



10 thousand
TREES
To help keep Indy's Waterways Clean!

Making a Difference



2017 Sustainability & Social
Responsibility Report

On the Cover: Rebecca Schaefer, Engineer in Citizens Capital Programs & Engineering Department, participates in an Arbor Day tree planting with a student at Eleanor Skillen Elementary School.



Jeffrey Harrison, President & CEO of Citizens Energy Group, tours the DigIndy Tunnel with Indianapolis Mayor Joe Hogsett.

Making A Difference

Jeffrey Harrison

President & CEO
Citizens Energy Group

At Citizens Energy Group, sustainability and social responsibility are a central part of our mission as a Public Charitable Trust designed to make a positive difference in the quality of life and economic development of Central Indiana.

For Citizens, we define our commitment to sustainability and social responsibility as the EBCs of Sustainability – a commitment to the Environment, Business and Community. Our efforts are driven by innovation focusing on environmental and business issues; viability through long-term investments; and supporting a sustainability focus across Central Indiana.

Sustaining Our Environment

Our commitments:

- Demonstrating conservation and stewardship of natural resources
- Implementing projects to support beneficial reuse of byproducts
- Developing future supplies in an environmentally responsible manner

We are sustaining our environment through significant system investments and a continuous focus on efficiency and reduction of waste.

Since 2011, Citizens has invested about \$1.5 billion in its utility systems. We have invested \$1.1 billion in wastewater system

improvements that are preventing 2 billion gallons of sewage from entering area waterways annually and keeping the utility in compliance with a federal consent decree. More than \$250 million of water system investments have reduced wasteful main breaks from approximately 700 to 500 annually, while ensuring water safety and quality. About \$118 million of investments in our natural gas system have kept it an industry leader for safety and reliability. More than \$50 million of investment in our thermal energy systems has enhanced reliability and reduced air emissions, while lowering rates to our customers.

As we invest in our systems, we are using innovative approaches to improve our processes to enhance efficiency and environmental outcomes. For example, using a process called value engineering, we have been able to reduce the original projected cost of complying with the consent decree by \$400 million, while increasing the sewer overflow capture rate from 95 to 99 percent.

Sustaining Our Businesses

Our commitments:

- Delivering unparalleled customer service
- Seeking innovative solutions to tomorrow's problems
- Committing to operational excellence
- Ensuring safe and reliable utility services
- Establishing competitive rates and costs for utility services

Making A Difference

An effective strategic planning process produces a roadmap for sustaining our businesses by establishing company-wide goals focused on customer satisfaction, employee engagement, financial integrity and performance excellence. Success is achieved by aligning departmental and individual goals with our strategic roadmap.

Of course, performance excellence always starts with safety. Our ongoing capital investments and continuous focus by employees ensure energy and water are delivered safely as we protect our environment.

Our Voice of the Customer initiative is leveraging customer feedback to make it easier to do business with Citizens. An improved website with new communications mediums, such as digital alerts, is allowing our customers to manage their account on their own terms and to save time.

Building on our long history of continuous improvement, we are implementing a program we call Citizens Lean and Six Sigma (CLASS). The CLASS program is deploying a set of tools allowing us to continuously improve the efficiency and effectiveness of our processes to provide the greatest overall value to customers. Implementing CLASS is part of our responsibility to consistently evaluate the way we operate our businesses in order to deliver the very best customer service at the lowest possible rates. Our goal for CLASS is to take our overall performance from good to great!

Sustaining Our Community

Our commitments:

- Contributing to improved quality of life
- Supporting creation of safe neighborhoods
- Providing consumer education on conservation and wise use of resources
- Promoting economic development in the communities we serve

Helping customers in need is always one of our top priorities in supporting efforts to create a sustainable community. In 2016, we provided more than \$1.4 million of bill assistance to customers in need. At the same time, we provided more than \$450,000 of funding to help low-income families reduce energy and water use in their homes.

Our active corporate philanthropy program supports a wide range of non-profit organizations that are improving quality of life in Central Indiana. Using non-utility revenue, we are making a difference for organizations promoting economic development, education, environmental stewardship, diversity and cultural arts.

While we sponsor non-profits, our employees donated more than 7,700 hours of their time last year to community organizations and at Citizens-sponsored events. Our largest volunteer event, Sharing the Dream, resulted in \$1 million of improvements to the Riverside Park Family Recreational Center this past January. Over the past nine years, Sharing the Dream has improved 10 city parks and community centers.

As we work to support a sustainability focus in our community, our system investments and our community redevelopment program are helping fuel economic revitalization across the metropolitan area.

At Citizens Energy Group, sustainability and social responsibility are guiding principles of our vision to serve our customers and communities with unparalleled excellence and integrity.

Sincerely,





Water quality in area waterways is being restored through our wastewater system improvements.



Sustaining our Environment

Environmental Management

At Citizens, we achieve environmental compliance through careful planning, internal assessments and a commitment to operational excellence. Effective data gathering is critical to our efforts. Various monitoring methods, such as in-stack sensors at the Perry K Steam Plant and in-stream water quality monitoring systems, provide real-time information about operational and environmental performance. If deficiencies are identified through our assessments or through unannounced inspections by regulatory agencies, our Environmental Stewardship department works closely with operations personnel to implement effective solutions. Citizens utilizes an array of procedures, work instructions, process flows, forms, records and practices to provide a framework for compliance. This system also addresses how we work to minimize adverse environmental impacts.

