# LAKE WORTH BEACH INTEGRATED RESOURCE PLAN

October 25th, 2022



#### IRP PROJECT

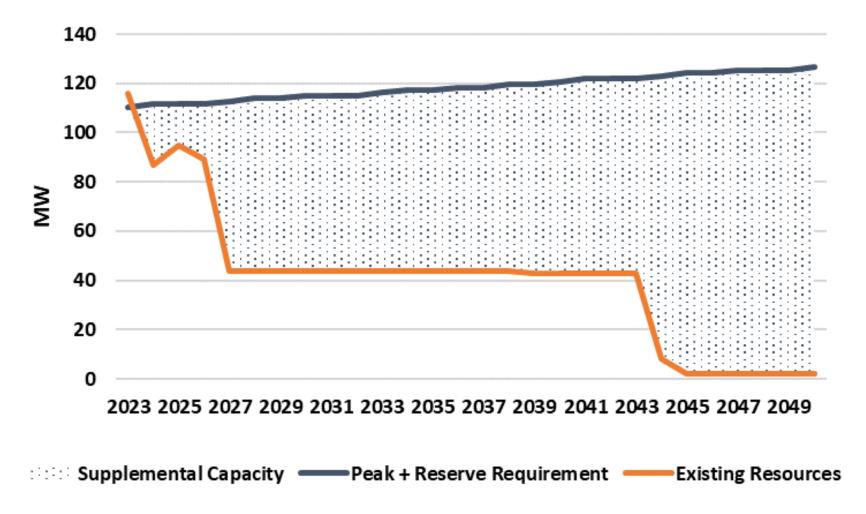


- Initiated project: June
- Data development and validation: July/August
- Preliminary results: September
- Refined results: October



