

Group Sites > Capital Financial Pl...

Project Information

Title	Youngs Corner Switching Station
Project #	856B
Blanket Account	No
Work Order Number	5BAR_HA196052/5BAR_HA201763
Work Order Link	http://intra.bhe.com/ewp/wo_detail.cfm?jmnu=5BAR_HA196052/5BAR_HA201763
Project Manager	<input type="checkbox"/> SOLTYS, ALAN
Project Owner	SLOAN, STEPHEN
Project Category	Major Capital
Budget Status	Candidate
Region	SOR
County	Hancock
Project Priority	1
Construction Class	Transmission
PTF	No
Project Owner AOR	Transmission Development
Business Driver	Prospective Project
Circuit ID	Young's Corner Substation (YC)
Project Type_	Substation; Equip Upgrade
Project Description	<p>This project consists of the developmental and construction costs associated with upgrade of the Company's existing pole mounted recloser switching station at Youngs Corner (YC) to a modern, traditional switching station on a parcel of land adjacent to the existing substation site. The envisioned high speed protection to be newly installed at this YC switching station will permit the closure of the Mount Desert Island (MDI) transmission loops. The closure of the MDI transmission loops will support the MDI voltage in the event of a single contingency and will provide improved reliability for MDI.</p>
Project Scope	<p>This project consists of earthwork, concrete foundations, security fencing, construction of a control house, erection of steel bus work, purchase and installation of three breakers to replace the existing pole mounted reclosers, along with the purchase and installation of high speed relays, battery system, communications and other ancillary equipment.</p> <p>Note: The original Oil-filled Breaker Substation and small brick control house was replaced by pole mounted reclosers at this site in 2008. The pole mounted reclosers were installed as a temporary solution until this new, proposed switching station could be executed.</p> <p>Because of its proposed geographic location and sensitivity towards electrical construction projects in this region, this project required additional outreach to community and national park personnel to ensure agreement on the general plan and the voltage cutover plans. This outreach occurred in the fall of 2018 and both parties agreed with the option Emera suggested.</p> <p>Furthermore, the 35kV steel package purchased for the original Acadia Substation at Woodbury Avenue is being repurposed for this new YC Switching Station and its cost was transferred so it could be included as part of the developmental, outreach, and pre-construction costs.</p>
Asset Additions	Poles; 3-PH Conductor; Other
Asset Replacements	Other
Project Justification	<p>The Company's existing YC Switching Station connects Lines 40 and 32 with Line 22; Line 22 is one of two transmission lines serving the new Acadia Substation (see 'MDI Project Map' attached).</p> <p>Emera Maine has strengthened the Mount Desert Island transmission system considerably through the phased</p>

implementation of its MDI Reliability Improvement Project (MDIRIP) plan. This switching station project, along with the concurrent Line 22 cutover, is one of the last major steps of the original, multi-year MDI Reliability Improvement plan.

The Company's existing YC Switching Station is at a critical shared and central location within the two MDI transmission loops. Lines 22, 32 and 40 will all ultimately be able to bring transmission power flow into and out of this switching station. The equipment installed in 2008 was temporary in nature; it was a low cost approach of replacing the badly deteriorated equipment that would not have lasted the necessary 10 year period until the remainder of the MDI plan was completed. The temporary equipment did not allow for automated, high speed switching and contingency for multi-looped transmission system outages. The closure of the MDI transmission loops will support the MDI voltage in the event of a single contingency and will provide improved reliability for MDI.

Project Risk Assessment

Lack of community and other stakeholder acceptance of construction plans associated with the proposed YC Switching Station and relocation of Line 22 distribution are a potential risk. To mitigate the risk, the Company initiated a stakeholder process including outreach to the national park service, Bar Harbor Area community leaders, and residents living in the immediate area of the proposed project site. The Company utilized personnel from previous MDI projects who have demonstrated good working relationships with these stakeholders.

A secondary risk component of this project would be a determination that project costs required to implement the total project are higher than currently forecasted due to the design not yet being finalized.

