2022 JEA
IRP Stakeholder Engagement Meeting Series

IRP
INTEGRATED RESOURCE PLANNING

Welcome

Raynetta Curry Marshall

Chief Operating Officer

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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

June Stakeholder Meeting Recap

Laura Schepis
Chief External Affairs Officer

Cantrece Jones
Black & Veatch Consultant

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Resource Planning and Preliminary Modeling Results

Bradley Kushner
Black & Veatch Consultants

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Resource Planning

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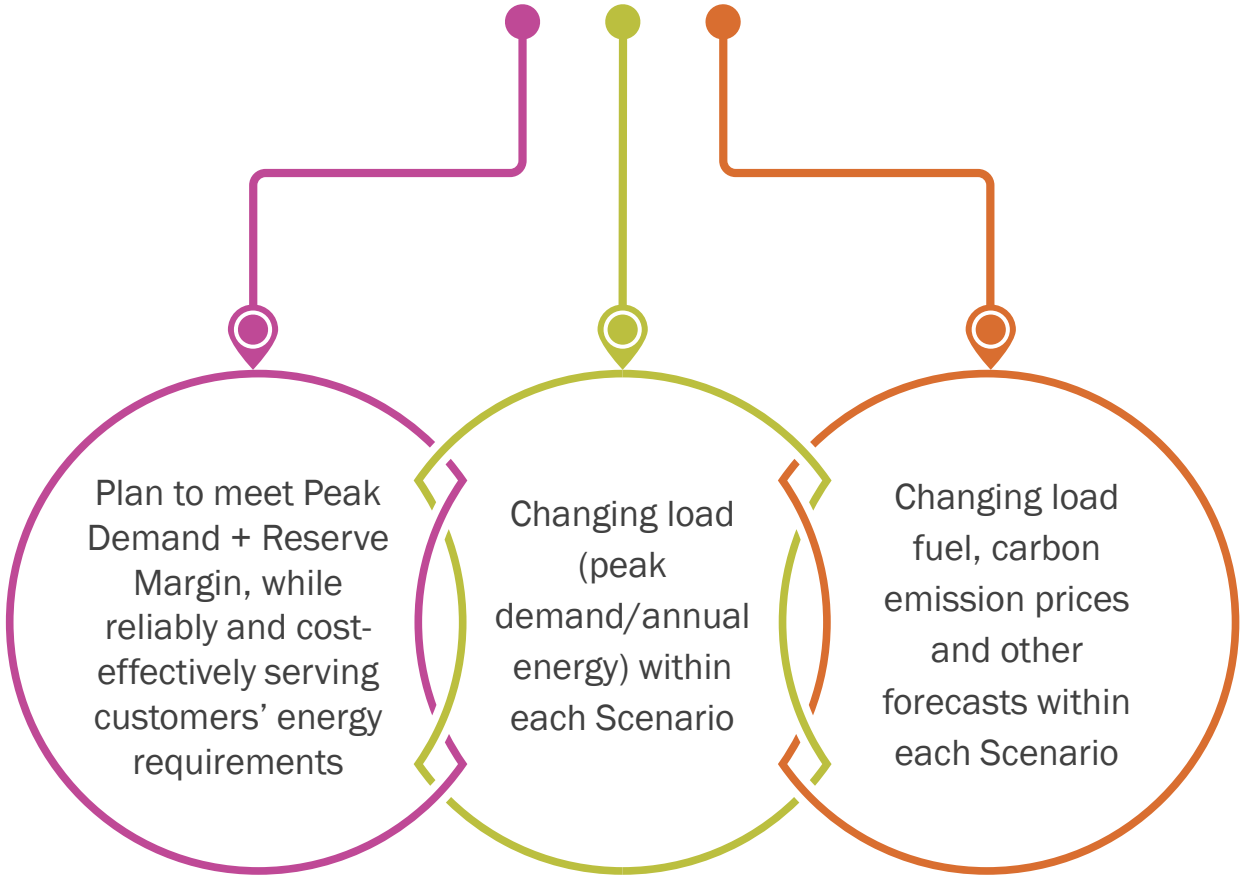
A very complex problem…

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

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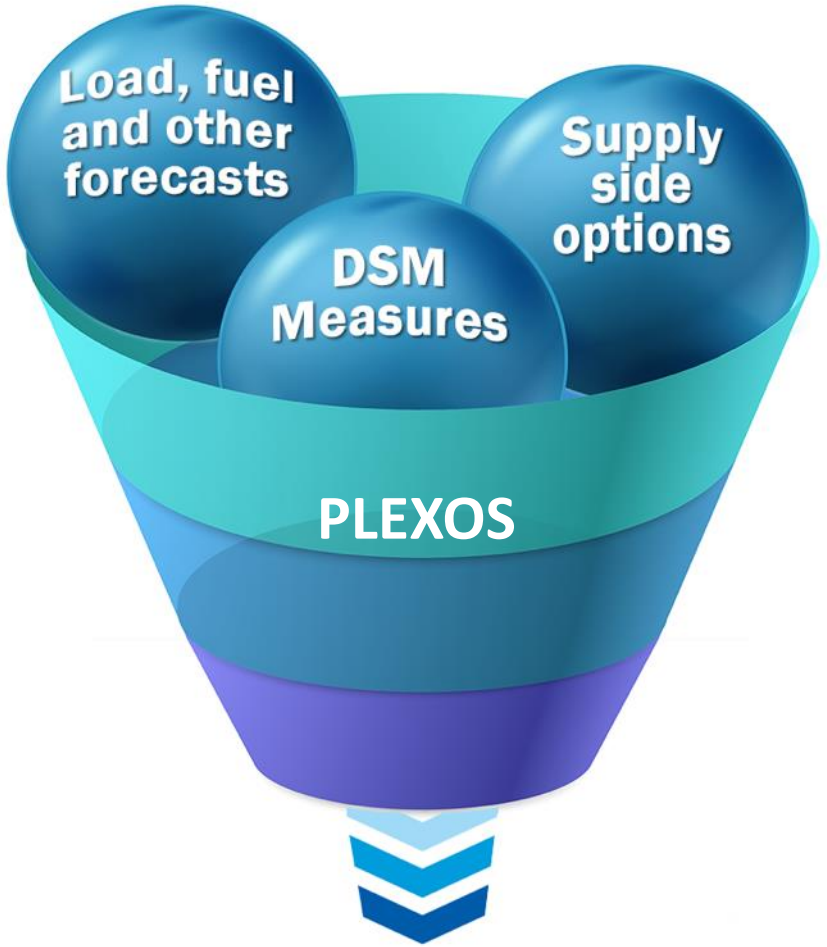
The JEA electrical system is modeled using PLEXOS, which is industry standard software

- 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

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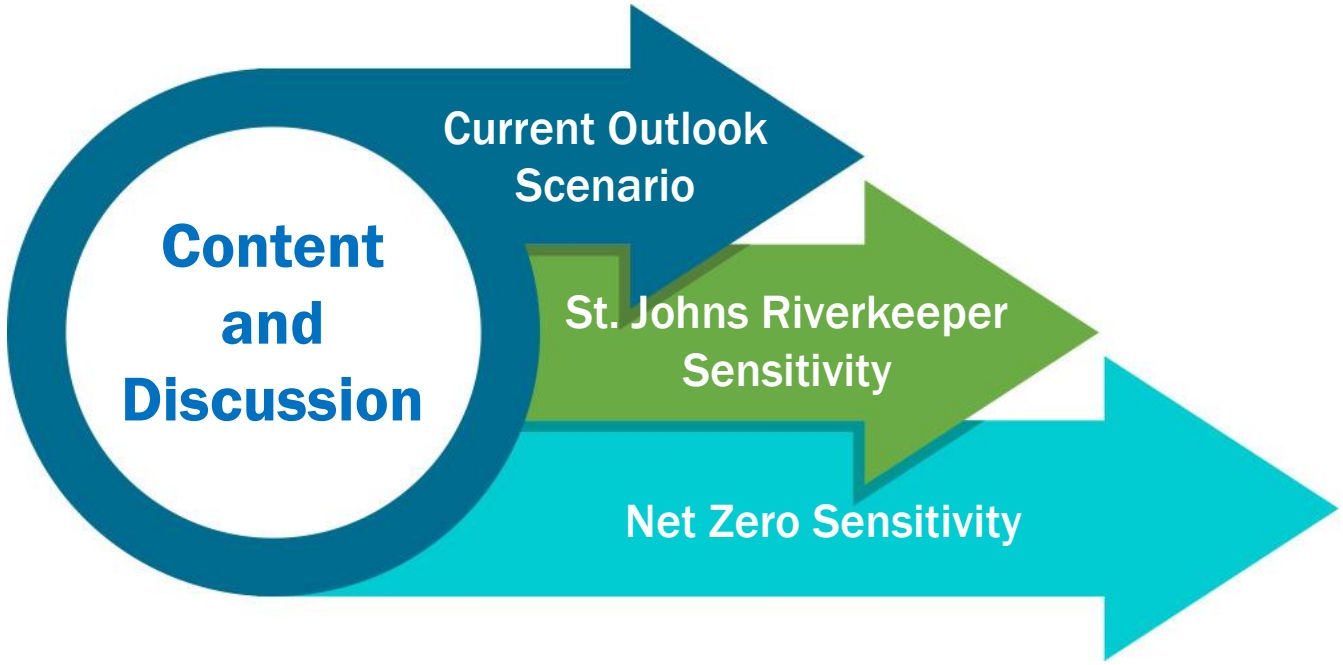
Modeling for scenarios and sensitivities is currently underway