The compliance system works in conjunction with the company's primary quality programs – Citizens Lean and Six Sigma and the Partnership for Safe Water. Our quality programs help us standardize, track, manage and control key processes in water distribution, water production, environmental stewardship and laboratory services. The Partnership for Safe Water is a standard for quality improvement utilized by drinking water utilities across North America.

Sustaining Our Waterways

When Citizens assumed ownership of the community's water and wastewater utilities in 2011, it also took full responsibility for compliance with a consent decree with the U.S. Environmental Protection Agency (EPA) to reduce combined sewer overflows (CSOs) to area rivers and streams.

The consent decree requires Citizens to capture and treat 97 percent of the sewage overflows in the Fall Creek Watershed, and

95 percent in the White River and other watersheds in a typical year. Overflows will only be allowed for two storms per year on Fall Creek and four storms per year on White River in a typical year. Completion of the consent decree is required by the end of 2025.

Currently, when as little as a quarter of an inch of rain falls, combined sewers reach capacity and raw sewage overflows into local rivers and streams. Historically, about 6 billion gallons of untreated sewage has been flowing annually into our rivers and streams, but Long Term Control Plan measures already completed have reduced this volume by about 2 billion gallons annually.

Overall the consent decree work is ahead of schedule and approximately \$400 million below the original budget. The consent decree program has met 88 percent of scheduled milestones and no fines, penalties or violations have been recorded to date.

To meet the consent decree requirements, Citizens is designing and constructing a series of six tunnels approximately 250 feet beneath the city that will store over 250 million gallons of untreated wastewater per event until it can be safely treated at our Southport Advanced Wastewater Treatment Plant.

The tunnel system is being built in bedrock using a special tunnel boring machine. After the machine bores the tunnel, a concrete lining is being installed to enhance tunnel integrity and reliability. Building the tunnel system deep beneath the city is a lower cost, more effective and safer alternative to shallow sewer designs, and it is minimizing disturbances to our community.

In addition, Citizens is expanding its wastewater treatment plants, adding a large tunnel dewatering pump station and building other related infrastructure.

Sustaining our Environment

DigIndy Tunnel System

The 7.6-mile Deep Rock Tunnel Connector (DRTC) project began in May 2012, with tunnel boring commencing on March 15, 2013. Contractor Shea-Kiewit Joint Venture (S-K JV) is currently on schedule with the \$185 million project, with completion by the end of 2017. The \$75 million DRTC Pump Station is currently in construction and contractor Renda-Southland Joint Venture (R-S JV) is on schedule for completion by the end of 2017.

The DRTC, which will run from near the Southport Advanced Wastewater Treatment Plant in southern Marion County to downtown Indianapolis, will capture and treat the largest volume of CSOs from the White River. The DRTC project, and the Eagle Creek Deep Tunnel described below, will capture and treat over 10 billion gallons of raw sewage between 2018 and 2025 and will improve flow distribution between Citizens' two advanced wastewater treatment plants.

Sustainable and green concepts of the DRTC include:

- Eliminating one of two previously planned pump station shafts, saving customers millions of dollars in upfront capital costs and long-term operating costs
- Improving energy efficiency of operations for cost savings and reduced environmental impacts

Eagle Creek Deep Tunnel

The 1.7-mile Eagle Creek Deep Tunnel was originally planned as a large-diameter, shallow interceptor that would convey combined sewage but would not store it. To achieve overall project savings, reduce disruption to local residents and businesses, and further improve water quality, the project was modified to include Eagle Creek Deep Tunnel as part of the DigIndy Tunnel System. The tunnel is located just off of the path of the DRTC and will add 17 million gallons of storage to the DigIndy Tunnel System. Construction of the \$38 million tunnel by DRTC contractor S-K JV will be complete by the end of 2017, one year ahead of the project's consent decree milestone date of December 31, 2018.

White River Tunnel and Lower Pogues Run Tunnel

Construction of the \$200 million White River Tunnel and \$100 million Lower Pogues Run Tunnel commenced in June 2016. Contractor S-K JV is on schedule with completion of both tunnels by December 31, 2021. The 5.3-mile White River Tunnel and 1.9-mile Lower Pogues Run Tunnel will eliminate most CSOs along Fall Creek, White River and Lower Pogues Run.

Sustainable concepts of the White River and Lower Pogues Run Tunnels include:

- Eliminating one of three previously planned drop shaft locations along the Lower Pogues Run Tunnel alignment, saving customers millions of dollars in upfront capital costs and long-term operating costs
- Refurbishing and recommissioning the tunnel-boring machine that was used for the DRTC and Eagle Creek Deep Tunnel projects
- Project bundling using one tunnel-boring machine, with projected savings of over \$70 million

Fall Creek Tunnel

Design of the 3.7-mile Fall Creek Tunnel is complete, and the \$220 million tunnel is scheduled to be complete by December 31, 2025. The Fall Creek Tunnel will nearly eliminate CSOs on Fall Creek between the Indiana State Fairgrounds and the intersection of Fall Creek Boulevard and Dr. Martin Luther King, Jr. Street, where the system will connect to the White River Tunnel. New sewers along Fall Creek will substantially reduce sewage overflows in neighborhoods throughout the project area.

Pleasant Run Tunnel

Planning and design for the 7.8-mile Pleasant Run Tunnel began in 2014 and is currently at the 50 percent design level. The \$220 million project is on schedule to be constructed by December 31, 2025. The Pleasant Run Tunnel will eliminate more than 35 CSO points along the stream, which flows through densely populated neighborhoods on the southeast side of Indianapolis.

