



Nova Scotia Green Choice Program

Stakeholder Webinar

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Presenters



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Agenda

- > Context for the Green Choice Program
- > Who can enroll?
- > Why enroll?
- > Program objectives & mechanics
- > Tentative timeline
- > Considerations for subscribers & IPPs
- > Next steps

Why Create the Green Choice Program?

NS Climate Goals

- Nova Scotia set the most aggressive GHG goals in Canada
- Aims to cut emissions 53% by 2030 and be net zero by 2050

Stakeholder Needs

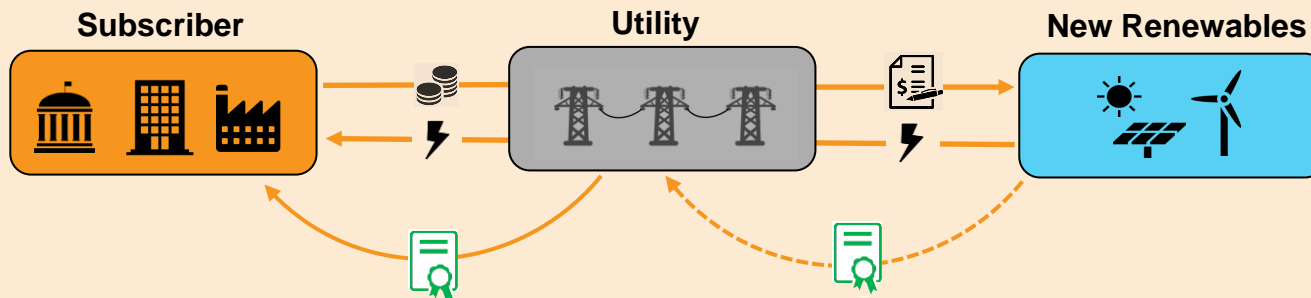
- Federal government committed to buying 100% renewable electricity
- Other large corporations & institutions with ambitious climate goals

Poor Alternatives

- Poor adoption of Renewables-to-Retail due to floating cost elements & projected negative economics
- Carbon-intense electricity mix (~60% coal & nat. gas)

Green Choice Program

Green Tariff established in Feb. 2020 by the NS Legislature to enable large customers (subscribers) to procure renewable energy from new in-province projects directly via the utility



Sources: Bill 251; Nova Scotia Electricity Act Press Release; SPG global

How Can the Program Become a Success?

Subscribers

- Strong subscriber interest

IPPs

- Competitive pricing
- Projects with low integration hurdles

Utility

- Rate base insulation
- Collaboration

Nova Scotia / Administrator

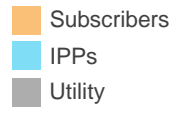
- Align with regulatory and provincial goals
- Independent & fair process

Collaborative Innovation

To create an example of an **innovative green tariff program** that **balances stakeholder needs**, while creating environmental, societal and economic **value in Nova Scotia**

Stakeholder input & collaboration will drive program success

How Will the Program Be Implemented?



Province of Nova Scotia appointed CustomerFirst Renewables as independent **Procurement Administrator (PA)**

Program design by NS Department of Energy & Mines (DEM) with support of PA and input from stakeholders

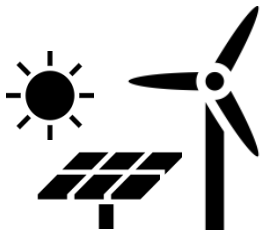
Subscriber Survey & Expression of Interest (EOI)
Enrollment reviewed by PA & DEM; confirmed by the Minister

Subscribers' energy needs = **Quantity of renewables procured**

PA & DEM facilitate **alignment on RFP, PPA, Subscriber Agreement**

PA issues RFP, evaluates and awards successful projects;
PPA(s) executed with Utility

Subscribers execute **Subscriber Agreements with Utility**



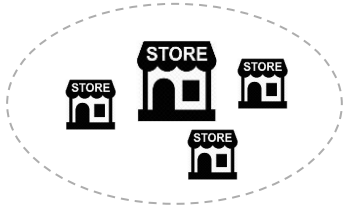
Who Can Enroll in the Green Choice Program?

