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ORLANDO UTILITIES COMMISSION

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GAINING VELOCITY

In a world where events seem to be accelerating at warp speed, FY2017 began and ended for OUC – The *Reliable* One with high-velocity events. While bookended by two major hurricanes, the year also saw steady, measured progress marked by increased revenues; renewed commitment to operational excellence, reliability and sustainability; and an upsurge in solar energy ... continuing OUC's trajectory toward becoming *The Best Utility in the Nation*.

GAINING VELOCITY

etting the pace as one of the most reliable utilities in the nation, and #1 in Florida for the 19th year running, OUC – The *Reliable* One gained velocity in FY2017, powering the economic engines of Central Florida while weaving sustainability through everything we do.

What has fueled our bottom line for the past five decades – steady, sustainable growth – is now propelling us into the future. Orlando continues to lead the nation in job growth, adding more than 1,000 jobs per week across a broad base of industries.

In Lake Nona, the fastest-growing sector of our service territory, two major new projects are on the horizon. Retail giant Amazon is building a new 900,000-square-foot fulfillment center, and accounting powerhouse KMPG recently broke ground on a new 55-acre, \$430 million training center.

Existing customers are in growth mode, too. Orlando International Airport, which recently announced a record 43 million passengers over the past year, is undergoing a \$1.8 billion expansion. Highlights include a new terminal and an intermodal transit hub that will link Orlando with Miami.

Our largest customer, Universal Orlando Resort, just opened its Volcano Bay water theme park and is building the new, 600-room Aventura Hotel onsite.

These four customers will add a combined 20 megawatts (MW) of new electric load when fully operational and continue to diversify OUC's commercial customer base.

In downtown Orlando, OUCooling is expanding with the addition of two large new facilities. The Dr. Phillips Center for the Performing Arts, one of OUC's largest chilled water customers, is expanding with a 1,700 seat, three-tiered acoustical hall, and the Tremont Tower mixed-use facility offering hotel/office/retail space is slated to open in the fall of 2018.

On the sustainability front, OUC is in full support of the City of Orlando's quest to dramatically shrink its carbon footprint over the next 30 years. We have increased our use of renewables including solar and landfill gas, while launching new programs to help our customers monitor, track and reduce their consumption.

OUC recently brought online 13 MW of clean, renewable solar energy at the Stanton Energy Center. Consisting of 37,544 panels covering 24 acres, the community solar farm is one of the first in the nation to be partially located atop a closed byproduct landfill. Another unique installation for OUC is Florida's first floating solar array that injects 31.5 kilowatts (kW) of power directly to the grid. And throughout our territory, iconic solar sculptures provide striking visual reminders of OUC's commitment to solar energy.

Preparing for our region's future water needs, OUC continues to take a leadership role in the search for innovative, reliable solutions while still providing clean, great-tasting water for our customers today. Mindful of our environment, we are helping to develop an alternative water source through the Taylor Creek Reservoir/St. Johns River Project. When completed, it has the potential to provide Central Florida with drinking water for generations to come.

Always seeking ways to better serve our customers, OUC successfully completed a complex transition of our customer information system from PeopleSoft Enterprise Revenue



OUC Commission 2017

Front row, left to right:
Orlando Mayor Buddy Dyer
Gregory D. Lee | Commission President
Cesar Calvet | First Vice President

Back row, left to right:
Britta Gross | Commissioner
Ken Ksionek | General Manager & CEO
Dan Kirby, FAIA, AICP, LEED AP |
Second Vice President

Management to Customer Care & Billing. Project Momentum also included a new bill design and upgrades to our Meter Data Management system and Enterprise Service Bus. In addition, we added proactive outage alerts and a new online Storm Center map to provide customers with instant notification when their power goes out and an estimated restoration time without having to wait for them to contact us.

OUC is focused on continuous improvement, and our new Center of Excellence is designed to identify areas where there is an opportunity to enhance processes for better efficiency, cost savings and speed.

One area where OUC continues to excel is our ability to respond to storms and keep customers informed every step of the way. The strength of our reputation as The *Reliable* One was put to the ultimate test in FY2017, which began and ended with major hurricanes. The first storm, Hurricane Matthew, caused moderate damage. Hurricane Irma, nearly a year later, significantly impacted our

community. Irma slammed into Florida, knocking out power to millions including more than 145,000 OUC customers. Crews worked around the clock to swiftly and safely make repairs, restoring nearly all customers within days. OUC then sent reinforcements to other storm-ravaged areas, including the island of Puerto Rico – struck first by Irma and then devastated by a direct hit from Category 5 Hurricane Maria.

In a year bookended by high-velocity events, OUC remained committed to operational excellence while powering the local economy, bringing top-quality, sustainable technology to our customers and continuing on an upward trajectory toward becoming The Best Utility in the Nation serving the Greenest City in the Southeast!

Gregory D. LeeCommission President

Ken Ksionek General Manager & CEO

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YEAR IN REVIEW

Electric & Water Electric Only Water Only



4 GAINING VELOCITY

A graduate of the University of Central Florida with a

Bachelor of Science in Business Administration, he earned

his Master of Business Administration from the Crummer

Graduate School of Business at Rollins College.

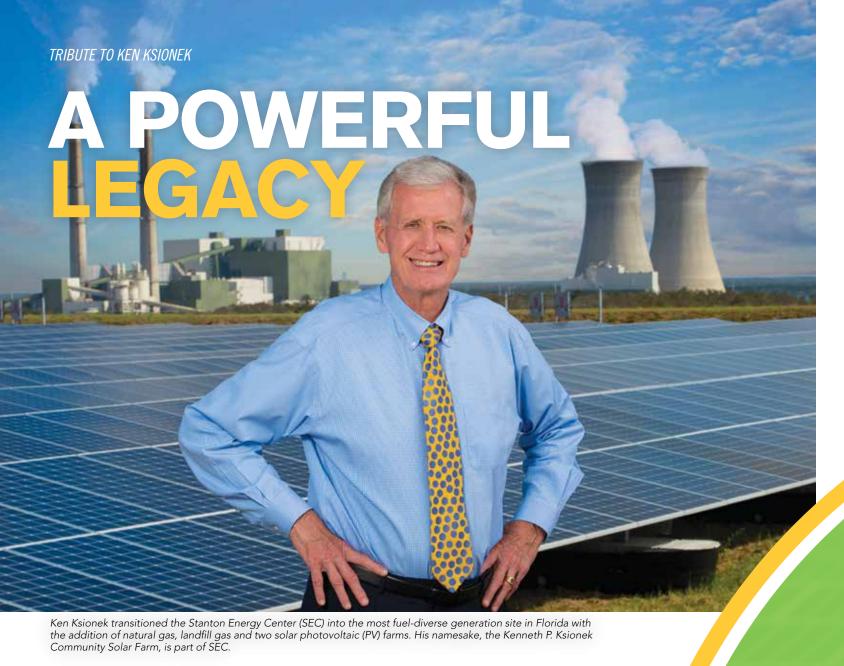
Bullock has led the Commission's electric and water

delivery operations, including engineering, construction,

distribution systems, since 2012. His tenure with the utility

includes overseeing customer relations and sustainability,

maintenance and operations of the transmission and



AFTER 32 YEARS, 14 AT THE CONTROLS, KEN KSIONEK IS RETIRING AS GENERAL MANAGER & CEO OF THE ORLANDO UTILITIES COMMISSION. A LICENSED PILOT, HE GUIDED OUC WITH A STRONG AND STEADY HAND ON ITS ASCENT TOWARD BECOMING THE BEST UTILITY IN THE NATION.