The DigIndy Tunnel System will prevent about 97 percent of sewer overflows annually.



Rain gardens are among the sustainable methods Citizens is using to reduce potential sewer overflows.



Sustaining our Environment

Belmont Advanced Wastewater Treatment Plant

Secondary treatment capacity of the Belmont Wastewater Treatment Plant has been doubled from 150 million gallons per day (MGD) to 300 MGD. The secondary expansion has eliminated partially treated sewage overflows of more than 1 billion gallons per year and significantly improved water quality on the White River. Construction of the \$200 million project began in March 2010 and was completed on time and within budget in December 2012. A new ultraviolet disinfection system was also added to further eliminate pathogens and bacteria from the plant's discharge.

Southport Advanced Wastewater Treatment Plant

Capacity of the Southport Plant needed to be doubled from 125 MGD to 250 MGD. Construction was completed in December 2016 on the \$120 million project, which was on budget and a full year ahead of the consent decree date of December 31, 2017. The increased capacity will allow for CSO reductions in the existing collection system and is ready to treat the flows from the DRTC.

CSO 033 Project Provides Green Solution to Overflows

Citizens Energy Group, along with Keep Indianapolis Beautiful (KIB) and hundreds of volunteers, took part in a massive tree planting on the city's near west side in October 2014. The tree planting was part of a larger green infrastructure project called CSO 033, which was designed to reduce raw sewage overflows. CSO 033 is located in an Indianapolis residential neighborhood in the Little Eagle Creek drainage shed. The project was recognized in 2015 with a Sustainability Award from the City of Indianapolis. Based on the system's first year in service, and valuable input received from area residents, portions of the system were modified in 2016 to better accommodate parking and other community needs.

Consent Decree – What's Next

Citizens will remain focused on implementing projects on schedule and within budget. We will continually update the Long Term Control Plan and develop strategies for expected revisions to water quality standards. Citizens is focused on continuous improvement of the overall program and individual projects that will maximize environmental benefits while reducing costs.

Septic Tank Elimination Program (STEP)

Approximately 30,000 homes in Marion County are served by private septic systems. Septic systems have a limited life and eventually fail, leaching human waste into groundwater, backyards and neighborhood ditches and streams. Septic systems are linked to high E. coli bacteria counts in many small neighborhood streams and ditches during dry weather, when children are most likely to play in them.

In 2016, Citizens implemented a new approach to STEP that has lowered the average cost to impacted homeowners from about \$7,000 per home to about \$2,600. Between 2008 and 2016, approximately 8,700 homes in Marion County have been or are in the process of being taken off septic systems as part of STEP. This represents a 35 percent reduction in the number of septic tanks endangering local water supplies. Benefits of STEP include reduced health hazards from dangerous bacteria and cleaner streams and neighborhood ditches.

Sewer Rehabilitation Program

A large and long-overdue sanitary sewer rehabilitation program is underway at Citizens. Although you may not notice the work being done due to the non-invasive "trenchless" methods being employed, tens of millions of dollars are being spent to rehabilitate pipes that have, in some cases, been untouched since they were installed in the 1800s. Citizens is addressing the backlog of needed repairs by employing a number of different technologies, primarily cured-in-place piping (CIPP) methods to rehabilitate the lines and extend their service life by another 100+ years.

As part of the sewer rehab program, over 1 million linear feet of sewer are inspected each year and categorized in one of three priority areas. Priority one sewers are in the worst condition and, left untreated, are generally prone to failure within one year. Priority two sewers are in slightly better condition, but failure would be expected to occur within two years if left untreated. Priority three sewers are considered to be in fair condition and are placed on a list to be monitored at least every eight years. Since its inception, Citizens' sewer rehabilitation program has repaired over 350,000 linear feet of sewers using CIPP or alternate rehabilitation technology.

Sustaining our Environment

Sustaining Our Water Supply

Citizens has both short- and long-term plans to sustain our water supplies to meet the growing needs of Central Indiana.

The Citizens WaterWise Plan is promoting water conservation efforts focused on reducing usage during periods of peak demand. The foundation of this plan is implementation of the Marion County Water Shortage Ordinance through Citizens' Drought Management Plan. The Drought Plan establishes tiers for water conservation measures that are tied to operational factors such as water levels in area reservoirs. The tiers range from a water shortage alert that calls for every-other-day mandatory water use restrictions to a water emergency that bans most outdoor water uses. Continual communication with customers is a key factor in ensuring the ongoing success of WaterWise initiatives.

The long-term water planning process assumes coverage for Citizens' current service area plus wholesale water sales to adjoining communities. The design is based on a level of service goal of supplying customer demands under moderate drought conditions with no mandatory restrictions on usage. Rare, more severe droughts would be mitigated through restrictions implemented in accordance with the Marion County Water Shortage Ordinance. The water planning process also assumes a long-term approach to securing supply utilizing a diverse portfolio of water resource options.

The planning process predicts peak system demand in 25 years using peak-demand trends across the various distribution districts, demographic projections and aggregate pressure demands across the entire system. The analysis predicts 0.65 percent growth rate in demand, which results in 43 million gallons per day of additional supply needed in 25 years.

