

A photograph of the Lake Worth Beach Electric Utility building, a yellow structure with a prominent white dome and a tower. The building features green and white striped awnings over the windows. Palm trees are visible in the foreground and background under a clear blue sky. A dark blue rectangular box is overlaid on the image, containing the title and subtitle text.

# Values Driven Progress

Lake Worth Beach Electric Utility  
2022-23 Annual Report

# Everything we do is about

Low Cost

Reliable

Environmentally responsible energy



## From the Electric Utility Director

The period of 2022 through 2023 has proved to be one of significant accomplishments and challenges. Our accomplishments included significant reductions in power outages, albeit with some setbacks in 2023 largely due to lightning storms and animal contacts, the completion of our first new substation in many decades, and a successful bond offering with a reaffirmed investment-grade credit rating. Our System Hardening and Reliability Improvement Program (SHRIP) continued to yield improvements, with increasing numbers of customers being converted from the older 4,000-volt system to new hardened infrastructure operating at 26,000 volts.

Our challenges were great as a rapid runup in natural gas prices that began in late 2021 and continued through late 2022 caused us to implement two unplanned successive increases to our Power Cost Adjustment (PCA), the first one in June of 2022 followed by a second increase in September of 2022, which led to higher electric bills and greatly affected our customers. By year-end 2022, natural gas prices began to decline, allowing us to recommend that rates not be raised a third time and let an emerging trend of declining natural gas prices play out, a strategy that has proved successful. In May and June of 2023, we were able to reverse the prior increases in the PCA, and in September of 2023, we received approval to transfer a \$2.5 million surplus in our PCA to a Rate Stabilization Fund and \$500,000 to a Storm Fund.

In September of 2023, after thorough scrutiny by the City Commission of our budgets, revenues, and spending plans for non-fuel-related items, we were approved to raise our Base Energy charges for all customers by 5%, effective October 1, 2023. A review of historical prices reveals that in September of 2023 our typical residential customer using 1,000 kilowatt-hours of electricity per month paid nearly the same bill as they did in the summer of 2014.

Since beginning our journey together six years ago, we've greatly improved our electric rates relative to neighboring communities. By August of 2023, the Florida Municipal Electric Association ranked our electric utility as the 7th lowest-cost residential electric provider in the state of Florida; by comparison, our neighboring communities rank 23rd in residential rates using a statewide benchmark of 1,000 kilowatt hours of electricity monthly. Prudent fiscal management, restructuring of debt while raising new capital for investment in our electric infrastructure, and



**We're changing the trajectory of our electric utility to make our rates more competitive, improve reliability, and greatly increase our use of clean energy resources.**

Ed Liberty, Utility Director

We ranked 24th place in 2017 for cost amongst all Florida electric utilities and raised it to the 5th Lowest Cost in August of 2022

2017

New Smyrna Beach  
Kissimmee Utility Authority  
Jacksonville Electric Authority  
Wauchula  
Keys Energy  
Gainesville Regional Utilities  
Starke  
Lakeland  
Mount Dora  
Orlando Utilities Commission  
FPL  
Fort Pierce Utilities Authority  
Newberry  
Alachua  
Clewiston  
Tallahassee  
Blountstown  
Leesburg  
Beaches Energy  
Bushnel  
Ocala Electric Utility  
Winter Park  
Homestead  
**Lake Worth Beach**  
Havana  
Bartow

24th

2022

New Smyrna Beach  
Kissimmee Utility Authority  
Jacksonville Electric Authority  
Wauchula  
Keys Energy  
**Lake Worth Beach**  
Gainesville Regional Utilities  
Starke  
Lakeland  
Mount Dora  
Orlando Utilities Commission  
FPL  
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Tallahassee  
Blountstown  
Leesburg  
Beaches Energy  
Bushnel  
Ocala Electric Utility  
Winter Park  
Homestead  
Havana  
Bartow

5th

Lowest Cost Electric Utility  
in Florida

## We performed hundreds of free energy audits in 2022 and 2023 to help our customers reduce their bills cost

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new competitive wholesale power contracts have all helped us in attaining a ranking amongst the lowest-cost electric utilities in the state. Continued growth in the number of customers and growing use of electricity have also aided in the effort to keep rates competitive by spreading fixed costs across a larger customer base.

