

**2022 JEA**

# **IRP Stakeholder Engagement Meeting Series**



**IRP**

**INTEGRATED RESOURCE PLANNING**

A blue-tinted image of a city skyline with several skyscrapers and a bridge over water. In the bottom left corner, there is a faint, light blue compass rose with the letters N, E, and S visible.

# Welcome

**Raynetta Curry Marshall**  
*Chief Operating Officer*



# IRP Stakeholder Meeting Agenda – September 21, 2022



## 1) Welcome & Introductions

Raynetta Curry Marshall, Chief Operating Officer, JEA

## 2) June 9 Meeting Recap

Laura Schepis, Chief External Affairs Officer, JEA; Cantrece Jones, Black & Veatch Consultants

## 3) Resource Planning and Preliminary Modeling Results

Brad Kushner, Black & Veatch Consultants

## 4) Open Discussion and Next Steps

Laura Schepis, Chief External Affairs Officer, JEA

A blue-tinted background image showing a city skyline with several skyscrapers and a bridge over water. In the bottom left corner, there is a faint, light blue compass rose graphic with the letters N, E, and S visible.

# June Stakeholder Meeting Recap

**Laura Schepis**

*Chief External Affairs Officer*

**Cantrece Jones**

*Black & Veatch Consultant*

**IRP**  
INTEGRATED RESOURCE PLANNING

A composite image on the left side of the slide. The top portion shows a city skyline with several skyscrapers and a bridge over a body of water. The bottom portion shows a large, semi-circular compass rose with cardinal directions (N, E, S, W) and intermediate directions (NE, SE, SW, NW) marked. The entire image has a blue color overlay.

# Resource Planning and Preliminary Modeling Results

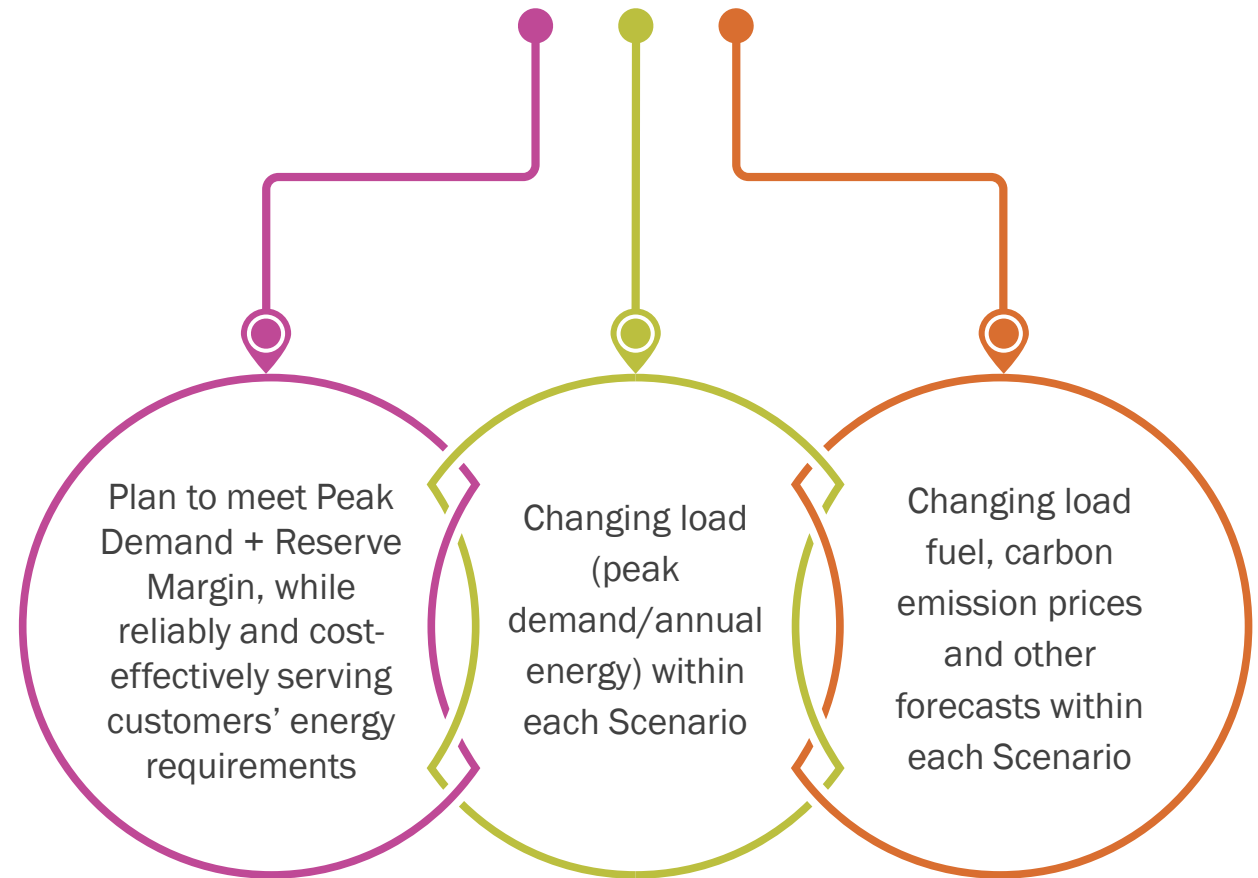
**Bradley Kushner**  
*Black & Veatch Consultants*



# Resource Planning

A very complex problem...

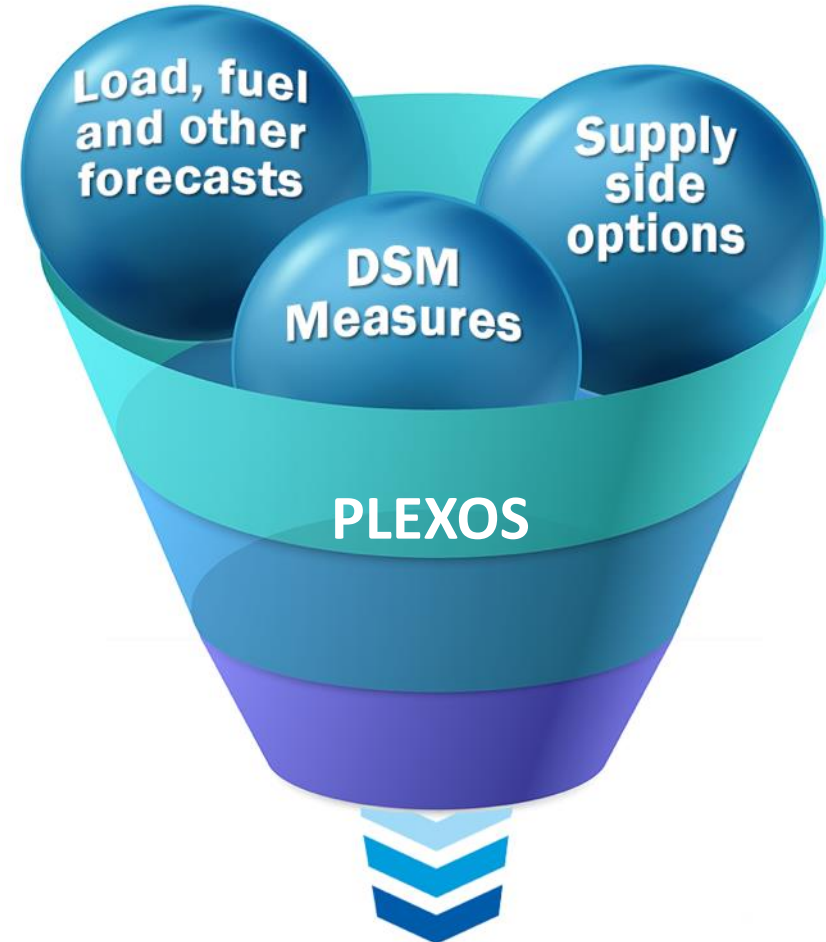
How do we best choose among the new resource options and demand-side management (DSM) measures to meet load growth, reliability standards and environmental considerations at a reasonable cost to customers?



