# SUSTAINABILITY
## at the
## PA Turnpike Commission

2021 Highlight Report

PENNA
TURN
PIKE

# In this Report

**Sustainability** (sus·tain·a·bil·i·ty ) /sə stānə bilədē/, noun

the simultaneous pursuit of human health and happiness, environmental quality, and economic well-being for current and future generations.

That was the sentiment among senior staff and others regarding a need to elevate sustainability efforts during a series of workshops supporting an update of the PA Turnpike's Strategic Plan. Results from a 2019 employee survey showed that our workforce believed sustainability should be featured more prominently, too.

The result: "Responsibility Matters" became one of five key values of the Turnpike's 2020 Strategic Plan. It states, "We embody diversity, integrity, and sustainability in all of our practices."

So here we are, about two years and one lingering global pandemic later. I'm honored and excited to welcome you to a first-of-its-kind report on the work resulting from that discussion to transform our organization from one that believes sustainability is important to one that seeks to become a leader in setting the standard in this space.

It's no secret that transportation is changing at a remarkable pace. Alternative fuels, connected and automated vehicles, and shared ride services continue to evolve and expand. Even during the pandemic, we have seen a significant shift in the makeup of our traffic. The landscape is changing. We, as an industry, must continue to adapt swiftly.

While this report is produced by our Facilities Engineering and Maintenance Operations (FEMO) Department, it takes an entire organization to pull together to make an impact in this area. The work we start today is a stepping off point of a longer journey that will affect future generations of PA Turnpike employees, business partners, and customers.

With this document, the PTC is publicly recommitting ourselves to a brighter, more sustainable future for current and future generations across the Commonwealth of Pennsylvania. In the pioneering spirit of those who planned and built the first four-lane, limited-access highway in our nation, we seek to become known as America's First **SUSTAINABLE** Superhighway.

Sincerely,

PTC CEO Mark Compton

# "We can absolutely become an industry leader in this area."

# Building a Sustainable and Restorative Roadway

**OUR MISSION**

To create and build an organization-wide culture of sustainability where all decisions take into account our economic, environmental, and social impact.

**OUR VISION**

Driving the Pennsylvania Turnpike Commission past green, into sustainable and ultimately toward restorative practices across our 550+ mile toll road operation.

# The 17 Goals

The Commonwealth has adopted the United Nations Sustainable Development Goals as a roadmap to more sustainable operations. Adopted in 2017 by the United Nations General Assembly, the sustainability goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all" with a target date of 2030.

The 17 adopted Sustainable Development Goals are: (1) No Poverty, (2) Zero Hunger, (3) Good Health and Well-Being, (4) Quality Education, (5) Gender Equality, (6) Clean Water and Sanitation, (7) Affordable and Clean Energy, (8) Decent Work and Economic Growth, (9) Industry, Innovation, and Infrastructure, (10) Reduced Inequality, (11) Sustainable Cities and Communities, (12) Responsible Consumption and Production, (13) Climate Action, (14) Life Below Water, (15) Life On Land, (16) Peace, Justice, and Strong Institutions, and (17) Partnerships for the Goals.

To introduce the concept to the world, the United Nations created the Lazy Persons Guide to Saving the World. The guide explains simple ways in which every person can do their part to promote the 17 goals in their personal and professional lives. Examples include: Stop paper bank statements and pay your bills online or via mobile; take short showers (bathtubs require gallons more water than a 5-10 minute shower); and mentor young people. It's a thoughtful, inspiring, and powerful way to guide someone towards a better future.

The GreenGov Sustainability Teams Workplan encourages all Commonwealth agencies to view their operations through a global lens and commit to programs that fit within the boundaries of the 17 sustainability goals. While not all goals may be targeted by all agencies, a wide range of sustainability options exist. They are intended to promote programs, both simple and complex, that work towards changing the way organizations and individuals think about sustainability.



For more information on the 17 United Nations Sustainable Development Goals, visit: https://sdgs.un.org/goals

5

# Our Environment. Our Agency. Our Buildings.

## We are Green

**Sustainability** and **protection of the environment** have been watchwords within the PA Turnpike Commission (PTC) Facilities Department since the 1990s. In order to achieve our environmental goals, we began designing new buildings using LEED certification.

The Central Administration Building, home of the PTC, was the first of our high profile projects incorporating the LEED principles. These values enable the PTC to minimize energy consumption, diminish environmental impact, and reduce our carbon footprint with each newly designed facility.

Examples of PTC LEED-certified projects are:

- Somerset Maintenance (LEED Silver)

- Everett PSP Reno Project (LEED Silver)

- Everett Warehouse (LEED Gold)

LEED projects seek to maximize the use of locally-sourced, sustainable materials, while providing the most environmentally friendly and energy efficient systems throughout the building construction. Typical elements of LEED design include heating, ventilation, and air conditioning (HVAC) with advanced control to monitor occupancy; daylighting; rainwater collection to reuse for toilet and truck wash water; waterless urinals; and the most energy efficient LEED lighting systems with sophisticated controls that automatically dim the lights when bright sunlight is available or turn lights off when a space is unoccupied.