Identified water resource options for the next 25 years include water conservation, system optimization, water reuse, local water supply, local water storage, purchased water, water use restrictions and regional water resources. The planning process prioritizes the lower-cost alternatives into the short-term plan while maintaining higher-cost alternatives as options for future long-term supply needs.

The most cost-effective supply scenario is using a mix of water conservation, water reuse, system optimization, local supply, local storage, water purchases and water use restrictions. Based on the various possible scenarios, Citizens is prepared to meet the long-term water supply needs of Central Indiana.

In July 2015, Citizens announced plans for the development of Citizens Reservoir, which will sustain Central Indiana's water supply for the next 15 years. Citizens acquired an 88-acre quarry from IMI Materials for this purpose, and once developed, the reservoir will store over 3 billion gallons of water, which is more than 50 percent of the effective capacity of the adjacent Geist Reservoir. The reservoir will capture water now lost over Geist Dam during periods of heavy rain. When complete in 2020, the project will be the largest water supply source developed in Central Indiana since the opening of Eagle Creek Reservoir in 1968.

The utilization of an existing quarry to create this new water supply reservoir provides an example of Citizens' approach of seeking innovative, cost-effective ways to ensure that sufficient water resources are available to support the future growth of central Indiana.

Citizens is converting an 88-acre quarry in Hamilton County into Citizens Reservoir.



The Perry K Steam Plant now uses clean-burning natural gas to improve air quality downtown while lowering rates to customers.



Sustaining our Environment

Sustaining Our Groundwater Resources

Citizens accesses ground water from nine strategically located well fields. A well field is the land above and surrounding wells drilled into an aquifer. The surface area that contributes groundwater to the aquifer is called a well field protection area.

Approximately 60 percent of the state's public drinking water currently comes from groundwater sources, according to the Indiana Department of Environmental Management (IDEM). In addition, groundwater also is expected to be the primary source of drinking water in the future. As a result, Citizens and other utilities across Indiana have committed to minimizing the risk of groundwater contamination through best management practices and by educating the public on the need to protect water resources.

Citizens has submitted updated Wellhead Protection Plans in Marion and Hamilton Counties, which are implemented in accordance with the state Wellhead Protection Rule and local ordinances. The program involves working with local planning teams and regulators to:

- Map the wellhead protection areas and post signs identifying their locations
- Identify potential sources of groundwater contamination
- Work with businesses to prevent spills and releases of chemicals
- Prepare contingency plans in case of contamination
- Encourage the public to report potential sources of contamination

Citizens also works to educate the public and businesses on ways they can protect groundwater from contamination.

Energy Efficiency

Citizens is implementing a company-wide program to reduce energy usage. The urgency of this initiative is enhanced by the fact that Citizens' electricity usage will grow significantly in the years ahead with the opening of the DigIndy Tunnel System and expanded treatment plants, which use large electric pumps.

The wastewater utility has already implemented various operational measures that are reducing electric usage at the Belmont Advanced Wastewater Treatment Plant. The water utility is using variable frequency pumps at drinking water treatment plants to reduce electric use. The thermal utility has also implemented various operational measures to reduce electric use based on an energy efficiency assessment by a third party.

Reducing Air Emissions

In 2014, Citizens converted its Perry K Steam Plant from burning coal to clean, affordable natural gas. The Perry K conversion has reduced emissions associated with smog by more than 90 percent and lowered greenhouse gas emissions by more than 30 percent.

In addition, the conversion has allowed the plant to generate its own electricity, virtually eliminating the use of purchased power. Citizens is also delivering renewable energy since 50 percent of the steam delivered by our system is generated by Covanta Energy's waste-to-energy facility on Harding Street.

The Perry K conversion has also been a winner for customers. Lower operations costs resulting from the gas conversion have allowed Citizens to reduce steam rates by approximately 6 percent.

Sustaining our Businesses

Strategic Planning Drives Sustainability

At Citizens, our Strategic Planning Process is an important component of sustaining our businesses. "The strategic roadmap is an important tool to align the organization around a set of shared goals, objectives and initiatives," said Michael Strohl, Senior Vice President & Chief Customer Officer. "The strategic roadmap enables all of us to see how our jobs influence our overall corporate strategy."

Buoyed by the pillars of Customer Satisfaction, Employee Engagement, Financial Integrity and Performance Excellence, the strategic roadmap also includes a number of objectives and initiatives. Whereas the goals are "what" we aspire to achieve, the objectives and the initiatives tell us "how" we will achieve those goals. "Everyone in the company should be able to draw a line of sight from their individual job to one of our goals, objectives and initiatives," added Strohl.

Dedicated to Safety

Citizens continues to put a renewed focus on safety given the tremendous change across our organization with the integration of the community's water and wastewater utilities into the Citizens family of companies.

We are reinforcing with our new employees that the safety of our community and employees is one of the company's five core values that drive our decision making across the Public Trust. We ensure safe, reliable utility services by:

- Fostering a safety culture among our employees
- Executing rigorous maintenance of our facilities
- Making appropriate capital investments
- Pursuing safety partnerships with the community

Our commitment to safety has been recognized with outstanding achievement awards from the American Gas Association, the American Public Gas Association and the Indiana Energy Association. The awards Citizens has received for employee safety are reflective of various safety statistics we track, which are DART (Days Away, Restricted or Transferred) cases and vehicle incidents. Citizens Energy Group's DART Rate for FY 2016 was 0.1, compared to an industry average of 3.6, according to the Bureau of Labor Statistics.