### **Resource Planning**

During 2022 we conducted our second iteration of our Integrated Resource Plan (IRP), a process of looking ahead through to the year 2050 to determine the mix of energy resources and technologies that are economically and technically viable and are reflective of our preference for energy derived from renewable resources.

The 2022 IRP reaffirmed the direction set in the 2018 resource plan and called for significant increases in energy purchases from utility-scale solar energy projects, with demand response technology and battery energy storage devices identified as options to seriously consider. Consistent with the 2018 resource plan, which resulted in the signing of significant solar power purchase agreements, the 2022 IRP calls for continued reductions in our use of fossil fuels to achieve our desires for a lower carbon footprint. We are pleased to reaffirm that the planned retirement of coal from our portfolio will take place by year-end 2025, along with long-planned retirements of some fossil-fueled units at our own power plant even sooner. The 2022 IRP process was capped with an important moment in our history with the City Commission's unanimous approval of a Resolution committing our electric utility to reduce its greenhouse gas emissions to "net-zero" emissions by 2045.

### **We Are Underway with Our Shift to Cleaner and More Stable Priced Energy Resources**

The steep run-up of natural gas prices in 2022 reminded all Floridians more than in any other year that natural gas is not just a domestic commodity but one driven by international events. The growing move by domestic power generation companies to retire coal power plants and convert to cleaner fuels, a warmer than normal summer in the mid-Atlantic region, coupled with international conflicts leading to disruptions to Europe's access to Russian natural gas markets, growing international demand for deliveries of liquefied natural gas (LNG) to fuel their economies, regional domestic natural gas pipeline constraints, and the USA's growing capability to export natural gas using LNG ships, all combined to create upward pressure on our domestic natural gas prices.

The impact of natural gas price increases on our customers in 2022 was greatly mitigated by the significant portion of our energy supply portfolio that is comprised of nuclear energy and a small amount of solar, both of which provide a stable base supply of energy at a price unaffected by fossil fuel volatility. Solar energy is our energy source of choice going forward and will be used to directly offset purchases of wholesale power produced with natural gas, beginning in late summer of 2024.

# The quickest and easiest means to reduce electric bills and reduce CO2 emissions is also the simplest to implement

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In 2023 we reaffirmed our commitment to clean energy with our execution of an agreement with the Florida Municipal Power Agency (FMPA) to purchase electricity from its FMPA Municipal Solar Project Phase III for a period of twenty years. Combined with our prior commitment to Phase II of the Project, we are now under contract to purchase the output from a total of 54.9 Megawatts of solar capacity from FMPA, in addition to our own 1.7 MW solar power plant installed atop the City's closed landfill in 2017. The FMPA solar capacity will come online over the next few years, such that by 2027 upwards of 29% of our energy supply portfolio will come from solar energy. Combined with our purchases of nuclear energy, approximately 64% of the energy we expect to deliver to our customers will come from carbon-free resources and at prices not subject to fluctuations in natural gas prices.

## **Customer Assistance**

In June of 2022, we issued notices to all our customers online and in their bills explaining why their bills would be higher and offered free energy audits.

Hundreds of customers responded with requests for free energy audits throughout 2022 and 2023, and our staff responded admirably by adding Saturday and Sunday hours to visit customers' homes to offer tips on energy conservation.

For those customers preferring to limit visitors to their homes, we provided free online guided assisted energy audit software to the City's website, which they could avail themselves of either on their own or with the remote assistance



We are achieving competitive rates, hardening our systems and improving reliability, reducing our carbon footprint, all while making a substantial contribution to the City's general fund.