The PTC Facility Department has coordinated closely with the Maintenance Department to minimize salt pollution. While the use of salt for de-icing roads in winter conditions remains essential, the PTC reduced its salt usage and largely eliminated any unnecessary salt pollution due to improper storage by significantly increasing the amount of stop storage space. A new, more efficient building was designed with double wall tanks to improve the pumping and plumbing systems for the storage of calcium chloride and brine solution.

Trevose Maintenance Shed is a LEED Silver Building.

# Addressing CLIMATE CHANGE

## within the PA Turnpike Maintenance Department

One of the Values in the PTC Strategic Plan is "Responsibility Matters." One of the identified Goals within the Strategic Plan is to "Design, construct, operate, and maintain a sustainable transportation system for the future." Maintaining a sustainable transportation system for the future includes addressing climate change through the reduction of greenhouse gases through emissions, which ties directly into **GOAL #13** established in 2015 by the United Nations targeting climate change in the world.

The largest sources of greenhouse gas emissions include cars, construction equipment, and large trucks. Therefore, the PTC Maintenance Department has been working on decreasing emissions from our current fleet of vehicles. Past and current initiatives are aimed at decreasing emissions from dump trucks within the fleet. This has been accomplished through introduction of federally mandated emissions on dump trucks, including Exhaust Gas Recirculation (EGR) and diesel exhaust fluids (DEF). To decrease idle time emissions, dump trucks were upfitted with idle free systems to keep the cab and certain components warm to prevent long idle times. The PTC also piloted two different Compressed Natural Gas (CNG) vehicles within the fleet. Challenges with the CNG vehicles included fuel consumption, suitable locations for refilling, and not having enough horsepower to perform winter plowing operations.

Moving forward, the PTC will incorporate an Electric Vehicle Pilot Program for the passenger car fleet. Initial discussions suggest that utilizing electric vehicles at the interchanges for District Utility Workers (DUW) can be feasible. The vehicles used at interchanges by DUW's are used for limited distance traveling between and around interchanges. Some challenges moving forward include power availability for charging vehicles, different types of charging stations, and funding for integrating electric vehicles in the fleet. If this program proves successful, then it can potentially be expanded to other fleet vehicles; however, assigned vehicles also face the challenge of charging vehicles at personal residences.

PTC Western Regional Office

# BUILDING AUTOMATION SYSTEMS

The PTC utilizes the Building Automation Systems (BAS) as a remote monitoring and early problem warning system. The systems allow monitoring of our facilities whether or not we have employees at the locations. The BAS can monitor as little or as much as the PTC is interested in and can include everything from HVAC, water, lighting, commercial power, and emergency generator operation. The BAS system is the first line of defense against leaks and malfunctioning equipment, keeping the collection of tolls going no matter the issue. The BAS also aids in the reduction of energy through the scheduling of hours of use and maintaining temperature ranges throughout the facility. The information collected helps maintain the facilities, maintain tolling revenue collection, and helps to reduce our energy footprint.
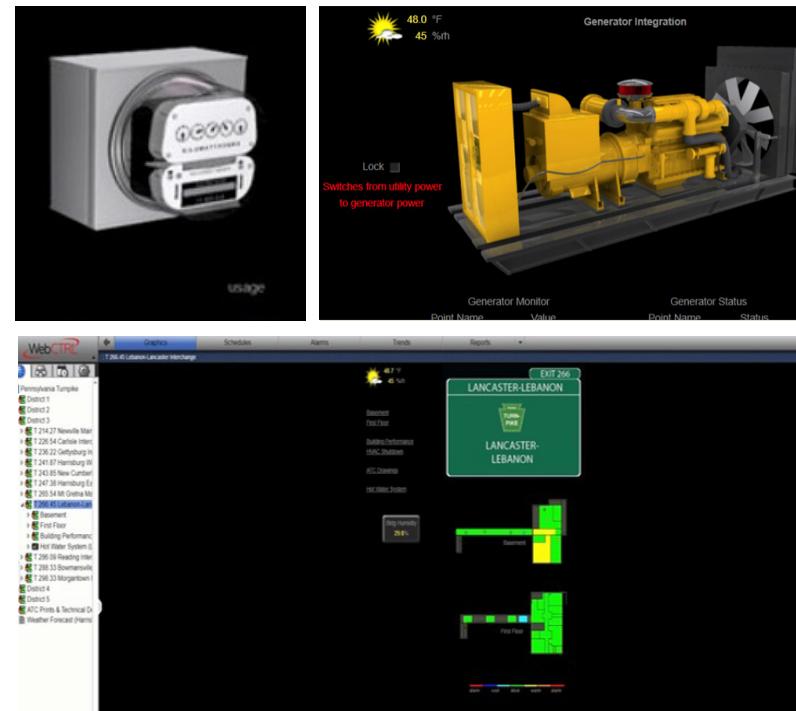
# MICROGRID

Greensburg Microgrid

The PTC is constructing its first microgrid, which will be used to supply power to its Greensburg Maintenance Facility located in Hempfield Township, Westmoreland County. The microgrid consists of 3,224 (405 watt) solar panels, which account for 1.305 MW of power. The second part of the generation is a 1.3 MW Waukesha natural gas generator designed to operate continuously. The microgrid will completely supply the electrical needs of the Greensburg Maintenance Facility campus. The excess energy produced by the microgrid will go back into the grid and the PTC with be paid for that power. Aside from the benefits of solar power, by consuming power where it is generated minimizes line losses which increases efficiency. The PTC doesn't plan on stopping with this project. The PTC's goal is to become an industry leader in sustainability.

