

City of Orlando's 100% Renewable Energy by 2050

Background on City of Orlando and OUC efforts:

- The City of Orlando, through the Green Works Orlando initiative, has been working since 2007 to make us the most sustainable city in the Southeast to improve quality of life of our residents, preserve natural resources, and promote environmental stewardship.
- Through these efforts, City of Orlando has committed to reducing air pollution and greenhouse gas emissions in accordance with the Paris Climate Agreement, specifically 90% reduction of our emissions compared to 2007 levels by 2040.
- To achieve these air quality goals, we have committed to powering 100% of municipal operations using clean, renewable energy sources by 2030 (adopted in our 2012 and 2017 Municipal Sustainability Action Plan).
- City of Orlando has invested in solar on public rooftops, including the 420KW solar PV array at the Fleet & Facilities complex, and an 11KW solar PV array at Lake Eola
- Over the years, City of Orlando has developed a strong partnership with Orlando Utility Commission (OUC) to advance solar and clean energy efforts, including utility-scale solar farms, community solar arrays, rooftop solar programs, solar rebates, solar financing programs, and more.
- OUC has an existing commitment to achieve 20% clean energy by 2020. Today, more than 20 megawatts (MW) of solar electricity has been installed, with a goal of more than 100 MW by 2020.
- OUC has launched a new "Solar Aggregation Program" to help lower the cost of solar power through bulk-purchasing, saving home and business owners 20 - 30% from a traditional solar PV array.
- In 2010 the City of Orlando was designated as a "Solar America City" by the U.S. Department of Energy for our innovative use of solar incentive credits by OUC to drive solar adoption.
- In 2016 designated as a "SolSmart" certified city by the Solar Foundation for our leadership in expanding renewable energy and helping to address the "soft-cost" barriers to solar installations, thereby lowering the cost of solar power.
- In 2016 the City of Orlando enabled the Property Assessed Clean Energy (PACE) and the Solar & Energy Loan Fund (SELF) financing programs, offering more than \$500 million to assist home and business owners with accessing low-cost capital to make clean energy improvements
- Building on our leadership in renewable energy over the last 10 years, we wish to expand on our commitments to power 100% of our city using clean, renewable energy sources by 2050.

Background on Renewable Energy Industry Economic Impact

- Renewable energy represents an enormous economic opportunity for the City of Orlando to create jobs in an emerging industry, increase economic security and expand prosperity for local residents, reduce air pollution and associated public health risks, reduce the strain on limited water resources, and save the City and consumers money.
- The cost to install solar has dropped by more than 70% since 2010, making it one of the least-cost investments for new power generation across the U.S.¹
- Overall, there were 260,077 solar workers in the U.S. in 2016. Solar employment grew 20 percent annually from 2012 to 2015 and another 25 percent in 2016.²
- In Florida, Solar jobs grew 10 times faster than the overall state economy in 2016.³
 - 1,700 new solar jobs were added to the State of Florida in 2016.
 - Florida experienced a 26% increase in solar jobs in 2016.
 - 9% of solar workers in Florida are military veterans in 2016
 - Florida ranks number 5 for number of solar jobs nationwide; but number 31 for solar jobs per capita.
 - The solar industry in Orange County employed about 381 solar workers in 2016, ranking as the 7th highest solar employer of the counties in Florida.

U.S. and Florida's Solar Industry Economic Impact

- The U.S. solar industry added \$84 billion to the U.S. GDP in 2016⁴
- With over 8,260 solar workers, the solar industry in Florida produced \$1.69 billion in direct sales in 2016. When direct, indirect and induced jobs are included the solar industry's impact in Florida exceeded 19,000 jobs. These jobs paid more than \$1.03 billion in salaries, wages, and benefits and added \$1.7 billion to GDP for Florida in 2016. One solar-related job supports 1.34 jobs elsewhere in the Florida economy, while every \$1 spent on solar generates an additional \$0.90 in spending throughout the state.
- Bloomberg New Energy Finance expect \$10.2 trillion to be invested in new power generation capacity worldwide to 2040. Of this, 72% goes to renewables, or \$7.4 trillion.
- Investment in renewable energy increases to around \$400 billion per year by 2040, a 2-3% average annual increase.⁵

¹ [Source: Solar Energy Industries Association: Solar Industry Data](#)

² [Source: U.S. Solar Foundation - Solar Jobs Census 2016](#)

³ [Source: U.S. Solar Foundation - Solar Jobs Census 2016: Florida Fact Sheet](#)

⁴ [Source: U.S. Solar Foundation - 2016 Economic Impacts Report](#)

⁵ [Source: Bloomberg New Energy Finance - New Energy Outlook 2017](#)

100% Renewable Energy Help the City of Orlando to:

- Advance our sustainability and livability goals outlined in the Green Works Orlando plan
- Achieve improved public health and environmental quality
- Improve air quality and meet our greenhouse gas reduction goals
- Create jobs in a new and fast emerging industry
- Spur economic growth and investment to our region
- Reduce operational expenses and energy cost savings over the lifetime
- Stabilize energy prices and fluctuations by investing in renewable energy source like solar PV
- Invest in a more reliable and resilient energy system
- Support energy independence, energy security, and homegrown energy sources
- Protect and preserve a clean environment for current and future generations

Financial Implications and community engagement:

- All investments proposed to achieve this goal will be approved/disapproved by Orlando City Council
- The City of Orlando shall work closely with OUC staff to achieve this goal and ensure Orlando electricity rates maintain affordable and equitable through the process.
- The City of Orlando shall collaborate with surrounding communities and communities within OUC service territory to share best practices on planning and implementation and seek partnerships on implementation pathways where beneficial for both parties.

Recommendation

- Staff recommends that Mayor and City Council adopt the 100% Renewable Energy by 2050 Resolution.