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of our team members. We also expanded our capabilities to help customers implement needed home improvements by endorsing the Solar Energy Loan Fund (SELF), a non-profit organization that works directly with customers to connect them with sources of low-interest loans and grants to finance energy efficiency improvements to their homes. In 2023 we formalized our relationship with SELF with a commitment to seed their efforts with \$100,000 annually and use of office space at our electric utility headquarters for a period of three years.

We encourage our customers to take the quickest and most immediate steps to reduce their electric bills; adjusting their thermostats to decrease cooling when not needed and keeping windows and doors closed on hot and humid days. Because we live in Florida, the driving factor for energy use in homes is the air conditioner, which makes our lives more comfortable. The best way to manage your energy use is to maintain your thermostat temperature at 78°F during the warm months. And if possible, setting the thermostat to an even higher temperature while the house is empty – especially during the hot summer months – can help you save even more each month on your bill.

You can be proud of your electric utility. We are tackling the challenges we collectively inherited and delivering results for you: achieving competitive rates, hardening our systems and improving reliability, and executing on a strategy to reduce our Carbon footprint, all while making a substantial contribution to the City's general fund.

**Ed Liberty**





“I was enchanted by Lake Worth Beach many decades ago and continue to love living in this wonderful community dedicated to the common good”

- Mayor Betty Resch

# Looking ahead to 2024-25

## Renewable Energy

In 2023 we announced our electric utility’s participation in a major expansion of the Florida Municipal Solar Project, one of the largest municipal-backed solar projects in the nation, together with 19 other Florida municipal electric utilities.

Lake Worth Beach’s total commitment to the overall FMPA Project will grow from 26.55 Megawatts to 54.9 Megawatts or approximately 10% of the Project’s overall capacity of 523 Megawatts. By the end of 2026, the Florida Municipal Solar Project will consist of more than 1.6 million solar panels installed across multiple solar fields in northern Florida, with our energy delivered to us on the electric transmission system. Lake Worth Beach’s share of the overall Project comprises the equivalent of approximately 500 acres, far greater than anything we could build on limited open space within our own City. Building on a large scale and partnering with other municipal electric utilities helps us achieve very competitive rates for our customers. Under the terms of the power purchase agreements, our electric utility will receive solar energy from the project over a period of 20 years without having to invest our own capital, thereby preserving our financial resources for continued investment in electric system hardening and reliability improvement. Solar energy deliveries to our customers will begin in 2024 and are anticipated to grow with further deliveries in 2025 as Project phases are placed in service. Furthermore, the addition of large quantities of solar energy will coincide with the retirement of purchases of coal-based energy in 2025 and will further serve to reduce our reliance on fossil fuels in our energy supply portfolio..

## Reliability (Value)

Our System Hardening and Reliability Improvement Program throughout 2022 and 2023, with projects planned for 2024 and beyond. Projects not already completed or under construction are well into their engineering and material procurement phases. With much of our electric system dating back to the early 1970s, we have years of work ahead of us, with the benefits of improved reliability already accruing daily to our customers, residents, visitors, and business owners.



We are making \$100 million in system improvements to harden our systems, improve our technology, and pave the way for community growth