Energy Storage

Solar

Generator

PA TURNPIKE MICROGRID

Commercial Load

Power Grid

9
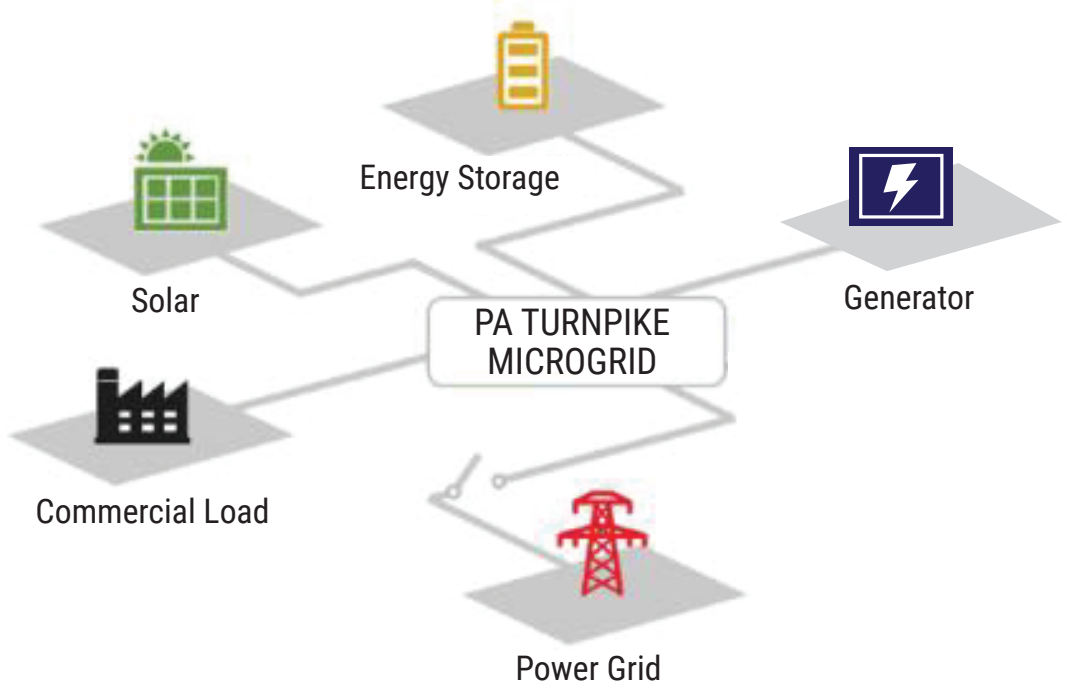
# EnergyCap

EnergyCap is an enterprise utility bill and energy management software that provides bill analysis and storage. The software manages the bills by account and generates visual feedback for energy data. The energy data can be reported as required to meet the facility benchmarking and allow for project energy savings, tracking, and verification. The PTC has utilized the software to understand its energy usage at all facilities and to tailor its energy savings projects to provide the most favorable financial impact. The software also allows for bill verification to ensure the PTC is paying the correct rates and tariffs. It also provides verification that there are no issues, possible leaks, or equipment malfunctions.