Content and discussion focused on:

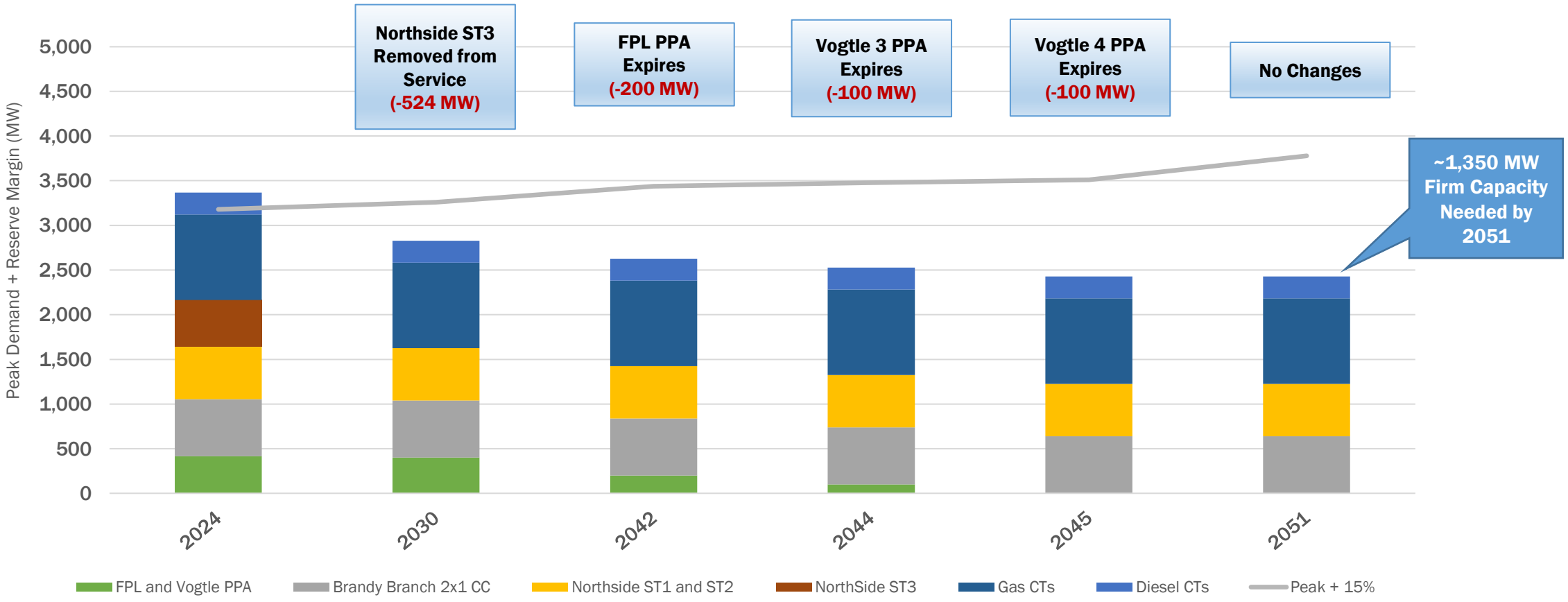
- Current Outlook Scenario
- St. Johns Riverkeeper Sensitivity
- Net Zero Sensitivity



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

Projected Winter Capacity Requirements

Current Outlook Scenario



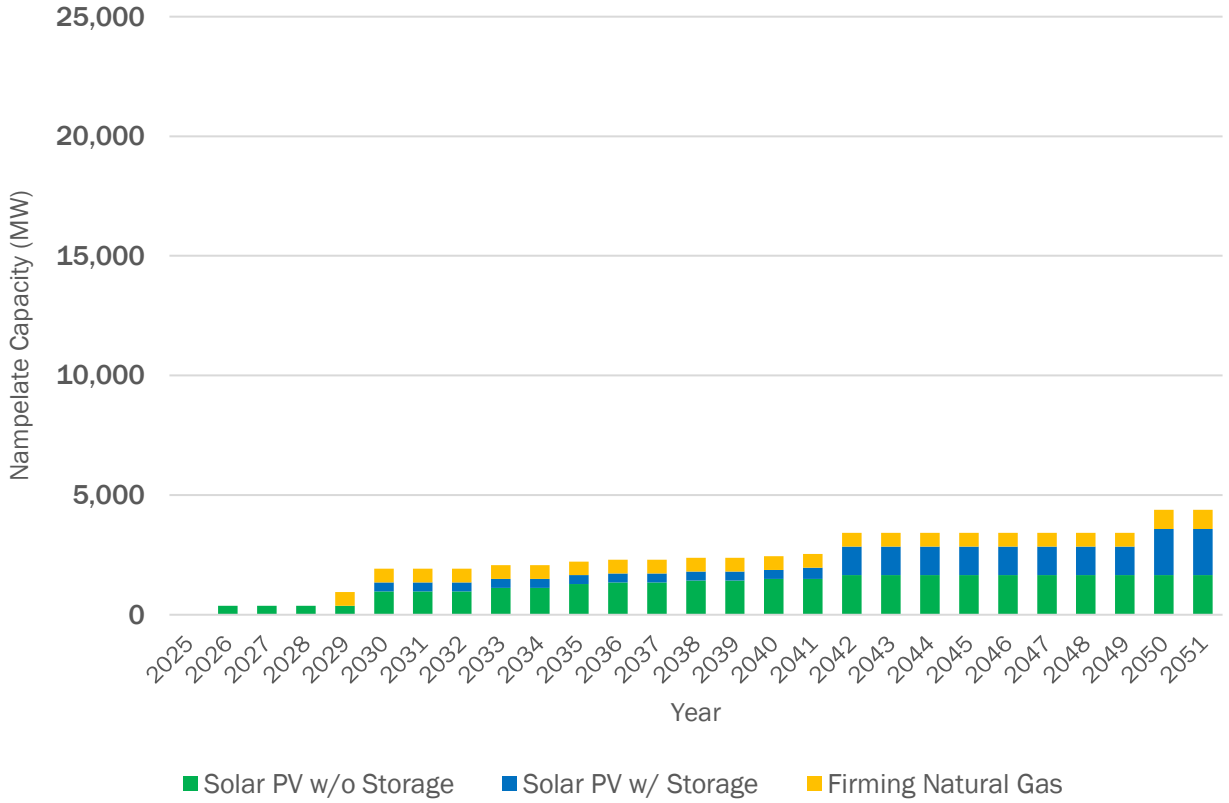
Current Outlook Scenario and Sensitivities

	Current Outlook Scenario	St. Johns Riverkeeper Sensitivity	Net Zero Sensitivity
Residential Rooftop Solar	Base	5% by 2030	Base
Renewable Energy/ Clean Energy	Base	2030: 30% 2050: 100%	2050: 100%
Unit Retirements	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