# Resource Planning

The JEA electrical system is modeled using PLEXOS, which is industry standard software

- Considers new resources (capacity expansion) to meet projected peak demand and energy requirements
  - Reliable
  - Economic
  - Environmental
- Considers our operation (operating simulation)



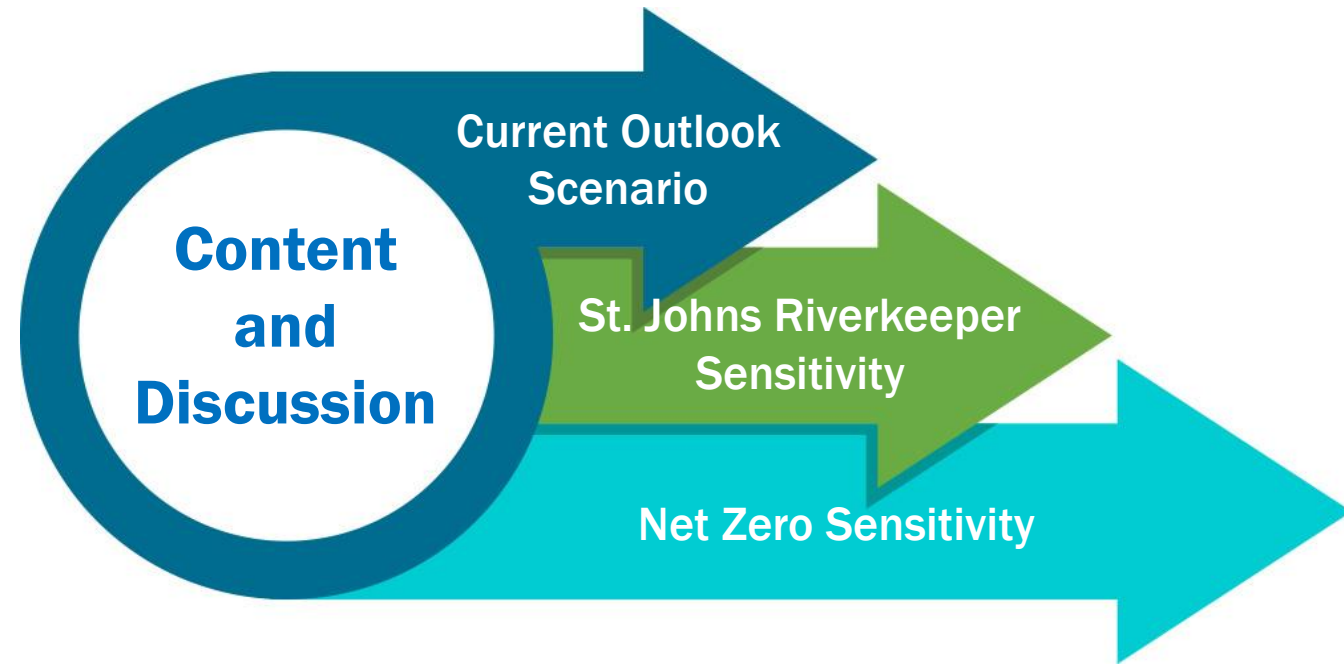
**Capacity Expansion and  
Operating Simulation**

# Preliminary Modeling

Modeling for scenarios and sensitivities is currently underway

Content and discussion focused on:

- Current Outlook Scenario
- St. Johns Riverkeeper Sensitivity
- Net Zero Sensitivity

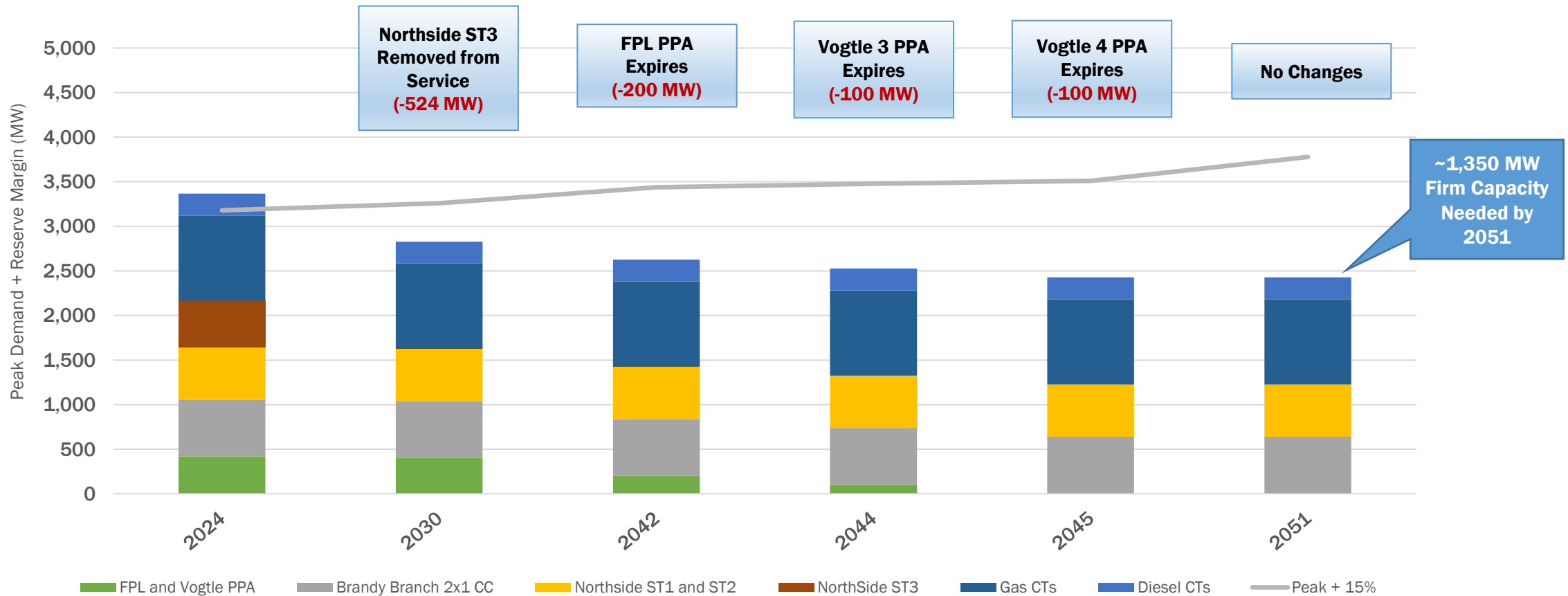


*Please note that all results presented herein are preliminary and subject to change*



# Projected Winter Capacity Requirements

## Current Outlook Scenario



# Current Outlook Scenario and Sensitivities



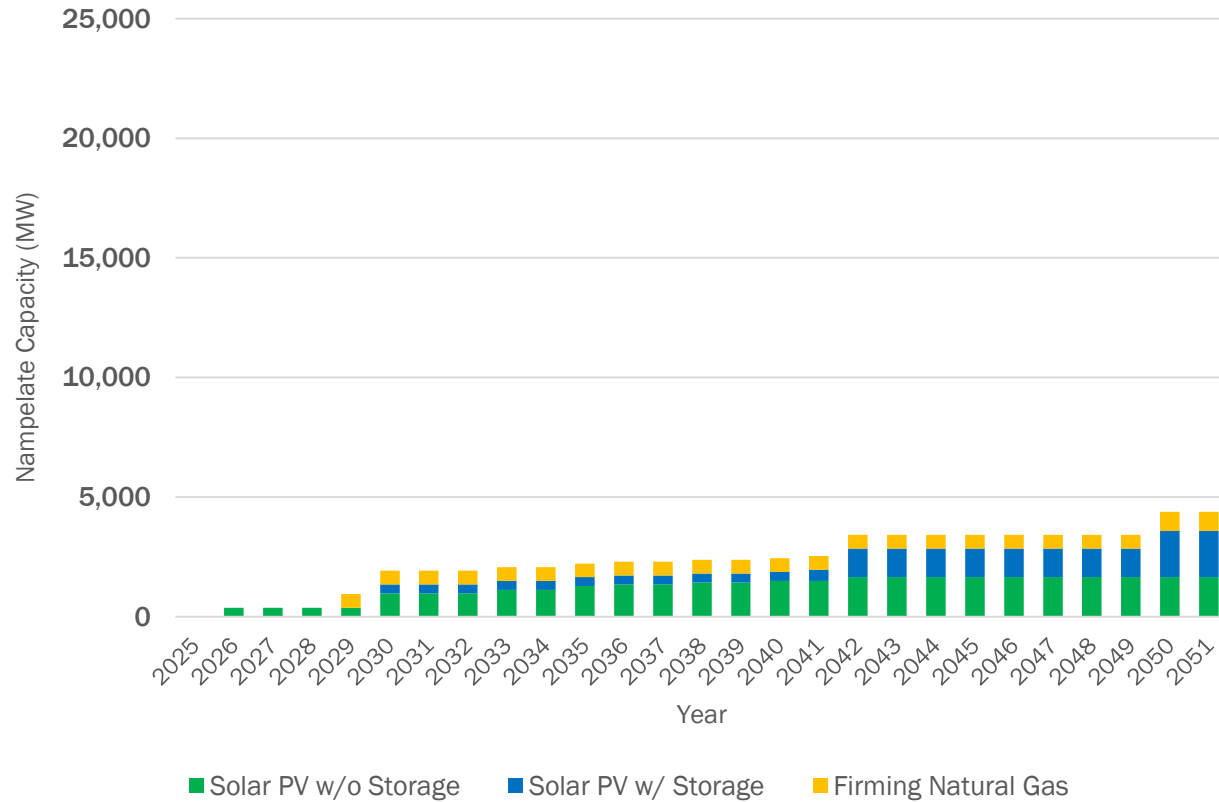
	Current Outlook Scenario	St. Johns Riverkeeper Sensitivity	Net Zero Sensitivity
<b>Residential Rooftop Solar</b>	Base	5% by 2030	Base
<b>Renewable Energy/ Clean Energy</b>	Base	2030: 30% 2050: 100%	2050: 100%
<b>Unit Retirements</b>	Northside ST 3: March 2029	Northside ST 3: March 2029 Northside ST 1: December 2029 Northside ST 2: December 2029	Northside ST 3: March 2029

