

Tennessee Valley Authority  
2019 Sustainability Report and Implementation Plan

Tennessee Valley Authority

Sustainability Report and Implementation Plan  
2019

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## Executive Summary

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### **Overview**

TVA submitted its first Sustainability Plan to the White House in June 2010. On May 17 2018, President Trump issued Executive Order (EO) 13834 on Efficient Federal Operations. This Executive Order establishes a requirement for agencies to report on sustainability implementation.

EO 13834 instructs agencies to cut waste and costs to "enhance the resilience" of federal infrastructure and operations and to lower the energy use of the buildings they oversee. The EO emphasizes meeting statutory requirements, and gives greater flexibility and discretion to agencies to decide how to best improve operations and meet goals.

TVA continues with sustainable performance planning to ensure continuity of federal data, and to align sustainable performance with our core mission, with our customer-focused approach to business, and with the development of TVA's Corporate Social Responsibility Report.

### **Mission**

The TVA Mission includes serving the Tennessee Valley through providing affordable and reliable energy, environmental stewardship and economic development. Achieving the EO 13834, EAct05 and EISA 2007 goals directly supports the broader TVA Mission.

Sustainability focuses on environmental, economic and social criteria, aspects that are integral to TVA and its mission:

- ❖ The TVA Environmental Policy and commitment to cleaner energy correlates with the environmental aspect of sustainability. TVA efforts to manage natural resources responsibly, reduce emissions, increase use of renewable energy, all while providing affordable and reliable power, are central to this commitment.
- ❖ TVA's economic development commitment mirrors the economic aspect of sustainability through goals of increasing capital investment and attracting and retaining quality jobs for the people and businesses served by TVA.
- ❖ The TVA mission is supported by its' values, all of which reflect sustainability's social aspect: safety, diversity, integrity and respect, honest communication, accountability, teamwork, flexibility, and continuous improvement.

### **Leadership**

TVA's implementation of the Sustainability Plan will be directed by the following key staff:

- Brenda E. Brickhouse – TVA Vice-President of Environment & Energy Policy and TVA Chief Sustainability Officer
- Monte L. Matthews – TVA Senior Manager, Sustainability & Climate and TVA Deputy Chief Sustainability Officer
- Chris A. Azar – TVA Senior Program Manager, Internal Energy Management Program, EnergyRight® Solutions

TVA's Environment & Energy Policy group is the point of contact with the Office of Management and Budget, and the Council on Environmental Quality for sustainability reporting. TVA's Environment & Energy Policy group also leads TVA's Sustainability Program and governance structure, which includes subject matter experts (SMEs) and representatives from multiple business units working together and with TVA's Sustainability Program to provide leadership and focus for TVA's efforts. These staff comprise the TVA Sustainability Working Group.

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The objective of TVA's Federal Sustainability Program is to reduce the non-power block component of the TVA environmental footprint as a federal agency. The program achieves this objective by issuing and maintaining the TVA Sustainability Report, increasing awareness and engaging employees on sustainability, and implementing actions to reduce TVA's internal environmental footprint through cross-organizational collaboration.

### **Agency Priorities**

- **EISA 2007 Energy and Water Surveys/Projects**

TVA plans to continue to evaluate facilities to identify potential energy and water conservation measures. In addition, TVA plans to continue implementation of cost-effective energy and water saving projects in both goal subject and excluded buildings based on funding availability.

- **Electric and Zero Emission Vehicles**

TVA continues to follow progress in EV technology and has established a cross-functional team to develop a best case recommendation for the deployment of ZEV/PHEV vehicles and the associated charging infrastructure. Recommendations have been presented to TVA management for guidance and funding.

- **Resilience and Preparedness**

TVA will continue to update its Statement on Climate Change, Adaptation Plan and High Level Vulnerability Assessment consistent with the Third National Climate Assessment and EO 13783 related guidance.

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## Implementation Summary: Facility Management

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### FACILITY ENERGY EFFICIENCY

#### FY18 Energy Intensity Progress (Btu/GSF):

62.6% reduction from FY03

40.6% reduction from FY17

#### FY19-FY20 Plan:

2.5 - 4.4% reduction in FY19 from FY18

2.6 - 4.5% reduction in FY20 from FY19

### Implementation Status

TVA finished FY 2018 with a 62.6% reduction in energy intensity from a FY 2003 baseline. In FY 2018, TVA had a large reduction in its energy intensity due to taking credit for measured energy savings at goal excluded facilities. At TVA a goal excluded facility is any facility that is used to generate, transmit and control power or connected to one that does. Goal excluded buildings are exempt from the energy intensity goal, but agencies are given a credit when verified energy efficiency improvements are implemented. In these goal excluded facilities the primary Energy Conservation Measure (ECM) implemented is lighting. If this credit were not taken, TVA would have had a 37.5% reduction in energy intensity from a FY 2003 baseline.