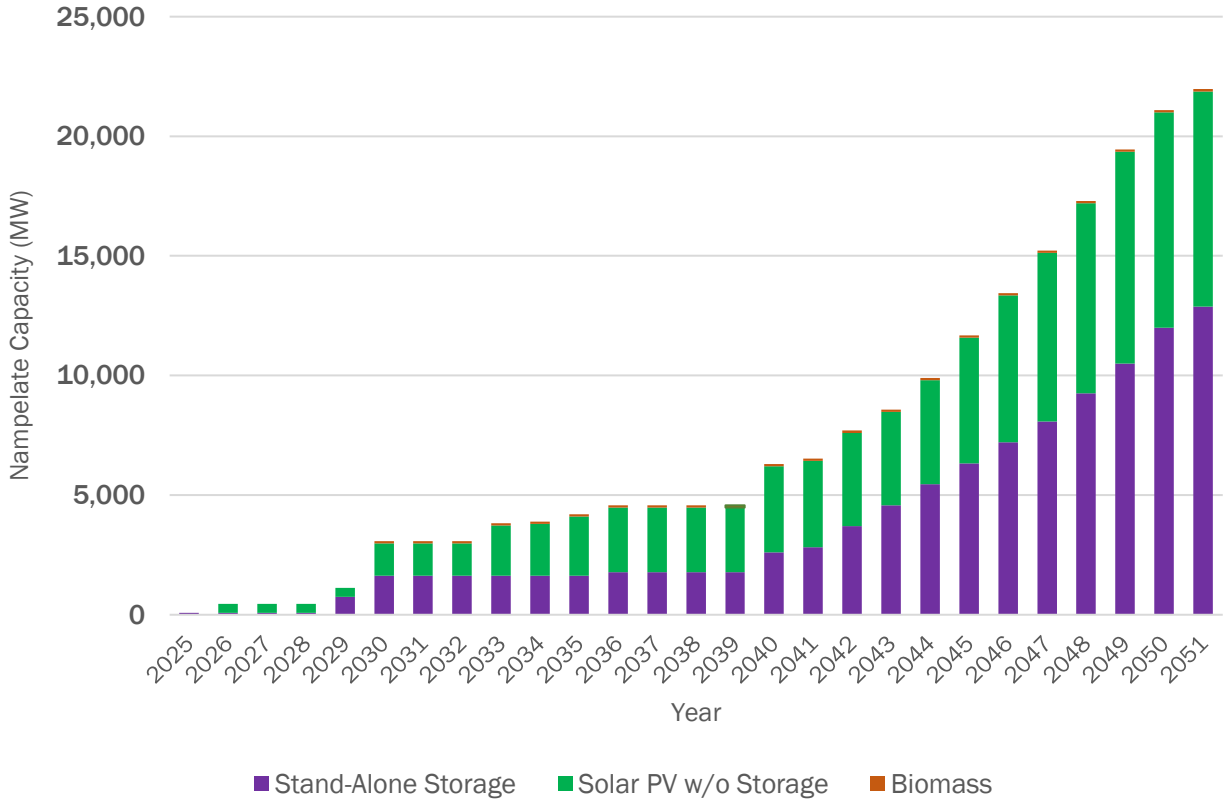
Preliminary Modeling Results

Cumulative New Resource Additions

Current Outlook Scenario



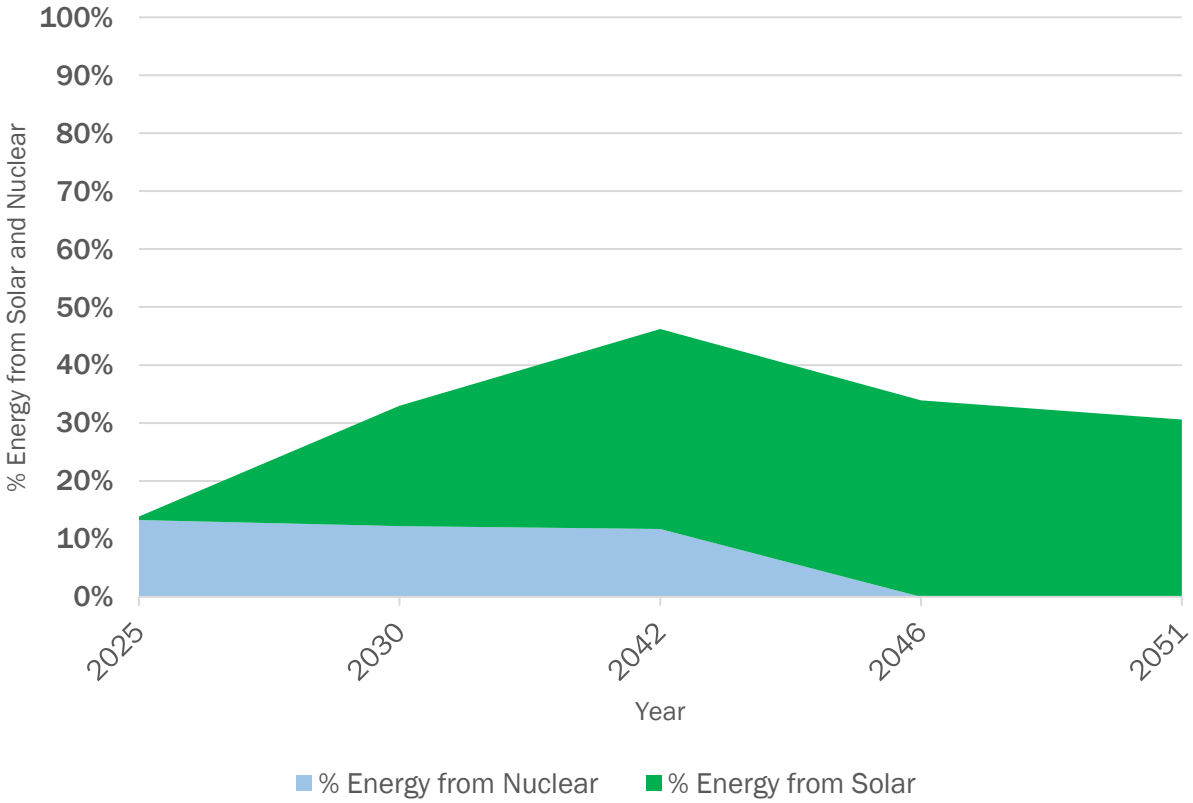
Current Outlook Scenario - St. Johns Riverkeeper Sensitivity