# Preliminary Modeling Results

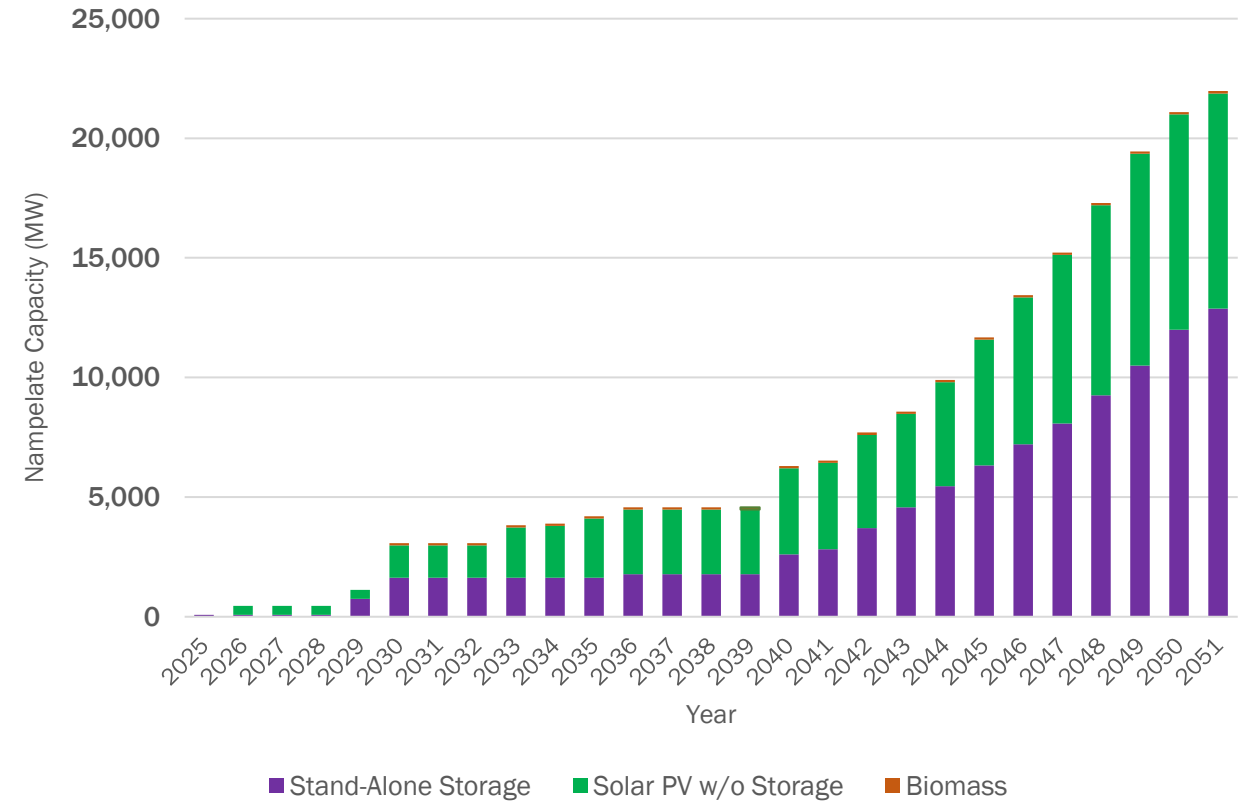


## Cumulative New Resource Additions

**Current Outlook Scenario**



**Current Outlook Scenario - St. Johns Riverkeeper Sensitivity**

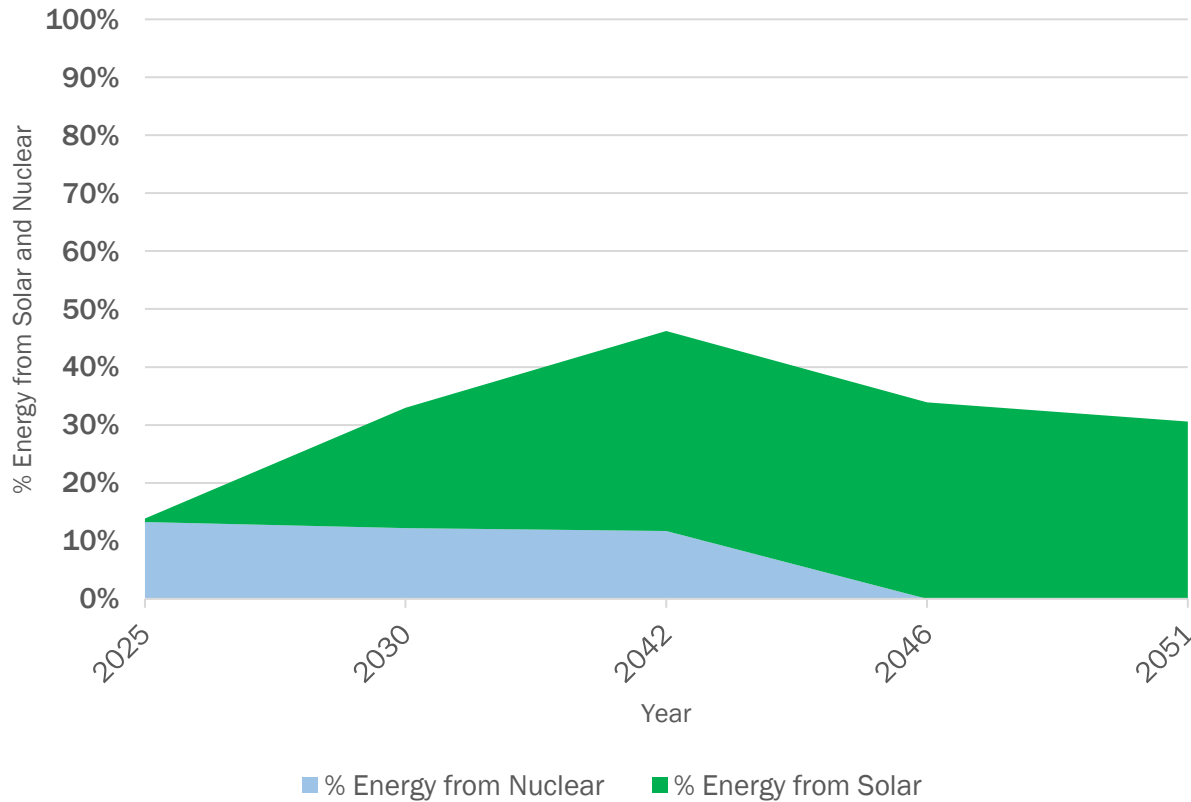


# Preliminary Modeling Results

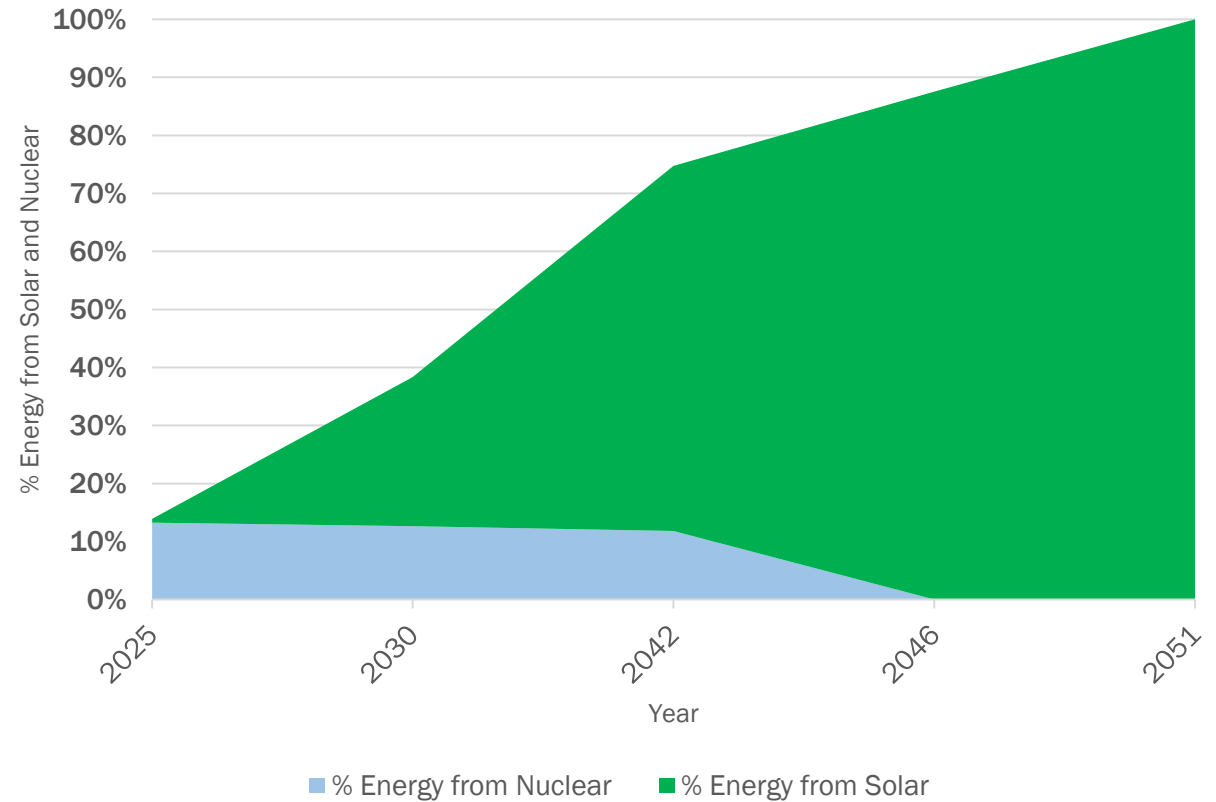


