C0053699

Renewable to Retail Implementation Project

NON-CONFIDENTIAL

December 1, 2025

Nova Scotia
POWER
An Emera Company

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NSEB APPROVAL SHEET

Project Title: Renewable to Retail Implementation

CI Number: C0053699

Date: December 1, 2025

Expenditure Profile		
Year	Budget Amount	Project Estimate
2023	767,841	767,841
2024	2,789,086	2,209,764
2025	1,505,726	1,437,530
2026		1,229,332
Total	$5,062,652	$5,644,468

Type of Filing

- [X] Capital Project Authorization
  - [ ] Unforeseen and Unbudgeted (U&U)
  - [ ] Planned & Advanced (P&A)
  - [X] Subsequent Approval Item
- [ ] Authorization to Overspend (ATO)
- [ ] Scope Change
- [ ] Final Cost (FIN)

COMMENTS

Submitted on behalf of NOVA SCOTIA POWER INCORPORATED	Approved on behalf of NOVA SCOTIA ENERGY BOARD
[signature]	
Authorized Signatory Dave Pickles Chief Operating Officer DATE: November 28, 2025	DATE

CI Number: C0053699

Title: Renewable to Retail Implementation Project

Start Date:	2023/02
In-Service Date:	2026/10
Final Cost Date:	2027/04
Function:	General Plant
Forecast Amount:	$5,644,468

DESCRIPTION:

In 2013, the Provincial Government mandated the establishment of a new Electricity Market in Nova Scotia through the *Electricity Reform Act*. This enabled independent licensed retailers, who are licensed by the Nova Scotia Utility and Review (NSUARB), to sell renewable, low-impact electricity, generated in Nova Scotia, directly to NS Power's retail customers. On April 1, 2025, following the proclamation of the *Energy and Regulatory Boards Act*, S.N.S. 2024, c. 2, Sch. A, the NSUARB was succeeded by the Nova Scotia Energy Board (NSEB, Board) for all matters related to electric utilities.

NS Power, in consultation with stakeholders, developed and filed with the Board for approval new and amended tariffs, procedures, and standards of conduct necessary to facilitate the Renewable to Retail (RtR) market. These included the establishment of four new Tariffs - Energy Balancing Services Tariff, Standby Service Tariff, Renewable to Retail Transition Tariff, and Distribution Tariff, as well as revisions to the Open Access Transmission Tariff. The Board's decision followed in March of 2016.

In addition to NS Power's market elements, the Board issued the *Board Electricity Retailers Regulations* and a Code of Conduct for Renewable, Low-Impact Electricity Sales in Nova Scotia. These documents set out the licensing requirements for Licensed Retail Suppliers (LRS) as well as minimum standards under which an LRS may offer to sell renewable low-impact electricity to customers in the Province of Nova Scotia.

The NSEB has since awarded the first LRS license to provide renewable electricity directly to consumers to Renewall Energy Inc.

A key tenet of the RtR program is that LRSs and their customers are responsible for all setup and operational costs related to the new market that would otherwise be the responsibility of NS Power and its customers. Cost recovery for capital expenditures and operating costs associated with the initial setup and ongoing operation will be recovered from LRSs through the applicable RtR tariffs. Accordingly, costs associated with the previous establishment of tariffs to facilitate the RTR market, leading up to the Board's 2016 decision will be included in and considered through a future Annually Adjusted Rates (the AAR) process starting in 2026 and continuing until full cost recovery has been achieved.

This project consists of the implementation of updates and enhancements to existing software solutions to enable customer billing; customer information management; metering; interval data collection and aggregation; tariff maintenance; reporting; settlement; and final reconciliation within the RtR market. The project also includes the development of new and enhanced business processes and procedures. The requirements of this project will impact several teams across NS Power and necessitate enhancements to technology solutions such as the Customer Information System (CIS) and Meter Data Management System (MDMS). These system and business changes will be made scalable to accommodate potential future growth in the RtR market, including the addition of other LRS as necessary.

Summary of Related CIs +/- 2 years:
Pursuant to Section 11.2 of the CEJC, related CIs for General Plant projects include "work completed on the same asset (application, building, etc.)."

- No other projects in 2023, 2024, 2025, 2026, or 2027

Depreciation Class: General Plant – Computer Application Software

Estimated Life of the Asset: 10 years

JUSTIFICATION:

Justification Criteria: Work Support Facilities

Sub Criteria: Building Facilities/Furniture

Why do this project?

The Nova Scotia government introduced the *Electricity Reform Act* (2013) to permit greater competition and choice for electricity ratepayers. The government's intent in introducing the legislation was to open the electricity market to local renewable energy producers. The NSEB has since granted the first retail supplier license.