Monthly Use Trend



Energy Use Intensity
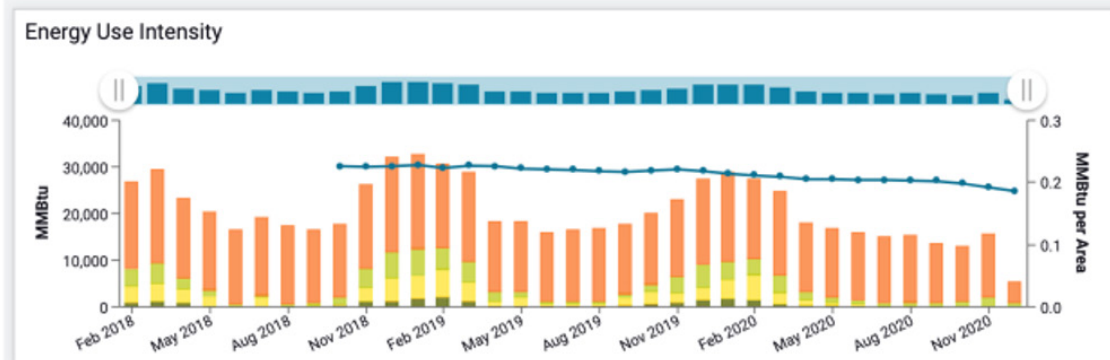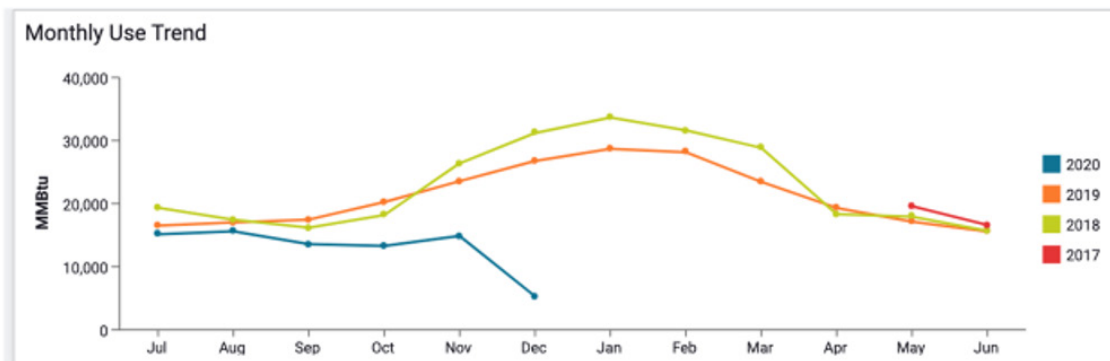
# EV Charging

Bowmansville Service Plaza

Since 2005, the PTC has been involved in various efforts to support and deploy clean and environmentally friendly vehicles. The PTC obtained propane powered vehicles for every maintenance shed and provided each maintenance shed with a propane vehicle fueling station. In cooperation with Sunoco, the PTC installed a compressed natural gas fueling station at New Stanton Service Plaza. In cooperation with Pennsylvania Department of Environmental Protection (PADEP), Blink Charging and the PTC have provided Level 2 and DC Fast Charge electric vehicle charging stations at the following Service Plazas:

Bowmansville • King of Prussia • New Stanton • Oakmont Plum • Peter J Camille

The PTC continues to work with PADEP to find a way to provide EV charging at all the remaining service plazas. The PTC is working with Applegreen (formerly HMSHost) and Tesla to install Tesla Superchargers at a few of our service plazas. Tesla is currently installing superchargers at Hickory Run, Bowmansville, Peter J. Camiel, North Somerset, and South Somerset.

# SWAMP and MS4

The PTC is responsible for maintaining more than 2,400 lane miles of roadway throughout Pennsylvania, most of which either directly or indirectly discharge stormwater runoff to surface waters of the Commonwealth. The PTC is required to maintain a NPDES Municipal Separate Storm Sewer Systems (MS4) Individual Permit for stormwater discharges in urbanized areas of the state (as defined by the U.S. Census Bureau). It does not include combined sewers (sewage and stormwater) or publicly owned treatment works (sewage treatment plant). The PTC's MS4 includes conveyance systems owned and/or operated by the PTC, which are designated or used for collecting or conveying stormwater. The PTC installs Stormwater Control Measures (SCMs) to control stormwater runoff from the highway system and supporting facilities owned by the PTC. These SCMs are engineered structures or devices designed to slow down, hold, infiltrate, and/or treat stormwater runoff before it enters waterbodies and groundwater. SCMs must be maintained in proper working order to achieve the required environmental protection.

The Stormwater Asset Management Program (SWAMP) was developed for the PTC MS4/Stormwater Unit to support the PTC's 2019-2024 Strategic Plan commitment to managing all assets and features in a restorative manner by increasing operational efficiencies. The SWAMP was designed to integrate with existing enterprise PTC systems, including GIS, SAP Plant Maintenance, SAP Project Systems, Kahua, Microsoft Dynamics CRM, and OnBase. The SWAMP provides the PTC with a centralized, common operating platform to support infrastructure inspection evaluation, work order development and tracking, and reporting for PTC-owned stormwater assets and features. The SWAMP is designed to help streamline day-to-day operation and maintenance and compliance-related activities both in the office and in the field.

# VEGETATION MANAGEMENT PLAN

The PTC is coordinating development of a vegetation management plan to shift towards an efficient means to reduce cycles of recurring vegetation management of the PTC's Right-of-Way. As the PTC implements various projects along with the system, new seed mixes have been installed, which require less frequent maintenance, and as such, the PTC is looking to develop a plan to recognize and track the frequencies with which those areas are to be maintained. In other areas of the Turnpike system, we are looking to reduce vegetation management to those areas that are critical to the safety of our customers and areas of access to critical components for the Turnpike's

infrastructure. The PTC has various areas which have historically been maintained, which will be evaluated if those areas all need to continue on a regular cycle or can be moved to a reduced area or frequency of maintenance as the plan is developed.

As the PTC also looks to maintain vegetation in a more formalized mapped fashion, the topic of deployment of a pollinator corridor is also being considered. Currently, PennDOT has a Pollinator Habitat Plan of which the goal is developing a corridor, and the Turnpike may intersect many of those areas. Development of an intersecting map to further spread the corridor will aid in the

promulgation of the importance of the vegetation within the Right-of-Way of the Turnpike to further enhance important species which may also use it as a transportation network.