## Percentage (%) Energy from Solar and Nuclear

*Current Outlook Scenario*



*Current Outlook Scenario - St. Johns Riverkeeper Sensitivity*



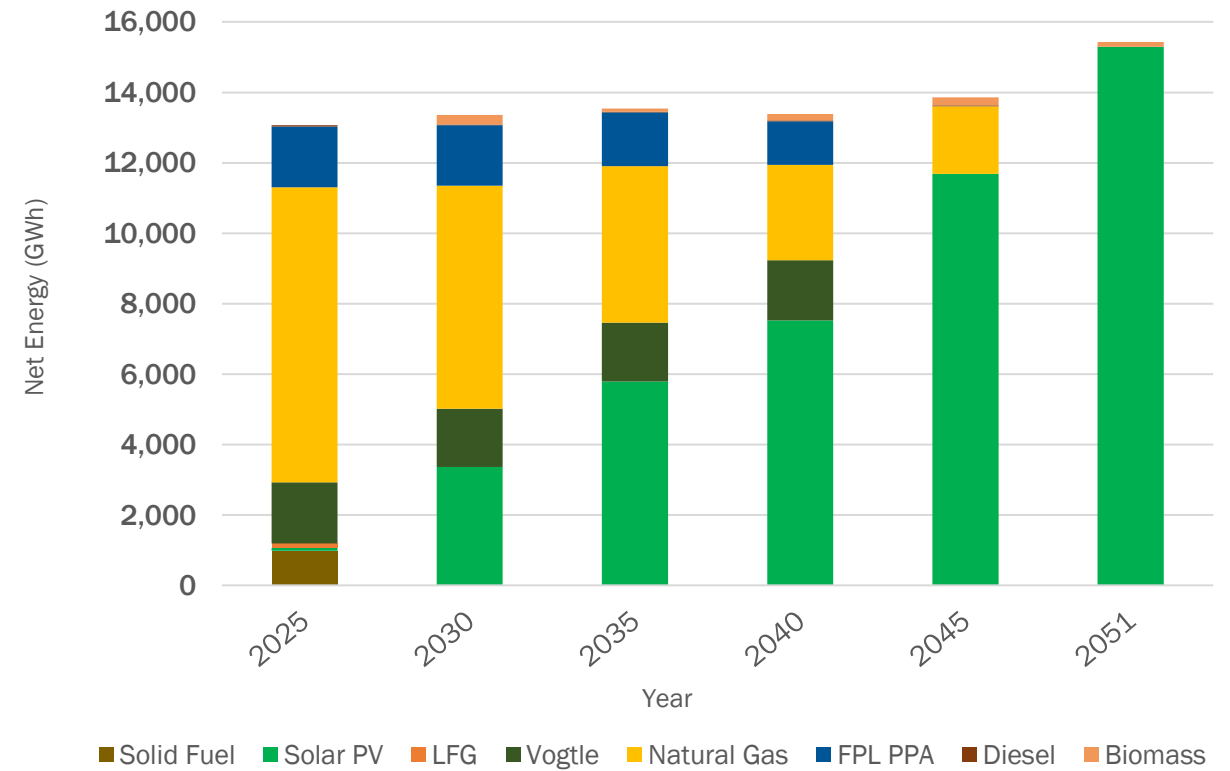
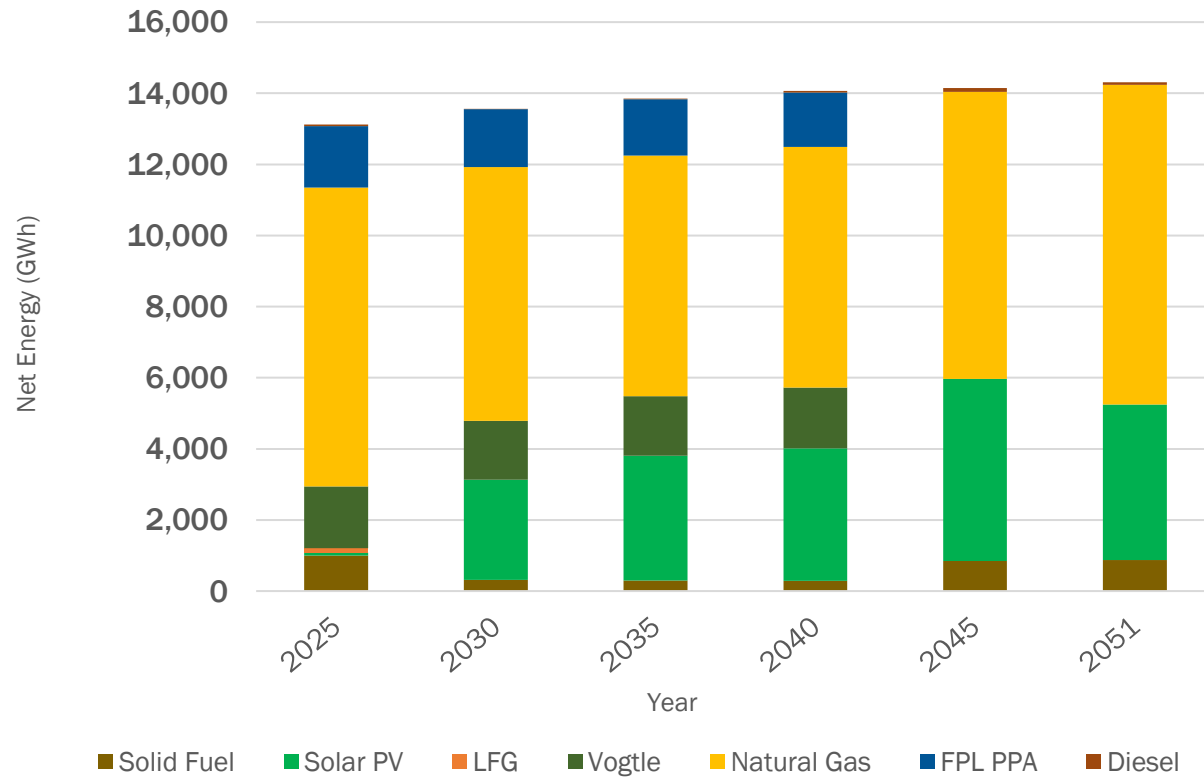
# Preliminary Modeling Results



