

# ADVANCED METERING INFRASTRUCTURE (AMI) PROJECT

Project Status Report to NBEUB

For the Quarterly Period ending June 30, 2025

## ADVANCED METERING INFRASTRUCTURE (AMI) PROJECT

**Project Status Report to NBEUB** 

#### **Background**

New Brunswick Power Corporation (NB Power) is continuing to leverage technology advancements that will improve its ability to respond to changing customer expectations, address climate change, modernize the grid, and focus on continuous process improvement. New technologies such as Advanced Metering Infrastructure (AMI) will enable NB Power to improve its service to customers and help them better understand their electricity usage and use energy more wisely. AMI will help NB Power better manage the rising demand on the electricity system well into the future, while laying the groundwork for a wide range of new customer benefits.

AMI is foundational to the grid modernization program and involves three key technologies:

- 1. Advanced Meters
- 2. Head-End System (HES)
- 3. Meter Data Management System (MDMS)

These three AMI technologies, in combination with the associated communications network, are critical components of NB Power's overall grid modernization program.

The many benefits of AMI include providing tools and programs to give customers more control over their electricity consumption and costs and laying the groundwork for new customer-focused programs and services. Within NB Power's day-to-day operations, AMI will also increase efficiency of meter data collection, billing, and disconnects/reconnects. Power restoration will be improved as a result of quicker notification of outages which could reduce response time.

NB Power filed an application for AMI with the New Brunswick Energy and Utilities Board (NBEUB) on August 1, 2019, and the matter was heard by the NBEUB January 13-22, 2020. As a result of the requested and Board-approved delay due to the COVID-19 pandemic, on September 4, 2020, the NBEUB approved NB Power's AMI capital project application and work is underway with the project team and third-party vendors.

The NBEUB decision directed NB Power "to propose, at the next general rate application, a set of metrics or progress indicators to track the project. This should include progress indicators to track the rollout of the project, as well as its timeline, costs, and the realization of its quantified and non- quantified benefits. The proposal should also include a reporting and review schedule, and a communication plan for stakeholders

and ratepayers."

NB Power proposed a reporting format in response to the directive. The format was reviewed and approved by the NBEUB on May 27, 2021 on a preliminary basis with specific conditions. This report complies with the approved format and conditions, which requires NB Power to provide this report electronically on a quarterly basis to the NBEUB and share it on the <a href="https://www.nbpower.com">www.nbpower.com</a> for public access in both official languages.

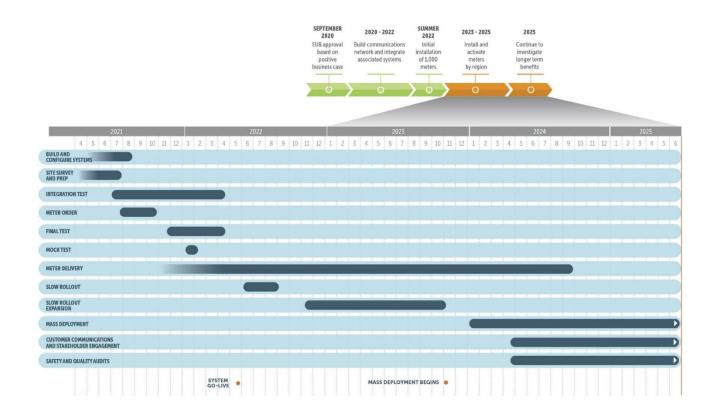
#### **Objective**

The objective of this report is to provide a quarterly status update to the NBEUB on the AMI Project. This includes progress indicators tracking the project rollout, as well as its timeline, costs, and the realization of its quantified and non-quantified benefits, as compared to the AMI business case filed with the NBEUB in Matter 452. Updates on customer engagement and project risks are also provided in this report.

