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An Emera Company

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May 2, 2025

Ms. Crystal Henwood
Regulatory Affairs Officer/Clerk
Nova Scotia Energy Board
1601 Lower Water Street, 3rd Floor
P.O. Box 1692, Unit "M"
Halifax, NS B3J 3S3

Re: M10400 CI46075 – IT – T&D WAM Phase 2 – Work Management and Scheduling & Dispatch Application Benefits Report

Dear Ms. Henwood:

Nova Scotia Power Incorporated (NS Power, Company) submitted its application for CI 46075 – IT – T&D WAM Phase 2 – Work Management and Scheduling & Dispatch (Project) to the Nova Scotia Energy Board (NSEB, Board) on November 21, 2021. On July 4, 2022, the Board approved the Application. In its Decision, the Board directed NS Power "to provide annual reporting on the status of the benefits to the NSUARB and stakeholders following completion of the Project, and a final report in late 2027 or early 2028."[1]

Please see below for NS Power's Benefits Report.

In its Application, NS Power forecast net present value benefits of $38.9 million in operational cost savings to be realized over 15 years, which included savings in future budgets, avoided upward cost pressure and sustainment of existing budget reduction challenges.

At the time of the original filing, the Company indicated a number of functionalities and process improvements that would realize savings as a result of the new Work and Asset Management (WAM) systems. The specific functions and processes, along with the projected savings are listed below[2]:

[1] M10400, 296560, NSUARB Decision Letter, NS Power CI 46075 – IT – T&D WAM Phase 2 - Work Management and Scheduling & Dispatch Application, July 4, 2022, page 11.
[2] M10400, NSUARB, NS Power CI 46075 – IT – T&D WAM Phase 2 - Work Management and Scheduling & Dispatch Application, January 14, 2022, page 33.

Benefit	Cumulative NPV Benefits over 15 years ($M)
Auto-Scheduling & Optimization	$18.7
Contractor Management	$11.8
One View of Work	$5.0
Inventory Management	$2.6
Digital Timesheets	$0.4
Standardized Data, Reporting & Analytics	$0.4
Total	**$38.9**

The forecast project benefits were based on time studies of distribution line work under the old WAM systems. The new systems, which were under development during the initial analysis, manage work differently, making direct comparisons for each category challenging. To accurately track benefits, it was necessary to use metrics that compare both the old and new systems, while considering increases in customer-requested work, reliability work volumes, and workforce composition.

Transactions per labor hour provides an appropriate metric to measuring the efficiency between the new and old WAM systems. Non-productive labor hours, such as vacation, training, sick time, holidays, and storm response, have been excluded from the comparison. Excluding non-productive hours reflects only the hours spent on customer work. The benefits associated with 'Auto-scheduling and Optimization' and 'One View of Work' have been merged into one category utilizing this analysis. The remaining categories have had their benefits measured individually.

This benefits analysis compares an annual average for 2021 and 2022 calendar years against the first full year (2024) post-go live of the new WAM Phase 2 systems. A blended hourly rate based on IBEW Collective Agreement rates for 2024 was then applied to the transaction per hour efficiency gains to calculate the realized benefits. Data from 2023 was excluded as the Company was utilizing both systems in that year and also in “hypercare” for a portion of that time, a period of project execution and support provided by the implementation vendor; the hypercare period included heightened customer support and attention immediately following implementation, aimed at ensuring a smooth transition and positive customer experience. During this time, the project team and operations teams were involved in proactive issue resolution, dedicated support teams, and ongoing monitoring to minimize disruptions and ensure successful adoption.

The table below shows the benefits as presented in the application, projected benefits for year 1 and the realized year 1 benefits by benefit category. As noted above, benefits associated with 'Auto-scheduling and Optimization' and 'One View of Work' have been merged into one category utilizing the transactions per labour hour efficiency gains translated into dollars using blended IBEW Collective Agreement rates for 2024. The remaining categories have had their benefits measured individually.

Benefit	**Cumulative NPV Benefits over 15 years ($M)**	**Year 1 Projected Benefits ($M)**	**Year 1 Benefits Realized ($M)**
Auto-Scheduling & Optimization	**$18.7**	**$0.6**	**$2.7**
One View of Work	**$5.0**	**$0.2**	
Contractor Management	**$11.8**	**$0.5**	**$0.0**
Inventory Management	**$2.6**	**$0.1**	**$0.1**
Standardized Data, Reporting & Analytics	**$0.4**	**$0.0**	**$0.1**
Digital Timesheets	**$0.4**	**$0.0**	**$0.0**
Total	**$38.9**	**$1.4**	**$2.9**

The $2.9 million in avoided cost benefits realized in Year 1 have exceeded the forecast due to better visibility of completed work, increased efficiency in scheduling tasks, and improved workforce productivity.