Each of our business units has a safety professional assigned to conduct training, conduct audits, assess hazards and manage their safety needs. The primary elements of our safety program are the same throughout the organization, but are modified to meet the special regulatory requirements of various agencies. A safe and healthy work environment is fostered through implementation of safe work processes, maintaining hazard free workspaces and comprehensive safety training programs.

Our safety outreach efforts are designed to prevent pipeline accidents and home heating-related accidents.

Citizens is again coordinating call before you dig pipeline safety communication through the state and national Dial 811 "Know What's Below" awareness campaign. This campaign uses radio, internet and newspaper advertising to educate the general public and contractors about the importance of calling 811 before digging or excavating anywhere in Indiana.

Citizens continues to participate in statewide safety training for emergency responders and contractors through the Indiana Pipeline Awareness Association. The training provides participants potentially life-saving information about various kinds of pipeline emergencies.

We are building public awareness of home heating safety through our ongoing partnership with the Indianapolis Fire Department and the Interdenominational Ministerial Alliance. Although natural gas is a very safe fuel, Citizens recognizes the need to educate low-income customers about the dangers of various kinds of space heaters and the importance of seeking energy assistance. Our partnership and existing home heating safety efforts have included:

- **Free smoke alarms** -- Distribution of about 2,000 free smoke detectors per year to low-income customers through the Indianapolis Fire Department, The Red Cross and area churches
- **Public awareness campaign** -- A paid public service campaign has utilized television, billboards and print ads to deliver a message about the importance of smoke alarms and the dangers of space heaters
- **Information outreach** -- Distribution of safety information when services must be disconnected and through Community Action and area churches





Annual investments have made our natural gas system among the safest urban gas utilities in the nation.

Sustaining our Businesses

Ensuring Safe & Reliable Energy Operations

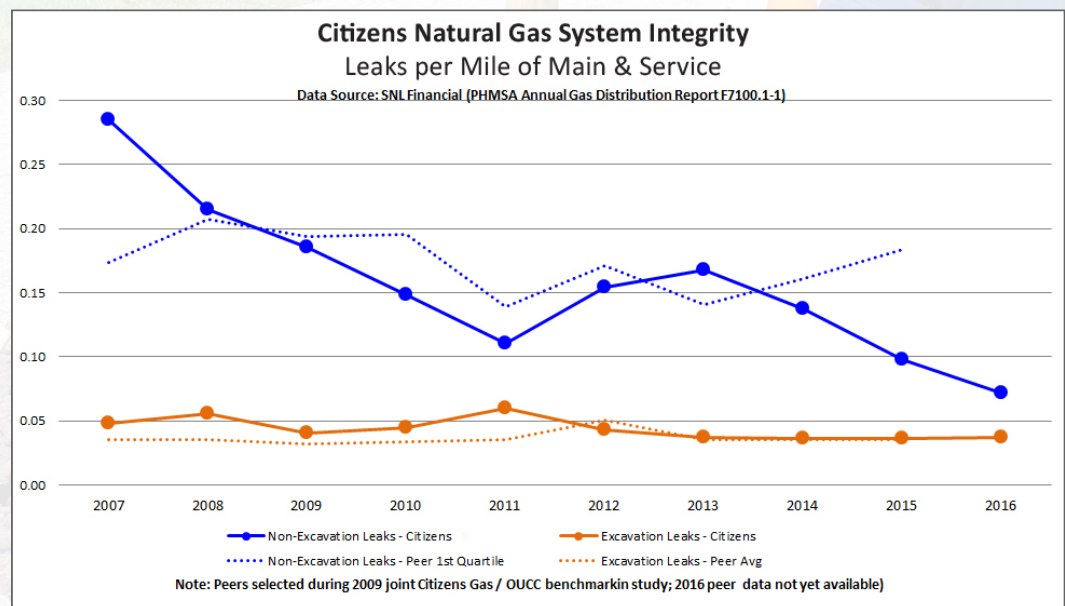
Citizens spends a significant percentage of its annual energy capital budget on new and/or replacement energy infrastructure. Since 1984, we have invested nearly \$600 million in our natural gas system to improve safety and reliability. Thanks to these investments, more than 99 percent of our gas system is now safer plastic or protected steel pipe. The benefits of these investments were validated in 2014 when a leak survey study by Google Maps and the Environmental Defense Fund found only five tiny leaks on the Citizens natural gas system while thousands of leaks were found along the much older natural gas systems in New York, Boston, Pittsburgh and Dallas.

Citizens' operational effectiveness centers on its ability to deliver services through a safe and dependable system. This effectiveness is exemplified in the overall integrity of its distribution system that is measured in terms of the number of leaks per mile of pipe.

Leaks caused by a third party (e.g., contractors, homeowners) have remained relatively constant, which is attributed to our ongoing pipeline safety/awareness

messages. Non-excavation leaks continue to decline overall, which can be directly attributed to capital investments into the gas system infrastructure. The chart below does indicate a slight increase in non-excavation leaks between 2011 and 2013 due to the gas system density in the area being surveyed. Results in 2011 completed a five-year leak survey cycle, and a slight increase at the end of a cycle is a normal occurrence. Citizens expects the decline in system leaks per mile to continue coinciding with gas system improvements.

