

EVERGREEN IRP 2022 SCOPE AND TIMELINE

APRIL 6, 2022

EVERGREEN IRP APPROACH

- The 2020 IRP, Roadmap included reference to a process for refining the Action Plan and Roadmap items via an evergreen IRP process. Roadmap Item 8 states the following:

“Continuously refine the Action Plan and Roadmap items via an evergreen IRP process. This process should facilitate annual updates as conditions change and technology or market options develop, and as Action Plan items are completed or significantly advanced. NS Power will include a summary of updates as part of IRP Action Plan reporting and will incorporate the opportunity for stakeholder comment and feedback as part of the update process.”

- In the 2021 IRP Action Plan Update Report, NS Power described the following as part of the evergreen update:
 - IRP Action Plan update highlights significant changes observed in the planning environment which warrant an evergreen update be undertaken in 2022
 - Where significant changes have been identified and additional modeling is warranted, update inputs and modeling scenarios to support assessment of the impact on IRP Action Plan and Roadmap items
 - Continue to progress the current IRP Action Plan items and monitor IRP Roadmap while evergreen updates are underway

CONDITIONS INITIATING EVERGREEN IRP

- Planning environment changes noted in the 2021 IRP Action Plan Update indicate modeling updates are warranted:
 - Environmental Policy changes (carbon policy and pricing, 2030 coal phase-out, 80% RES, and net zero electricity standard)
 - Updates to key inputs (resource options, electrification)
 - IRP Action Plan item progress
- The evergreen work will be informed by updates to the assumptions and scenarios/modeling plan based on significant changes observed post the 2020 IRP
- Where no significant change is observed, the 2020 IRP assumptions will be retained.

OBJECTIVES/PURPOSE

OBJECTIVES

- Complete a focused evaluation and refinement of the long-term electricity strategy developed as part of the 2020 IRP that is reflective of the current planning environment
- Provide a venue for stakeholder consultation and engagement in NS Power's resource planning as part of the evergreen work

PURPOSE

- Assess the 2020 IRP Action Plan/Roadmap based on recent policy changes
- Update the IRP Action Plan and Roadmap items as required based on the outcome of the analysis

APPROACH

Review and Update 2020 IRP Assumptions

- Identify where significant changes to the key drivers of the 2020 IRP (decarbonization trajectory, electrification load, and resource strategy) and the assumptions exist
- Where significant change has been observed, update the input assumptions that form the basis of the key drivers and modeling scenarios being considered
- Where no significant change has been observed, retain the 2020 IRP assumptions