TVA's Internal Energy Management Program (IEMP) role is to identify, fund, implement, and track energy and water conservation projects at TVA's facilities. To accomplish reducing energy and water at TVA buildings, IEMP staff conducts EISA 2007 energy and water surveys. During FY 2018, TVA surveyed 9 covered facilities accounting for ~4.1 million square feet. Cost-effective ECMs identified during the surveys are bundled into projects. After the projects are implemented, IEMP documents the savings. In FY 2018, TVA invested \$5.40M on improvements resulting in \$623,000 in annual savings and 6,936 MWh in energy consumption savings at its facilities.

### Priority Strategies & Planned Actions

In FY 2020 and FY 2021, TVA plans to continue to evaluate facilities to identify potential energy and water conservation measures as required by EPA Act 05 and EISA 2007. In order to meet the energy intensity reduction, TVA plans to continue implementation of cost-effective energy saving projects in both goal subject and excluded buildings based on funding availability. These projects are estimated to result in \$272,000 in annual savings and 3,200MWh in energy consumption savings at its facilities. TVA plans to continue to install and monitor energy meters per latest metering plan. Lastly, TVA plans to continue to track and monitor building energy usage to identify buildings that may have high energy usage as compared to year over year and month over month analysis.

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**EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING**

**FY18 Performance Contracting – Investment value and number of new projects awarded:**

\$5.4M / 79 projects in FY18

**FY19-FY20 Plan:**

\$2.5M / 20 - 40 projects in FY19 (self-funded projects)

\$2.5M / 20 - 40 projects in FY20 (self-funded projects)

**Implementation Status**

TVA, as an energy provider, has its own Federal Energy Services Program that provides Utility Energy Service Contracts (UESC) to Federal direct serve and Federal non-direct serve customers in its region at special request by the local power distributor. TVA can most cost effectively implement these services by acting as its own UESC. TVA has self-funded projects totaling \$5.4M in FY 2018, which has exceeded the commitment of \$2.5M. These projects included replacing/retrofitting inefficient lighting with more efficient LED lighting, replacing old/inefficient HVAC with more efficient HVAC, and adding/upgrading lighting and HVAC controls. TVA met its commitment through the implementation of projects identified by its energy, water and sustainability surveys.

**Priority Strategies & Planned Actions**

TVA is setting a target to implement projects totaling \$2.5M for FY 2019 and \$2.5M for FY 2020 for a total investment of \$5.0M. TVA as a provider of utility based ESPCs will continue to self-fund its own energy, water and sustainability projects. These projects are estimated to result in \$272,000 in annual savings and 3,200MWh in energy consumption savings.

**RENEWABLE ENERGY**

**FY18 Renewable Electricity Use:**

18.0% of total electricity in FY18

**FY19-FY20 Plan:**

18.0 - 18.5% of total electricity in FY19

18.25 - 18.75% of total electricity in FY20

**Implementation Status**

TVA renewable energy use was at 18.0% for FY 2018. TVA utilized hydroelectric modifications (HMODs) at its hydroelectric plants to meet the renewable energy goal. HMODs accounted for 65,058 MWh or 86% of the total renewable energy use. HMODs increase the amount of energy generated by the turbine, by increasing the turbine's efficiency. For this goal, the additional energy is considered to be renewable energy that is generated and used onsite by TVA buildings. TVA also purchased renewable energy certificates (RECs) totaling 10,275 MWh or 14% of the total renewable energy use for its two large office buildings through local power companies, which participate in TVA's Green Power Switch and Southeastern RECs program.

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## Priority Strategies & Planned Actions

In FY 2020 and FY 2021, TVA plans to maintain its current progress by continuing to utilize HMODs at its hydroelectric plants. TVA also plans to maintain the purchase of RECs at its two large office buildings.