Eligible to enroll: Large corporate energy users (industrial, commercial, property mgt.) and institutions, such as federal, provincial, municipal governments, crown corporations/agencies, non-profit and social enterprises, First Nations, and other public institutions (e.g., educational or healthcare facilities, etc.)



Corporate or institutional customer with an estimated GCP power purchase for **one account in NS of at least 10,000 MWh/year**

- *Example: Fictitious “Port Hawk Pottery” consumes 100,000 MWh annually at its single location. It is eligible for the GCP program.*



Single corporate or institutional customer with an estimated GCP power purchase for **multiple accounts in NS that collectively exceed 10,000 MWh/year**

- *Example: Fictitious “Tom Nortons” coffee chain has 34 locations in the province with separate meters, each averaging roughly 500 MWh per year. It is eligible if it aggregates all 34 meters to 17,000 MWh and intends to purchase 60% thereof via GCP (= 10,200 MWh).*



Public institution with an estimated GCP power purchase of minimum 2,000 MWh/year **aggregated with other public institution(s) in NS to collectively exceed a GCP purchase of 10,000 MWh/year**

- *Example: Fictitious “Halifax University” has 10,500 MWh annual load; it resides in the community of “South End” whose municipality has an annual load of 6,500 MWh. Their aggregated load is 17,000 MWh and they may participate in the GCP if they buy min. 60% thereof (=10,200 MWh).*

Why Enroll in the Green Choice Program?

Subscribers will be able to drive renewable deployment in Nova Scotia, while meeting their environmental goals

Environmental Benefit

Use renewable energy to decrease emissions

Subscriber can claim RE use as Environmental Attributes will be conveyed to subscriber

Competitive Costs

Current renewable costs expected to yield competitive economics

Incorporate low-cost renewable energy into bill and minimize carbon tax impact

Reputational Benefit

Customers & stakeholders expect climate action

Show leadership by adopting 100% RE, meet your climate goals



Societal Benefit

Accelerate Nova Scotia's clean energy transition

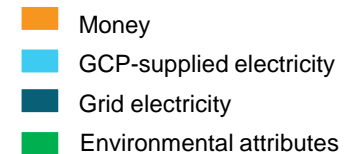
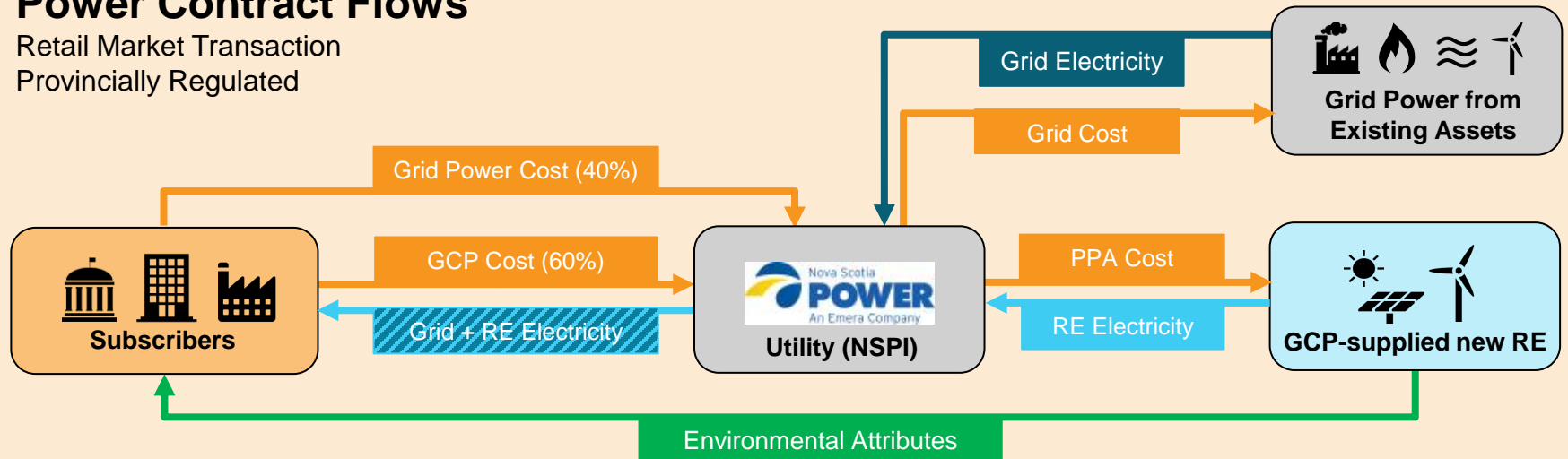
Drive new RE assets in Nova Scotia, local jobs and investment