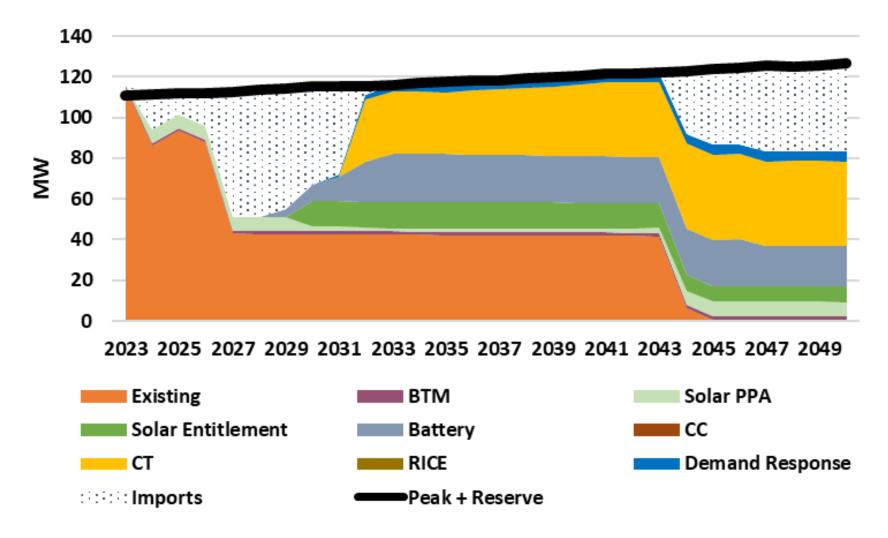
### **RESOURCE NEEDS**





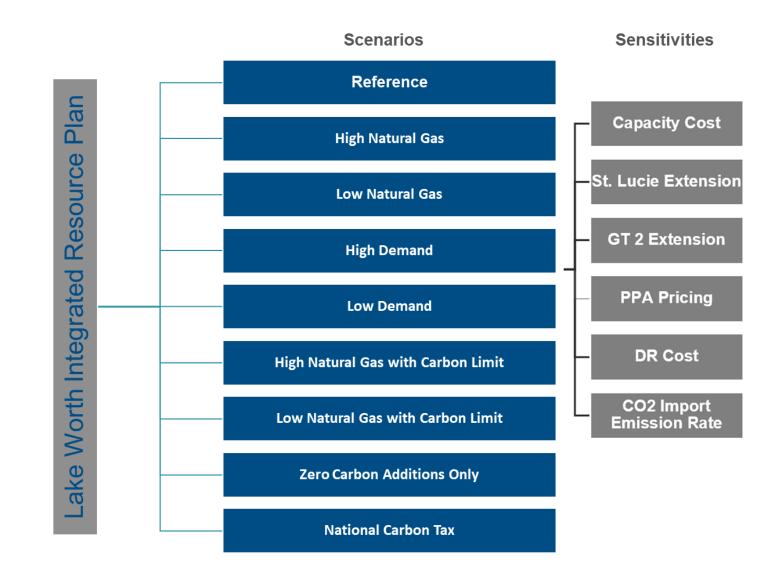
#### BASE CASE RESOURCE PLAN





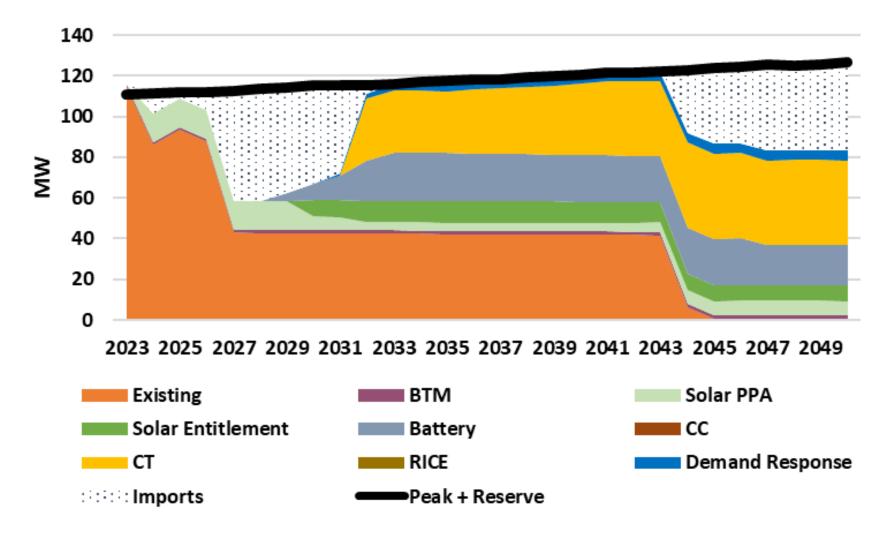






#### BASE CASE RESOURCE PLAN-PPA SENSITIVITY

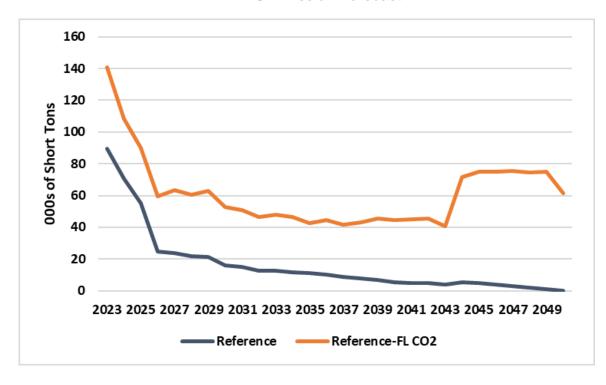




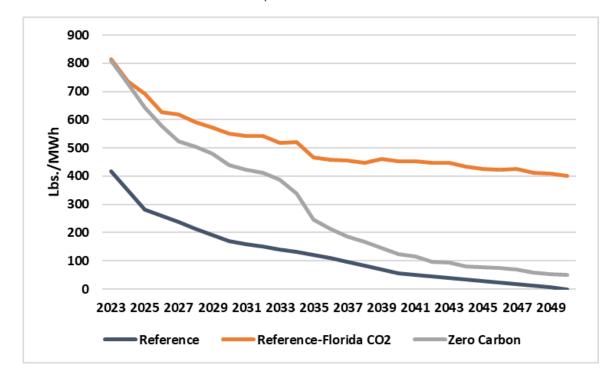
### **CARBON SENSITIVITY**



**LWBEU Emission Forecast** 



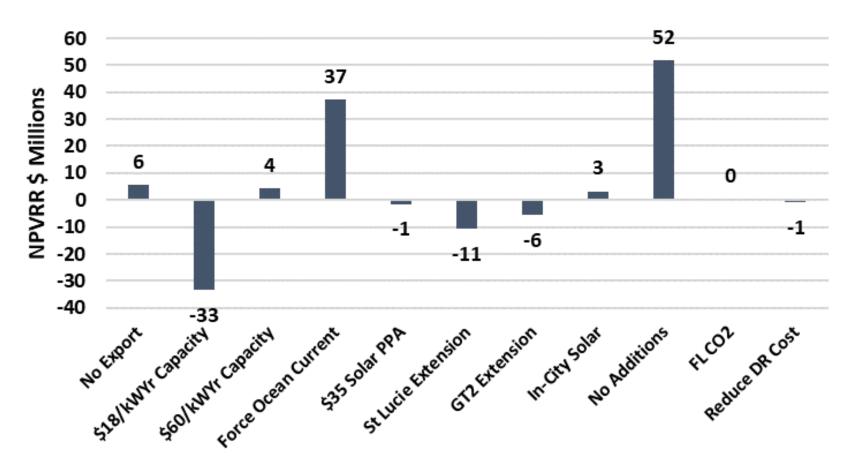
#### Florida Import Emission Rate



## (SAVINGS)/COST



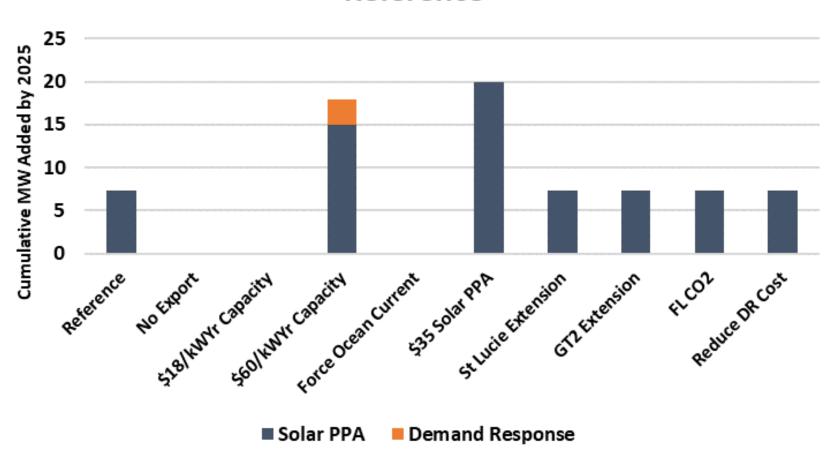
#### Reference



#### SOLAR PPA & DEMAND RESPONSE SENSITIVITIES



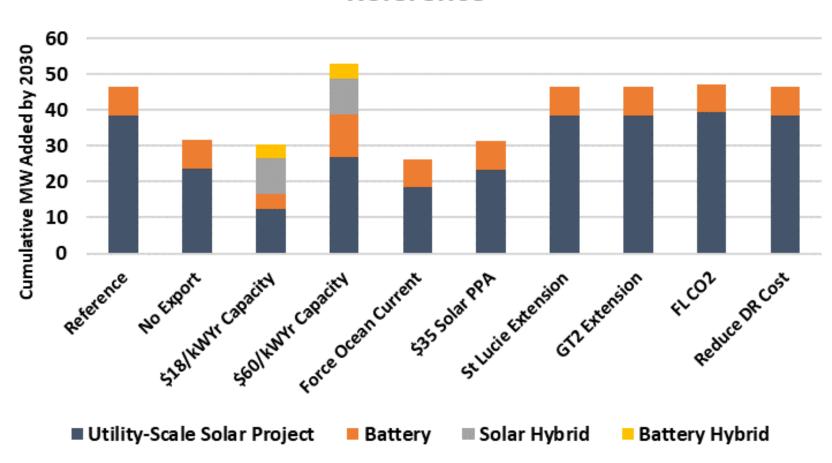
#### Reference



#### **SOLAR ENTITLEMENT & BATTERIES BY 2030**



#### Reference



#### **FINDINGS**



- New resource additions required over time
- Acquiring resources reduces costs over reliance on market
- Solar PPA is economic. Optimal size varies by scenario
- Zero carbon attainment highly dependent on import carbon rate
- GT 2 Extension in 2028 reduces costs by \$6 million NPV
- In-City Solar in 2024 increases costs by \$3 million NPV

#### PORTFOLIO SELECTION



- 2023-2030
  - Solar PPA
  - Further evaluate economics of Demand Response (DR)
  - Further evaluate life extension on GT2
- 2031-2040
  - Need for firm capacity
  - Consider: mix of batteries, DR, CT
  - Solar entitlement
- · 2041-2050
  - St. Lucie and FMPA solar retirement
  - Low carbon purchases