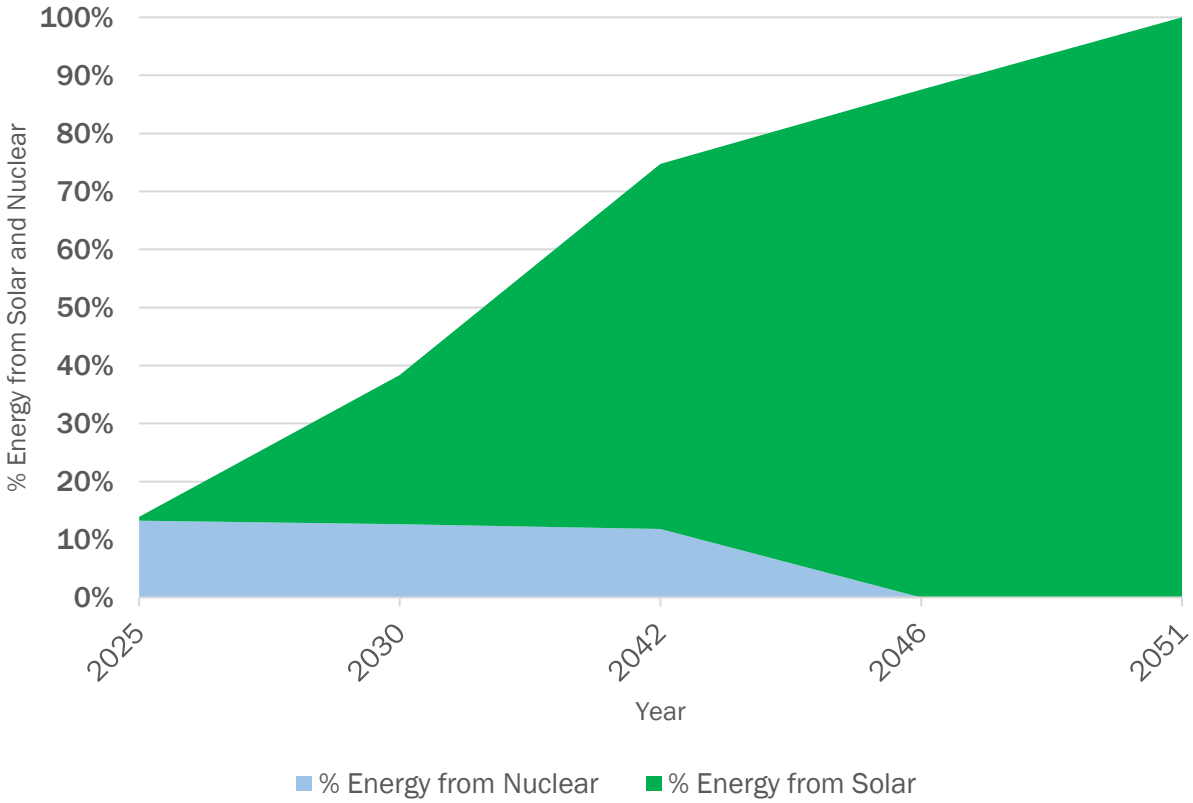
Preliminary Modeling Results

Percentage (%) Energy from Solar and Nuclear

Current Outlook Scenario



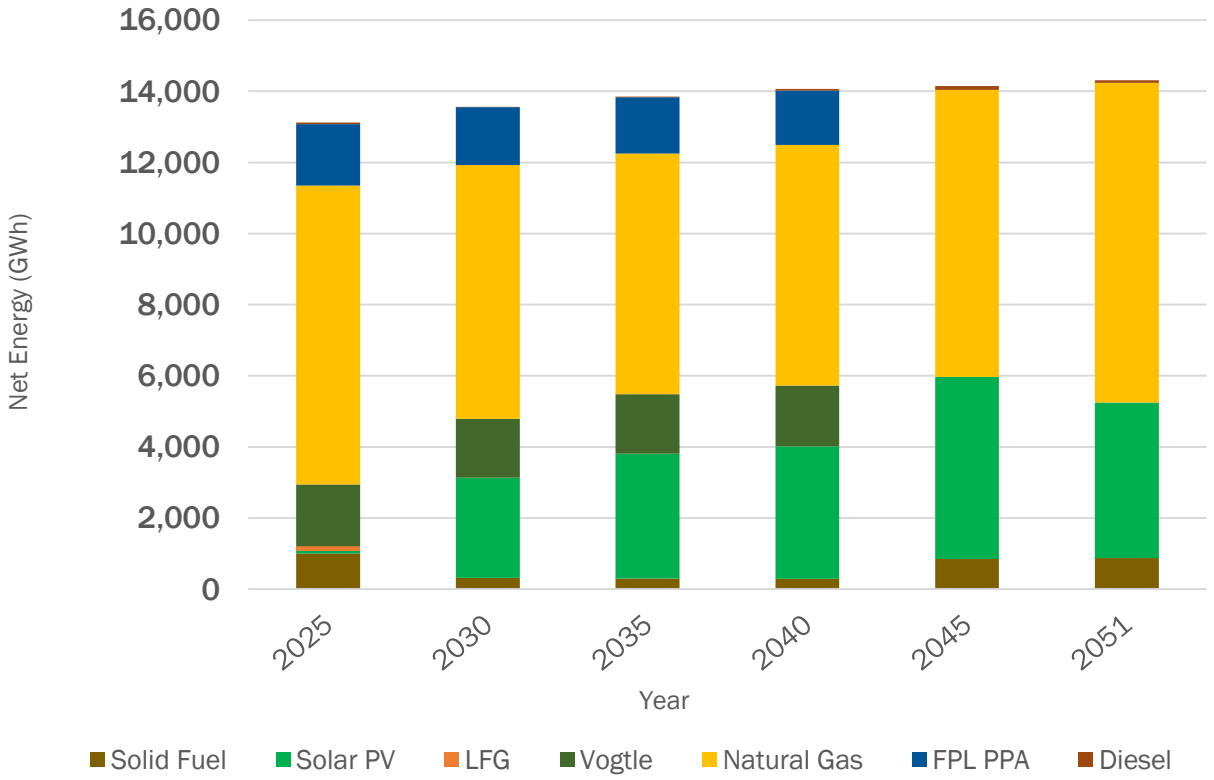
Current Outlook Scenario - St. Johns Riverkeeper Sensitivity



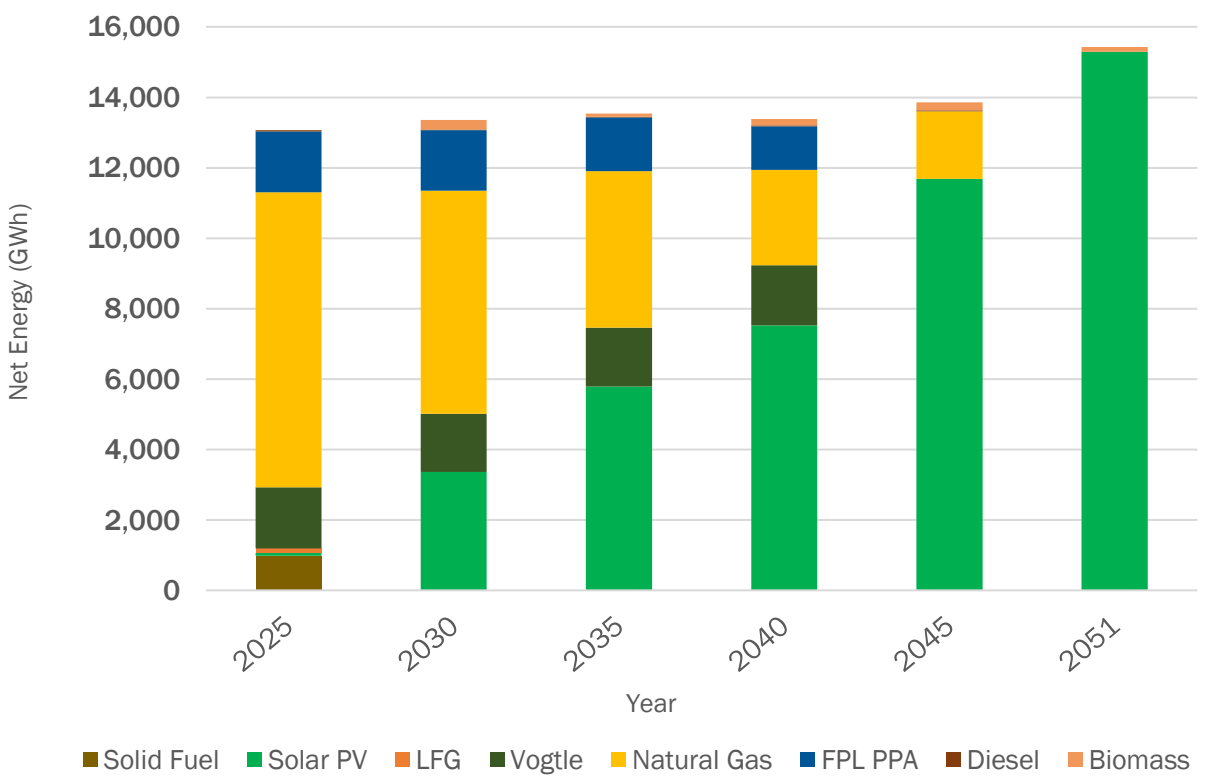
Preliminary Modeling Results

Energy Generation by Resource Type

Current Outlook Scenario



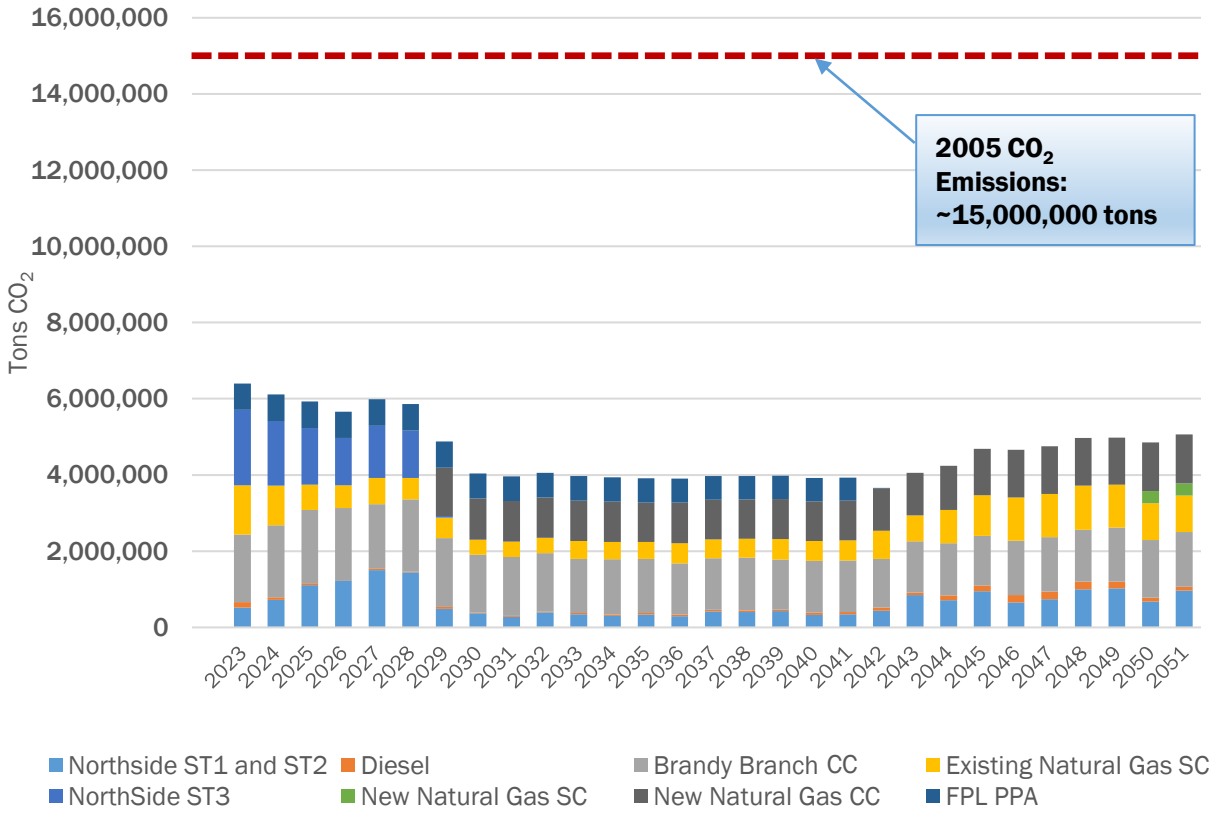
Current Outlook Scenario - St. Johns Riverkeeper Sensitivity