Energy operations utilizes a variety of instruments to monitor the output and quality of the production and delivery processes. These include a Gas Control Center, which monitors system pressures and flows on more than 4,000 miles of pipeline systems, and the Thermal Control Centers at Perry K and West Street Chilled Water, which monitor more than 47 miles of steam and chilled water lines. The appropriate parameters are alarmed with visual and audible indications that notify the operators of any process problems. The operators are trained to react to the alarms and correct the relevant problems. In addition, computerized maintenance management systems are used to schedule and record maintenance activities.



Sustaining our Businesses

Citizens maintains 24-hour remote video monitoring of all key facilities, and we have staff available 24 hours a day, 365 days a year to respond to customer requests and emergencies.

In addition to these monitoring and response capabilities, we have programmed inspection and maintenance of all gas piping systems, which meet or exceed state and federal laws. All of our work is conducted by employees or contractors who have been qualified under federal requirements to safely perform work on the gas piping system, and to respond to emergencies. In addition, our work is audited and inspected by outside agencies including the Pipeline Safety Division of the Indiana Utility Regulatory Commission and AEGIS, our liability insurance carrier. We also subject our systems to audits conducted by third-party engineering firms.

Citizens has implemented Integrity Management Programs for our distribution and high-pressure gas pipelines. This is a process of assessing and mitigating pipeline risks to reduce both the likelihood and consequence of incidents.

The Gas and Thermal Divisions test new production or delivery systems off-line to ensure systems operate as intended and the goals for the system are met. In the event off-line testing is unavailable, pilot programs are utilized to fine tune new systems. Similar techniques are used in modifications to boiler control systems and other critical applications so steam and chilled water service interruptions are avoided.

The steam distribution system contains 680 manholes that consist of an assortment of valves, traps, anchors and expansion joints. These components are scheduled to be inspected once a year. Data from these inspections are compiled so we can schedule repairs with customer needs in mind. In order to provide the best service and minimize interruptions of service to our customers, we

schedule this work to be completed at night, on weekends or sometimes on holidays. Whenever we have one of our main steam lines down for repair, work will continue until all repairs are complete.

Citizens Thermal annually performs thermal infrared scans of its entire distribution system, which provides the utility with data to determine locations of existing leaks and "hot spots" within the distribution system that would not be detected at the surface level. Annually, Citizens Thermal spends about \$1.8 million to repair manholes, replace customer service lines, repair mains, and upgrade the system's main steam valves and trap assemblies.

Emergency Preparedness

Being properly prepared for an emergency is the first step to ensuring safety and reliability. Citizens uses a risk management process to identify and measure risks, and then develop effective solutions that ensure safety and reliability.

Communications with emergency responders and contractors is essential to effective emergency preparedness. Citizens communicates regularly with the local police, fire and EMT providers in the counties in which we operate to continually share information about our respective emergency response plans. For example, each year we hold training luncheons and dinners with emergency responders across our service territories to share the latest information on natural gas pipeline safety. We also periodically hold similar training events with third-party contractors and excavators to make them aware of various aspects of pipeline safety.

Thanks to \$600 million of investments over the past 30 years, Citizens natural gas system is one of the safest, best maintained urban gas utilities in the nation.



Mapping our business processes is an important part of our CLASS initiative.



Sustaining our Businesses

CLASS Drives Efficiency

Citizens Energy Group has launched a new quality program called Citizens Lean and Six Sigma (CLASS). Lean and Six Sigma are two sets of principles and tools for process improvement.

The Lean Methodology is derived from Toyota Production Systems in the 1990s. It focuses on eliminating non-value-added steps (waste) in a process and increasing speed (cycle time). The eight types of lean wastes are defects, overproduction, waiting, non-utilized talent, transportation, inventory, motion and extra processing.

Six Sigma seeks to improve the quality of an output by minimizing the variation in the process. The most common approach has five steps: 1) Define 2) Measure 3) Analyze 4) Improve 5) Control.

Citizens is launching CLASS because we believe these tools will help us eliminate waste in our jobs and create more efficient systems. "More efficient systems will demonstrate that we are using our resources wisely, keeping rates affordable for our customers, while investing in infrastructure to provide safe, reliable systems and a cleaner environment," said Jeffrey Harrison, President & CEO of Citizens.

By working together, Citizens will reenergize our core value of quality and our commitment to continuous improvement, according to Harrison. "Implementing CLASS will lead to higher quality, enhanced job satisfaction and improved customer satisfaction. With the help of our employees throughout this process, our company will be further positioned for success in serving our customers and communities with unparalleled excellence and integrity."

Sustaining Our Workforce

Citizens Energy Group has launched the Partnership for Excellence in Research and Learning (PERL) to create stronger partnerships with Indiana colleges and universities. PERL will present many career, research and educational opportunities at Citizens, or its vendor companies, with the hope of inspiring students to embark on careers in Indiana after graduation.

"As a crucial part of our future workforce planning, we are continuously looking for talented individuals who can someday fill positions at Citizens," said Harrison. "We want the best and brightest to join our team and the teams of our vendor partners. We believe Indiana universities have a vast talent pool from which to choose, so we are working hard to engage those students before they seek jobs out of state or even out of the country."

As part of PERL, Citizens has identified "University Ambassadors" within the company. These Ambassadors are Citizens employees who are still connected to their alma mater and are willing to act as a liaison between these institutions and Citizens. The Ambassadors are tasked with either coming up with creative learning opportunities for students or simply being a contact for students who might be searching for a job shadow opportunity, an internship or even for someone to serve as a guest speaker.