Update the Scenarios and Modeling Plan

Complete Scenario Modeling and Analysis

PROCESS AND DELIVERABLES

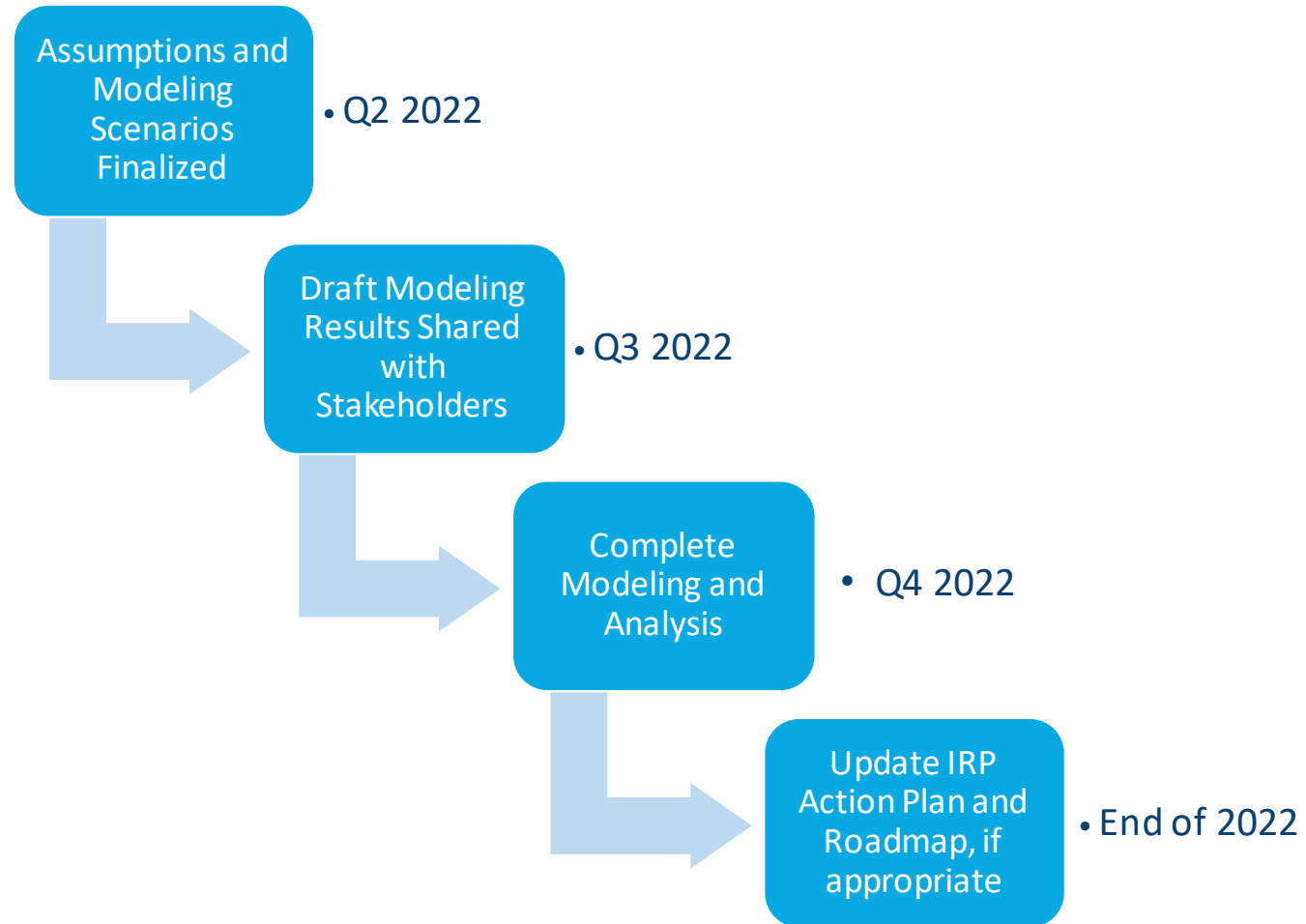
Process Element	Key Considerations	Deliverable	Stakeholder Input Opportunities
Develop evergreen update Scope and Approach	2020 IRP Roadmap	Study Scope and Timeline	Stakeholder comment period following this workshop
Refresh input assumptions and develop scenarios and sensitivities	Carbon and Clean Energy Policies	Updated input assumptions	Workshop to review assumptions and scenarios
	Electrification Load Forecasts	Scenario and Sensitivity list	Stakeholder comment period following workshop
	Resource Strategies		
Complete draft modeling and analysis	Perform modeling based on updated inputs and scenarios	Sharing of draft modeling results	Workshop to review draft modeling results Stakeholder comment period following workshop
Finalize modeling and summarize results	Summarize evergreen modelling results and update Action Plan and Roadmap, if appropriate	Summary of evergreen modeling outcomes and changes to Action Plan or Roadmap based on the analysis, if appropriate	Workshop to review final modeling results and Action Plan or Roadmap updates Stakeholder comment period following workshop

PRELIMINARY DRIVERS AND SENSITIVITIES

Clean Energy Policy	Electrification	Resource Strategy	Sensitivities
Net Zero 2035	Current Policy and Trends	Atlantic Loop Distributed Resources	Low-Cost Non-Emitting Capacity Low-Cost Battery Storage
Net Zero 2050	Hybrid Peak Mitigation	Limited Access to new Firm Imports	Low/High Fuel and Import Prices

Scenarios will incorporate 2030 coal phase-out, 80% RES in 2030, and Federal carbon price trajectory

PROCESS TIMELINES



NEXT STEPS

- Following the workshop, these materials will be posted on the Nova Scotia Power Integrated Resource Planning website
- Comments on Study Scope and Timeline are requested by April 15 and will be reviewed before finalizing the 2022 study scope
- Following the completion of the Study Scope and Approach, NSPI will produce assumptions and modeling scenarios for review and comment
 - A workshop will be scheduled to review the assumptions & modeling scenarios
 - Nova Scotia Power will accept comments on the assumptions modeling scenarios following the workshop

QUESTIONS & DISCUSSION