## Energy Generation by Resource Type

*Current Outlook Scenario*

*Current Outlook Scenario - St. Johns Riverkeeper Sensitivity*



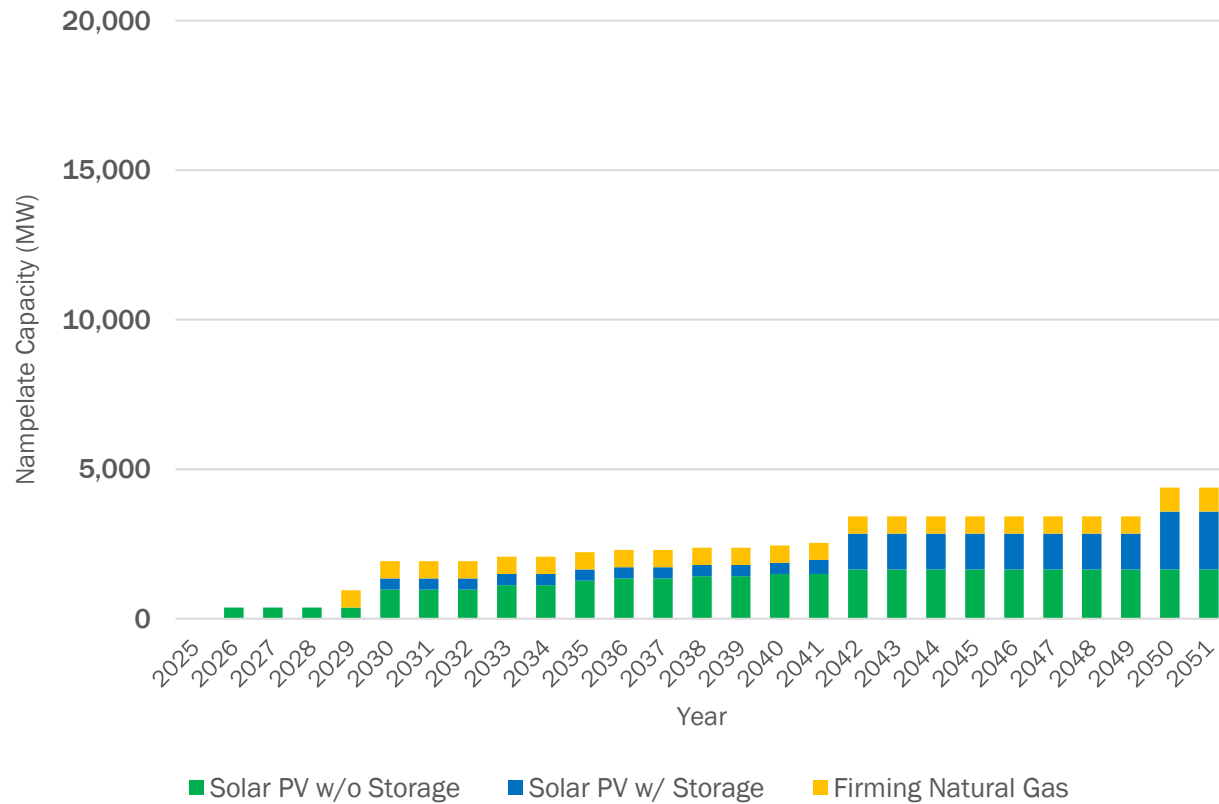


# Preliminary Modeling Results

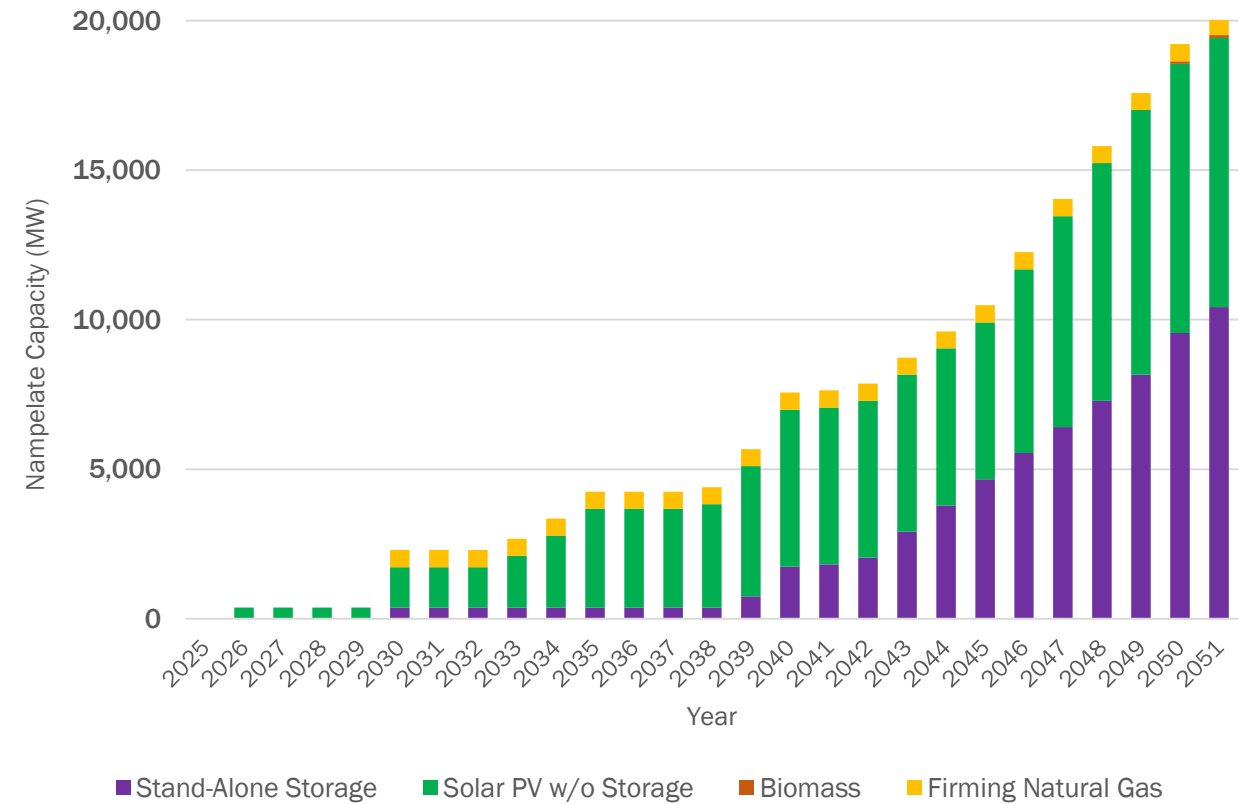


## Cumulative New Resource Additions

**Current Outlook Scenario**



**Current Outlook Scenario - Net Zero Sensitivity**

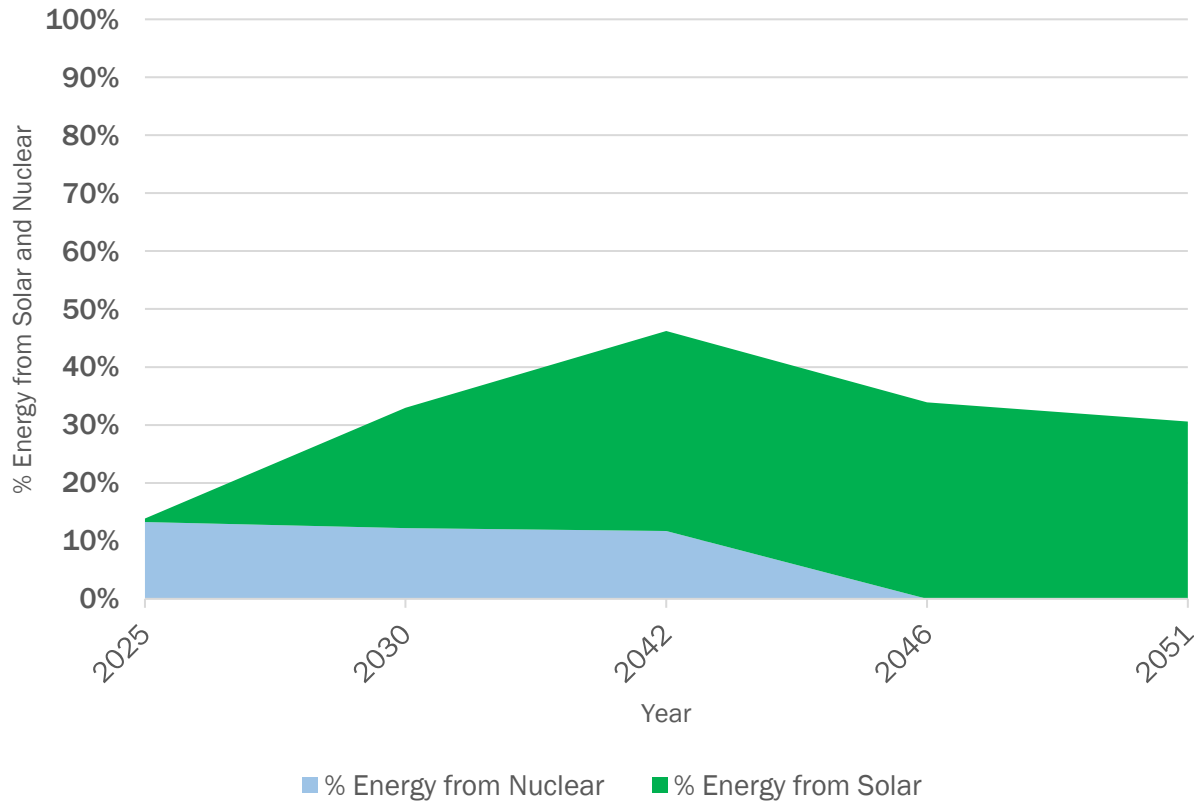