fter serving more than 32 years with OUC, Ken Ksionek, General Manager & CEO, announced his retirement to the OUC Board of Commissioners, effective February 1, 2018.

Passionate about reliability, sustainability and emerging technologies, Ksionek has successfully led OUC's efforts to be "The Reliable One" and "The Sustainable One," too. His expertise, leadership and devotion have made OUC one of the most forward-thinking utilities in the nation.

Ksionek began his OUC career in 1985 as Director of Construction for the Stanton Energy Center (SEC)
Unit 1. He then served as coproject manager for the SEC Unit 2 construction project while holding the position of Managing Director of Electric Transmission and Distribution.
In 1995, he was promoted to Vice President of the Energy Delivery Business Unit, where he led OUC to national prominence for its reliability.

In 2004, Ksionek guided the organization through the most active hurricane season in its history, with three back-to-back storms – Hurricanes Charley, Frances and Jeanne – over a 45-day period. After each storm, Ksionek coordinated OUC's massive restoration efforts that returned power safely to customers in nine days after Charley, four days for Frances and three days for Jeanne. In October 2004, he was named General Manager & CEO.

Under Ksionek's direction, OUC weathered tough economic times and their financial impact on the company. Today, OUC's strong fiscal performance, high bond ratings, and astute refinancing



Ken Ksionek (left) and Gerald Hardage, of ZHA Construction, review SEC construction project plans in 1985.

have allowed it to hold the line on costs and provide customers with affordable rates in addition to record reliability and outstanding water quality.

Additionally, Ksionek's focus on improving customer service through smart-grid technology, advancing

sustainability and clean energy initiatives, and developing expertise through employee empowerment and active succession planning has elevated OUC's position on the national stage.

As Ksionek's tenure winds down, it's only fitting that his OUC career ends the same way it began, steering the utility through one of the strongest hurricanes to hit Florida in more than a decade. Hurricane Irma, which struck Florida in September 2017, wiped out power to nearly 60 percent of OUC's customers. And once again, under Ksionek's guidance, the utility rose to the occasion, restoring power 4 to 7 days faster than the state's investor-owned utilities.

KEY ACCOMPLISHMENTS

UNDER KSIONEK'S LEADERSHIP

- Recognized by CS Week and Electric Light & Power magazine with the 2015 Expanding
 Excellence Award for Innovation in Customer
 Service for launching 10 customer-facing
 technology projects, which provided robust,
 fully automated, self-service options. These
 included an upgraded website and phone
 system, consumption dashboards, and the
 OUC Power Pass pay-as-you-go program, as
 well as more than 400 third-party payment
 locations offering real-time processing.
- Recognized by CS Week and Electric Light & Power magazine with the 2014 Expanding Excellence Award for Best Infrastructure in North America for an innovative, low-cost and comprehensive Meter Data Management Project, the acceleration of digital meter deployment and the ability for customers to make real-time payments.
- Named Public Power Utility of the Year for Innovative Solar Programs in 2013 by the Solar and Electric Power Association.
- Deployed 375,000 digital electric and water meters, allowing OUC customers to become smarter energy and water consumers.
- Implemented a new Customer Care & Billing system that enables adoption of innovative data-driven technologies.



- Enhanced the region's economic development efforts by recruiting, retaining and growing businesses, including internationally recognized organizations such as Amazon, KPMG, and the United States Tennis Association.
- Established a partnership with American Water Resources of Florida to provide home warranties for thousands of Central Floridians, covering the unexpected costs of electric and water home repairs.
- Expanded the St. Cloud partnership, a firstof-its-kind Interlocal Agreement between two governmental entities, to serve electric customers for 35 years in the fast-growing city located in Osceola County.
- Championed innovative solar installation

- including the first community solar farm in Central Florida, one of the nation's first floating solar arrays and most recently, the first-of-its-kind solar field atop a byproduct
- Developed the Stanton Energy Center into the most fuel-diverse generation site in Florida with the addition of natural gas, landfill gas and two solar photovoltaic (PV) farms.
- Set the pace for an electric vehicle (EV) partnership with the City of Orlando, leading to the community being named one of the Top 10 Most EV-Ready Cities in the United States, by the makers of PlugShare, a mobile app that helps EV owners find charging stations.
- Secured a 20-year Consumptive Use Permit that ensures customers will receive highquality, affordable water from the Lower Floridan Aquifer until 2024, along with alternative water supplies and aggressive conservation measures.
- Combined Energy, Potable Water and Chilled Water Production under one business unit and merged Electric and Water Delivery under a separate business unit in 2012.
- Created a 2005 Strategic Plan outlining the vision, mission and strategic initiatives that continue to serve as OUC's roadmap.

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2017 OUC ANNUAL REPORT

Ksionek led OUC through

three hurricanes in 2004.

ECONOMIC DEVELOPMENT

GAINING ALTITUDE...

ACROSS THE ORLANDO AREA, ECONOMIC GROWTH IS BRINGING JOBS TO THE REGION AND BUSINESS OPPORTUNITIES TO OUC.



Artist's rendering of KPMG's new facility in Lake Nona, slated to open in 2019.

KPMG Breaks Ground in Lake Nona

In May 2017, KPMG – the global audit, tax and advisory firm – broke ground on a new 1.2 million-square-foot, state-of-the-art, \$430 million global learning, development and innovation facility in Lake Nona. When the complex opens in 2019, the Big 4 global firm will bring thousands of employees for training to the new facility, which will generate about 50,000 visits to Orlando. For OUC, this adds up to an estimated 4.5 MW of new electric load and 50 million gallons (MGAL) of water, yielding about \$2 million in annual sales. Future opportunities include the addition of OUCooling chilled water services, OUConvenient Lighting, and EV charging stations.