NB Power's AMI Project involves several key vendors to deliver on various aspects of the project, with NB Power project management providing oversight over the entirety of the project. The main vendors and their contributions are as follows:

- **Utegration** experienced System Integrator providing technical oversight to the multiple elements requiring interfaces with NB Power's SAP enterprise asset management system and AMI related systems.
- Itron Meters and Head End System
- **Siemens EnergyIP** Meter Data Management System
- **Olameter** deployment of new meters across the province

#### **Project Timeline**



#### Summary of Results as of Quarter ending June 30, 2025

- Approximately 285,698 meters (74 per cent) have been upgraded to AMI.
- Area 1 meter deployment (Fredericton, Grand Falls, St Stephen and Woodstock) is 95 per cent complete.
- Area 1 network mitigation activities to optimize communications, optimizing remote meter reading, remote disconnect/reconnect and consumption graph data are delayed however options to resolve gaps in the mesh are being discussed with vendor. Network hardware continues to be installed to improve the consistency of meter data communications. Meter readings being captured are accurate. Area 1 has over 90 per cent remote read connectivity, resulting in a reduction of manual meter reads and truck rolls for reconnects and disconnects. Efficiencies will improve as mass deployment continues.
- There was an average of 220,000 website logins per month during this quarter a 37 per cent increase compared to 160,000 average logins per month during the same quarter last year.
   Note: A customer login does not necessarily indicate engagement with the usage graph; however, the graph is displayed on the default landing page when the customer logs in.
- Area 2 meter deployment (Moncton, Rothesay, Sussex, Bouctouche, Shediac, Sackville) is 87 per cent complete.
- The project remains on schedule and has expanded mass meter deployment to Area 3 (Miramichi, Tracadie, Bathurst, Eel River) in May 2025.

- NB Power has planned for 0.75 per cent of meter installations to result in a meter base repair. The project is trending at 0.72 per cent.
- The project team continuously monitors for internal or external challenges that could impact the project timeline and/or budget and ensures mitigation plans are in place.

#### **Financial Results**

The business case detailed the net present value of the lifecycle costs and benefits of AMI. NB Power will be reporting on AMI project costs presented in Matter 452 evidence, Table 2.3.1, lines 4-8. The sunk costs to the end of fiscal year 2018/19 are not included because they were not included in the costs in the business case or Table 3.2. Table 2.3.1 has been restated below to break out the costs into the categories presented in Matter 452 evidence Table 3.2. This includes all costs incurred in fiscal year 2019/20 to the completion of system-wide coverage of AMI.

The table below represents project costs incurred to date.

Costs	Actuals to date (\$M)	AMI Project Costs Budget (\$M)	% of Total
3.2.1 AMI Capital	\$46.7	\$53.3	87.7%
3.2.2 AMI Operating	2.8	5.9	47.8%
3.2.3 MDM Operating	2.2	2.9	78.3%
3.2.4 Meter Installation Capital	8.5	11.5	73.7%
3.2.5 CIS/WFM/ESB Capital	7.1	8.8	80.2%
3.2.6 MDM Capital and AMI Project Team	12.6	8.0	157.9%
3.2.7 CIS/WFM/ESB Operating	3.6	3.5	105.0%
3.2.8 Corp Services & Other Capital	4.3	3.1	138.1%
3.2.9 Utility Tax	0.0	0.0	0.0%
3.2.10 Corp Services & Other Ops	1.6	0.3	638.0%
3.2.11 Pre-Engineering Capital	0.1	0.1	81.7%
Total	\$89.5	\$97.2	92.1%