# Preliminary Modeling Results

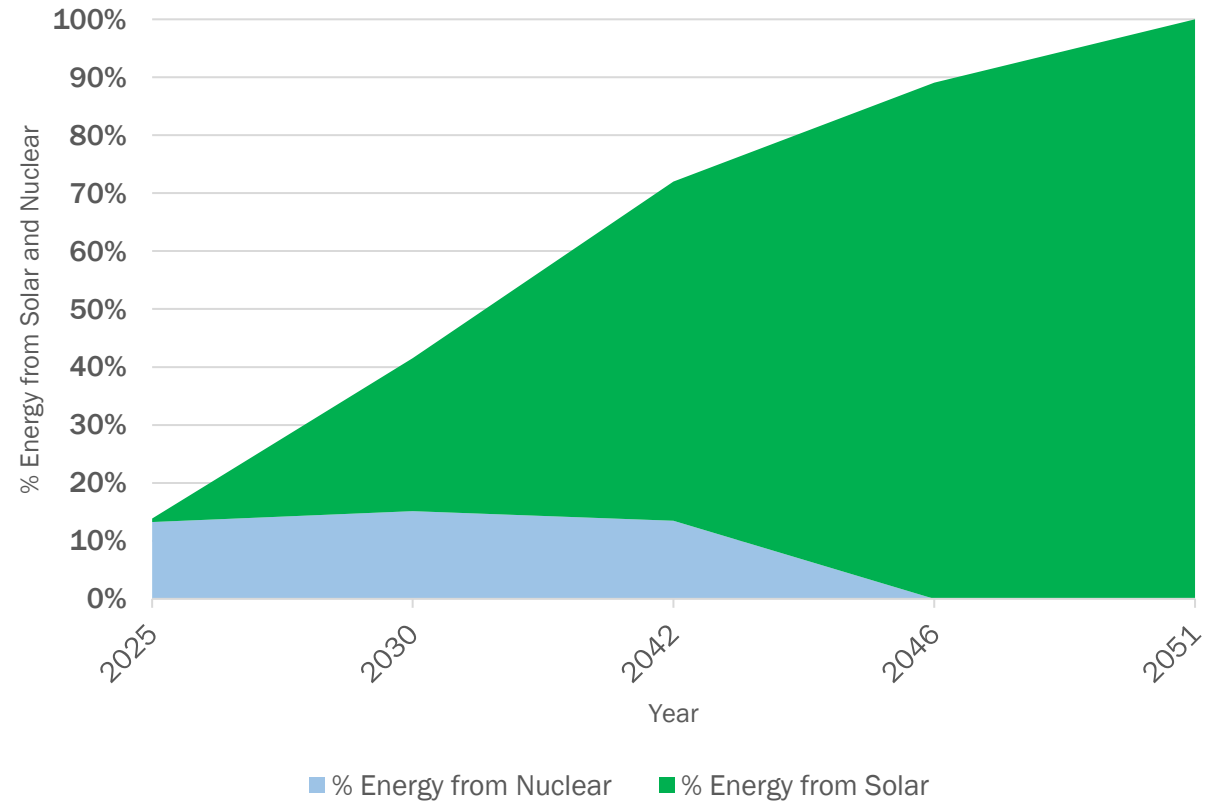


## Percentage (%) Energy from Solar and Nuclear

*Current Outlook Scenario*



*Current Outlook Scenario - Net Zero Sensitivity*





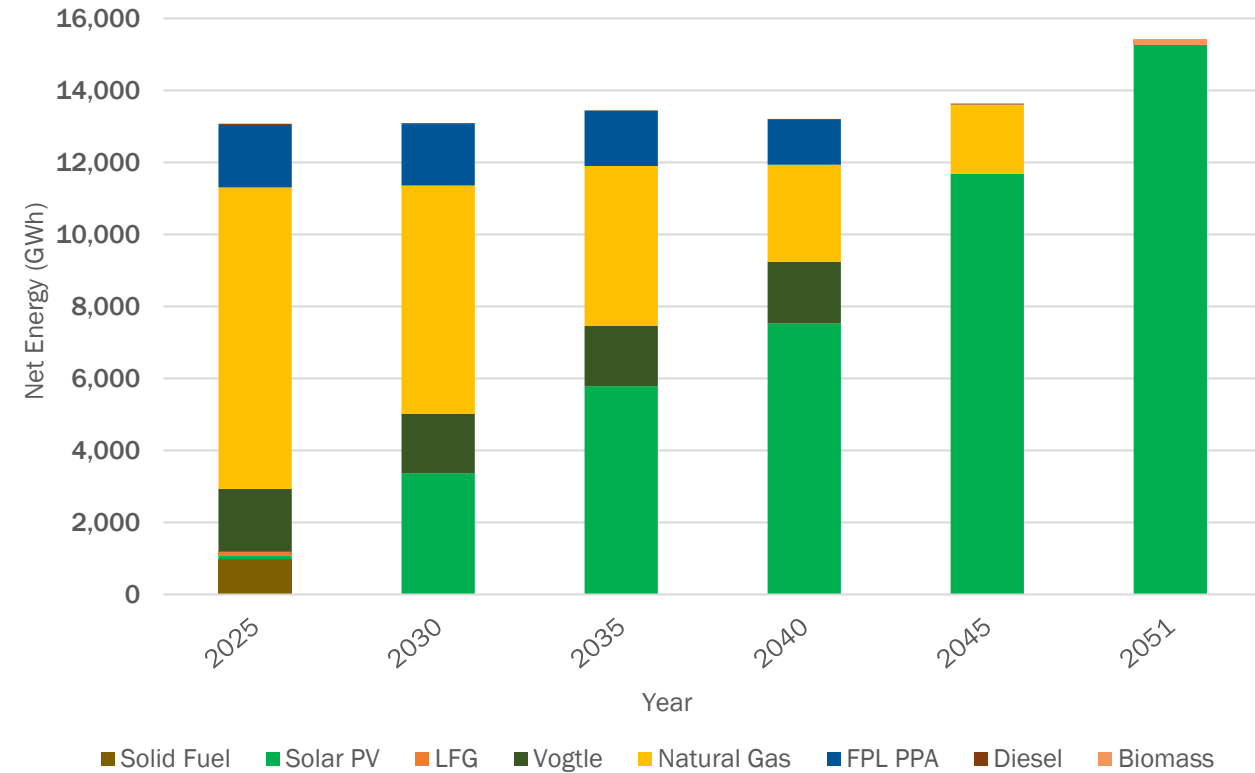
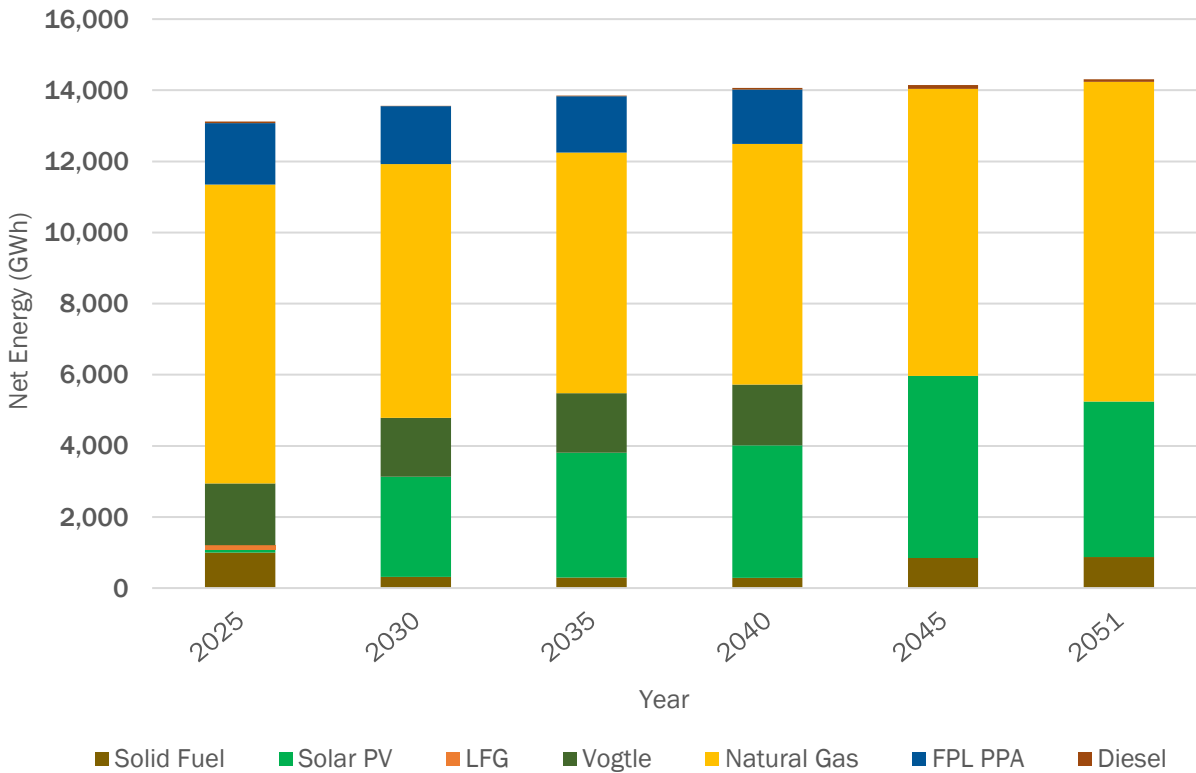
# Preliminary Modeling Results