NS Power has set up a dedicated RtR Project Implementation team (the Project team) who began gathering specific requirements to serve this line of business. The project implementation work began in early 2023 and is expected to conclude late in 2026. Since mid-2023, the Project team has been working with the initial LRS to align implementation schedules with their Commercial Operation Dates (COD) and to coordinate requirements, business processes and solution integrations where possible. The goal is to provide as seamless a transition as possible for customers seeking to choose this service offering. The RtR market framework and NS Power's internal systems and business processes must be fully operational to enable the market transactions to occur once the initial LRS commercial (or retail) operations begin.

Why do this project now?

NS Power must be ready to transition service and meet the stated requirements to facilitate the transition in time for the LRS' COD, currently estimated by the LRS to be Q3 of 2026. The project implementation began in 2023 based on the LRS' initially stated COD of Q3 2024. As the COD has since been revised, NS Power continues to adjust its implementation timelines accordingly to ensure alignment with the updated schedule.

Why do this project this way?

NS Power has conducted detailed requirements gathering and scoping based on areas of impact and mechanisms that will need to be in place to facilitate the transition of customers and the onboarding of the first LRS in the RtR Market.

The project involves modifying the CIS as well as developing online forms for onboarding and offboarding customers to incorporate the changes anticipated with the activation of the RtR market. The requirements for the management of metering interval data needed for RtR settlement and billing functions necessitates the implementation of new configurations and integrations for the MDMS. These configurations and integrations will handle the management of customers' interval data required for calculating the billing determinants for the various tariffs supporting the RtR market.

In addition, current reporting tools require enhancements to serve this line of business. NS Power has identified the need for incremental Business Intelligence report development to fulfill internal and external stakeholder information requirements. These reports will be developed by the Project team using existing tools within the business.

Contingency Statement

Contingency for this project was determined using a combination of subject matter expert judgement from resources internal to NS Power in combination with external vendors, and the non-binding contingency guidelines. Consistent with the maturity matrix, this project is being filed as a Class 1 estimate with a contingency of 5 percent. Contingency is intended to account for risks associated with unforeseen issues to achieve the complex integration between newly implemented technology and legacy systems, or potential issues that may arise throughout the implementation due to the complexity of system development. This project is more than 50 percent complete with the most complex components developed, and there is an agreed-upon Change Request process in place related to scope changes having a cost impact with the LRS; therefore, a 5 percent contingency is appropriate to manage unforeseen issues.

Reason for Variance

The increase of the estimated $581,816 from the 2025 ACE Plan subsequent submittal estimate of $5,062,652 is primarily due to increased Administrative Overheads and the requirement to ramp up resources a second time to accommodate extended project timelines to align with the LRS' revised COD dates and to a lesser extent, an increase in technical requirements for data integration of forecasted generation data as well as additional testing complexity that was previously not considered.

Capital Project Detailed Estimate

Location: **Energy Control Centre**
CI# : C0053699
Title: Renewable to Retail Implementation Project
Execution Year: 2023 - 2026

Description	Unit	Quantity	Unit Estimate	Total Estimate	Cost Support Reference	Completed Similar Projects (FP#'s)
Regular Labour						
Customer Care	PD	105	325	$ 34,125		
CIS Specialists	PD	50	425	$ 21,250		
SMOC System Analyst	PD	25	375	$ 9,375		
SMOC Coordinator	PD	105	325	$ 34,125		
Finance Business Analyst	PD	5	425	$ 2,125		
Test Lead	PD	6	425	$ 2,550		
Load & Revenue Forecasting	PD	105	325	$ 34,125		
Tariff Forecasting & Billing SME	PD	117	325	$ 38,025		
Solution Architect	PD	45	425	$ 19,125		
Business Support Manager	PD	116	425	$ 49,300		
Manager, BI Solutions	PD	16	425	$ 6,800		
Sr, BI Architect	PD	19	425	$ 8,075		
BI Developer	PD	5	425	$ 2,125		
IT Security Analyst	PD	4	425	$ 1,700		
Enterprise Risk Lead	PD	4	425	$ 1,700		
Integration Specialist	PD	45	425	$ 19,125		
			Sub-Total	$ 283,650		
OT Labour						
Integration Specialist	PD	7	850	$ 5,525		
				$ 5,525		
Term Labour						
Program Manager	PD	273	490	$ 133,527		
			Sub-Total	$ 133,527		
OT Term Labour						
Program Manager	PD	51	490	$ 24,990		
			Sub-Total	$ 24,990		
Software						
WebForm Licenses	Lot	1	$ 6,461	$ 6,461		
			Sub-Total	$ 6,461		
Contracts						
Design Engineering	Lot	1	$ 3,562	$ 3,562		
			Sub-Total	$ 3,562		
Consulting						
Sr Business Analyst	PD	113	$ 925	$ 104,525		
Jr Business Analyst	PD	645	$ 825	$ 532,125		
Business Analyst	PD	528	$ 900	$ 475,200		
Lead Engineer	PD	167	$ 1,275	$ 212,925		
Project Manager	PD	667	$ 1,200	$ 800,400		
MDMS Module Updates	Lot	1	$ 1,432,500	$ 1,432,500		
MDMS Extended Functional Support	Lot	1	$ 359,515	$ 359,515		
CIS Development / enhancements	Lot	1	$ 59,000	$ 59,000		
WebForm Development	Lot	1	$ 57,000	$ 57,000		
			Sub-Total	$ 4,033,190		
Other Goods & Services						
Contingency	%	5%	$ 4,490,904	$ 224,545		
			Sub-Total	$ 224,545		
Interest Capitalized						
AFUDC				$ 653,657		
			Sub-Total	$ 653,657	`	
Administrative Overhead						
Labour AO				$ 274,789		
Contractor AO				$ 573		
			Sub-Total	$ 275,362		
			SUB-TOTAL (no AO, AFUDC)	$ 4,715,449		
			TOTAL (AO, AFUDC included)	$ 5,644,468		
Original Cost				$ -		

