	Dth. per mlb sold	-0.022	0.000
	186 °F	avg. Temp.	STEAM SEI	ND-OUT	396,827 mlb		
GUARANTEED MAX QUANTITY	1.380000	Dth.per mlb sold	VARIANCE	in Dth. = RATE VARIA	NCE x STEAM SOLD	-8,730	0
CEPS FUEL EFFICIENCY ADJUSTM	1.380000	Dth.per mlb sold	AVERAGE	FUEL PRICE	\$3.22620 / Dth.		
CEPS ACTUAL CONVERSION RATE	1.402000	Dth.per mlb sold	CEPS PENA	ALTY / BONUS		-\$28,164.73	\$0.00
			NOTE	: Penalty at 100% of v	ariance and Bonus at 2	5% of variance	
WATER-TO-STEAM CONVERSION							
CONTRACTUAL GUARANTEE (varie	s by Plant Send-out,	see below))		ONUS CALCULATIO		PENALTY	BONUS
PLANT LOSSES	15%		VARIANCE	in gallons = GMQ - CE	S ACTUAL USE	0	769,096
VOLUMETRIC CONVERSION	7.4805	gallons per cft		NATER PRICE	\$3.7395 / kGall		
CONDENSATE RETURN SPEC. VOI	8.15585	gall per lb	CEPS PEN	ALTY / BONUS		\$0.00	\$719.01
GUARANTEED MAX QUANTITY	20,809,486	gallons	Avera	ge water pice excludes	sewer.		
CEPS ACTUAL USE	20,040,390	gallons					
			NOTE	: Penalty at 100% of v	ariance and Bonus at 2	5% of variance	
<b>ELECTRICITY-TO-CHILLED WATE</b>	R CONVERSION						
CONTRACTUAL GUARANTEE	0.930	kWh per ton-hr sold	CNE PENALTY/E	ONUS CALCULATION	N	PENALTY	BONUS
Metering Inaccuracy Buffer	0%		RATE VARI	ANCE	kWh per ton-hr sold	0.000	0.0386763
GUARANTEED MAX QUANTITY	0.93000000	kWh per ton-hr sold	CHILLED W	ATER SOLD	51,534,304 ton-hrs		
CEPS FUEL EFFICIENCY ADJUSTN	0.93000000	kWh per ton-hr sold		in kWh = RATE VARIA		0	1,993,158
CEPS ACTUAL CONVERSION RATE	0.89132367	kWh per ton-hr sold	AVERAGE	ELECTRIC PRICE	\$0.083486 / kWh		
				ALTY / BONUS		\$0.00	\$41,600.2
	<u> </u>		NOTE	: Penalty at 100% of v	ariance and Bonus at 2	5% of variance	
WATER-TO-CHILLED WATER CON	IVERSION						
CONTRACTUAL GUARANTEE	2.000	gall per ton-hr sold		ONUS CALCULATION		PENALTY	BONUS
Metering Inaccuracy Buffer	0%		RATE VARI		gall per ton-hr sold	-0.062075	0.000
GUARANTEED MAX QUANTITY	2.000000	gall per ton-hr sold		ATER SOLD	51,534,304 ton-hrs		
CEPS FUEL EFFICIENCY ADJUSTM	2.000000	gall per ton-hr sold		in gallons = RATE VAI		-3,198,992	0
CEPS ACTUAL CONVERSION RATE	2.062075	gall per ton-hr sold		NATER PRICE	\$3.7395 / kGall		
		1	CEDS DEN	ALTY / BONUS		-\$11.962.63	\$0.00
					ariance and Bonus at 2		ψ0.00

5								
COMPARISO	N PREVIOUSLY	BILLED VS. RE	CONCILED AN	IOUNTS				
STEAM SYSTEM					CHILLED WATER	SYSTEM		
	CALCULATED	RECONCILED	VARIANCE			CALCULATED	RECONCILED	VARIANCE
ELECTRIC	\$10,248.34	\$9,799.44	(\$448.90)		ELECTRIC	\$42,456.36	\$41,600.20	(\$856.16)
FUEL GAS	(\$30,723.70)	(\$28,164.73)	\$2,558.97		FUEL GAS	\$0.00	\$0.00	\$0.00
WATER	(\$232.15)	\$719.01	\$951.16		WATER	(\$15,519.05)	(\$11,962.63)	\$3,556.42
TOTAL	(\$20,707.51)	(\$17,646.28)	\$3,061.23		TOTAL	\$26,937.31	\$29,637.57	\$2,700.26
3		<u> </u>	·		·	·	<u> </u>	