Note to Reader: Financial tables reflect differences due to rounding

#### Variance explanation:

- 3.2.1 AMI Capital the bulk of this spending to date is for the installation of the network hardware and 285,698 AMI meters. The remaining budget is related to the cost of the meters.
- 3.2.4 Meter Installation Capital spending will continue to the end of the deployment period.
- 3.2.5 CIS/WFM/ESB Capital the work in this category is related to system integration, specifically the contract with Utegration. This portion of the project is complete.
- 3.2.6 MDM Capital and AMI Project Team covers the work to implement the MDM as well as the budget for the project team for the duration of the project. This cost category was almost completely spent at the end of December 2022. Of the \$8.0 million budget in this cost category, \$2.3 million (inclusive of contingency) was for the MDM contract that was not signed at the time that the business case was prepared. The final contract value was \$2.8 million, putting this item \$0.5 million over budget from the onset. The MDM has been

implemented within the contract amount. The remaining \$5.7 million that was budgeted for the project team has been fully exhausted with 6 months of meter deployment remaining in the project schedule. Two of the main drivers of the increased cost of the project team were: the initial delay in starting the mass deployment of meters and the reliance on hired services as key members of the project team that were not anticipated when the business case was prepared. There is no opportunity to mitigate these costs at this time.

- 3.2.7 CISWFM/ESB Operating the implementation of the customer portal falls within this cost category. When the AMI business case was being developed it was assumed that NB Power would work with the contracted vendor who was hosting the portal for the Home Energy report to also offer the AMI portal and high bill alert program. When the work started on the AMI portal, procurement rules required NB Power to issue a request for proposal (RFP) for the service. This resulted in significantly higher implementation costs as well as annual hosting costs that are \$1.2 million higher than what was budgeted. Although the costs are higher, the portal is providing customers access to their consumption information as well as high usage alerts that will allow them to better manage their energy usage and lower their bills. There is no opportunity for NB Power to mitigate the additional costs related to the portal. Note. Customer Information System (CIS), Workforce Management System (WFM), Enterprise Service Bus (ESB)
- 3.2.8 Corp Services & Other Capital is trending higher to date than budgeted due to the
  delays in the project that were out of NB Power's control, resulting in increased interest and
  overhead carrying cost. NB Power is forecasting to be \$2.2 million over budget on this cost
  category with no opportunities to reduce them.
- 3.2.10 Corp Services & Other Ops is trending higher to date than budgeted due to an unforeseen escalation in the price of non-meter materials such as rings and seals.

All other project expenditures are on schedule and are in line with the planned work. NB Power continues to monitor forecasted expenditures closely and works with vendors to mitigate cost pressures wherever possible.

#### **Fiscal Year Project Schedule**

#### **Update:**

- Mass meter deployment continued in Area 1 and is 95 per cent complete (Fredericton, Grand Falls, Woodstock, and St. Stephen districts).
- Approximately 285,698 AMI meters have been deployed. Area 1 meter installs
  are now in a 'clean up' phase focused on installs that were not straight forward
  or required follow up, for example, access issues, customer reschedule, repairs
  required, etc. This work will continue until the end of the fiscal year.
- Mass meter deployment will continue in Area 2. Rothesay, Sussex, Moncton, Bouctouche, Sackville are now in a 'clean up' phase - focused on installs that are not straight forward or required follow up (examples: access issues, customer reschedule, repairs required, etc.).
   This work will continue until the end of fiscal year. The project remains on schedule expanding mass meter deployment to Area 3 (Miramichi, Tracadie, Bathurst, Eel River) in May 2025.

#### **Meter Deployment**

- As part of deployment of the three-phase transformer rated meter upgrades, NB
  Power has 5,295 meters installed out of approximately 5,987. These upgrades are
  taking place separately from mass deployment due to the complexity of installation.
  Special circumstances such as a pulse output capable meter, load research
  customer, First Nations three phase transformer rated meters will require unique
  coordination. Some installations may carry out past the mass deployment timeline.
- NB Power has received all of its original forecasted meter deliveries (~350,000 AMI Meters).
- NB Power supplies, owns, and maintains the electric meter. The meter base is the property of the home or business owner, and it is typically their responsibility to repair or replace it if the enclosure is in poor condition. As we deploy smart meters across the province, NB Power is covering the cost of repairs to meter bases. NB Power has planned for 0.75 per cent of meter installations to result in a meter base repair. There have been 1,746 meter base repairs to date (0.72 per cent). After the smart meters are installed, customers will be responsible for their own meter base as they were before the smart meter upgrade.