Part of the PTC's PADEP MS4 Permit ultimately dovetails into vegetation management and the improvements that the PTC is striving to enhance as part of its Clean Water initiatives. The understanding of the importance vegetation plays in progression of clean water is crucial to this initiative and to the PTC's Strategic Plan by managing our assets in a restorative manner while operating our system as we build a sustainable transportation system for the future.

# DURABLE PAVEMENT MARKINGS

The PTC has historically installed waterborne pavement markings in conjunction with snow plowable raised pavement markers (SRPMs) for all longitudinal (long) lines to provide travelers with lane guidance. SRPMs are a cast iron housing that holds and protects a plastic lens and is designed to withstand the impact of snow removal operations. Historically, SRPMs have been the only way to provide increased visibility of pavement markings at night with wet reflectivity. Waterborne pavement markings degrade significantly over a short period of time based upon traffic volumes and winter maintenance activities. Accordingly, the PTC deploys waterborne pavement markings two times per year (spring and fall). Although waterborne pavement markings are cost-effective for installation, low retro-reflectivity and consistent maintenance requirements are burdensome for transportation agencies. Similarly, maintenance requirements of SRPMs

that provide additional retro-reflectivity for lane lines are costly, and their recurring replacement is time consuming and poses a significant safety risk due to the proximity of the maintenance operation to live traffic. In an effort to improve quality and visibility of pavement markings while concurrently minimizing installation, maintenance costs, and safety risks, the PTC initiated an evaluation of the performance of highly reflectorized durable pavement markings. Installation of durable pavement markings along PTC roadways began with a pilot in 2011, and as of spring 2020, the PTC has deployed highly reflectorized durable pavement markings on approximately 66% of the long lines across all PTC roadways.

The PTC currently deploys two types of highly reflectorized durable pavement markings: recessed all-weather tape (RAWT) and recessed polyurea pavement markings. RAWT is highly durable and abrasion resistant with a life expectancy of approximately eight years, thus allowing for a "no-touch" approach,

matching the PTC's current pavement life cycle at most locations. Recessed polyurea pavement markings are resin paint with either two or three types of reflectorized beads "dropped" into the resin. Polyurea pavement markings have a life expectancy of three to four years. While RAWT and polyurea are more costly than waterborne, it is important to note the highly reflectorized pavement marking materials have increased retroreflective performance along with a decreased level of effort required for maintaining pavement markings.

The PTC has identified that pavement markings are a critical component in providing the safe operation of the tolled system, both now and in the future, as connected and autonomous vehicles will rely heavily on consistent and brighter pavement markings and are worth the cost to implement alternative materials in an effort to improve customer safety.

# LONG LIFE CONCRETE

# PERPETUAL PAVEMENT

Prior to letting the construction contracts for the PTC's Southern beltway projects, an initiative was adopted to improve overall quality of PTC concrete roadway projects. To improve the quality of the construction of the concrete pavements on the Southern beltway, a Special Provision entitled Long-Life Concrete Pavement (LLCP) was developed. PTC Southern Beltway contracts were the first construction contracts in Pennsylvania to use the LLCP specifications.

The LLCP special provision use of optimized concrete mixes, high performance dowel bars, Poly-alpha-methylstyrene (PAMS) concrete curing compound, Water/Cementitious Ratio Incentive Pay factor, Pavement Ride Quality Incentive Pay Factor, and Just in Time Training (JIT2) for the general and subcontractors, field inspection staff, PTC staff, and material suppliers involved with the concrete paving operations; serves to ensure a more durable and long-lasting roadway. The increased quality and continued efforts to embrace new roadway technology, construction practices, and improved training of our workforce equate to improved future sustainability of the PTC infrastructure.

Perpetual Pavement is a term used to define a multiple layered asphalt concrete pavement structure that is designed to last 50 years or longer without any repairs below the wearing course. This multi-layered structure is engineered to work together to resist structural fatigue over its life cycle resulting in a long-life pavement.

Perpetual pavement provides engineers the ability to minimize the total thickness of the pavement structure to reduce the tensile strains in the base layer. The individual layers of the pavement structure are designed to address specific pavement distresses. Resistance to bottom-up fatigue cracking is addressed in the lowest asphalt layer and is selected for its higher asphalt binder content. The intermediate layers are designed to resist rutting. Intermediate layers are designed with a stone matrix that features a higher stone-on-stone contact to provide increased strength. For the final layer of asphalt, referred to as the wearing surface, the PTC has instituted the use of Stone Matrix Asphalt (SMA) mixtures. The SMA mixtures provide a more flexible layer that reduces surface cracking, resists rutting, and minimizes normal wear caused by traffic, providing a more durable roadway.