Overview of Program Mechanics (1/2)

PENDING REVIEW

Power Contract Flows

Retail Market Transaction
Provincially Regulated



Green Choice Program (GCP) – How it will work:

1. GCP RE project(s) in NS selected via Request for Proposal (RFP) (provincially held; independently administered)
2. Cost of GCP-supplied RE incorporated in subscriber's energy bill
3. Subscriber will continue to pay contracted costs for the existing 40% of RE supplied by the grid
4. Environmental attributes to be retired on subscriber's behalf

Overview of Program Mechanics (2/2)

PENDING REVIEW

Proposed Program Structure



Program size

- Sized to meet subscriber demand (contingent on grid constraints)
- Future iterations of program expected in future years, each reliant on a new procurement for RE assets



Subscription volume

- Up to 60% of subscribing customer's load (remaining 40% already RE via NS grid mix)



Contract term

- 5 years
- 10 years
- 15 years
- 20 years
- 25 years
- Extension options available for all terms less than 25 years



Customer costs

- Application fee
- Pricing to be determined by asset procurement (in Q3-Q4 2021)
 - Tiered pricing, based on term selected
- Integration charge



Subscriber Enrollment

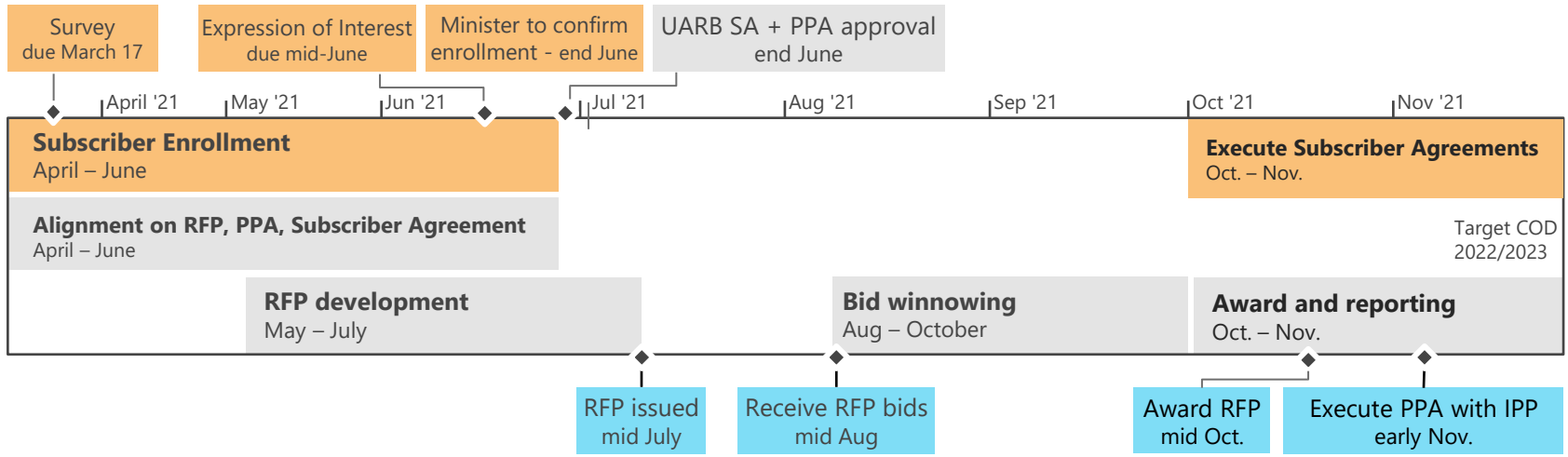
- Voluntary Survey: March 17th
- Expression of Interest (EOI): mid June 2021
- Execute Subscriber Agreements (expected): Oct - Nov 2021

What additional program elements would customers like to understand prior to making an enrollment commitment?