Orlando City Soccer built it ... and the crowds came. In February 2017, fans flocked to the new 25,500-seat stadium, which is part of the proposed downtown Sports and Entertainment District (SED). The SED runs from the Dr. Phillips Center for the Performing Arts to Camping World Stadium.

Universal Orlando Resort Expands

Blending entertainment and technology, Universal's Volcano Bay water theme park made a huge splash when it opened in May 2017. Billed as the next-generation water park, Volcano Bay provides visitors with smart technology, called Tapu Tapu wristbands, to reduce their wait times. On tap for summer 2018: the new 600-room Aventura Hotel – which, when it opens, will bring the number of on-site hotel rooms at Universal to 6,200. For OUC, the expansion represents 5 to 7 MW of additional load with annual revenue of more than \$3 million.



OUC's largest customer, Universal Orlando Resort, opened its third theme park, Volcano Bay, in May 2017.



Opened in February 2017, Orlando City Stadium is a state-of-the-art Major League Soccer (MLS) facility, home to the Orlando City Soccer and Orlando Pride teams.

Amazon Fulfills Expectations for Growth

In summer 2017, online retail giant Amazon announced plans to open a new fulfillment center near the Orlando International Airport. Located on a 78-acre site, the 850,000-square-foot center is expected to bring 1,500 new jobs to Central Florida when it opens in 2018. The impact to OUC will be 3.6 MW of electric load and 14.2 MGAL of water a year, yielding \$2 million in annual revenue. Additional opportunities are being explored with Amazon – ranging from electric vehicle charging stations to OUConvenient *Lighting*.

OUC Establishes Empowerment Zone

OUC has created an Empowerment Zone to help the most economically disadvantaged ZIP code in its service territory. Together with LIFT Orlando, the utility is working to help families build better lives by bringing jobs and mixed-income housing to the neighborhoods around Camping World Stadium, including Parramore.

CONSTRUCTION BEGINS AT ORLANDO INTERNATIONAL AIRPORT

To accommodate faster-thananticipated growth, Orlando International Airport (MCO) has completed construction on the first leg of a \$3.5 billion, multi-year Capital Improvement Program. Opened in fall 2017: the South Airport Automated People Mover (APM) and Intermodal Terminal Facility (ITF) complex, along with a six-story, 2,400-space parking garage. The APM will transport passengers via a pair of three-car trains along a 1.5-mile guideway to the Main Terminal. The ITF transit hub is ready for Brightline, the train that will connect Orlando to Cocoa, West Palm Beach, Fort Lauderdale and Miami. MCO will be the only airport in the nation that

is a hub for intercity rail connectors.

Adjacent to the APM/ITF, site work is also underway on Phase 1 of the new South Terminal, which will add 16 gates capable of accommodating up to 21 aircraft. The new terminal is expected to open in fall 2020. For OUC, the expansion represents 6 MW of load growth worth \$14 million in new revenue over the next five years.



SOLAR IS SOARING



NEW AND ONGOING PROJECTS DEMONSTRATE OUC'S COMMITMENT TO RENEWABLE ENERGY.

More Renewables, Less Carbon

After setting a goal to meet 20 percent of its expected retail energy requirements with sustainable resources by 2020, OUC is well on the way to meeting that target through a combination of solar, landfill gas, nuclear and energy efficiency

OUC plans to add more than 60 MW of renewables to the mix to further reduce carbon dioxide emissions. As OUC looks to the future, renewables will play an increasingly significant role in the resource portfolio and in the quest to power the Greenest City in the Southeast with 100 percent renewable energy by 2050.

Like Rooftop Solar, Without the Rooftop

Among the first of its kind in the nation, OUC's newest sustainability endeavor the Kenneth P. Ksionek Community Solar Farm – sits atop a byproduct landfill near a power plant.

Located on 24 acres at the Stanton Energy Center in East Orlando, the farm has nearly 40,000 solar panels that provide 13 MW of energy - enough to power 2,100 homes. The new farm more than doubles OUC's solar capacity, allowing both commercial and residential customers to harness the energy of the sun whether they own or rent.

Floating a Power Plant of Renewable Energy

OUC's renewables team is constantly researching ways to reposition the way solar shines in Florida. In February, an expanse of blue panels was stretched across a pond at the Gardenia Operations Center, marking OUC's adoption of

floating solar as a new, innovative way to soak up the sun. The technology utilizes the area's nearly 9,000 bodies of water, from ponds to lakes, to house floating solar panels - or "floatovoltaics." The arrays, which are rare in the U.S. but common in Europe and Asia, take advantage of wide open waterways devoid of trees to capture sunshine, providing clean, renewable energy to homes and businesses.

Turning Old Spaces into Green Ideas

Not everyone would have viewed it as inspiration, but when OUC's conservation department found an old drive-through at the Gardenia Operations Center, they saw a blank canvas – and the green ideas started flowing. The team transformed the space into a beautiful oasis of sorts, complete with a living wall and rain harvest garden.

The vertical garden uses low-volume (or micro) irrigation to conserve water while supporting edible, Florida-friendly, drought-tolerant vegetation. The garden works in harmony with nature, has minimal impact on the environment, and includes educational placards to teach conservation in a relaxing setting.

Students from the University of Central Florida proudly stand by their winning sundial sculpture to be installed in Lake Nona in 2018. Pictured from left to right: Marie-Jo Gordo, junior, studio art; Daniel Schutt, sophomore, graphic design; Dominique Russell, senior, mechanical engineering; Peter Warren, senior, mechanical engineering.