**FMPA SOLAR 2**  
Scheduled energy  
deliveries

**Nov '24 13.27 MW**

**Dec '25 20.9 MW**

**FMPA SOLAR 3**  
Scheduled energy  
deliveries

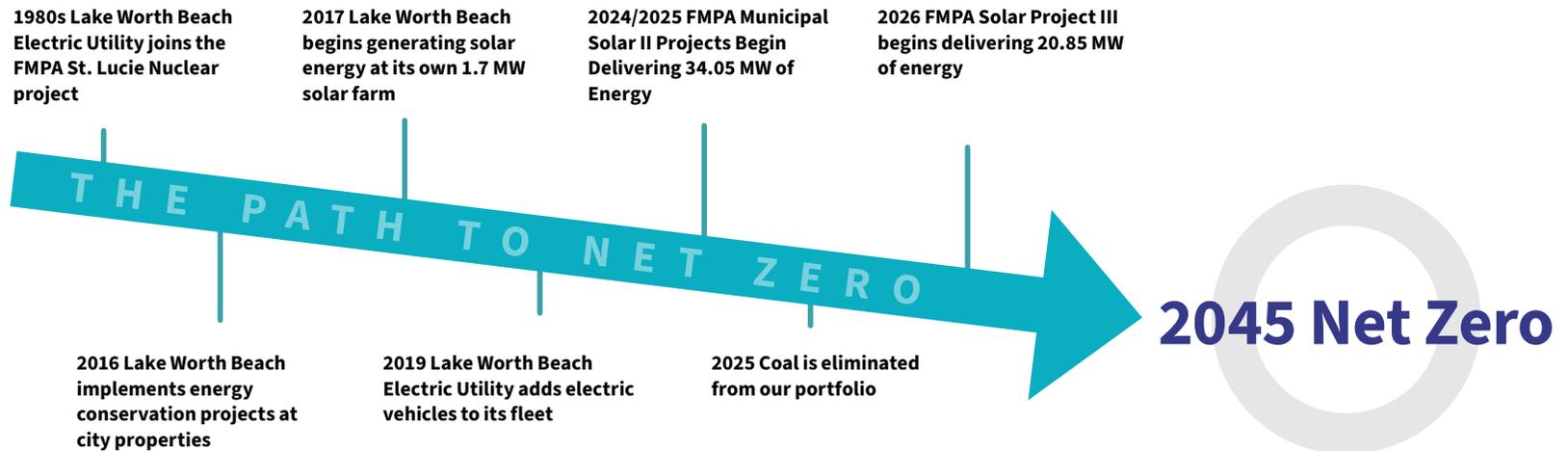
**Dec '26 20.725 MW**

In 2023 we increased our carbon reduction commitment to greater than 60% CO2 reduction by 2035 and net zero by 2045

### Market Growth

The effect of electrification of customer vehicles is helping deliver new revenues to our utility, yielding benefits not only in spreading fixed operating costs over greater numbers of customers but also in reducing air emissions in the region as fewer gallons of gasoline are consumed. Our public for-fee electric vehicle charging stations in desirable visitor locations have attracted well over sixty unique drivers monthly to our City but have also had the equivalent benefit of planting over one thousand trees and letting them grow for ten years. Unquantified, but likely increasing significantly, is the effect of customers charging electric vehicles at their homes and businesses. Our SHRIP projects of voltage conversions from 4,000 volts to 26,000 volts of entire neighborhoods will allow us to support the further use of electric vehicles by our customers. We anticipate that as existing gasoline vehicles in households age and new and used electric vehicle offerings increase, together with declining electric vehicle prices in general, we will see higher than traditional growth in electric sales.

## Accelerating our path to carbon reduction

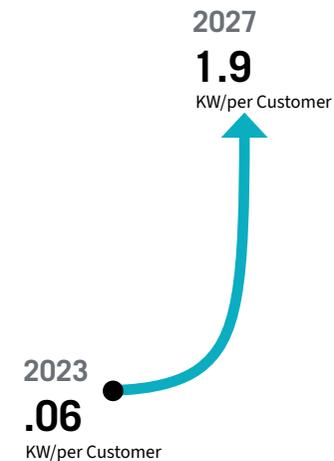


## The effect of electrification of customer vehicles is helping deliver new revenues to our utility, spreading fixed operating costs over greater numbers of customers and reducing air emissions in the region

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Growth in the number of customers, largely residential households, increases electric utility base energy revenues and results in greater sharing of fixed operating costs, inuring to the benefit of all customers by decreasing the need for base energy rate increases. Responsible growth, respectful to the history and charm of our City, is an important value to our policy makers and planners, and your electric utility will follow their lead. Our electric service territory, almost completely built out with existing infrastructure, allows us to connect new customers at a lower cost and with manageable disruptions while we also harden our electric infrastructure to withstand the growing forces of nature such as storms, vegetation, and animal intrusions.