Timeline

Subscribers
 IPPs
 Utility





PRELIMINARY / NON-BINDING



Program Phase	Activities
Subscriber enrollment	<ul style="list-style-type: none"> > Submit voluntary survey (by March 17th) > Submit “Expression of Interest” form & application fee (EOI => program website) > Minister confirms enrollment for each subscriber
Alignment on RFP and contracts	<ul style="list-style-type: none"> > Align utility and IPPs on RFP > Align subscribers and utility on Subscriber Agreement > Align utility and IPPs on PPA; obtain UARB approval
RFP development	<ul style="list-style-type: none"> > Prepare and issue RFP > Convey information publicly
RFP analysis	<ul style="list-style-type: none"> > Perform bid analysis and due diligence > Consult subscribers on bid selection
Award and reporting	<ul style="list-style-type: none"> > Execute Subscriber Agreements > Execute PPA(s) > Convey information publicly

Considerations for Subscribers







PRELIMINARY /
NON-BINDING

Subscriber Considerations		Answers
	Regulatory Process Final regulations and costs still under development; how can subscribers manage uncertainty and express preferred outcomes?	Share your input
	Program Enrollment Obligations upon subscription?	Monthly payment
	What happens if only a portion of desired volume can be met?	Apply for balance in next GCP round
	Subscription Adjustment How do customers determine their required minimum MWh volume?	Verify annual usage with NSPI
	Can customer change subscription volume over time?	Share your input
	Program Exit What are the mechanics of exiting the program?	Termination fee would be applicable
	Can customers re-enroll after exiting?	Yes

Subscriber feedback on these elements will be considered in shaping final program characteristics

Considerations for IPPs

PRELIMINARY /
NON-BINDING

IPP Considerations	
 <p>Asset technology</p>	<ul style="list-style-type: none"> • Low-impact renewable electricity • Ensure compliance with Transmission System Interconnection Requirements (updated by NSPI 2/2021)
 <p>Project Size</p>	<p>Procurement sized to demand from Expression of Interest (EOI) of enrolled and confirmed subscribers (to be contingent on grid constraints)</p> <p>Could procure one or multiple assets</p>
 <p>Desired COD</p>	<p>Targeted Commercial Operation Date: 2022-2025, to be refined depending on customer preferences</p>
 <p>Contractual Arrangement & Tenor</p>	<p>25-year Power Purchase Agreement (PPA) with NSPI</p> <ul style="list-style-type: none"> • PPA form similar to prior Nova Scotia procurements, with potential addition of ancillary services provisions • Potential for typical security posting requirements
 <p>Indicative Selection Criteria</p>	<ul style="list-style-type: none"> • Economics • Locational preferences of system operator (grid map to be made available when ready) • Development capability and experience of IPP • Provide ancillary services (link to study) (optional but encouraged)
 <p>Other Aspects</p>	<p>Expected repetition of RFP to support future rounds of GCP</p>

IPP feedback on these elements will be considered in shaping final program characteristics

Next Steps

Subscribers

- Submit **Voluntary Survey** by **March 17th**
- Reach out to CFR if you need more information

IPPs

- RFP expected to be released mid July
- Share comments on PPA and RFP (once ready)

Utility

- Discussions to make GCP a shining example of a 'next-generation' green tariff in Canada

Nova Scotia / Administrator

- Follow-up calls with stakeholders
- RFP & PPA design
- Inform subscribers
- Align stakeholders













Making the Green Choice Program a success requires
Collaborative Innovation from all stakeholders

Your Questions?

- Subscribers
- IPPs
- Utility



Contact Us

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		Susanne Fratzscher CFR – Senior Director, Business Development
 		Terence de Pentheny O’Kelly CFR – Director, Client Solutions
 		John Izevbigie CFR – Senior Associate, Client Solutions

Subscriber Survey, EOI (to come), Resources & Further Information:

www.novascotiagcp.com

Questions & Feedback:

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Thank you

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