

Electric Integrated Resource Plan

Raynetta Curry Marshall

Chief Operating Officer

Pedro Melendez

Vice President, Planning, Engineering & Construction



IRP Process and Report



Began IRP in September 2021

Stakeholder Meetings

Meetings held January 2022 - February 2023

May 25, 2023 final stakeholder meeting

Board Briefings

Board of Directors Meetings - January 11, 2022 and February 22, 2022

External Affairs Committee Meetings - July 25, 2022 and December 16, 2022

Finance & Operations Committee Meetings - September 9, 2022, December 16, 2022, March 10, 2023

IRP Modeling

Sensitivity Matrix included supplemental scenario with modeling results covering reliability, sustainability, and affordability Results indicate the need for 1275 MW of Solar & Battery, and 571 MW of higher efficiency gas resource

Next IRP 3 - 4 years

Potential Goals

JEA Potential Goals by 2030





35% CLEAN ENERGY

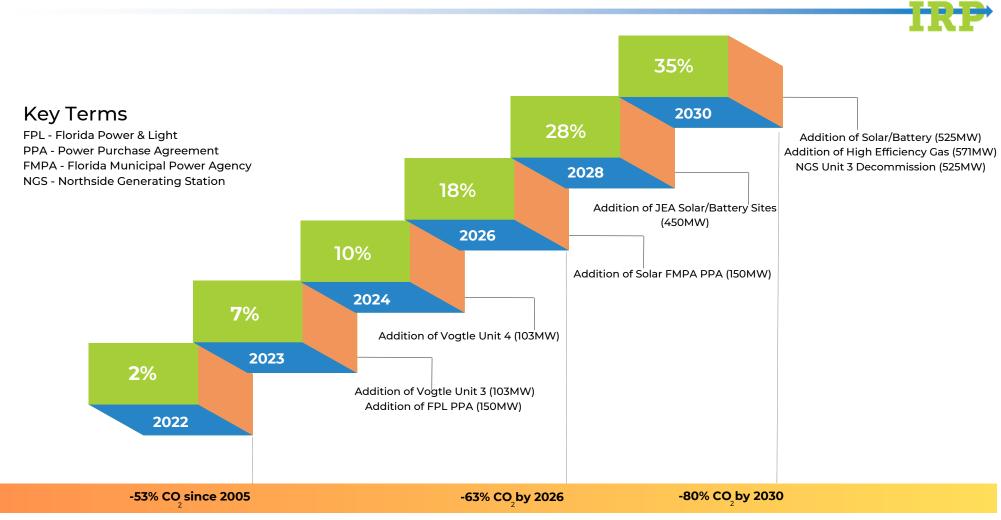
RETIRE LESS EFFICIENT GENERATION

80% CO₂REDUCTION (FROM 2005)

100% CLEAN ENERGY TO SERVE JEA FACILITIES

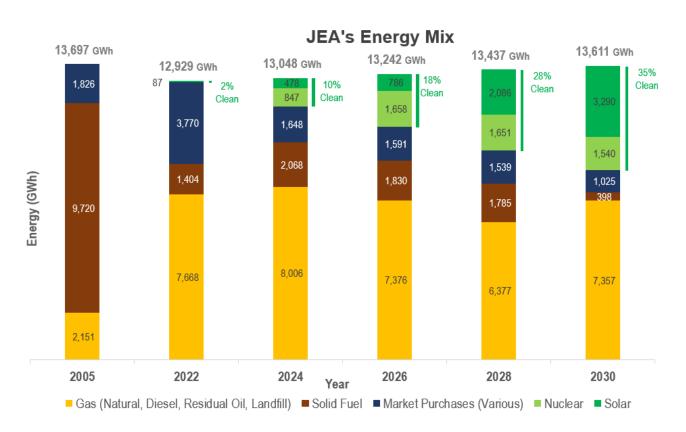
OFFSET ELECTRIFICATION DEMAND WITH ENERGY EFFICIENCY PROGRAMS

Path to Clean Energy and Carbon Reduction Goals



JEA Energy Mix by Fuel Type





1,314 MW Solar represents 381 MW Net capacity

Higher efficiency generation ensures reliability and sustainability

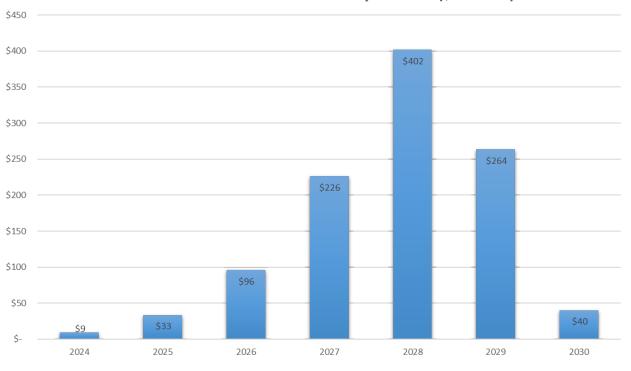
Significantly less dependency on solid fuels and market purchases

Sustaining energy efficiency program

IRP Cost of Existing vs. **New Additional Resources Plan** The IRP identified least-cost resource plans to meet forecasted energy requirements between 2022 through 2051 Estimated cost (Net Present Value) considering IRP inputs: \$16.5B to produce energy with existing generation resources \$16.1B to produce energy with new additional resources 1275 MW Solar/Battery 571 MW High Efficiency Gas NGS Unit 3 Decommission The new resources plan balances reliability, affordability, and sustainability to serve JEA customers

JEA Capital Projects Cost 2024 - 2030

JEA Transmission and Combined Cycle Plant (\$Millions)



Capital investment to integrate JEA solar sites, a new Combined Cycle plant, NGS Unit 3 decommission

Electric system integration studies are necessary to determine transmission cost for unidentified solar/battery sites



Offset Electrification Demand

IRP modeling accounted for an increased energy demand of 434 GWh in 2030 from electric vehicles Expanding energy efficiency and customer solutions to offset electrification demand



434 GWh

Electrification

Personal Electric Vehicle

434 GWh

Demand-side Management

Energy Efficiency

Distributed Energy Resources

Customer-Owned Solar



JEA Potential Goals by 2030





35% CLEAN ENERGY

RETIRE LESS EFFICIENT GENERATION

80% CO₂REDUCTION (FROM 2005)

100% CLEAN ENERGY TO SERVE JEA FACILITIES

OFFSET ELECTRIFICATION DEMAND WITH ENERGY EFFICIENCY PROGRAMS