## WATER EFFICIENCY

### FY18 Water Intensity Progress (Gal/GSF):

- 31.6% reduction from FY07
- 4.8% reduction from FY17

### FY19-FY20 Plan:

- 0.75 – 1% reduction in FY19 from FY18
- 0.75 – 1% reduction in FY20 from FY 19

## Implementation Status

TVA finished FY 2018 with a 31.6% potable water reduction in Gal/GSF compared to its FY 2007 baseline. TVA has implemented the following strategies in order to improve water efficiency, reduce potable and non-potable water consumption, and manage stormwater. To improve water efficiency and reduce potable water consumption TVA has continued to conduct water surveys at multiple TVA sites covering ~4.1 million square feet to help identify opportunities to reduce water consumption. Additionally, we have a Strategic Real Estate & Governance Team at TVA that identifies opportunities to right-size the company's real estate portfolio and divest of unused property to better serve local communities. As part of the planning process, all TVA real estate is being reviewed with a primary focus on buildings with low occupancy, underutilization and poor asset condition. As we reduce our total building square footage, it may affect our future Gal/GSF results. As a result, TVA is looking at projects that will further reduce its water usage. In addition, TVA's potable water use could fluctuate due to its aging water infrastructure that is prone to leaking. To reduce non-potable water consumption, TVA has continued to convert wet storage of coal fly ash storage to dry storage at its coal-fired plants and to retire coal-fired plants. Historically, TVA utilized non-potable water to sluice ash to settling ponds. With the ongoing projects to convert to dry ash handling the practice of sluicing of fly ash has been eliminated and the ash is transported by air, vacuum or mechanically, which eliminates the need for non-potable water. The movement away from wet storage coal fly ash systems will significantly reduce the overall use of non-potable water in TVA power generation facilities. Lastly, stormwater management requirements are included as part of any new construction projects.

## Priority Strategies & Planned Actions

In FY 2020 and FY 2021, TVA plans to continue to identify and repair water leaks through visual identification and through water bill analysis; conduct EISA surveys to identify and implement cost effective building improvements that will reduce facility water consumption; and reduce non-potable water consumption through conversion of wet fly ash storage to dry storage and plant retirements. Lastly, areas where potable water use can be converted to non-potable water sources will continue to be identified.

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## **HIGH PERFORMANCE SUSTAINABLE BUILDINGS**

### **FY18 Sustainable Buildings Progress:**

23 sustainable Federal buildings  
11.4% of buildings / 5.1% of gross square footage (GSF)

### **FY19-FY20 Plan:**

20.0 – 22.0% of GSF in FY19  
22.0 – 22.2% of GSF in FY20

### **Implementation Status**

TVA finished FY 2018 at 5.1% (based on gross square feet) for buildings meeting the Guiding Principles for Sustainable Federal Buildings (GP). TVA continues to apply the GPs to its two largest office complexes, which are the Knoxville Office Complex and the Chattanooga Office Complex. To date, 85% of the GPs have been completed at both complexes. TVA is currently anticipating parts of the Knoxville Office Complex to undergo renovation, which will be a multi-year effort. TVA has continued to incorporate sustainable design criteria into major renovation and new construction efforts. As part of TVA's Strategic Real Estate Plan, TVA reviews its building inventory in an effort to reduce inefficient, high cost, underutilized space. This consolidation effort provides an opportunity to further practice sustainable efforts such as:

- Renovate space using removable, reusable wall systems;
- Recycle and recondition office furniture and panel systems;
- Install recyclable carpet tiles, low VOC finishes and biobased materials;
- Upgrade lighting systems using LED lighting including occupancy sensors; and
- Install personal workstation occupancy sensors to control plug load.

### **Priority Strategies & Planned Actions**

In FY 2020 and FY 2021, TVA plans to continue completing GP projects that were previously underway and achieving compliance on 1-2 buildings per year. TVA plans to continue using the Energy Star Portfolio Manager Sustainable Checklist to track GPs progress for existing buildings and its own internal database (Tririga) to track building energy/water use. TVA will continue to review all new building designs and major renovations for incorporation of the new GPs if it is greater than or equal to 10,000 square feet buildings. TVA is planning to implement the GPs at new buildings through new construction budgets and at existing buildings through project review during business planning.