## Energy Generation by Resource Type

*Current Outlook Scenario*

*Current Outlook Scenario - Net Zero Sensitivity*



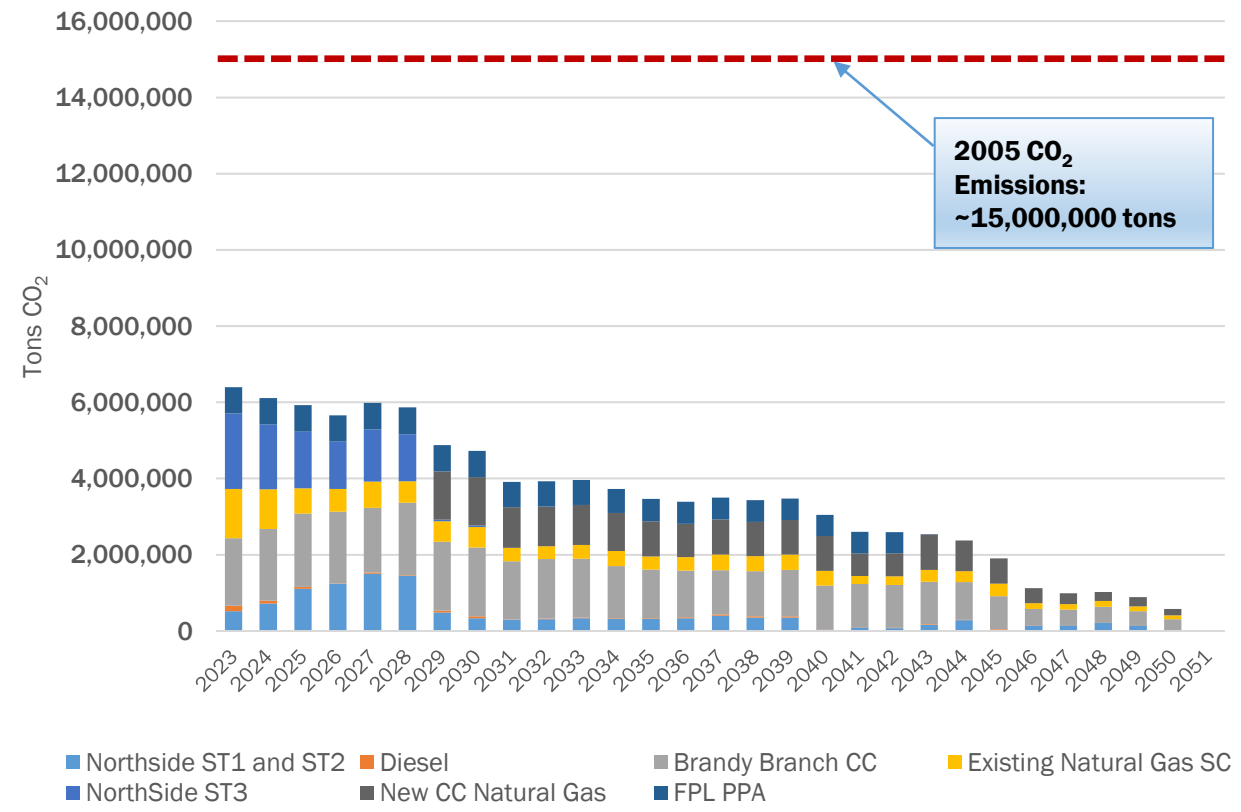
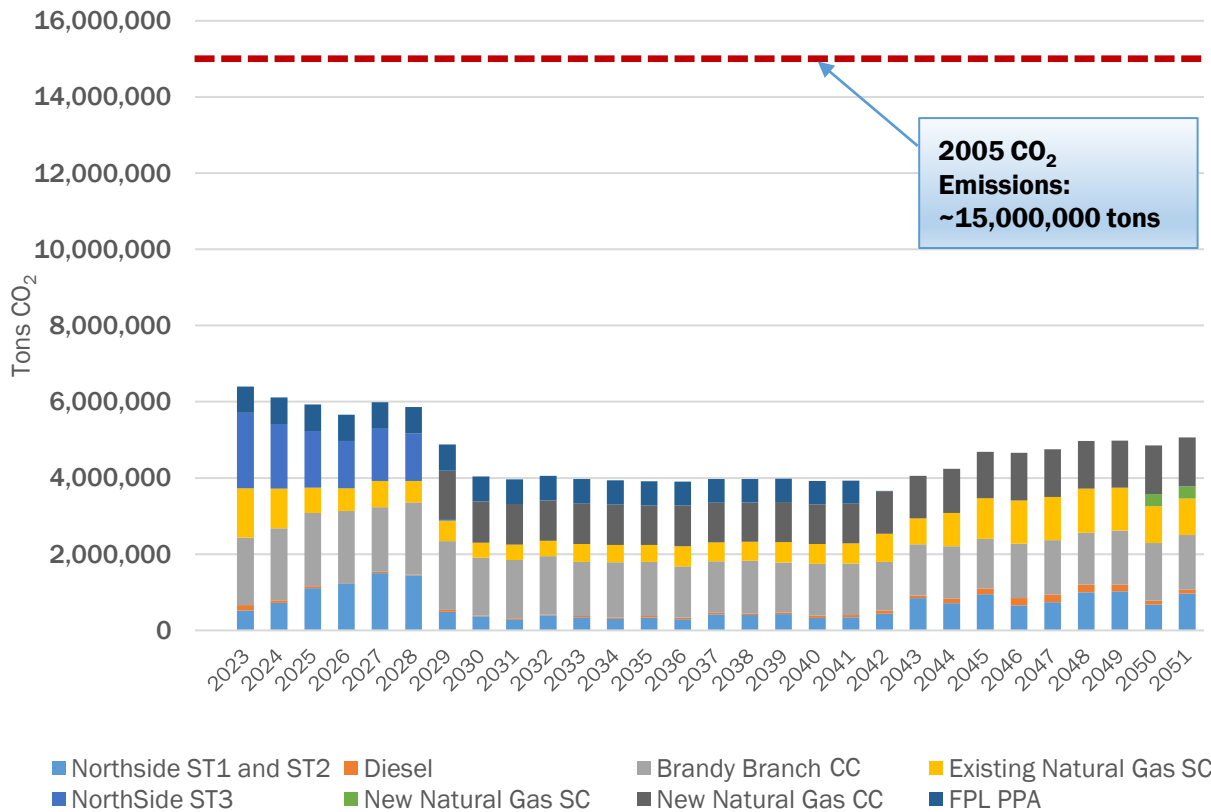
# Preliminary Modeling Results