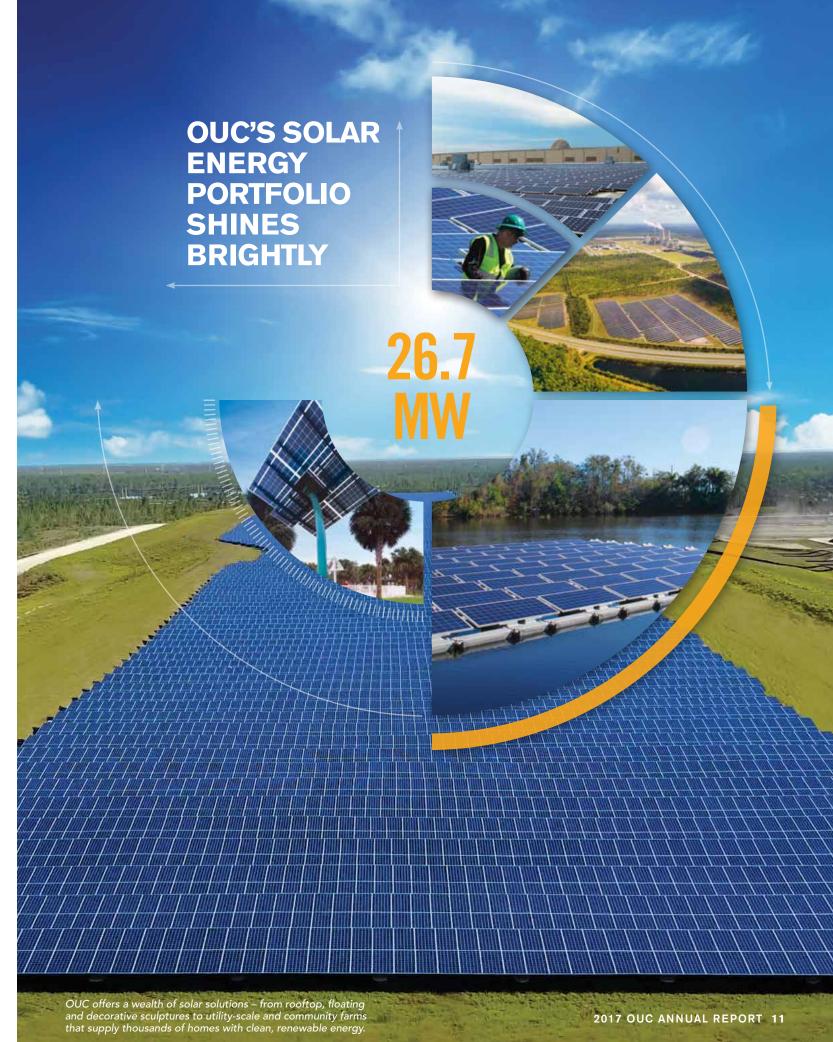
Challenging Minds and Changing the Environment

Combining art and engineering was the creative force behind a joint solar energy project among OUC, the University of Central Florida (UCF) and the Tavistock Group. OUC engineers were tasked with placing solar sculptures around the community to inspire conversations about renewable energy. They quickly realized what a valuable teaching opportunity the sculptures could be. Harnessing the creativity and ingenuity of some of the brightest minds in the area, OUC engineers partnered with UCF professors and undergraduate students in the disciplines of art, engineering and computer science to begin working on the year-long project.

The result: a solar-powered sundial sculpture that uses sound engineering principles like strong wind resistance and sun exposure optimization to power electrical features while conveying artistic concepts, such as reflections and shadows, and taking outdoor elements into consideration. The sculpture will be installed in Lake Nona's Laureate Park



Vertical garden at Gardenia Operations Center.



DOUBLE TROUBLE:

HURRICANES MATTHEW AND IRMA BOOKEND FY2017

AFTER A DECADE WITHOUT A MAJOR HURRICANE, OUC FACED DOWN TWO POWERFUL STORMS IN ITS OWN BACKYARD, THEN STEPPED UP





Trouble Technicians Shaun Frazier and David Cordero pray with a Pine Hills resident (left) during Hurricane Irma restoration efforts.

ost organizations don't start and end their fiscal year with a hurricane. Yet, OUC handled both in stride.

In October 2016, after a 10-year hiatus from major storms, Hurricane Matthew barreled toward Florida and was expected to cause destruction in the area. The storm, however, stayed to the east, causing a smaller-than-anticipated impact to OUC's service territory. About 39,000 OUC customers lost power, with full restoration completed in three days.

Nearly a year later, Hurricane Irma, a vicious Category 3, plowed through the middle of the state, delivering a much larger blow to Central Florida.

Nearly eight straight hours of tropical-and hurricane-force winds caused unprecedented damage to the OUC grid (see "Irma: By the Numbers" sidebar).

More than 60 percent of OUC customers lost power, but OUC restored it 4 to 7 days faster than investor-owned utilities in the area.

Readying the Team

As millions of Floridians made hurried preparations, OUC mobilized a response team nearly three times the size of its normal work force. These efforts included

not only securing crews from states as far away as Michigan and Massachusetts, but also preparing to house and feed the hundreds of line technicians and tree trimmers once they arrived.

Despite 7 million Floridians losing power with extensive damage to more than 200 transmission lines, public power companies like OUC provided the quickest restoration times. The efforts put forth by OUC teams and the out-of-town crews were true testaments to the unmatched dedication of municipal utilities to the communities they serve.

OUC Assists Storm-Ravaged Puerto Rico

Not more than two weeks after Irma left a trail of destruction, Hurricane Maria followed in her path. While Florida was spared, Puerto Rico was not. Back-to-back hurricanes proved to be too much for the island's vulnerable electric infrastructure and resulted in the need for a near-complete grid rebuild.

So, OUC jumped into action. Just weeks after restoring its own system, OUC sent a team of line technicians, engineers and fleet

IRMA: BY THE NUMBERS

CENTRAL FLORIDA
EXPERIENCED MORE THAN
8 HOURS OF HURRICANEFORCE AND TROPICALFORCE WINDS.

- 117 wood and 7 concrete poles replaced
- **57** overhead and **16** underground transformers replaced
- 13 miles of primary line replaced
- **5.43** miles of secondary line replaced
- 115 of 119 overhead circuits knocked out

personnel, along with equipment and supplies, to aid in rebuilding Puerto Rico's electric grid. Crews worked alongside fellow utilities from the U.S. mainland to help the island's residents return to normalcy.



OUC crew members Luis Burgos, Bryan Walsh, John Wallace, Andre Phillips, Mike Atout and Chris Trainiello work to remove the base of a broken pole along the transmission line from the Rio Blanco Hydroelectric Plant to the Juncos Substation on PR 31, a major highway between the towns of Naguabo and Juncos in Puerto Rico.



Front row: Sheila Rivera, Jenise Osani, Michelle Lynch Middle row: Laurie Maldonado-Andujar, Melinda Perdomo, Gerardo Laborda

Back row: Stephanie Cameron, Tyler Kauff, Harmonie Wilson, Bernadette Mural, Steven Calamusa

THE SOCIAL MEDIA TEAM WORKS 24/7

During the storm, OUC's Call Center fielded thousands of customer calls and emails, while the Communications team ensured that appropriate messaging and information were available across a range of options, including the web and automated phone system. Customers relied heavily on Twitter, Nextdoor and Facebook social media channels, with nearly 2,000 inquiries an hour coming in at one point. The social media team formed for Hurricane Irma, included employees from Communications, Marketing, Customer Service, and Conservation. Employees were dispatched to the field to capture real-time photos and videos to show customers the extent of the damage and just how diligently crews were working to restore power.

GENERATING EFFICIENCES

THROUGH A DIVERSIFIED PORTFOLIO

OUC FOCUSES ON STRATEGIES THAT REDUCE COSTS AND MAXIMIZE REVENUES.