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## WASTE MANAGEMENT AND DIVERSION

### FY18 Non-hazardous Waste Management and Diversion:

12,790 metric tons of non-hazardous solid waste generated\*

5.42% sent to treatment and disposal facilities

\*not including construction and demolition waste

### Implementation Status

In FY 2018, TVA reported 12,790 metric tons of non-hazardous Municipal Solid Waste (MSW) of which 693 metric tons were recycled for a total treatment and disposal rate of 5.42%. TVA has continued to maintain its recycling at its facilities through working with its contracted waste management company. Historically TVA has simply purchased waste disposal services. This entailed merely selecting a vendor to provide containers to remove trash, construction debris, recyclables and/or special waste. Under this approach, TVA has not been able to divert waste from landfills, increase recycling and/or reuse of goods, nor cut spending on waste disposal services.

### Priority Strategies & Planned Actions

TVA Supply Chain plans to reduce spending, increase recycling and annually divert at ten (10) percent of solid waste from landfills through future service contracts. Additionally, Supply Chain will work with environmental and sustainability to develop education that promotes the benefits of recycling and cost-effective ways to remove solid waste. TVA will continue to implement HFC management training as part of its Technical Training Programs. Measures will be taken to ensure recycling equipment/contracted services are available at appropriate locations. TVA plans to accomplish this by doing the following:

- Being informed – Tracking waste and supporting recycling is fundamental to waste reduction. TVA employees will have more knowledge and understanding about the kinds of waste produced at the various sites. This will help employees to better manage TVA's disposal costs and determine the appropriate ways to recycle.
- Becoming more Sustainable – The way we manage our waste will directly affect our environmental sustainability. For TVA, improving sustainability means complying with Executive Order (EO) 13834 on Efficient Operations. This EO instructs federal agencies to cut waste. Moreover, TVA's mission includes serving the valley by providing environmental stewardship.
- Reducing costs and preserving resources – Informing our employees about the specific waste streams will enable TVA to save money on disposal costs and; preserve resources by recycling and reusing natural resources such as lumber and metal. Additionally, by better managing our waste and actively recycling we will conserve the environment by not emitting large quantities of greenhouse gases.

TVA is Engaged and Partnering up. This means that we are building teams who will manage the designs, plans and implementation of waste management activities. Partners will come from various areas throughout our organization, especially. This partnership will be broad enough to represent our entire organization, provide myriad of ideas, innovative solutions and continuous improvement. Specifically in conjunction with our waste disposal vendors, the partnership will:

- Identify organizational goals/needs that will enable the partnership to establish short and long term goals;
- Research and review information pertinent to designing, planning and implementation;
- Communicate the importance of managing waste, reducing waste and increasing recycling;
- Encourage, engage and incentivize employee participation through education, surveys, and award programs;

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- Provide reports to management and the organization at large;
- Monitor progress.

TVA projects the following for FY 2020 and FY 2021:

- FY 2020: 6% non-hazardous solid waste reduction / 7.2% sent to treatment and disposal facilities
- FY 2021: 6% non-hazardous solid waste reduction / 9.6% sent to treatment and disposal facilities

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## Implementation Summary: Fleet Management

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### TRANSPORTATION / FLEET MANAGEMENT

#### FY18 Petroleum Reduction Progress (Gal):

18% reduction in petroleum fuel since 2005

4% increase in petroleum fuel since FY17

#### FY19-FY20 Plan:

5.0% reduction in FY19 from FY18

5.0% reduction in FY20 from FY19

### Implementation Status

TVA's Fleet is comprised of roughly 2400 vehicles. The quantity and vehicle type is determined by the operational needs of the individual business units. This is done through a joint effort between Fleet Management, the operational user and business unit upper management. TVA's Fleet Management team utilizes a diverse inventory of light and medium-duty assets ranging from sedans to 1 1/2 ton trucks to support the company's mission. All of TVA's medium-duty assets are utilized for mission critical work, as well as some of the light-duty assets.

Finding vehicles that meet TVA's functional needs and are alternative fueled and or low-GHG emissions compliant can sometimes prove to be difficult. In past situations, cost was the overriding factor in determining which vehicle would be most beneficial to TVA. To address this issue, vehicles with a GVWR (Gross Vehicle Weight Rating) less than >8,500 pounds are exempt from the executive order. However, TVA still operates smaller trucks, vans, and SUV's that play a significant role in supporting mission-critical activities. TVA will initially seek to purchase low GHG-emitting vehicles before purchasing a noncompliant vehicle. While additional focus will also be placed on reductions in petroleum consumption and travel, these practices cannot be applied to all vehicles currently classified as non-exempt.