#### **Tentative Smart Meter Installation Map**

This is based on initial plans and is subject to change.



**Underway!** 

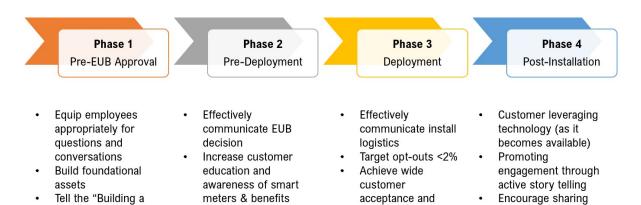
#### **Stakeholder Engagement**

Smarter Grid" story

Proactively engage

with stakeholders

The customer communications and engagement strategy includes four phases as illustrated by the diagram below. <a href="http://www.nbpower.com/">http://www.nbpower.com/</a>



Create and deliver

compelling

marketing communications tools & tactics

#### **Update:**

- NB Power continues to follow the established notification process, communicating with customers, First Nations communities and other stakeholders in the areas of upcoming installations.
- Regular surveys are conducted with customers who receive meters. Overall results as of June 2025 found that:
  - o 92 per cent felt neutral toward or satisfied with the overall meter upgrade experience

understanding

of customer

experiences

- o 74 per cent per cent recalled receiving information prior to the installation
- 86 per cent said the information received was helpful in preparing them for what to expect at installation
- As of June 30, 15,600 (5.2 per cent of all meter install attempts, 4 per cent of full meter population) customers have requested to be placed on the Do Not Install list.
  - Opt outs spiked during the winter high bill season but are on the decline this past quarter. An opt-out customer recovery plan is in development to encourage customers to opt back in.
- The following stakeholder outreach activities took place between April 1 and June 30, 2025:
  - Hosted in-person information sessions in Belyeas Cove, Belleisle, Jemseg, Miramichi, Upham, Norton, Tracadie-Sheila, Bathurst, and Heron Bay
- Internally, the AMI project team continues to share information regularly for employees working in areas of the business affected by AMI. Project leadership conducted visits with employees in Miramichi, Tracadie, Bathurst and Eel River to share the progress and answer questions.
- There were 15,917 visits to the smart meter section of the website, a 48.12 per cent decrease

- compared to the previous quarter.
- During the last quarter, news media coverage and customer inquiries declined significantly. The results of the independent assessment of NB Power's metering and billing systems initiated by the Province of New Brunswick were released on April 4. The findings found there is no evidence that smart meters cause higher bills and there was no sign that the meters were overstating how much power people were using. This information was shared publicly.
- The AMI team continues to work with The North Shore Mi'kmaq Tribal Council to support communication and engagement efforts with First Nations communities in their region.
- The AMI team held an open house at Elsipogtog First Nation.

#### **Risks**

NB Power's Enterprise Risk Management framework and process takes a strategic view of risk in all aspects of business management and is applied consistently at the strategic, business unit, program, and project level. NB Power manages risks, within its risk tolerance, consistently and comprehensively through a continuous, proactive, and dynamic process that identifies, understands, manages and communicates risks that may impact NB Power's strategic goals.

The following risks have been identified as items specific to the success of the overall AMI Project and are monitored and reported on monthly to the Strategic Portfolio Management – Executive Oversight Committee which is comprised of NB Power senior leadership including members of the executive team.