## IMPROVED QUALITY MEANS...
## SUSTAINABILITY

# SPOTTED LANTERNFLY

The Spotted Lanternfly, an invasive insect species, has attacked trees across the Commonwealth. To address the issue and as a requirement of the Spotted Lanternfly Permit, obtained from the Pennsylvania Department of Agriculture (PDA), the PTC has implemented mandatory Spotted Lanternfly training and vehicle inspections. In 2019, the PTC executed a Right of Entry Agreement with the PDA and United States Department of Agriculture (USDA) that allows the right to enter PTC property solely for the purpose of conducting surveys to inventory and collect data on the location of the invasive Spotted Lanternfly and its preferred host tree known as the Tree of Heaven. In 2021, the PTC executed an Spotted Lanternfly Treatment Agreement with the PDA and USDA that allows access to PTC property to conduct treatments for the Spotted Lanternfly.

The PTC has incorporated Spotted Lanternfly treatments at infested facilities from 2018 through 2020. To continue and expand on this effort, the PTC also added Spotted Lanternfly Treatments to the 2021 Facility Pest Control Services Contract.

# Business Process Improvement Techniques

In early 2021, we launched the first course in a new enterprise-wide curriculum focused on Business Process Improvement Techniques. The program aims to support our culture of innovation, which includes not only implementing new technologies and equipment to address our needs but also empowering our workforce to also improve the way that we work. As noted in United Nations Goal 9 (Industry, Innovation, and Infrastructure), sustainability and innovation are closely tied, as we focus on improving morale for both customers and employees through empowerment and better service delivery.

This program has been the culmination of several initiatives over the last few years, including projects and training with our Executive Development Academy (EDA). The curriculum includes techniques and methods to measure improvements that can translate to all aspects of our business, creating one consistent framework within which to capture our enterprise improvements. Our framework originated from a program built by the Denver city government and has grown to include our own methods and successes. The basis of our methodology is what we call the "TEAM" approach to discovering value in initiatives and incorporating techniques from a variety of approaches. Through the program, employees learn techniques to map and visualize business processes, identify opportunities for improvement, and methods to measure whether those improvements are successful. We also focus on making small and incremental improvements through simple process changes as well as the application of the vast self-service technologies available to all staff. These simple changes can generate both money and time savings for staff. Furthermore, documenting and understanding our processes also aids in sustainability of our operations and succession planning as we prepare for the workforce of the future.

One recently implemented improvement is within the Asset Destruction/Disposal process. Prior to changes, the process required a multitude of signatures for all items, even those set for destruction or with a minimal dollar value. After one of the EDA teams, led by an SSAM resource, explored the process, they identified simple opportunities to improve by adjusting the value thresholds for most signatures as well as eliminating unneeded steps from the process. As a result, a process that used to take at times two months and cost $90,000 annually in both time and resources has been reduced to three days and less than $15,000 annually. In addition, some staff who used to be involved in processing 1,200 of these forms per year now have little or no involvement in the process, also leading to morale improvements. Best of all, these changes were designed and implemented by the staff who were charged with managing the process.

Stay tuned for new program courses that will build upon the 101 class that is now available. And remember, business process improvement does not imply explicitly that there is anything wrong with why we do things the way that we do them today, rather provides the opportunity to assess how we do them and whether it can or should be better.

| | | Current State (CS) Costs | Future State (FS)Costs |
|---|---|---|---|
| **Qualitative (Feelings)** | | | |
| **Time** | | 7 – 60 days | 3 days |
| **Errors** | | | |
| **Amount** | | 1,200 | |
| **Money** | | $90,000 | $15,000* |

Asset Destruction/Disposal Process – Before and After

17

# Print Utilization

The Information Technology (IT) department began an initiative several years ago to study the PTC's print utilization and habits in order to drive both cost savings and paper usage reductions in support of the PTC's sustainability goals. The effort to reduce the volume of our printing correlates to our methods of faxing, completing forms, providing document signatures, automated functionalities through desktop or mobile devices, information security, and energy savings. Ultimately, the success of this initiative involves not only changing our approach to print technology but also a change in people's behavior when it comes to printing.

## 2018

- The first step in this effort involved restructuring our print maintenance contract to reduce those costs and provide opportunity for additional print reduction technologies to be implemented.
- IT eliminated fax machines by implementing a cloud-based faxing platform that allows faxes to be received electronically rather than be automatically printed, which provides added information security.

## 2010

- Papercut/FollowMe functionality was implemented at the Central Campus, which involves a user swiping a badge in order to print jobs on demand, eliminating waste and improving reporting on print usage and the security of printed documents.
- Efforts began to transition paper-based forms to electronic format using a variety of platforms.

## 2020

- Published the E-signature Standard, defining the various types of electronic signatures and the acceptable means to produce them. In support of the Advanced level of e-signature, IT procured DocuSign licensing and rolled this solution out to users.
- Created dashboards to monitor print usage and saw drastic print reduction due to telework.
- Further restructured the managed print services contract to reduce the base pricing model in alignment with current print utilization.
- Continued refining business processes around paper-based forms to implement automated forms and workflows.