65	COMPARISON	N AMOUNT CO	LLECTED BY ME	TRO VS 97-1:	3 CAP		
66		FEA COLLEC	TED BY METRO		FEA RECONCILED	METRO OWES	CUSTOMER OWES
67		STEAM	CHILLED WATER	TOTAL	CNE	CNE *	METRO
68	ELECTRIC	\$10,248.34	\$42,456.36	\$52,704.70	\$51,399.64	(\$989.80)	(\$1,305.06)
69	FUEL GAS	(\$30,723.70)	\$0.00	(\$30,723.70)	(\$28,164.73)	\$2,558.97	\$2,558.97
70	WATER	(\$232.15)	(\$15,519.05)	(\$15,751.20)	(\$11,243.62)	\$4,507.58	\$4,507.58
71	TOTAL	(\$20,707.51)	\$26,937.31	\$6,229.80	\$11,991.29	\$6,076.75	\$5,761.49
72							

<sup>\*</sup> Includes \$315.26 FEA Electric to Steam for adjustment of certain customers in true-up

56 57 58

64



# 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		47,939,920 kWh
(2)	E (Steam,mete	ered) = metered electric use for steam plant		997,636 kWh
		MCC-3	363,922	
		MCC-4	633,714	
(3)	E (CHW,meter	red) = metered electric use for chilled water plant		45,422,659 kWh
		SWGR-2A	10,939,100	
		SWGR-2B	10,995,610	
		SWGR-3A	9,449,300	
		SWGR-3B	4,249,260	
		SWGR-4A	2,220,522	
		SWGR-4B	2,020,486	
		SWGR-5A	2,200,216	
		SWGR-5B	757,721	
		MCC-1	1,261,453	
		MCC-2	1,328,991	
(4)	Esteam,unmet	tered = un-metered electric use for steam plant = [ (2) / (1) ] x [ (1) - (2) -	(3) ]	31,624 kWh *
(5)	Echw,unmeter	red = un-metered electric use for chilled water plant = (1) - (2) - (3) - (4)		1,488,001 kWh *
(6)	Esteam,total =	total electric use for steam plant = (2) + (4)		1,029,260 kWh *
(7)	Customer Stea	am Sales, metered + unmetered		329,530,454 lbs

n (elec): Actual Steam Plant Electric Conversion = (6) / [ (7) x 0.001 ] = 3.123 kWh/klb

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

(8)	NG = Total Natural Gas Use per main utility meters			555,888.2 Dth
(9)	P = Total Propane Gas			353 Dth
(10)	HHV = Higher Heating Value of Propane			1.002052 Btu/scft
(11)	SO = Plant Steam Send Out		396,827,000 lbs	
		Meter Reading at the beginning, n-1	695,522	
- 1		Meter Reading at the end, n	1,092,349	
		Units of Measure	1 x SCFT	

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

1.402 Dth/klb

(12)	CR = Condensate Return per plant meter			30,560,300 gallons **
		Meter Reading at the beginning, n-1	47,896,300	
- 1		Meter Reading at the end, n	78,456,600	
		Units of Measure	1 x SCFT	
(13)	3) H = Condensate Return energy			38,304 mmBtu
		Meter Reading at the beginning, n-1	334,750	
- 1		Meter Reading at the end, n	373,054	
		Units of Measure	1 x MMBTU	

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

186 °F



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

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

(14)	MW = Steam system makeup water plant meter		19,841,970 gallons	
		Meter Reading at the beginning, n-1	8,866,440	
		Meter Reading at the end, n	28,708,410	
		Units of Measure	1 x SCFT	

n (water): Actual steam plant water use = (14) \* 1.01 = 20,040,390 gallons

G (water): Guaranteed steam plant water use = [ (11) / 8.15585 - (12) = 20,809,486 gallons

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

(15)	E (chw,total) = Total CHW Electric use = (3) + (5) =	46,910,660 kWh *
(16)	Customer CHW Sales, metered + unmetered	51,534,304 kWh

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

0.910 kw/ton

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

(17)	CM = Condenser water makeup plant meter		97,351,000 gallons **	
I		Meter Reading at the beginning, n-1	51,546,000	
		Meter Reading at the end, n	148,897,000	
		Units of Measure	1 x GALL	

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

1.889 gal/ton-hr

NOTES: \* - There is a 15,886 kWh variance from the FEA due to rounding errors resulting from monthly vs. annual summation.

<sup>\*\* -</sup> Estimated due to incorrect totalization resulting from "low flow cut-off".



# Exhibit 2



## 2021 Information Technology Services Program

for



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## **Networks**

The Operating System for the Metro Nashville District Energy System (DES) Energy Generation Facility (EGF) was provided and installed by Siemens Building Technologies. This System has recently been upgraded from Apogee Insight to Desigo CC. This software controls all the equipment and machinery in the plant.