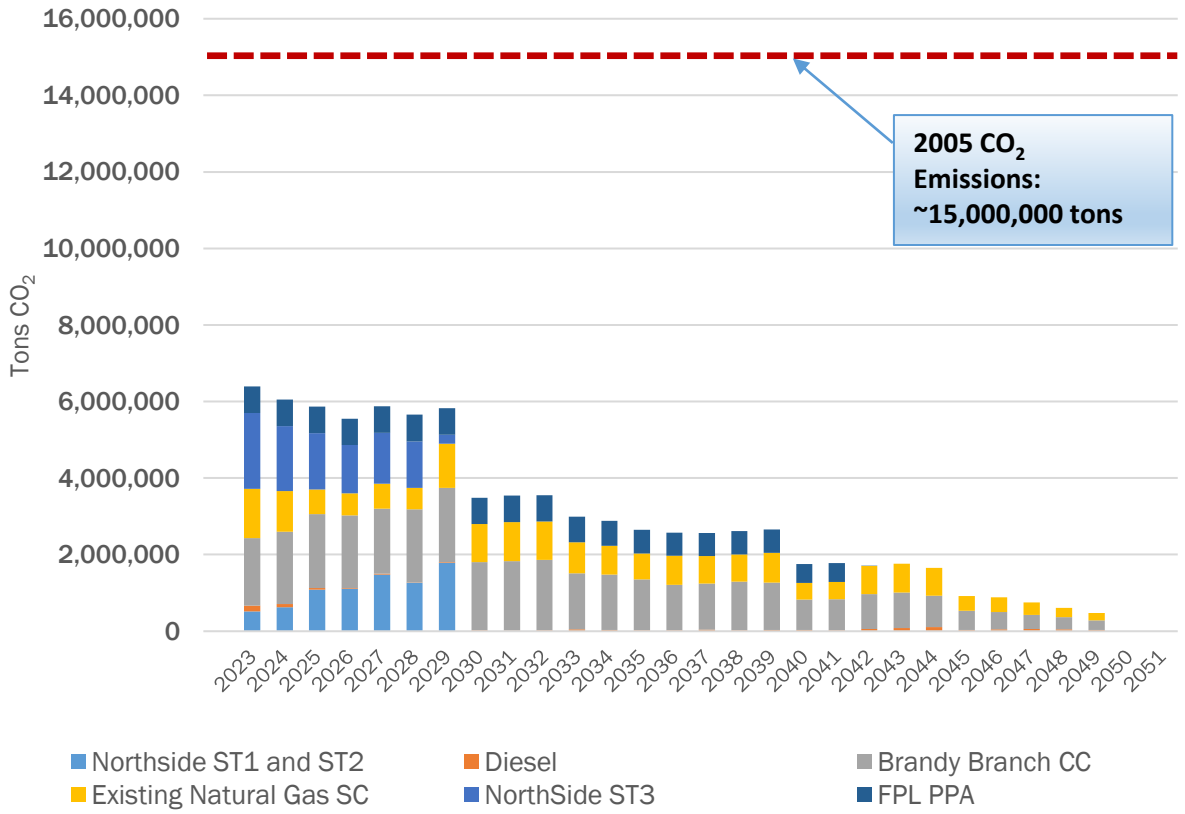
Preliminary Modeling Results

System CO_2 Emissions

Current Outlook Scenario



Current Outlook Scenario - St. Johns Riverkeeper Sensitivity



Preliminary Modeling Results

Cumulative New Resource Additions

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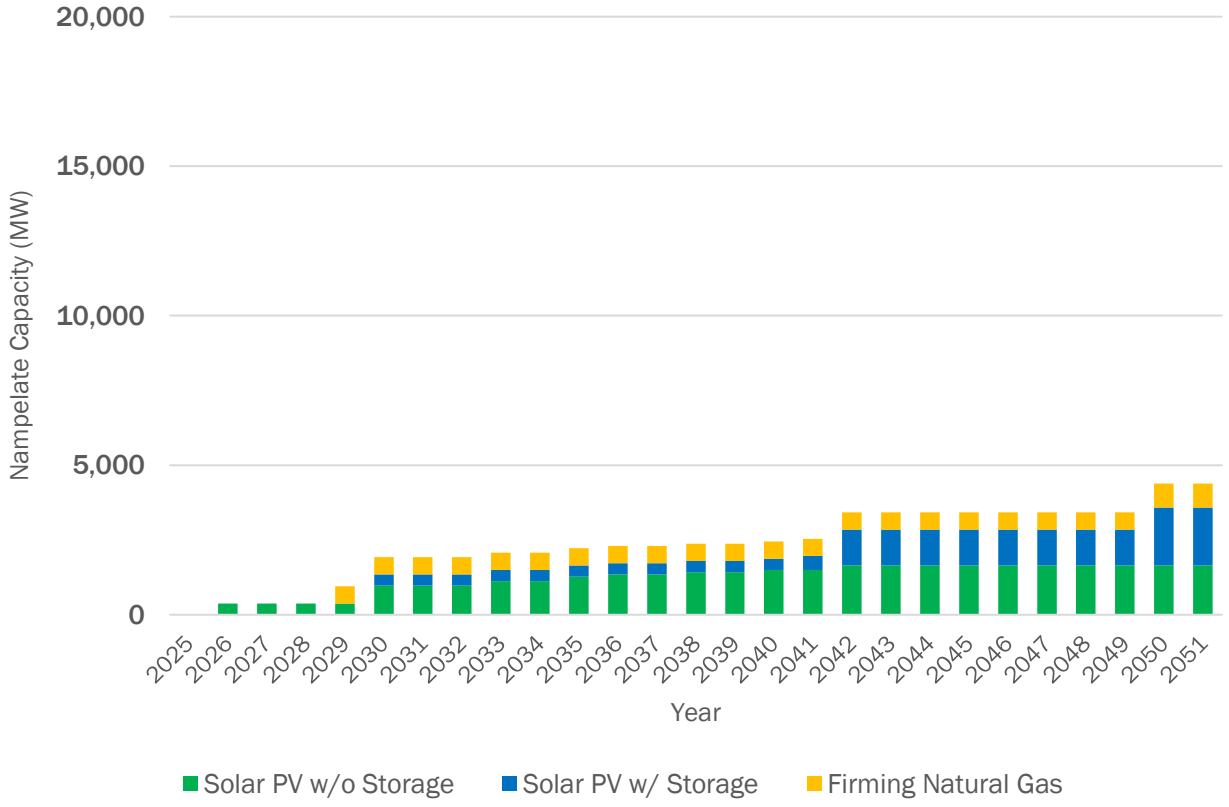
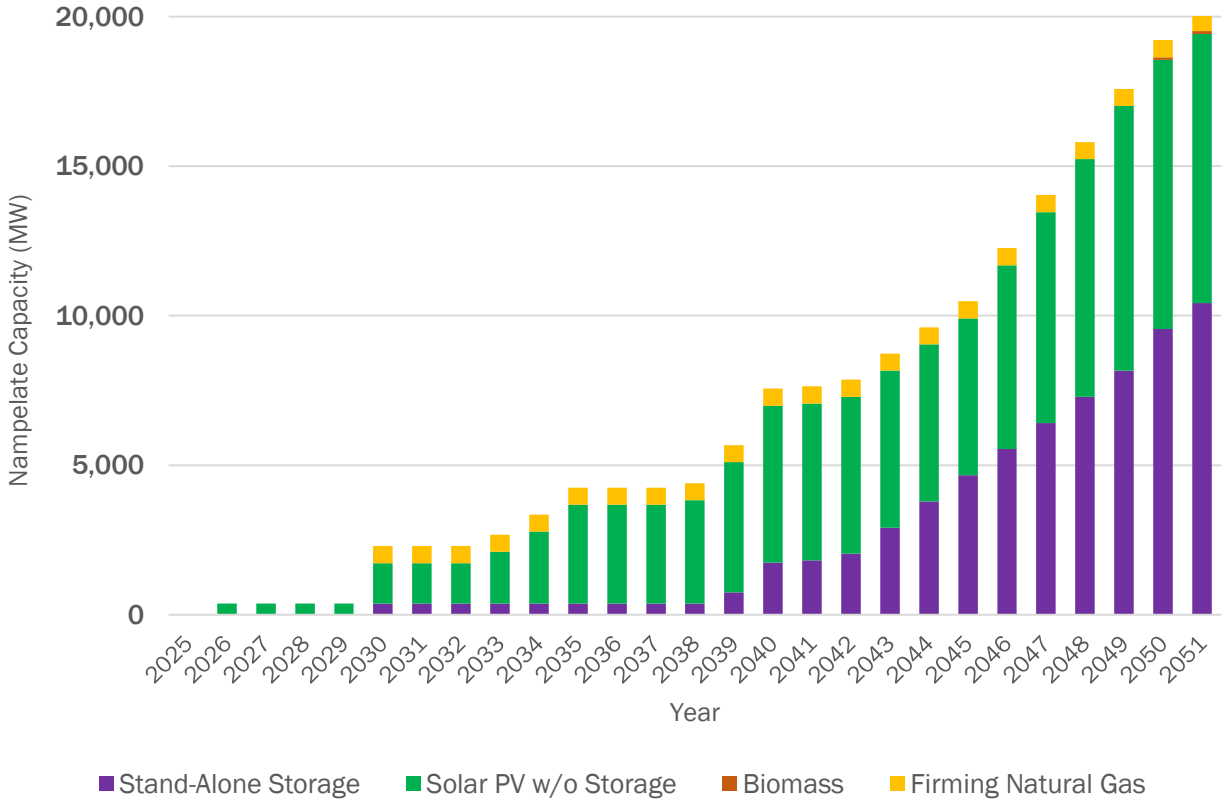