## Print Initiatives

## 2021 and Beyond

- Expand Papercut/FollowMe to Eastern and Western Regional Offices and field locations to further eliminate waste, improve reporting, and the ability to monitor print usage.
- Initiate printer consolidation to eliminate most personal printers and reduce the number of larger, inefficient departmental printers. Expectation is to reduce by approximately a third by the end of 2021.
- Collecting data related to showback of printing expenses to various departments and investigating the potential for departmental chargeback in the future.
- Compiling information for energy savings based on reduction of printers in combination with reduced printing.
- Continuing end-user training and awareness on alternatives to printing.
- Use of room screens and collaborative technologies for agendas and information sharing rather than paper handouts.
  - Review documents on the screen rather than printed copies for review and markup.
  - Increased use of mobile devices (laptops, tablets) for document review and markup.
- Future initiatives
  - Setting limits on the size of jobs sent to personal printers and MFPs.
  - Routing large jobs to the print shop to reduce the cost of the printing.
  - Conversion from swipe to proximity readers at MFPs.

# Green Gov Council

The GreenGov Council of Pennsylvania is co-chaired by the Secretaries of the departments of General Services, Environmental Protection, and Conservation and Natural Resources. The Council encourages the incorporation of environmentally sustainable practices into the Commonwealth's policy, planning, operations, procurement, and regulatory functions. The PTC is an active participant in the Council.

The Council works with state agencies to promote best practices, continuous improvement, and success in achieving the energy efficiency and performance goals established in Executive Order 2019-01. In this order, Governor Wolf established a goal for Pennsylvania to strive to achieve a 26% reduction of net greenhouse gas emissions statewide by 2025, and an 80% reduction of net greenhouse gas emissions by 2050 (from 2005 levels).

The PTC will continue to be an active participant in the GreenGov Council and promote its targets and programs.

## Our goals to promote best practices and continuous improvement:

Replace 25% of the state passenger fleet with Battery Electric Vehicles (BEVs) and Plug-In Hybrid Electric Vehicles (PHEVs) by 2025, and evaluate opportunities to reduce vehicle miles traveled.

Procure renewable energy to offset at least 40% of the Commonwealth's annual electricity, and/or directly purchase renewable power generation sited within PA.

Build any new buildings, major renovations, build to suit leased buildings to high-performance building standards.

Reduce overall energy consumption by 3% per year by 2025 (from 2017 levels).

# Social Justice Taskforce

## ENVIRONMENTAL JUSTICE

Responsible for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, income with respect to the development, implementation, and enforcement of laws, regulations, and policies. This subcommittee examined current EJ practices in roadway planning, design, and construction and made recommendations and considerations for improvements and communication of these efforts to internal and external stakeholders.
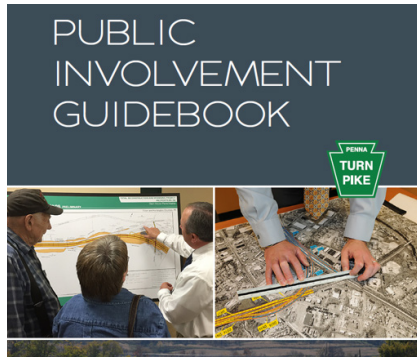
### REWRITING PUBLIC INVOLVEMENT GUIDEBOOK

- Build better awareness of PTC projects and activities
  - More messaging on 'why' we do what we do
- Identify diverse communities, boost efforts to connect
- Provide a voice to disadvantaged communities
- Talk to audiences where, when, and how they're listening
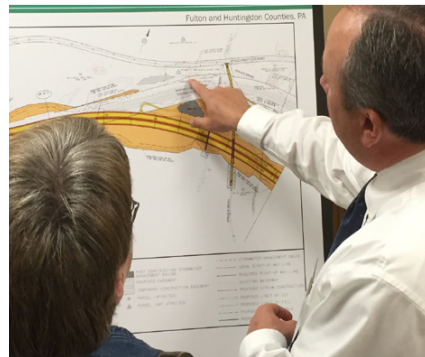
### BEING A BETTER NEIGHBOR: GETTING OUR MESSAGES ACROSS

Deploy diverse communications tactics, customized for community

- Virtual, social media options
- No more open house meetings?
- More digital/web content, video
- Pinpointed outreach, awareness
  - Community groups, places of worship, civic/nonprofit organizations
  - Boroughs and municipalities
- Leverage GeoAnalytics capabilities: data layers and frameworks to better understand audiences

### BEING A BETTER NEIGHBOR: PUTTING A PLAN INTO ACTION

- PTC's current PI Guidebook revised in 2017
- In years since, many advances in:
  - Increased social media use
  - Remote working, virtual connections
  - Importance of social and environmental justice
- PLAN: Redefine guidebook, how we interact with communities
  - PI/PO contractor to help update Public Outreach Process
  - Bravo will assist with accessible, inclusive, measurable process
  - Commission approved supplement, extension March 16
  - Specialty vendor to reach diverse communities statewide

**3** GOOD HEALTH AND WELL-BEING

**Blood Drive**









# Turnpike Employee Association (TEA) *We Give Back*

**1** NO POVERTY

### Pick an Angel Program: 2000 to Present

TEA reached out to local charities (Catholic Charities, Salvation Army, Shalom House, Paradise School) and received names of adults and children needing help. Tags with the recipient's name along with gift suggestions were displayed on the Christmas trees at the Central Administration Building and the TIP Building. Employees picked a tag, purchased the suggested items on the tag, and returned the gifts with the angel tag attached. Over the last 20+ years, employees provided gifts for more than 100 children and adults yearly since 2000. Even amid the pandemic of 2020, we did a virtual angel program and provided gifts to the local charities.