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**

Plant Server

Dell PowerEdge T330/1 x Xeon e3-1200 v6 3.00 GHz Processor/64 GB RAM/RAID 5 Configuration/DVD drive

Siemens Server

Dell Precision 5820/duel Xeon W-2223 3.6 GHz Processor/16 GB RAM/RAID 5 Configuration/DVD drive

Firewall

Sonicwall TZ 400

**Desktop Computers** 

Dell OptiPlex 7080 small frame with Intel Core i7-10700 Processor, 16 GB Ram, 2.90 GHz , x64 based processor, 1 TB HD

Monitors

Dell Professional E2420HS 24" Ultra Sharp LCD Flat Panel

**Laptop Computers** 

Dell Vostro 15 5501, with Intel i7-1065G7, 15.6 HD Display, 1.50GHz, x64 based processor, 16 GB Ram, 500 GB Hard Drive

**Docking Stations** 

Dell D6000 Universal Docking Station

Ultra slim, wireless, keyboard & mouse

Per industry standards, computer hardware should be replaced every three to five years. This equipment was most recently replaced in 2020. The Siemens server was replaced in 2020. 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:

Operating System	Microsoft 8 R2 Server/Microsoft Server 2016 Standard
Data base	Microsoft SQL 2008
AntiVirus	Malwarebytes

Each computer has the following software installed:

Operating System	Windows10 Professional
Microsoft Office Professional 2019	Word, Excel, Power Point, Outlook, One Note, Office Publisher
AntiVirus	Malwarebytes

Additional software installed on specific machines includes:

- Adobe Acrobat Professional 2019 General Manager, Operations Manager, Administrative Operations Representative and I&C Technician.
- I-Maint Control Room, Plant Operations Manager, Maintenance Office, Electrical Office 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 desktop computer, furnished by CNE, is located in the Metro office at the EGF. The purpose of this computer is to give Metro administrative access to plant data. CNE personnel check to make sure the required data files are transferred from the CNE Administrative server to the Metro work station periodically. These include: a copy of the Siemens data base, the I-Maint CMMS data base, customer billing system data and customer meter data.

## **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, back up data from the computer in the Metro Office to Carbonite.

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 four-year extended service plan was purchased from Dell for all of the new hardware. CNE has contracted with a third-party vendor, Vertical IT 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

The new Siemens Desigo CC control system has a one-year warranty beginning in January 2021. Constellation Energy will continue to have Siemens repair, replace and maintain their proprietary equipment when the warranty expires. Services will include: annual software updates, annual network maintenance, annual preventative maintenance to modular panels, routine backups, diagnostics and operator coaching.

## Cyber Security

Access to the server room is behind a, key card monitored, locked door.

There is no outside connectivity to the Siemens server. Building automation is segregated on a separate network. There is no WiFi or Bluetooth on the Siemens network.

The administrative network server is behind a Sonicwall TZ400 firewall. There is no wireless access to the network inside the firewall. Remote access requires a VPN. All network traffic is monitored by Malwarebytes software. Sonicwall and Malwarebytes firmware is kept up to date.

CNE employees receive Cyber Security Awareness training and Phishing training.

## **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 two servers, four laptops and ten 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	CPKGM83 (Siemens) 8P8RMN2 (CNE)	2-24" Flat Panels	1-each
Metro Office	1-Desktop	GBX8673	1-24" Flat Panel	1-each
General Manager	1-Laptop with Docking Station	5R20763	1-24" Flat Panel	1-each
Operations Manager	1-Laptop with Docking Station	1K20763	1-24" Flat Panel	1-each
Finance & Administration Representative	1-Laptop with Docking Station	D7PRO43	1-24" Flat Panel	1-each
Customer Service Representative	1-Desktop	GBX7673	1-24" Flat Panel	1-each
Electrical Office	1-Desktop	GBX1J63	1-24" Flat Panel	1-each
Instrumentation & Controls Technician	1-Laptop	2MTZ663	N/A	N/A
Maintenance Office	1-Desktop	GBWYH63	1-24" Flat Panel	1-each
Operations Office	1 - Desktop 1-Docking Station	GBWZH63 N/A	2-24" Flat Panels	1-each
Reception Area	1-Docking Station	N/A	1-24" Flat Panel	1-each
Control Room	3 Desktops	GBX9673 GHJXH63 GBX0J63	8-24" Flat Panels	1-each
Control Room (Security)	1 Desktop	BYPC8M2	1-23" Flat Panel 1-42" 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

## **2021 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

## **2021 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

## **2021 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