Current Outlook Scenario - Net Zero Sensitivity



Preliminary Modeling Results

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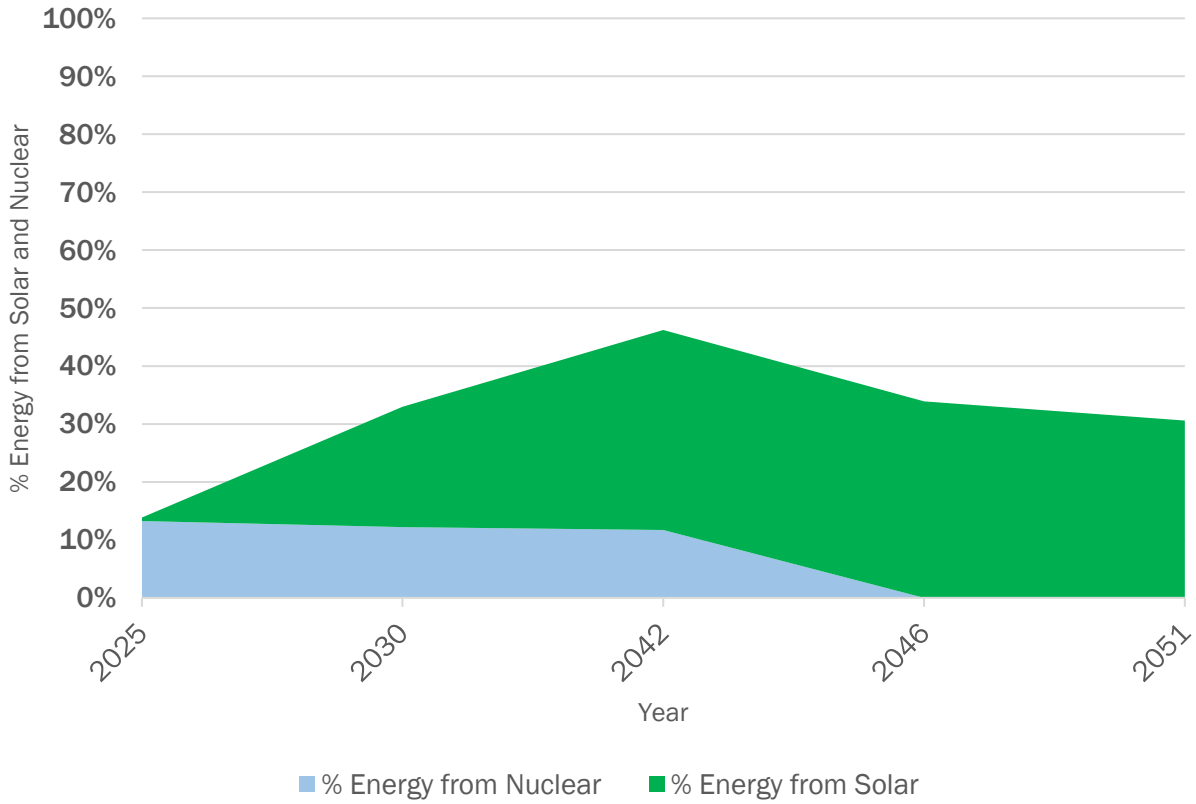

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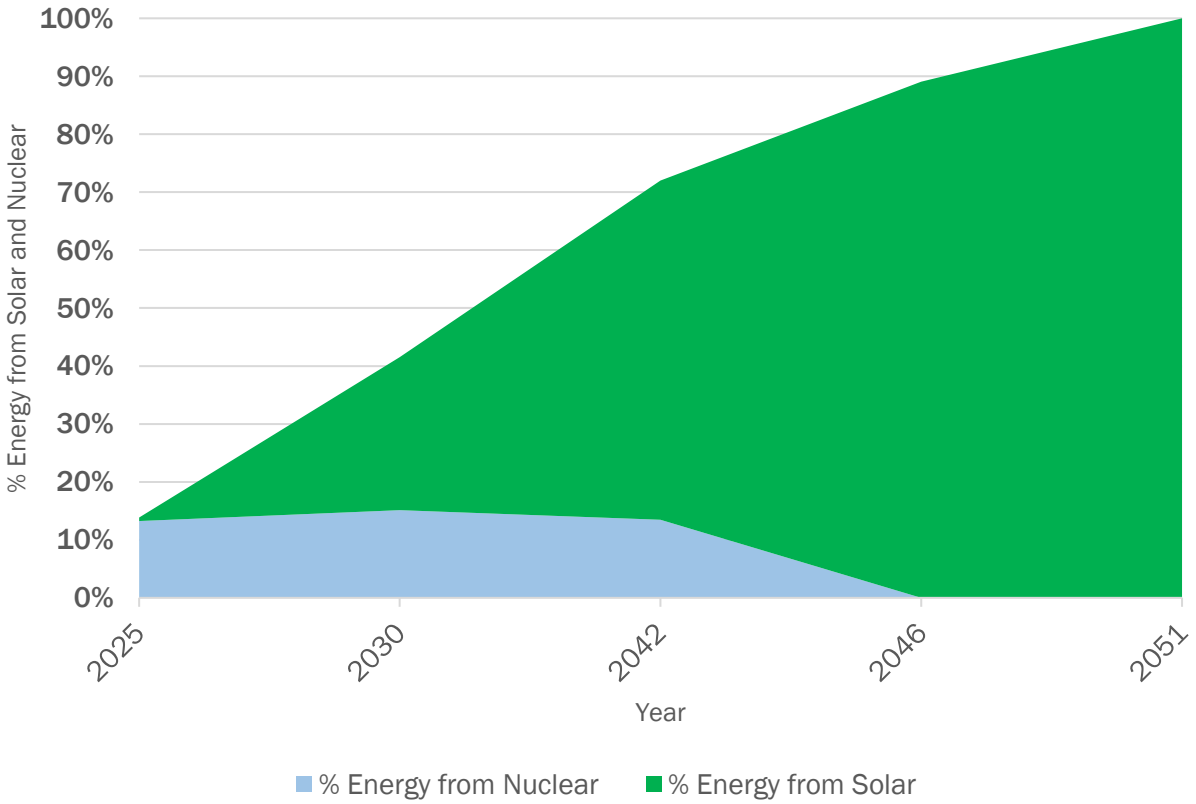