FMPP Continues to Drive Savings

Nearly 30 years ago, OUC was one of the original founders of the Florida Municipal Power Pool (FMPP), the state's first fully integrated municipal electric power pool. OUC continues to operate the FMPP Energy Control Center and is responsible for dispatching the pool's generating resources in the most economical manner.

FMPP serves 20 cities across the state and can produce up to 4,700 MW - of which 1,800 MW come from OUC. By reducing costs and maximizing efficiency, OUC also benefits from being part of FMPP. In the last two years, OUC has saved more than \$41 million in generation costs. As OUC looks to the future, there is interest from others to join, most notably Tampa Electric, which would double the pool size.



Natural Gas Including Economy Purchases and Igniter Gas 45% **FUEL DIVERSITY** Coal Including **Economy Purchas** Nuclear 47% Renewable

2%

Backup Generator Rotor Decreases Downtime

To save money and protect the reliability of Stanton Energy Center's (SEC) two coal-fired units, OUC plans to purchase a backup turbine generator rotor. The recommendation stemmed from Unit 1's planned outage in 2016 when engineers determined an immediate need to rewind the rotor. The only solution was to send the massive 75-ton machine to Missouri on the back of a huge truck, which extended the outage and cost more than \$4 million to purchase replacement power. To reduce the risk of another unplanned or extended outage going forward, OUC decided to acquire a spare rotor that is compatible with both coal units. Plans are already in place to rewind Unit 2's rotor during its next turbine generator overhaul scheduled for fall 2018. While the cost to purchase the backup rotor is \$3.1 million, it will pay for itself by dramatically decreasing the unit's downtime. The

rotor, which went into service in 1978 and was formerly owned by Commonwealth Edison, will be rewound, and tested electrically and mechanically as part of the purchase price. It has a projected useful life of 30 years.

Landfill Agreements Help Lower Fuel Costs

Methane landfill gas-to-energy agreements between OUC and the Orange County landfill have offset the need for coal by co-firing methane in SEC Units 1 and 2. The agreements benefit both parties because the methane created by decaying trash must either be flared off or used as an energy source. Methane is significantly less expensive than coal, natural gas, solar or biomass.

Since 1998, there have been multiple agreements as sections of the landfill were closed. The most recent, in 2008. was for a 30-year term in which the energy output peaks at around 20 MW

in 2035. During each project, there is a lifecycle of decay where methane production increases before peaking and then declining. However, production occurs during the entire cycle, which lasts several decades.

OUC will build and operate a methane production facility generating about 4 MW on the site of the closed landfill cells. Conservatively, this project is expected to last five years, but quite possibly many more. When all OUC existing landfill gas agreements are combined, OUC will reach 70 MW by 2030.

Using landfill gas offsets the need for 90 million pounds of coal and supports OUC's strategic initiative to promote the sustainable use of electric and water resources.

> Upgraded ozone generators at the Southwest Water Treatment Plant were the first in a series of improvements to the system.

POWER PURCHASE UPDATES



CITY OF BARTOW

In August, OUC renewed a Power Purchase Agreement with the City of Bartow that will provide 40 MW of energy to the community through 2020.



CITY OF VERO BEACH

OUC reached a settlement with the City of Vero Beach that will delay the need to add conventional generation while awaiting accelerated advances in energy storage.

Upgrading Ozone Generators to Provide the Highest Quality Water

In 1997, OUC was the first utility in the nation to completely adopt ozone generation at all of its water treatment plants. By removing the sulfur smell that occurs naturally in water, ozone helps reduce the amount of chlorine that must be added. The result is clean, fresh-tasting water with a sparkling appearance. To continue delivering award-winning H₂OUC, the utility began the process of upgrading the aging ozone generators at its water plants, beginning with the Southwest Water Treatment Plant, in 2014. Work will begin at the Pine Hills Water Treatment Plant in southwest Orlando in early 2018.

ST. CLOUD **SETS POWER PEAK RECORD**

OUC customers in St. Cloud set an all-time usage record, consuming

at 5:19 p.m. on August 8, 2017.



MAINTAINING AN UPWARD TRAJECTORY

THE MOST RELIABLE UTILITY IN FLORIDA FOR 19 YEARS RUNNING, OUC CONTINUES TO LIVE UP TO ITS NAME -INVESTING IN INFRASTRUCTURE TO STAY AHEAD OF THE CURVE AND BEING READY TO RESPOND IN ANY SITUATION, INCLUDING NATURAL DISASTERS.

OUC Is Florida's Most Reliable Electric Provider for 19th Year in a Row

According to 2016 data from the Florida Public Service Commission, OUC once again lived up to its reputation as The *Reliable* One – delivering the highest electric reliability in Florida for the 19th year in a row. OUC customers experienced fewer electric outages last year than the state's investor-owned utilities. And when an outage did occur, OUC restored power faster than the others.

Testing Smart Grid Technology to **Reduce Momentary Power Outages**

With more electronic and digital devices than ever in homes and businesses, any interruption in the power supply can cause frustration. Clocks and security systems have to be reset, and computers must be rebooted. OUC is testing new technology designed to minimize these interruptions or faults (momentary outages or half-second blinks), often caused by lightning, fallen trees or animals getting into overhead infrastructure.

The TripSaver II device works by clearing faults on lateral or neighborhood lines when a problem occurs and avoids

the need to "blink" or disturb the main feeder and other lateral lines. If the fault is temporary, the device restores power in seconds. If it is permanent, as in the case of a tree falling on a line, the TripSaver coordinates with other protective devices to isolate the fault, limiting the number of customers affected.

The devices are intended to reduce the Commission's Momentary Average Interruption Frequency Index (MAIFI) score and minimize deployment of crews for long-term outages. An area in St. Cloud, which includes about 2,100 customers, was chosen as a pilot site for the project because of its equal mix of overhead and underground infrastructure.

Roger McBride, Line Technician I, installs a TripSaver II device on a test line at the Pershing campus.



Upgrading Taft to Stanton Transmission Corridor

To plan for growth and provide customers with the most dependable service possible, OUC is upgrading a 22-mile transmission pathway that extends from the Stanton Energy Center (SEC) to the community of Taft, west of Orlando International Airport. The pathway currently interconnects with St. Cloud and Kissimmee, and is used by Duke Energy and the Florida Municipal Power Agency. The project, scheduled to be completed by June 2020, is taking place in phases and includes selective upgrades and repairs to roads and access pads originally constructed 45 years ago, as well as new overhead conductors and necessary transmission pole replacements.