Auto-Scheduling & Optimization + One View of Work

In Year 1, the Company realized $2.7 million in efficiency gains within the categories of Auto-Scheduling and Optimization and One View of Work, by analyzing transactions per labour hour.

New scheduling and optimization tools streamlined routes, minimized travel time between appointments. Configured work order rules, which feature sequential steps, dependencies, and required skill sets, ensured field resources were able to complete service appointments on the first attempt. Less manual work was required to schedule the work as well. This improved efficiency and reduced costs.

All work order details, including priorities and progress, are tracked in Maximo, identifying work that is ready for execution. The consolidated view of work also reduced the manual effort previously required to track job readiness and status.

Real-time work order progress and schedule updates from the field as work is dispatched and completed in Field Service, further enhanced decision-making and operational efficiency by eliminating redundant trips and unnecessary site visits.

Contractor Management

Scheduling and dispatch of work for pole-setting contractors in the new system has been implemented. Ongoing training and change management is being provided to contractors, however the expected benefits for year 1 have not yet been realized due to:

1. Initial change management efforts focused mainly on internal stakeholders (schedulers and field resources) and not on contractors.
2. Contractors facing challenges with the new scheduling tools, partly due to varying levels of general technology familiarity.

Ongoing training and change management with contractors are continuing to ensure improvements and future realization of benefits.

Inventory Management

Realization of the year 1 benefits for this category have been met as a result of:

1. Significant improvements to work order material reservation processes reducing the manual effort required to track reservation statuses, providing better planning visibility.
2. Enhancements made to work order structure, enabling better tracking of consignment materials, reducing the manual effort that was required to reconcile and issue against a work order.
3. Automated update for Maximo material pricing that aligns with Oracle inventory items, eliminating the manual effort required to update pricing in the old system. Also resulting in improved accuracy in the quoting process for customer-requested work.

Standardized Data, Reporting & Analytics

Standardized reporting and analytics improvements in the first year achieved full benefits in year 1 instead of year 3. Real-time reports and dashboards now provide quick access to information on upcoming work, completed tasks, noncompliance issues, escalations, and trends, leading to:

- Reduced manual effort and time required for report generation and analysis
- Automated and streamlined processes for reporting and dashboard creation
- Enhanced operational visibility, enabling the identification of non-compliance and opportunities for productivity gains
- Robust benchmarking capabilities to pinpoint inefficiencies and support informed

decision-making
- Simplified data comparison and aggregation, such as tracking completed work versus scheduled tasks
- Clear and accessible data insights across regions and departments for easier interpretation and comparison

Digital Timesheets

The implementation of digital timesheets has delivered $0.04 million in operational efficiencies in the first year, surpassing projections by $0.03 million.

Before go-live, field resources manually populated timesheets via Survey123, which interfaced with SharePoint. A Work Management Specialist reviewed and updated work order status notes in Maximo or the necessary data repository. A timekeeper then manually entered the timesheet into PeopleSoft.

Post go-live, work is dispatched electronically, and a digital timesheet is automatically created for completed work orders. Field resources review and submit these timesheets electronically each day, these records are then directly interfaced into PeopleSoft, eliminating manual work order status updates and manual re-entry of the timesheet records. This system improvement has increased accuracy and reduced manual efforts for both field and back-office staff.

Conclusion

The first year of the new WAM Phase 2 systems have delivered positive benefits, exceeding initial projections, establishing a strong foundation for benefits realization and continuous improvement.

Key improvements include:

- Automated scheduling has streamlined operations, reduced manual intervention and increased efficiency.
- Unified work order structure and management has provided a comprehensive view of tasks, improving coordination and oversight.
- Enhanced inventory tracking has reduced inefficiencies and ensured timely resource availability.
- Enhanced visibility and real-time reporting have facilitated better decision-making and performance monitoring.
- Digital timesheets have increased accuracy, reduced manual entry, and saved time for both field and back-office staff.

Overall, the new WAM Phase 2 systems have proven to be a valuable investment, delivering immediate and measurable benefits. As NS Power continues to refine and optimize the systems, we anticipate further efficiencies and performance gains in the future.

All correspondence in connection with this matter should continue to be directed to my attention.

Yours truly,

Mike Willett

Mike Willett,
Director, Regulatory Finance