Preliminary Modeling Results

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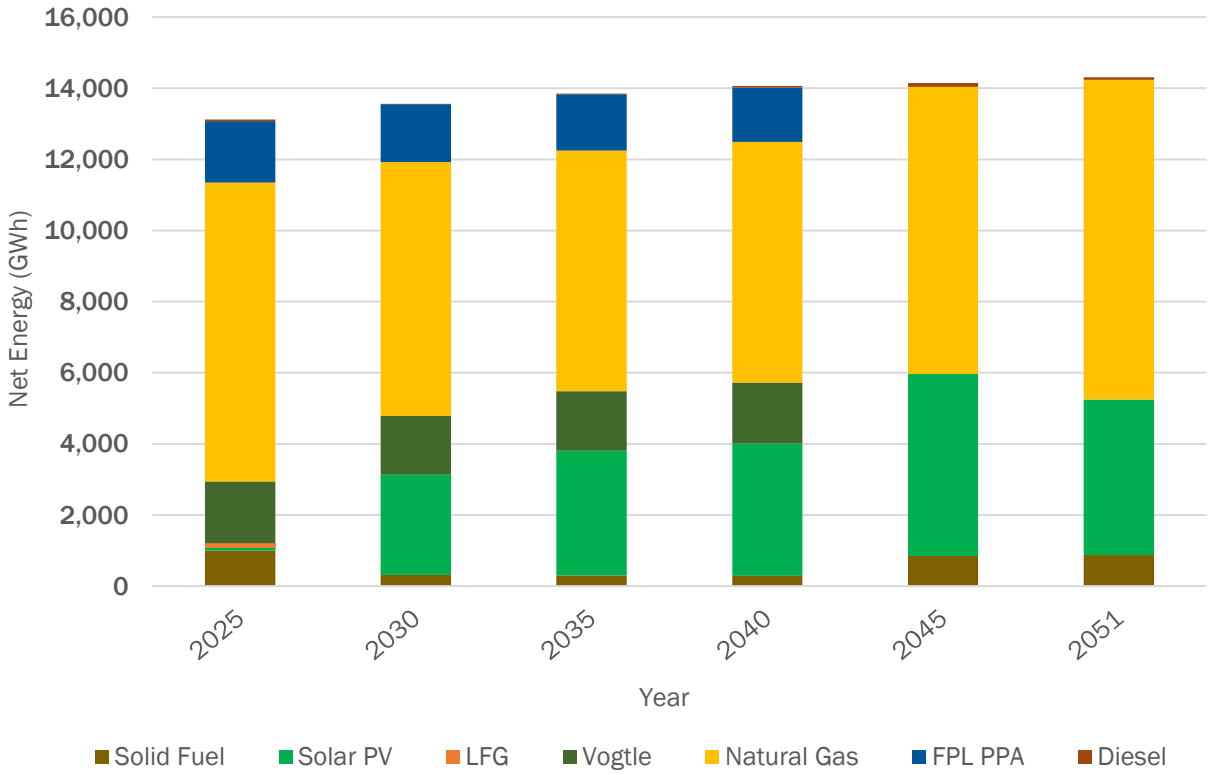
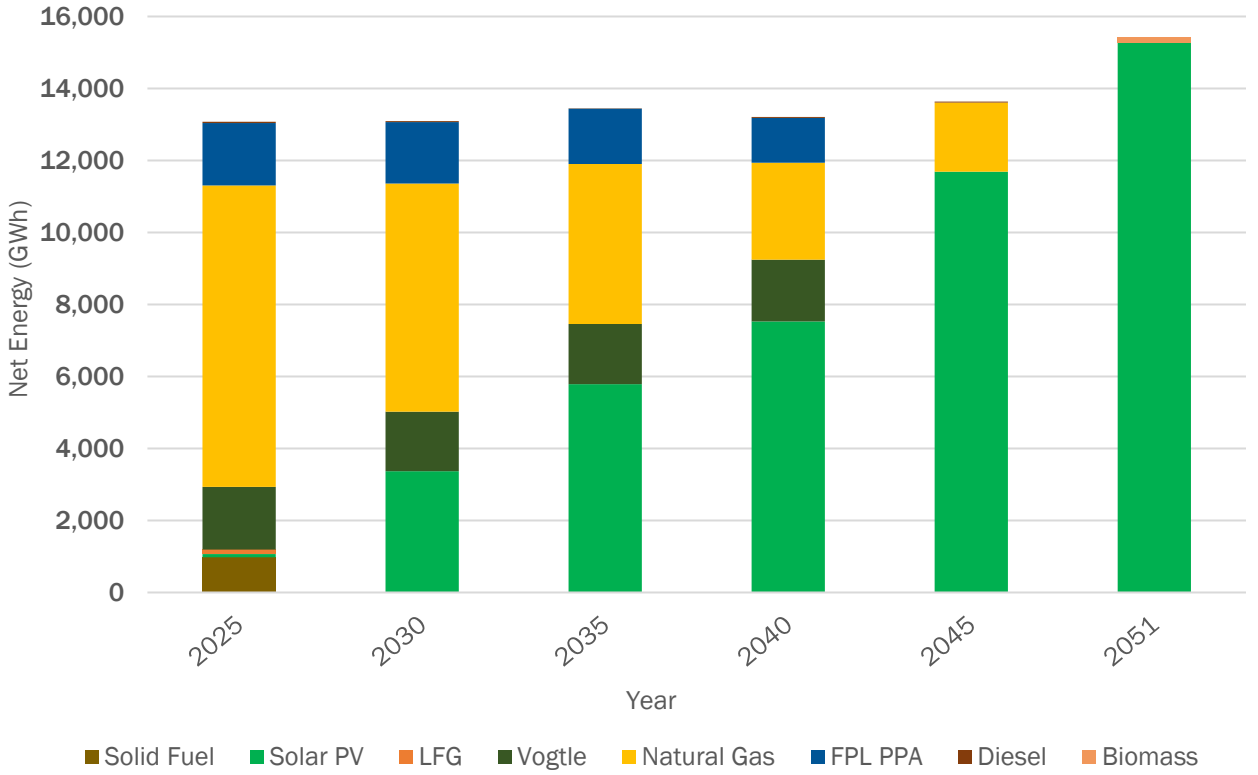


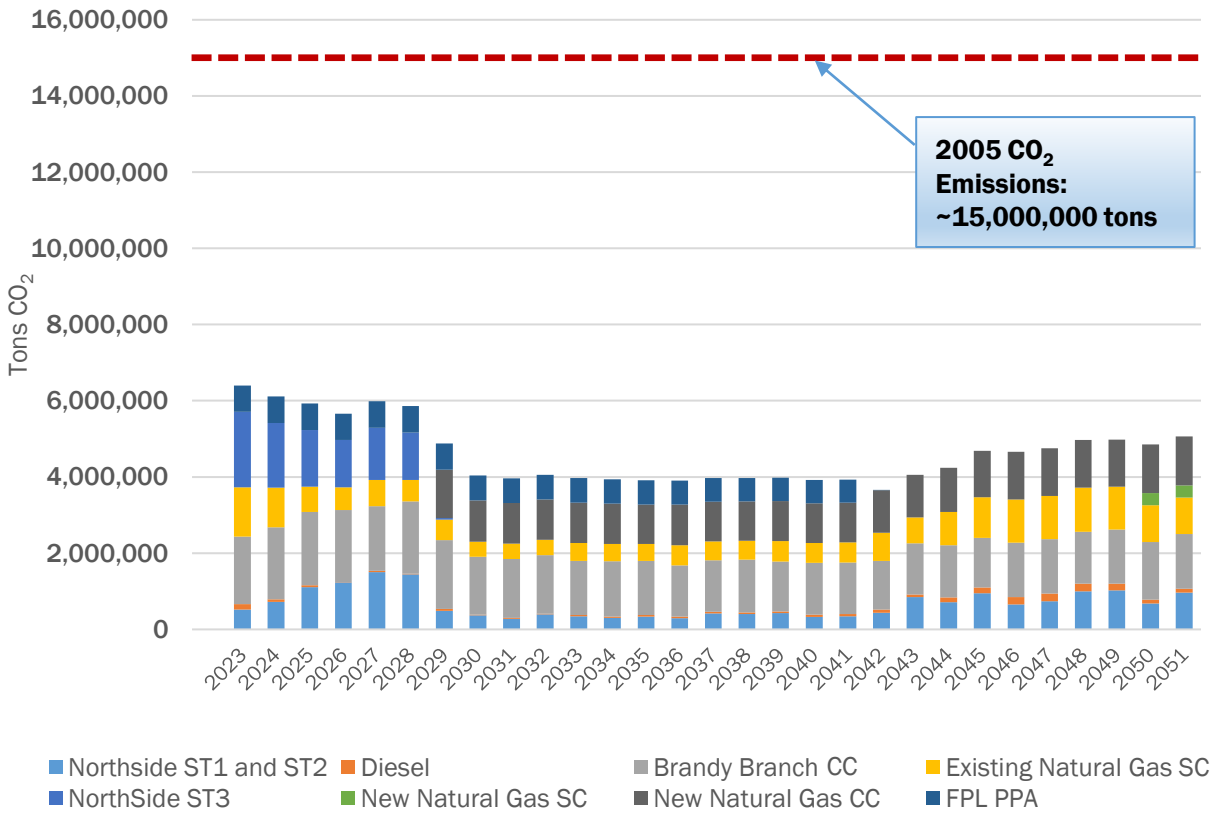
Current Outlook Scenario - Net Zero Sensitivity