Purdue University, IUPUI, University of Indianapolis, Ball State University and Trine University have already signed partnership agreements to work with Citizens through PERL. Citizens is in the process of signing agreements with six other universities as well. Currently, 20 PERL projects are ongoing at Citizens. The projects range from students taking tours of our water and wastewater treatment plants, to students analyzing and evaluating how Citizens pumps water out of one of our reservoirs, and even include senior design projects.

Sustaining our Community

Helping Customers in Need

Citizens offers support to low-income families in our service territory in a number of ways. We encourage those families in need to reach out to the United Way or 211 Connect2Help for support. We coordinate with those agencies to ensure families connect with the programs and services that best meet their needs.

Last year, Citizens provided over \$1.4 million in bill assistance through its Universal Service Program, the Warm Heart Warm Home Foundation and support to the United Way's Winter Assistance Fund. These programs, in concert with the State's Energy Assistance Program, helped keep utility service connected to more than 23,000 families this past year.

In 2016, we provided over \$450,000 in energy efficiency support to low-income families throughout Indianapolis. Last year Citizens completed more than 20 whole-house weatherization projects where we replaced the home heating system, cleaned and sealed the ductwork, blew added sidewall and attic insulation, provided a programmable thermostat, installed low-flow water devices, and conducted home energy education classes for families.

We also provided financial support to Habitat for Humanity to ensure each of the 14 homes they constructed this past year had the same products and services we offer in our retro-fit weatherization houses. Lastly, we provided furnace and service line repair or replacement to over 100 low-income families who had health and safety issues occur in their homes this past year.

Community Contributions

Citizens Energy Group has an active corporate philanthropy program designed to support a wide range of non-profits working to improve quality of life in Central Indiana. Utilizing revenue from non-utility operations, Citizens supports organizations promoting economic development, education, environmental stewardship, diversity, culture and arts.

- **Economic Development** – Citizens invests in programs to attract, expand and retain businesses and residents in our service territory. We also support organizations that advance the development of their neighborhood or local community. These include Community Development Corporations, Indianapolis Chamber of Commerce and Greater Indianapolis Progress Committee. For more than 20 years, Citizens has maintained an active loan development program that works with community partners to revitalize neighborhoods and commercial districts in the inner city.
- **Education** – A strong education system from pre-school through college is the foundation of a thriving community. Our education partners include Ivy Tech, IPS Bridges to Success, Purdue University Science Bound, the Indianapolis Marion County Public Library and the Children's Museum of Indianapolis. In 2016, Citizens became the sponsor of the new water table exhibit at the Children's Museum to educate young people about the water cycle.
- **Environmental Stewardship** – We believe sustaining our natural resources and economy go hand-in-hand. Our environmental partners include Indianapolis Parks Foundation, the Greenways Foundation, Reconnecting to Our Waterways, White River Alliance and Keep Indianapolis Beautiful.
- **Diversity** – Citizens believes a diverse community produces higher quality of life for all. Our diversity partners include Indiana Black Expo, Indiana Latino Institute, National Association of Women Business Owners (NAWBO), Indy Pride, Noble and Mid-States Supplier Development Council.
- **Cultural Institutions** – A strong cultural arts community is part of the fabric of Indianapolis. Cultural arts help the community retain residents, enhance quality of life and support economic development. Our cultural arts partners include the Children's Museum of Indianapolis, Indianapolis Symphony and the Indianapolis Zoo.

Our efficiency assistance program helps low-income customers reduce their energy and water usage.



Our annual Sharing the Dream event brings employees together to refurbish an IndyParks facility.



Sustaining our Community

Employee Volunteerism

Each year, Citizens employees volunteer for a wide range of non-profit organizations working to improve quality of life across Central Indiana.

In 2016, our employees donated more than 7,700 hours of their time at Citizens-sponsored events and for other community organizations. Company-sponsored events include Earth Day Indiana, the Geist Half Marathon, Horseshoe Helpings, Indy Pride Fest, Latino Expo and the United Way Day of Caring.

Our largest volunteer event, Sharing the Dream, involved hundreds of Citizens employees taking on the major task of refurbishing Riverside Park's Family Recreational Center January 11-13, 2017. The activity marked Citizens' ninth-annual Sharing the Dream event, a multi-day service project that gives employees a chance to serve the community and honor the life of Dr. Martin Luther King, Jr. Teams of employees painted the recreation center's walls, added storage space, installed appliances, cleaned rooms and completed a number of other improvements.

"In the history of Sharing the Dream, we've never taken on a project requiring this many volunteer hours and in-kind donations," said Jeffrey Harrison, Citizens President & CEO. "The major transformation that happened at Riverside Park demonstrates our employees' enthusiasm for the challenge set before them and their dedication to our community."

"Our city's parks provide an invaluable service to our community," said Mayor Joe Hogsett. "Parks offer neighborhood and recreational benefits while also increasing the quality of life and bringing the community together. Citizens Energy Group and its annual Sharing the Dream event is something we look forward to every year as it transforms some of our neighborhood's greatest gems. Riverside Park is a lucky beneficiary to have had Citizens' largest Sharing the Dream project take place there."

Promoting Conservation

Citizens actively promotes energy and water conservation through ongoing communications including media outreach, advertising, website promotions and utilization of social media channels.

Conservation-related Facebook posts in January, March, April, May, June, July, October, November and December reached about 80,000 people in 2016.

Citizens reached more than 25,000 people with conservation messaging through community events including Earth Day Indiana and Citizens Be WinterWise Fair.