Crews upgrade large transmission lines that

St. Cloud Distribution Upgrade

OUC is upgrading power lines and structures between the St. Cloud substation on 10th Street and the Kissimmee Utility Authority system just west of the Florida Turnpike. Existing poles and conductors are being replaced by new steel transmission poles and concrete distribution poles. The nearly \$7 million investment will result in a stronger, more storm-hardened system that will provide additional capacity for future growth and improved reliability for the St. Cloud service area.

> A meter transmission unit (MTU) helps OUC detect large water leaks before customers are affected.



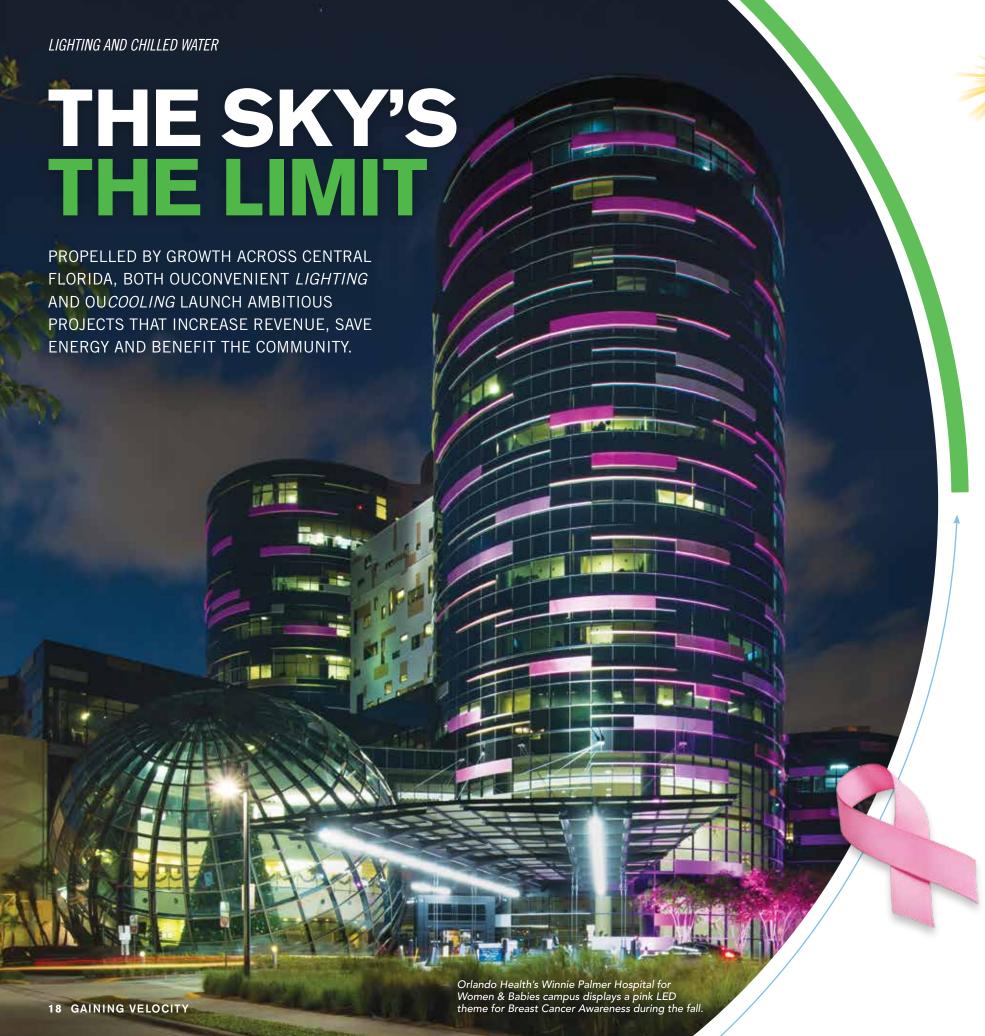
James White (left) and John O'Dell, Water Technicians, deploy electronic sound detectors within water infrastructure

Protecting Infrastructure Along Interstate 4 (I-4) Expansions

Millions of drivers who travel I-4 during the massive I-4 Ultimate project may see only cranes, orange barrels and pilings, but just beneath the road is an invisible infrastructure of water pipes, lines and mains that serve OUC water customers.

In summer 2017, OUC water maintenance crews deployed 56 electronic sound detectors inside water equipment along I-4 from Par Street south to Kirkman Road. Called meter transmission units, or MTUs, the devices blanket water mains for up to 400 feet on either side of the roadway. Using a unique radiowave signal, they send data to a series of 12 collector units placed on streetlight poles. A computer program monitors these devices to "listen" for leaks. Once a problem is found, the leak can be pinpointed within a 3-foot radius. The MTUs replace a time-consuming process that looked at smaller portions of the system one at a time. Now, OUC can remotely monitor for leaks along the entire length of the I-4 Ultimate project.







Winnie Palmer Hospital Lights the Way

As part of OUC's commitment to sustainability, OUC Convenient *Lighting* offers a turnkey LED lighting upgrade for commercial customers. Businesses that opt for the retrofit package save energy and money. This year, Orlando Health made the switch to LED and is expected to save 10 percent in energy costs, while getting better quality lighting and the ability to change exterior lighting colors for the time of year or a special event.

Eagle Creek Shining Brightly

OUC is entering into a 20-year OUConvenient *Lighting* agreement with the Homeowners Association of Eagle Creek, one of the utility's single largest lighting contracts to date. In August 2017, the golf community determined it was more cost effective to transfer private ownership of the community's 785 streetlights to OUC.



New LED lamps illuminate the morning sky in the southeast Orlando community of Eagle Creek.

As part of the agreement, existing metal halide lamps will be replaced with more energy-efficient LED lamps to provide significant savings in energy usage and maintenance over time. The new lights are simple to install and will reduce energy consumption by 62 percent annually. This aligns with OUC's strategic initiatives to provide competitive rates and expanded service options, and promote the sustainable use of electric and water resources.



OUCOOLING EXPANDING DOWNTOWN

Dr. Phillips Center Expands

The Dr. Phillips Center for the Performing Arts, Central Florida's crown jewel of cultural space, broke ground in March 2017 on a \$237.5 million, second-phase expansion. It encompasses the 1,700-seat Steinmetz Hall, a three-tier acoustical hall; the Green Room, a 9,000-square-foot gathering space for performers and guests; and other backstage operations space. The expansion is slated to be complete in 2020.

As an OUCooling customer, the center currently uses about 650 tons of chilled water from the downtown Orlando district to keep patrons cool and comfortable. The expansion will increase usage to 900 tons or more.



The Dr. Phillips Center for the Performing Arts hosts hundreds of events a year from touring Broadway shows and educational programs to outdoor festivals.