Preliminary Modeling Results

System CO_2 Emissions

Current Outlook Scenario



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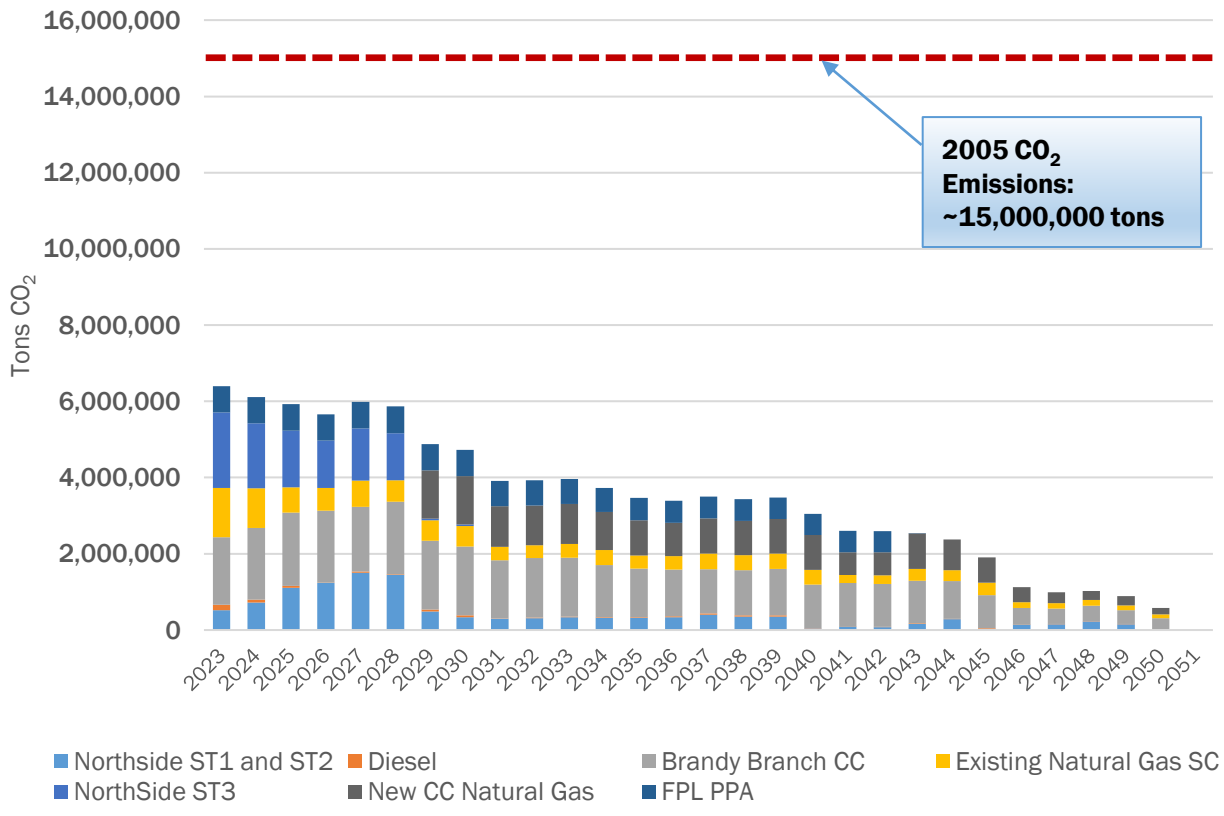
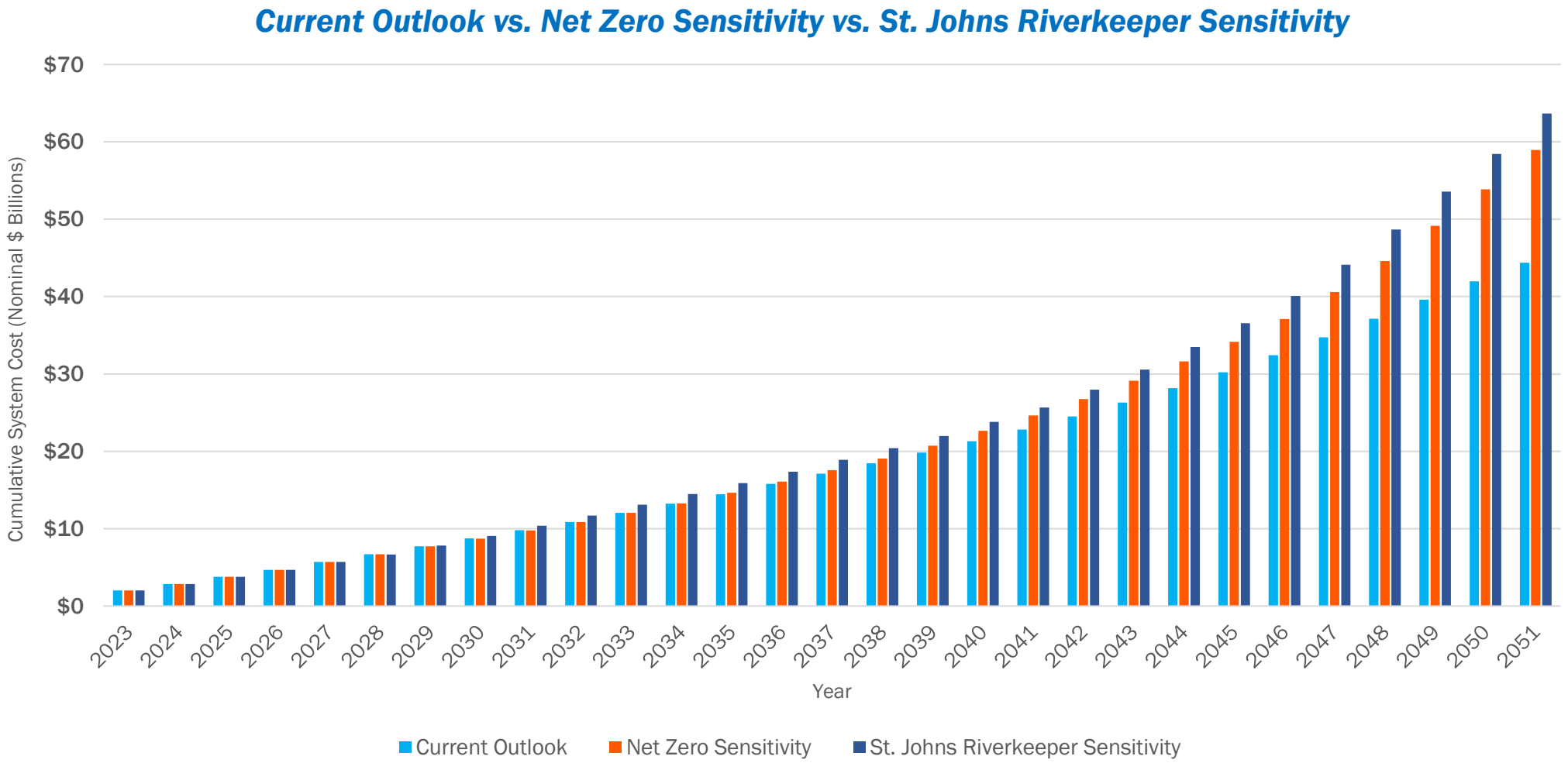


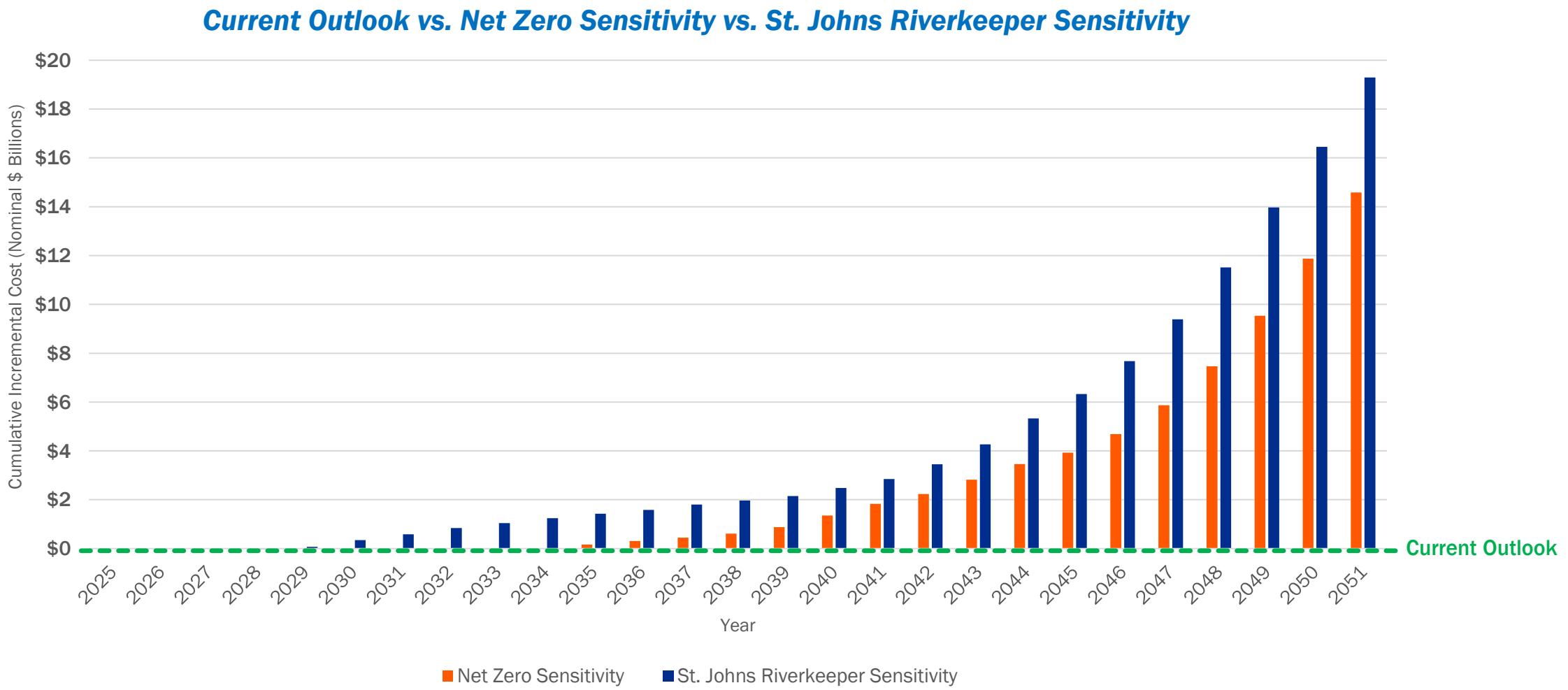
Preliminary Modeling Results

Cumulative System Cost Comparison



Preliminary Modeling Results

Incremental Cost Comparison



Open Discussion and Next Steps

Laura Schepis

Chief External Affairs Officer

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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