## System CO<sub>2</sub> Emissions

*Current Outlook Scenario*

*Current Outlook Scenario - Net Zero Sensitivity*

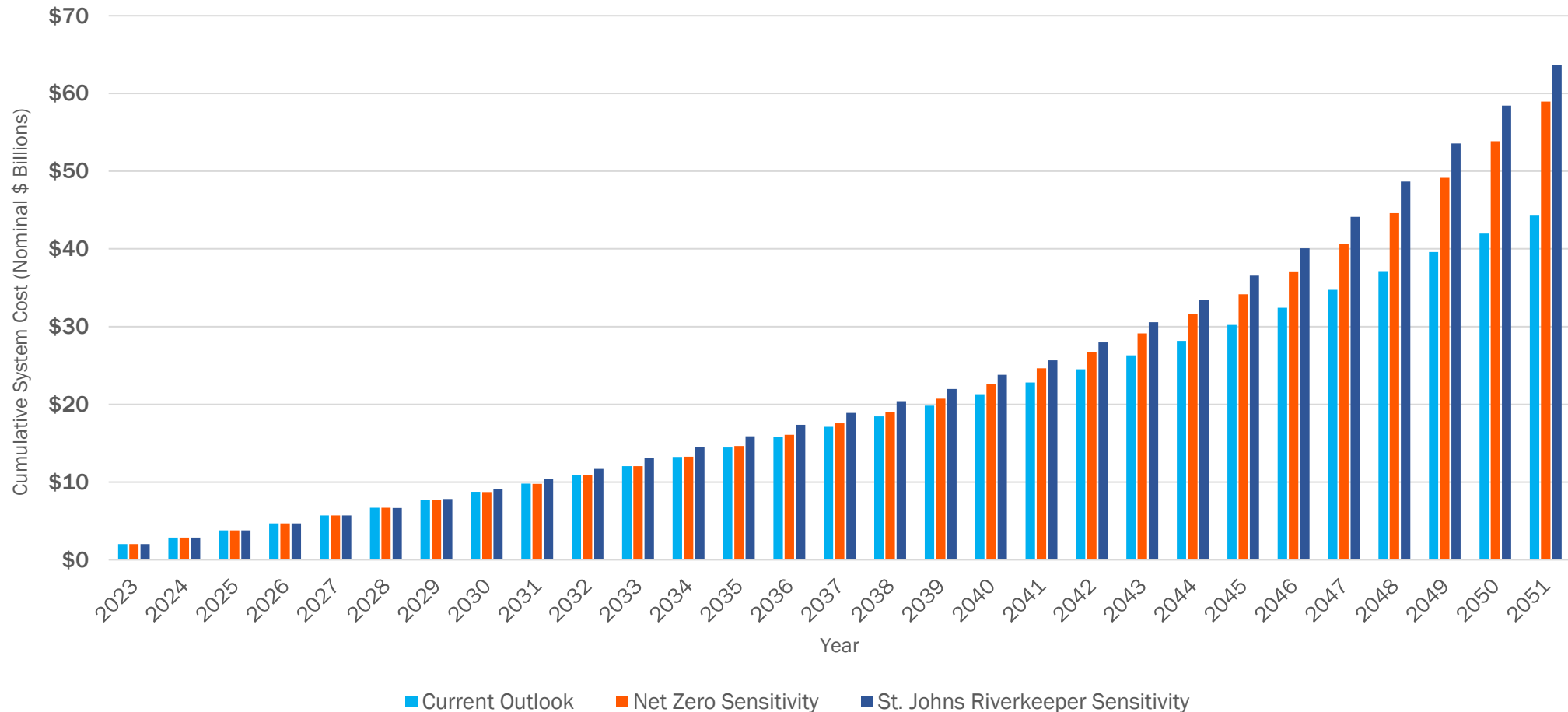


# Preliminary Modeling Results



## Cumulative System Cost Comparison

*Current Outlook vs. Net Zero Sensitivity vs. St. Johns Riverkeeper Sensitivity*

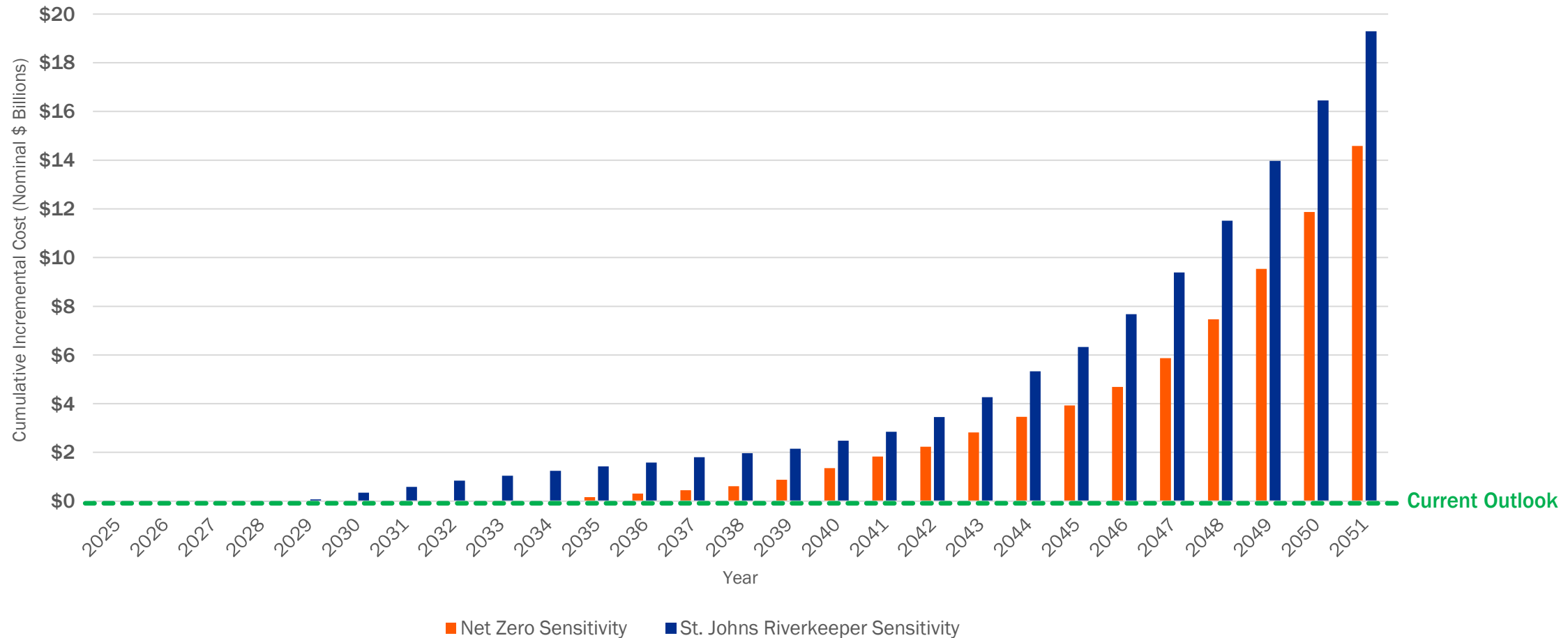


# Preliminary Modeling Results



## Incremental Cost Comparison

*Current Outlook vs. Net Zero Sensitivity vs. St. Johns Riverkeeper Sensitivity*



A composite image on the left side of the slide. The top portion shows a city skyline with several skyscrapers and a bridge over a body of water. The bottom portion shows a large, semi-circular compass rose with the letters N, E, and S visible.

# Open Discussion and Next Steps

**Laura Schepis**

*Chief External Affairs Officer*



# Open Discussion and Next Steps

## Preliminary modeling results

## Current Outlook

- St. Johns Riverkeeper Sensitivity
- Net Zero Sensitivity

**Additional modeling results to be discussed at November 17 Stakeholders Meeting**