New Downtown Skyscraper

An exciting new project on the horizon is the Tremont Tower in downtown Orlando. OUCooling is in talks to enter into a 20-year agreement with Lincoln Property Company, the owners of the soon-to-be-built 28-story, multi-use high rise



at the corner of Garland Avenue and South Street. When completed in fall 2018, the cooling capacity will be between 590 to 735 tons.

Artist's rendering of Tremont Tower, slated for completion in 2018.



OUC CONTINUES TO PURSUE INITIATIVES THAT PROTECT AND PRESERVE

OUR WATER SUPPLY.

Pursuing an Alternative Water Supply for Future Generations

For decades, OUC has actively encouraged water conservation while ensuring the safety and quality of this precious resource. Now the utility is exploring more ways than ever to protect it.

As part of a commitment to the environment and a responsibility to future generations, OUC has taken a leadership role in the search for innovative, reliable solutions while still providing clean,

One solution is the development of an alternative water supply to meet future drinking water demands. To that end, OUC is working with the City of Cocoa, Orange County Utilities, Toho Services on the Taylor Creek Reservoir/ and about 40 mgd for Central Florida.

great-tasting water for customers today.

Water Authority and East Central Florida St. Johns River Project. When completed, the project will provide 5 million gallons of water daily (mgd) for OUC customers

Customer Campaigns Help Orlando Weather Extreme Drought In March, OUC enhanced its efforts around a Water Education and Awareness

OUCE

Jaritza Pluguez, Sr. Chemist, tests a sample of H₂OUC, ensuring reliable,

Program (WEAP) - a partnership with the St. Johns River Water Management District – to encourage high-water consumers to schedule a free irrigation system evaluation. Performed by an OUC preferred contractor, the program also provides a monetary incentive to help with needed repairs.

great-tasting water for customers.

Then in April, when Orlando was faced with some of the lowest rain amounts in nearly a century, customer education about the importance of conserving water

ouc OUC - The Reliable One ALERT: Severe drought conditions in Central Florida have promoted the St. Johns River Water Management District (SJRWMD) to issue a Wat Shortage Warning. Now is the time to do your part to conserve this precious resource. Outdoor irrigation accounts for more than half of water usage, so it's important to follow the SJRWMD's twice-a-week guidelines for watering your lawn or garden. For more water-saving tips. became even more crucial. Through traditional and social media, as well as digital marketing efforts, the Marketing, Communications & Community Relations department provided vital water-saving tips to help all customers protect precious water resources and save on their utility bills.

Educating the Next Generation about Water Conservation

Instilling the importance of environmental stewardship in children is crucial to ensuring a water-wise next generation. This year, OUC reached more than 12,000 public school students from Orange and Osceola counties with its award-winning Project

AWESOME (Alternative Water & Energy Supply, Observation, Methods and Education) and

Prompted by an extreme drought alert, an OUC Facebook post encouraged customers to abide by St. Johns River Water Management District irrigation guidelines.

The Water Color Project. Project AWESOME is a partnership between OUC and the Orlando Science Center that, in addition to teaching energy awareness, educates school children about the importance of water conservation though hands-on projects like building an aquifer and testing low-flow showerheads. The Water Color Project tasks students with encouraging conservation efforts through an annual calendar contest and rain barrel painting.

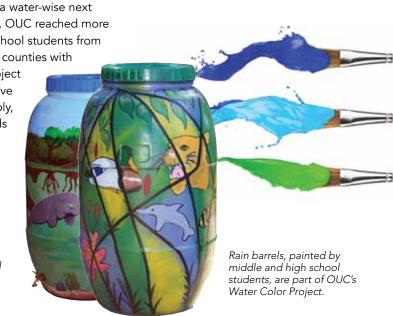
EACH YEAR.

OUC WATER TECHNICIANS:

• Conduct **20,000** chemical and bacterial water quality tests • Test for more than 135 regulated and unregulated substances

Maintain OUC water at 100%

allowable levels



20 GAINING VELOCITY



Tanya Powers, Call Center Representative II, uses OUC's new Customer Care & Billing System to ensure a quality customer experience.

FROM UPGRADING TO A NEW CUSTOMER INFORMATION SYSTEM AND NEW BILL FORMAT TO PROACTIVE OUTAGE ALERTS AND LAUNCHING A CENTER OF EXCELLENCE, OUC IS IMPROVING THE WAY IT SERVES ITS CUSTOMERS.

New Customer Information System Preps for the Future

OUC's Customer Information System (CIS) implementation was a massive effort that took 2½ years, over 300,000 hours of effort and 30,000 hours of Quality Assurance testing. It involved more than 200 OUC employees, contractors and third-party vendors to convert PeopleSoft



Enterprise Revenue Management to Oracle Utilities Customer Care & Billing (CC&B). The system handles OUC's day-to-day operations, touching 246,000 electric and water customers, both residential and commercial.

Replacing it was a complicated and critical effort that was necessary to maintain OUC's commitment to a quality customer experience that leverages technology. Ultimately, while fireworks lit the Orlando sky, celebrations erupted across OUC as the new customer information and billing system went live on July 4, 2017.

The project was named Momentum: To CC&B and Beyond, or simply, Project Momentum, to present the upgrade as a driving force that would lay the foundation for future improvements and efficiencies in support of OUC's strategic initiatives.

The team that worked tirelessly on Project Momentum celebrated with a barbecue lunch.

Bill Redesign Creates Wiser Consumers

A newly designed bill, launched in March 2017, is providing OUC customers with more detailed information about their energy and water consumption. The larger format provides exact usage breakdowns and easy-to-read, colorful charts with monthly comparisons. They can also review their daily average usage, access efficiency tips, and receive tailored messaging.

Customers were informed about the new design and the bill's added features via multiple channels: social media, a new web page (OUC.com/mynewbill) and the Connections newsletter.



A new bill provides more information for customers in an easier-toread format



New outage alerts make it easy for customers to keep tabs on outages from their mobile device.

Proactive Outage Alerts and New Storm Center Outage Map

In September 2017, OUC launched a new outage alerts program and online outage map designed to keep customers informed every step of the way during power restoration. Using integrated advanced meter information and OUC's Outage Management System, customers can report an outage, get notification when their power goes out and receive restoration updates via text message, email or phone. Billing/payment, consumption alerts and marketing messages are expected to be integrated in 2018.