We promote energy and water conservation at schools through the National Energy Foundations and the Indianapolis Colts. This program reaches more than 6,000 students each year. Our Energy Conservation Poster Contest annually receives over 1,000 entries from more than 40 schools with students participating from kindergarten through 8th grade.

Energy and water education signage and advertising reached about 3.5 million people with conservation messaging in 2016.

Sustaining our Community

Ten Thousand Trees Initiative

Citizens Energy Group, Indianapolis Mayor Joe Hogsett, Indy Parks, the Department of Public Works (DPW) and Keep Indianapolis Beautiful (KIB) joined forces in October 2016 to announce the beginning of a long-term partnership that will forever change the landscape of dozens of Indianapolis neighborhoods. Ten Thousand Trees is an initiative to plant 10,000 trees in support of the consent decree with U.S. EPA to reduce sewer overflows.

“At Citizens, we always seek ways to decrease the amount of raw sewage that overflows into Indianapolis’ rivers and streams,” said Citizens President & CEO, Jeffrey Harrison. “The Ten Thousand Trees initiative offers a unique solution to reduce raw sewage overflows as just one mature tree can store up to 100 gallons of water, keeping excess stormwater out of the combined system, thus reducing overflows. When 10,000 trees have been planted and are mature, the community will reap the benefits of cleaner waterways.”

Trees are being planted in parks and neighborhoods throughout Indianapolis’ combined sewer areas. In partnership with KIB, Citizens is evaluating combined sewer areas of the city that will benefit most from additional trees. Among the other criteria being considered are whether the area currently has a limited tree canopy and if there are suitable areas available for planting.

Once the trees are planted, they are maintained by Citizens and KIB for their first three years of growth, which is important for long-term survivability and flourishing. After that time, DPW and Indy Parks will own and maintain the trees. Citizens is currently identifying other areas in the combined sewer overflow basins that will benefit from tree plantings in 2017 and beyond.

Citizens Leverages DigIndy to Improve City Park

Some Westside residents are now enjoying new amenities at their neighborhood park, thanks to a nine-month renovation project recently completed by Citizens Energy Group. During a ribbon-cutting celebration on June 24, 2016, Citizens, DPW and Indy Parks announced the completion of upgrades at Ross Claypool Park.

Renovations at the park began in September 2015 in connection with Citizens Eagle Creek Tunnel Project, which is part of DigIndy, a 28-mile network of tunnels being built 250 feet beneath Indianapolis to capture and store combined sewage during wet weather events. The Eagle Creek Tunnel is the newest section of DigIndy.

Jeffrey Harrison, President & CEO of Citizens Energy Group, cuts the ribbon at a ceremony celebrating improvements made to Ross Claypool Park following work in the park related to the DigIndy Project.



Citizens is the title sponsor of the annual White River Cleanup.



Sustaining our Community

Citizens Supports White River Cleanup

Each April, hundreds of volunteers from Citizens Energy Group, Friends of the White River, the Indianapolis Department of Public Works (DPW) and other organizations team up to remove tons of trash from the banks of the White River.

“Through the construction of the DigIndy Tunnel System and associated projects, Citizens will invest nearly \$2 billion over the next decade to restore water quality in the White River and other area streams to levels not seen in 100 years. Removing trash and debris from the river banks is an important effort for re-establishing the White River as a cherished community asset,” said Jeffrey Harrison, President & CEO of Citizens Energy Group.

“The annual White River Cleanup and the DigIndy Project are making the river an attractive recreational destination for Central Indiana residents and visitors,” said Kevin Hardie, Director of Friends of the White River.

Committed to Prospect Site Redevelopment

Significant resources are coming together to redevelop the Twin Aire area near Citizens Energy Group’s former coke and manufactured gas plant site on Prospect Street.

Redevelopment planning is being coordinated under the Great Places 2020 program and through a grant Citizens has received from the U.S. Economic Development Administration for the development of an assessment, reuse and implementation strategy. Working together, the goal of these community partners is to transform the Twin Aire area into a dynamic center of culture, commerce and community.

Citizens is focused on finding community partners to redevelop both the main plant site and nearby parcels, such as the Twin Aire property. Our long-range goal is to redevelop the plant site and adjoining parcels for appropriate public, commercial or industrial uses. Ultimately, Citizens wants to form strategic partnerships with developers, end users, public officials, and the non-profit and public sectors to execute a balanced reuse strategy. To effectively redevelop the site, we must understand what the market can deliver, determine infrastructure needs, and attract developers who will reuse the land and potential sources of financial support for redevelopment.

Citizens strongly supports the City’s proposed location. In January 2017, Indianapolis Mayor Joe Hogsett announced his selection of Citizens’ former coke and manufactured gas plant site as the location for the City’s proposed community justice center. “Our support for locating the justice center comes after consulting with various members of the community around the site. We are pleased the initial reaction from our neighbors to the justice center proposal has been very positive,” said Harrison. “When we made the difficult decision to close the plant in 2007 due to foreign competition, we promised to work with community stakeholders to find uses for the main plant site and surrounding parcels that would provide jobs and enhance the quality of life in the area. The justice center will help achieve both of these goals.”

While Citizens conducts redevelopment planning, it is moving forward with environmental remediation work. Citizens has conducted extensive studies that provide a clear picture of the environmental impacts at the site. Using this information, we are working closely with the Indiana Department of Environmental Management (IDEM) to develop an environmental remediation plan for all 140 acres.



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