Note 1: The labour figures noted above are an average of salaries across a variety of jobs within similar classifications including fringe, and are used solely for budgeting purposes.
Note 2: Small differences in totals are attributable to rounding.

Instructions: Select option in Column B.
Columns C through G will auto-populate.

Document No: XXX-XX-XXXX-XXXX

Project Cost Estimate Input Checklist and Maturity Matrix

Technology, Business & Process Change Project	Required fields:	Estimate Classification				
Project Name: C0053699 Renewable to Retail Project	**Started or Preliminary**	**Class 5**	**Class 4**	**Class 3**	**Class 2**	**Class 1**
Maturity Level of Project Definition Deliverables	**Defined or Complete**					
General Project Data						
A. Scope						
Project Scope of Work Description	Defined (D)	P	P	D	D	D
B. Capacity						
Not Applicable						
C. Project Location						
Energy Control Centre (ECC); Distribution Control Centre (DCC); Back Up Control Centre	Defined (D)	P	P	D	D	D
D. Requirements						
Codes and/or Standards	Defined (D)	NR	P	D	D	D
Legislative Requirements	Defined (D)	NR	P	D	D	D
E. Technology Selection						
Design/Technology	Defined (D)	NR	P	D	D	D
F. Strategy						
Internal/External Resourcing	Defined (D)	NR	P	D	D	D
Solution Contracting / RFP	Defined (D)	NR	P	D	D	D
G. Planning						
Cross Team Planning (i.e., ECC/Power Generation/Corporate Security/IT Security	Defined (D)	P	P	P	D	D
Integrated Project Plan	Defined (D)	NR	P	D	D	D
Project Code of Accounts	Defined (D)	NR	P	D	D	D
Project Schedule	Defined (D)	NR	P	D	D	D
ECC Leadership (Sponsor) approval to proceed	Defined (D)	NR	P	D	D	D
Risk Register	Defined (D)	NR	P	D	D	D
Stakeholder Consultation/Engagement/Management Plan	Defined (D)	NR	P	D	D	D
Work Breakdown Structure (WBS)	Defined (D)	NR	P	D	D	D
Cut Over & Go Live Planning	Defined (D)	NR	P	P/D	D	D
Technical Deliverables (Specifications and/or Drawings)						
Network Infrastructure	Complete (C)	P	P	C	C	C
Data Architecture	Complete (C)	P	P	C	C	C
Security Assessment	Complete (C)	NR	P	C	C	C
Solution Integration	Complete (C)	NR	P	C	C	C
Information Systems/Telecommunication Drawings	Complete (C)	NR	P	C	C	C
Total Responses	**Total # Deliverables for this Project**	5	21	21	21	21
Percentage	**% Defined/Complete towards Class Estimate**	100%	100%	100%	100%	100%

Comments:

This project is being filed as a AACE Class 1 estimate. As this project is more than 50% complete with the most complex components developed, and considering there is an agreed upon Change Request process in place related to scope changes having a cost impact with the Licenced Retail Supplier, a 5% Contingency factor is being applied to manage risk of unknown factors.

Legend:

The maturity level is an approximation of the completion status of the deliverable. The completion is indicated by the following descriptors:

General Project Data:

- Not Required (NR): May not be required for all estimates of the specified class, but specific project estimates may require at least preliminary development.

- Preliminary (P): Project definition has begun and progressed to at least an intermediate level of completion. Review and approvals for its current status has occurred.

- Defined (D): Project definition is advanced, and reviews have been conducted. Development may be near completion with the exception of final approvals.

Technical Deliverables:

- Not Required (NR): Deliverable may not be required for all estimates of the specified class, but specific project estimates may require at least preliminary development.

- Started (S): Work on the deliverable has begun. Development is typically limited to sketches, rough outlines, or similar levels of early completion.

- Preliminary (P): Work on the deliverable is advanced. Interim, cross-functional reviews have usually been conducted. Development may be near completion except for final reviews and approvals.

- Complete (C): The deliverable has been reviewed and approved as appropriate.