Center of Excellence Promotes Continuous Quality Improvement

In March 2017, OUC launched the Continuous Improvement Center of Excellence as part of the Commission's strategic initiative to improve organizational

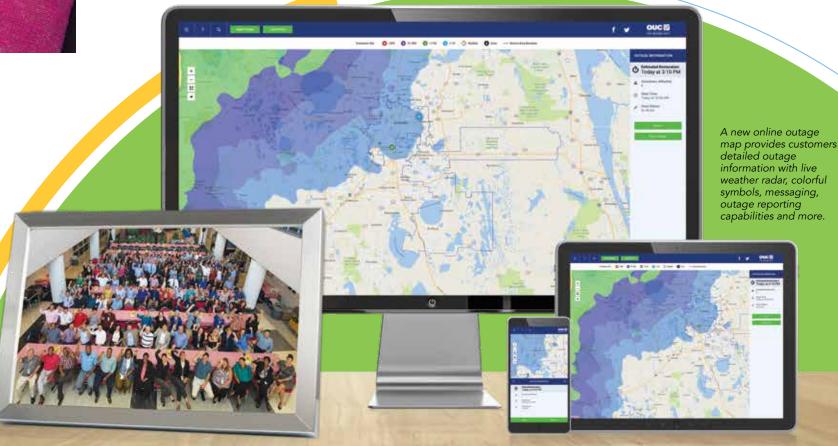
effectiveness. **Applying** continuous improvement principles from defining and aligning metrics to

driving process

efficiencies - will enable OUC to aggressively compete and

OUC

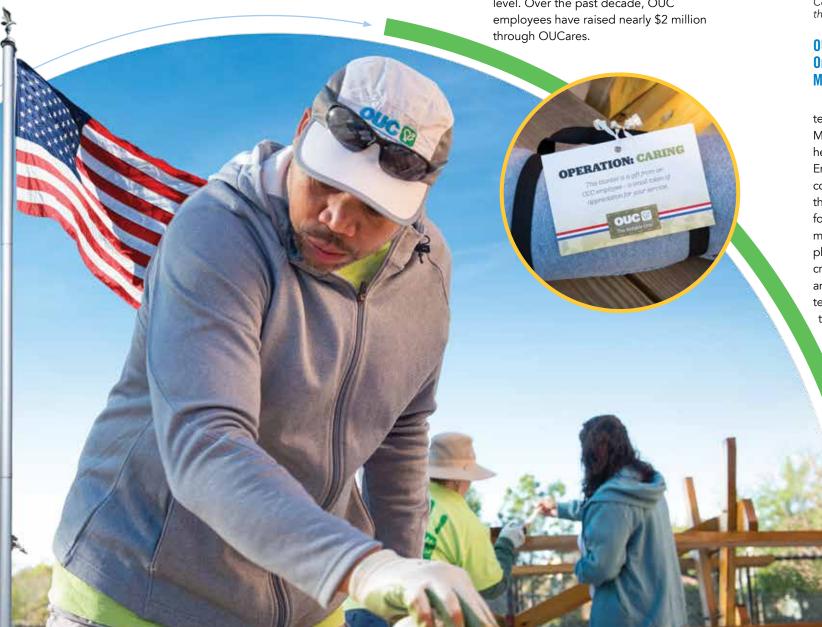
for the future. The Center focuses on assessing efficient uses of time and cost with a commitment to ultimate quality. Working alongside business units to identify areas of improvement, the Center's team collaborates with employees to assess design, and implement and measure processes to ensure efficiency and quality.



VELOCITY

LOGGING HOURS IN THE COMMUNITY

OUC'S GROUND CREW OF COMMITTED VOLUNTEERS
DONATED NEARLY 10,000 HOURS TO WORTHY CAUSES THIS
YEAR – INCLUDING PROJECTS TO HELP LOCAL VETERANS.



OUCares for Our Community

Every year OUC employees open their hearts and wallets to their favorite causes through OUC's Workplace Giving Campaign, known as OUCares. In 2017, 659 employees donated more than \$205,000 with a special focus on Central Florida veterans. Of this, OUC employees designated \$32,272 to Mission United, a program that provides veterans access to employment services, education, health care and legal assistance. The campaign was the largest in the history of the Commission, with nearly half of all employees increasing their contribution level. Over the past decade, OUC employees have raised nearly \$2 million through OUCares.



An outdoor area at the Orlando VA Medical Center at Lake Baldwin received a fresh look thanks to OUC and Siemens volunteers.

OUC Volunteers Beautify Orlando Veterans Affairs (VA) Medical Center

In spring 2017, OUC and Siemens teamed up to beautify the Orlando VA Medical Center at Lake Baldwin with the help of more than 40 OUC employees. Ensuring those who have served our country have a safe place to call home, the campus provides housing and cares for veterans who have mental health, medical and psychosocial issues. From planting flowers and herb gardens, to creating a custom wall mural and staining picnic tables, the teams worked side by side to improve the facilities and create a positive and healing environment. In addition to the beautification efforts, more than 70 fleece blankets, provided through OUCares, were given to veterans who live at the facility.

OUC Veterans Day Flag Ceremony

Every year on Veteran's Day, OUC veterans assist with a special flag-raising ceremony at each OUC location to honor those who have served or are currently serving in the military. Veterans make up about 10 percent of OUC's employee base. The utility is honored to recognize the sacrifices they have made for our country.

Earning a Silver Medal for Sustainability in Orlando

For more than 40 years, OUC has set the pace with the OUC Orlando Half Marathon & Track Shack Lake Eola 5K. In 2017, the race, which attracts thousands of participants from around the nation, earned Silver Level status from the Council for Responsible Sport, which certifies responsible event production and practices. The annual event was recognized for its commitment to sustainable practices.

Water offered to race participants is tapped from OUC hydrants along the course, eliminating the need for nearly 2,700 plastic gallon jugs. The certification is the next step toward the goal of making the event the most sustainable race in the Southeast.



Gregory D. Lee, OUC board president (second from left), along with Jon Hughes, Betsy Hughes and Natalie Casey of Track Shack, is presented with the Silver Level certificate from the Council for Responsible Sport.

The Orlando VA Medical Center received a facelift when OUC volunteers worked to serve those who have served us. At left, Alex Rosario, Marketing Designer, stains a picnic table.



Clint Bullock, Vice President, Electric & Water Delivery (left), looks on as Michelle Barrett, former U.S. Marine Corps Lance Corporal, and Aaron Fagen, former U.S. Navy Machinist Mate 2nd Class, are honored at the UCF Military Appreciation game.

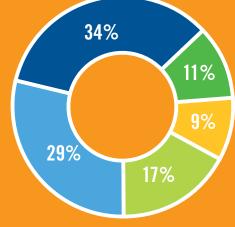
2017 EMPLOYEE VOLUNTEER HOURS:

BY THE NUMBERS

Last year, OUC employees donated nearly

10.000 HOURS

of their personal time and talent in our community.



- Boy Scouts of America
- Youth Sports
- Charities
- Local Schools
- Other