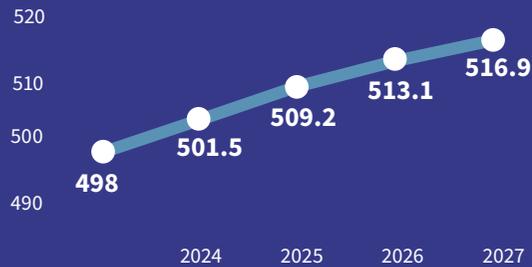
### Installed Solar Watts Per Customer



# Performance Highlights

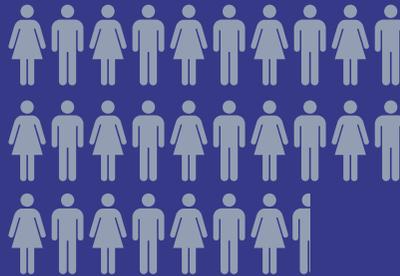
## Growing Electric Needs

Thousands of MWhrs



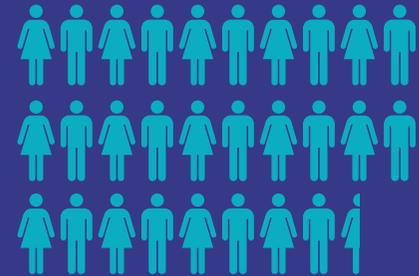
## Electric Utility Growth Projection From 2023-2027

2023



27,664

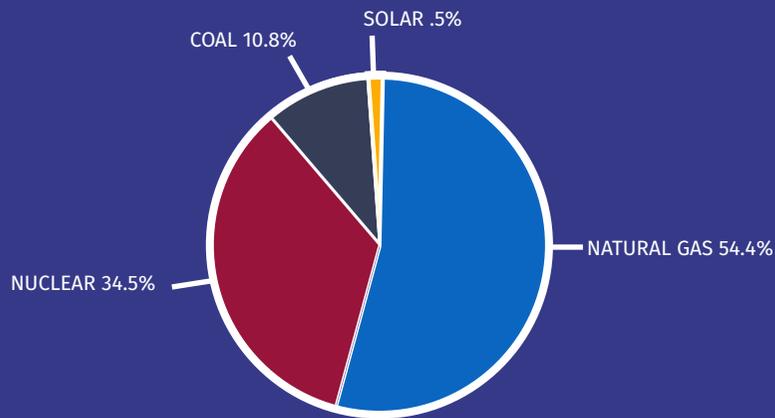
2027



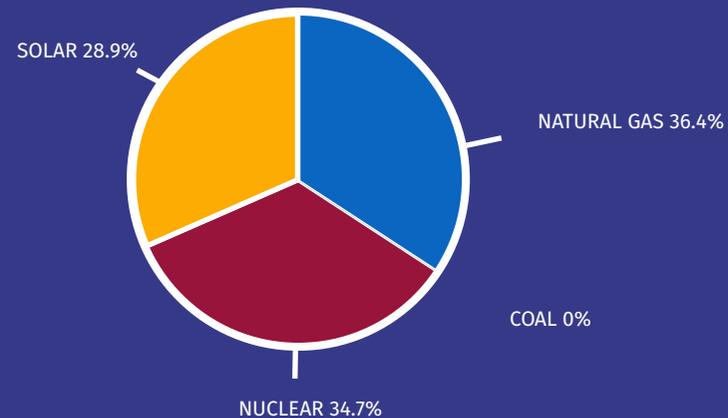
28,503

Our Fuel Mix will become cleaner and more sustainable over time ultimately reducing our carbon footprint.

2023 FUEL MIX



2027 FUEL MIX



Increasing Our Contribution to the Community

2017  
**\$4.375 Million**

2023  
**\$5.049 Million**



LAKE WORTH BEACH  
**Electric**  
Utilities  
CITIZEN OWNED ENERGY