- TVA's Fleet Services has made an effort to focus on underutilized vehicles last year, specifically sedans and SUV's (travel type vehicles). During this exercise, we were able to remove 105 units and bring our overall count of vehicles to 2409. We have continued to monitor our utilization since our rightsizing event and have set internal metrics to help keep us on track.
- Another initiative that is in the works is our short time rentals automated rental pool. Pool-car is providing an automated key box and system, which will give us the opportunity to provide vehicles for our TVA's various business units without having someone there to hand out keys. We plan to go-live in August of this year with a 16-vehicle pool, located at our headquarters in Chattanooga, TN.
- This past year TVA cleaned our data in our FMIS (Fleet Management Information System) which will improve the way we extract this data from our system of record. Last year after the FAST (Federal Automotive Statistical Tool) VLD (Vehicle Level Data) reporting cycle, we went through our FMIS and updated data that needed to be revised. Items that needed to be revised included Model, year, Acquisition date, GVWR (Gross Vehicle Weight Rating), Emergency response designation, EPA Coverage, Law enforcement and vehicle type configuration. Another change we noted after last year's data call was a slight uptick in our overall miles driven and fuel consumption for FY18. This was a direct result of our reduction of fleet vehicles and shift from rental vehicles to fleet vehicles.
- TVA's service territory requires employees to travel to urban and very rural areas on average 2,000 miles more annually than utility industry peers. The availability of GHG compliant vehicles to support TVA's mission and the geographic coverage area affects TVA's opportunity to improve performance in this area.

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Fueling options in rural areas are limited. Miscoded E85 fuel transactions by retail suppliers continue to influence the accuracy of reporting. TVA will continue to purchase alternative fuel vehicles that meet core mission requirements. The most cost-effective and fuel-efficient options will influence the vehicle types purchased. The fulfillment of the Fleet Alternative Fuel Consumption Goal is dependent upon the availability of product and funding.

### Priority Strategies & Planned Actions

TVA plans to do the following:

- Increase acquisitions of zero emission and plug-in hybrid vehicles. Zero emission vehicles will be purchased if commercially available and meets the intended mission.
- Issue agency plan to install appropriate charging or refueling infrastructure for zero emission or plug-in hybrid vehicles and opportunities for ancillary services to support vehicle-to-grid technology.
- Increase utilization of alternative fuel in dual-fuel vehicles.
- Use a FMIS to track real-time fuel consumption throughout the year for agency-owned, GSA-leased, and commercially leased vehicles.
- Minimize use of law enforcement exemptions by implementing GSA Bulletin FMR B-33, Motor Vehicle Management, and Alternative Fuel Vehicle Guidance for Law Enforcement and Emergency Vehicle Fleets.

TVA projects the following for FY 2019 and FY 2020:

- Projected Progress for FY 2019: 5% reduction in petroleum & 4% alt fuel use as a % of total covered fleet
- Projected Progress for FY 2020: 5% reduction in petroleum & 4% alt fuel use as a % of total covered fleet

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## Implementation Summary: Cross-Cutting Operations

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### SUSTAINABLE ACQUISITION / PROCUREMENT

#### FY18 Sustainable Acquisition Progress:

78.5% of contract actions and 68.5% of obligations (in dollars), for a total of \$11.0M in contract actions with statutory environmental requirements

#### Implementation Status

TVA's Sustainable Acquisition strategy for FY 2019 focuses on review and update of TVA policies, programs and standard terms and conditions in our purchase request and contracting processes as it relates to Biobased and other designated green products in alignment with federal and agency goals.

In FY 2019, the percentage of Sustainable Acquisition achieved for the First Quarter FY 2019 was 85% and for the Second Quarter was 86%, as calculated by TVA's methodology. TVA's methodology is based on green codes identified on purchase order lines issued in TVA's purchasing system of record. Bio-based purchases were at 62% average for 1st and 2nd quarters, which surpasses established target of 50% of contracts in products to be delivered. TVA continues to review Request for Proposal and Request for Quote processes to ensure inclusion of contract clauses, which provide for and promote Bio-based and other designated green product purchases. TVA reviews applicable standard terms and conditions annually.

One challenge TVA has is providing continuing education to our buyers and ensuring that all assigned green codes are accurate.