**4** QUALITY EDUCATION

### Salvation Army Backpack Program: 2015 – 2019

PTC employees donated school supplies and backpacks, which were donated to the Salvation Army and distributed to needy children in the Central PA area.

**1** NO POVERTY

### Toys for Tots

PTC employees participated in the U.S. Marines Toys for Tots Program since 2005. Last year would have been our 16th year, but due to COVID, we could not host the drop off and instead sent a memo with links for people to donate.

**1** NO POVERTY

### Golf Outing Benefiting PA Wounded Warriors

PTC employees have been hosting a golf outing from 2013 to 2019, with all proceeds benefiting the PA Wounded Warriors. The total collected since 2013 for the PA Wounded Warriors was $75,274.00.

Due to COVID, the PTC could not host the 2020 golf outing, but it resumed in October 2021.

**2** ZERO HUNGER

### Giving Garden

The Giving Garden was an idea from the Women's Network Group. The Garden opened in April 2019 with employees' children and grandchildren planting the first crop on Take Your Child to Work Day.

Harvest from the garden in 2019 was donated to local food banks (Hummelstown, Middletown, Highspire) as well as the Bethesda Mission in Harrisburg.

Last year during the pandemic, we got a late start with planting in the spring but were able to make vegetable donations to the local food banks and the Bethesda Mission.

## SUSTAINABILITY COMMITTEE MEMBERS

Mark Compton | Chief Executive Officer

Rick Dreher | Chief Financial Officer

Keith Jack | Engineering Facilities Operations

Kathryn Hartzell | Information Technology

Cory Greene | Maintenance

Eric Stake | Engineering Facilities Design

Rob Marsters | Information Technology

George Martynick | Engineering Facilities Operations

Nate Hoffman | Engineering Environmental

Don Steele | Engineering Design

## SUSTAINABILITY REPORT CONTRIBUTORS

"Green" Building Designs | Vince Buser

Building Automation Systems | Eric Stake

Microgrid | Chris David

Energy Cap | Eric Stake

EV Charging | Don Steele

SWAMP and MS4 | Rob Marsters

Vegetation Management Plan | Nate Hoffman

Durable Pavement Markings | Tom Macchione & Justina Wentling

Long Life Concrete | Chris Forry

Perpetual Pavement | Charles Buchanan

Spotted Lanternfly | Luke Larson

BPI Techniques | Kathryn Hartzell

EV for fleet | Cory Greene

Printing Modernization | Kathryn Hartzell & Gary Hentz

Social Justice Taskforce | Charles Duncan

Turnpike Employee Association | Maryann Szekeres

Sustainability@Paturnpike.com

## Milk & Honey Service Project

The International Bridge, Tunnel and Turnpike Association (IBTTA) and the PTC led more than 100 volunteers at a community service project at Milk & Honey Farms. Milk & Honey Farms is a nonprofit farm that focuses on veterans and provides fresh fruit and vegetables for those at risk for hunger in South Central Pennsylvania.

# SUSTAINABILITY TIMELINE

**1989:** SNAPS

**1989:** Blood Drive

**1991:** Turnpike Employee Association

**2000:** BioFuels Initiative

**2000:** E-ZPass/ Electronic Tolling -- Patented Technology

**2001:** First LEED Certified Building

**2001:** Repurposing of Decommissioned Tunnel

**2003:** ERO Adopted Family

**2005:** Propane Vehicles

**2006:** First MS4 Permit

**2008:** New Emission Requirements Trucks

**2008:** Slip Ramp -- Increased access Virginia Drive

**2008:** New Emission Requirements Trucks

**2010:** LED Lighting Replacement (Lebanon Lancaster Int)

**2011:** Department Diversity and Inclusion

**2014:** Innovation Council 2015 -- First EV Charging Station

**2015:** Compressed Natural Gas Vehicles

**2015:** Leadership Academy Programs

**2016:** Cashless Tolling Delaware Rive Bridge (DRB)

**2018:** AWS/Teleworking

**2018:** Reusable Bottle Filler Installation

**2018:** MS4 Subcommittee

**2018:** Giving Garden

**2019:** FollowMe Print

**2019:** EnergyCAP

**2019:** Governors 2019-01 Executive Order

**2020:** Racial and Social Justice Task Force

**2020:** Sustainability Committee Formation

**2020:** Agenda Manager

**2021:** Fiber Optic Project -- Technology and Communication Upgrades

PENNA
TURN
PIKE

# SUSTAINABILITY
at the PA Turnpike Commission

2021 Highlight Report