#	Risk		Mitigation Activity
#			Mitigation Activity
1	Public		Communications Team planning to inform the NBP customer base
	Perception of	Y	and mitigate myths.
	Higher Bills	$\leftrightarrow$	Project Leadership to work with NBP regulatory to firm up opt out
	related to AMI		fee structure and prepare for filing and approval.
	Driving Opt		Project Leadership working with Communications to advance
	Out		meter choice campaign.
	There is a risk of		
	increased		
	customer opt		
	outs, due to		
	perception of		
	smart meters		
	causing higher		
	bills, leading to		
	potential delay in		
	realizing business		
	benefits.		
2	Schedule	Υ	The team and Project Management Office continue to review and
-		T	update all activities in the project schedule. The end result of this
	accuracy		activity is a reconciliation of scope and budget to ensure
			alignment with the schedule. NB Power expects delays in the
			completing the meter installs due to higher than expected opt out rate. Challenges with network mitigation will delay completion of this project activity.

Legend for Risk Indicator Results					
Green	Potential impact and/or probability of the risk occurring is low. Issues that have arisen or may arise are considered manageable in the normal course of operations.	≤ 59% of Key Risk Indicator targets are occurring			
Yellow	Potential impact and/or probability of the risk occurring is medium. Issues have surfaced or remain present requiring focus.	≥ 60% of Key Risk Indicator targets are occurring			
Orange	Potential impact and/or probability of the risk occurring is high. Serious issues exist which require close senior management attention.	≥ 75% of Key Risk Indicator targets are occurring			
Red	Potential impact and/or probability of the risk occurring is very high or critical. Serious issues exist which require immediate senior management attention.	≥ 85% of Key Risk Indicator targets are occurring			

Trend Indicator Legend						
1	Significance is increasing	$\leftrightarrow$	Remaining the same	1	Significance is decreasing	

#### **Update:**

- Concerning activities that have the potential to impact the project schedule and/or budget continue to be escalated to the appropriate vendor and management level.
- Implementation risks and issues are identified and managed weekly amongst the project team participants. Meter mix ups have been surfacing in the media. The project team continues to learn from these mix ups to ensure adequate controls are in place to correct issues before billing as much as possible.
- Action plans for each of the above-noted risks are reviewed and updated monthly.

#### **Quantified Benefits Realized**

The following table represents the benefits of AMI that were accepted by the Board in the decision of Matter 452. The majority of these benefits will be realized post full deployment of AMI.

The benefits are shown in present value and real dollars to provide a correlation between the accepted present value in the decision and the real dollar value that is targeted that NB Power will be tracking against over the life of the AMI meters.

Benefit	(PV \$ millions)	Target (Real \$ millions)	Actual	% Realized
Reduced Manual Meter Reading and Meter Service Order Benefits	39.9	65.9		
Avoided Cost of Meter Replacements	22.0	35.4		
Conservation Voltage Reduction	16.2	25.7		
Distribution Network Losses	15.0	25		
High Bill Alert	10.3	17.1		
Load Research Meters	5.2	8.5		
Net Metering	4.3	8.0		
Meter Services Manager Salary	1.8	3.0	1.02	33.91%
Avoided Cost of Meter Reading vehicles	1.8	2.8		
Outage Restoration (Crew Management)	1.6	2.6		
Reduced Customer Inquiries	1.4	2.4	0.25	10.61%
Avoided Cost of Handheld System	1.4	2.2		
Avoided Cost of Meter Reading Supervisor	1.0	1.6	.41	25.53%
Reduced Overtime for Meter Service Orders	0.6	1.0		
Total Benefits	\$122.4	\$201.1		

#### **Update:**

Many of the benefits will be realized post implementation of the smart meters. NB Power will report benefits as they become measurable.

Included in the launch of the AMI portal in March was also NB Power's Energy Usage Alerts program (formerly High Bill Alert). Once a customer has a smart meter and it begins communicating with the head end system, they will receive an Energy Usage Alert if their bill is trending to be 30 per cent higher than the same month the

previous year. There is an option for customers to customize their alerts.

#### **Non-quantified Benefits**

Non-quantified benefits will be measured and reported as they are realized throughout the meters' lifetime. Currently there is nothing to report.

### **AMI PROJECT UPDATE**

Period ending June 30, 2025