#### Priority Strategies & Planned Actions

TVA will continue to review and provide necessary updates to procurement policies, programs, and standard terms and conditions to ensure purchases provide for federally mandated sustainable products in all relevant contracts where appropriate and practical. TVA will continue to promote the inclusion of Bio-based, other designated green products, and sustainability clauses where appropriate and practical in Request for Proposals and Request for Quotes. TVA will conduct performance reviews for key suppliers where appropriate and practical.

TVA projects the following for FY 2019 and FY 2020:

- Projected Progress for FY 2019: 1% increase in contracts & contract dollars w/environmental clauses from prior year
- Projected Progress for FY 2020: 1% increase in contracts & contract dollars w/environmental clauses from prior year & target 400 Bio-based contract actions at an estimated dollar value of \$1.2M

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## ELECTRONICS STEWARDSHIP

### FY18 Electronics Stewardship Progress:

95% of newly purchased or leased equipment met energy efficiency requirements

95% of equipment with power management enabled\*

100% of electronic equipment disposed using environmentally sound methods

*\*excluding exempted equipment*

### Implementation Status

TVA IT continues to ensure that IT procurement is focused on devices with optimized levels of energy-efficiency. TVA focuses on procuring devices which are able to be managed with intelligent power management policies and ensures that PCs are configured with the most power conscious components which meet TVA's business requirements. TVA also continues to ensure that all electronic equipment is re-marketed or recycled in environmentally sound methods.

TVA's current status is detailed below:

- When available, TVA only acquires Energy Star registered electronics.
- TVA has shifted to Solid State storage in laptops and desktops, which are more power efficient than traditional spinning hard drives.
- All eligible display devices are currently being managed for power settings through Microsoft Group Policy Objects and those that must be exempted have unique policies applied. This ensures low power consumption when the PC or monitor is not being used.
- All TVA networked Printers and Multifunction Devices are now configured with a centrally managed power management policy.
- Smaller site data centers are being evaluated for improvements; however, efforts for cost control and also site specific limitations will affect how many data center locations can achieve the <1.5 PUE. Operational requirements will continue to override other considerations.

### Priority Strategies & Planned Actions

TVA plans to do the following:

- TVA has shifted solely to Solid State storage in laptop and desktop PCs. This shift is resulting in reduced energy consumption.
- TVA has moved to Intel's "U" series of mobile processors where operationally viable to further reduce power consumption. Further opportunities for power saving hardware are continuing to be evaluated.
- TVA is evaluating a 36 month PC Lifecycle which will ensure old technology is refreshed with more sustainable technology on a more frequent basis.
- TVA continues to lifecycle printers on a 4 year basis to ensure old technology is refreshed with more sustainable technology on a scheduled basis.
- TVA is re-establishing IT managed disposal of surplus electronics with certified recyclers, and we continue to monitor electronic equipment surplus process to look for additional opportunities for process improvement.

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## GREENHOUSE GAS EMISSIONS

### FY18 Scope 1&2 Greenhouse Gas (GHG) Emissions:

41.0% reduction from FY 2008

9.8% reduction from FY 2017

### Implementation Status

TVA finished FY 2018 at a 41.0% reduction in GHG Scope 1 & 2 emissions. TVA scope 1 & 2 emissions showed a large reduction primarily due to continued implementation of energy efficiency projects and a cleaner generation power system that resulted in a lower CO<sub>2</sub> emission rates.

### Priority Strategies & Planned Actions

In FY 2020 and FY 2021, TVA plans to focus on the following. For Scope 1 and 2 greenhouse gas emissions related to buildings, TVA plans to continue EISA 2007 and goal-subject energy/water surveys and project upgrades to reduce greenhouse gas emissions. For Scope 1 greenhouse gas emissions related to vehicles, TVA will continue to reduce petroleum use in fleet vehicles by reducing employee travel, increasing utilization of alternative fuel, and optimizing its vehicle fleet size.

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## Highlights

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### NOTABLE PROJECTS AND HIGHLIGHTS

TVA continues to implement life cycle cost effective projects coordinated through its Internal Energy Management Program. In FY 2018, TVA invested \$5.40M on improvements resulting in \$623,000 in annual savings and 6,936 MWh in energy consumption savings at both covered and non-covered facilities. One example of this success can be seen through projects completed at Kingston Fossil Plant. Since 2012, TVA has completed various lighting retrofits, HVAC upgrades and added advanced lighting and HVAC controls at Kingston. These improvements have saved TVA over \$300,000 and reduced energy usage by nearly 3.7 GWh, which is enough energy to power 300 homes for a year.