Screening Criteria for Consideration of NWA (Non-wires Alternative) Solution 6. This project addresses control systems or performance ONLY, e.g. high speed protection, sectionalizing, etc.

Alternative Projects

Further development is required in order to pursue implementation of the Young's Corner Switching Station. There is minimal alternative other than "do nothing" to avoid the spend requested in this project - this option would not allow completion of the MDI reliability improvement plan.

Estimated Total Project Cost	2,750,491
Estimate Grade	Planning Costs Only
Estimated Direct Cost	\$1,605,500
Estimated Overhead Cost	\$730,907
Estimated Labor Overhead	\$215,808
Estimated Non-Labor Overhead	\$595,651
Estimated AFUDC	\$254,084
Estimated Nonunion Cost (ST)	\$132,000
Estimated Union Cost (ST)	\$25,000
Estimated Union Cost (OT)	\$30,000
Estimated Outside Service Cost	\$615,000
Estimated Direct Purchases	\$781,000
Estimated Inventory Cost	\$7,500
Estimated Lobby Stock	\$15,000
Estimated Salvage	\$0
Estimated Credits	\$0
Estimated Reimbursement	\$0
Estimated OM	\$0
Estimated Contingency	\$160,000
Planning Hours	120
Engineering Hours	1,500
Line Resources	External Line

Estimated Line Hours	400
Estimated PST Hours	400
Other Hours	200
Project Status	Closed
Project Start Date	8/28/2018
Construction Start Date	7/1/2019
In Service Date	12/30/2020
Approval Log	;

Approval of Project Justification Criteria (version 19.0)
 by CARON, PETER on 8/28/2018 4:32:20 PM
 Approval Limit per LOSA \$0
 Total Project Cost \$255,178.04;

Approval of Project Estimate (version 21.0)
 by NORMAN, DAVID on 8/28/2018 4:34:59 PM
 Approval Limit per LOSA \$100K
 Total Project Cost \$255,178.04;

Approval of Project Estimate (version 23.0)
 by MILLER, PAUL on 8/30/2018 4:45:57 PM
 Approval Limit per LOSA \$500K
 Total Project Cost \$255,178.04;

Approval of Project Justification Criteria (version 45.0)
 by RAVIN, KYLE on 4/11/2019 2:44:02 PM
 Approval Limit per LOSA \$25K
 Total Project Cost \$2,666,412.19;

Approval of Project Justification Criteria (version 47.0)
 by NORMAN, DAVID on 4/11/2019 2:49:16 PM
 Approval Limit per LOSA \$100K
 Total Project Cost \$2,666,412.19;

Approval of Project Estimate (version 49.0)
 by MILLER, PAUL on 4/12/2019 9:39:59 AM
 Approval Limit per LOSA \$500K
 Total Project Cost \$2,666,412.19;

Approval of Project Estimate (version 52.0)
 by HERRIN, MICHAEL on 4/12/2019 12:09:41 PM
 Approval Limit per LOSA \$2M
 Total Project Cost \$2,666,412.19;

Approval of Project Closure(version 22.0)
 by SOLTYS, ALAN on 12/29/2020 12:34:45 PM
 Approval Limit per LOSA
 Total Project Cost \$2,750,490.98

Approval Status	Completed Approval of Approval of Project Closure
Required Resources	Line - Contractor; PST SOR; Line -Engineer; Substation - Engineer; T&D Planning; Right of Way; Transmission Development; Other
Team Members	SOLTYS, ALAN ; HORN BROOK, JAMES ; MILLER, KENNETH ; CASSIDY, DANIEL ; NEWWEY, GLEN
Planning	Completed
Planner	
Engineering	Required
Line Engineer	
Trim	Not Required
ROW	Completed
Procurement	Required
Tel Pole Set	Not Required
Customer Rqmts	Not Required
Environ Permits	Required
Pole Permits	Completed
Other Permits	Required
Dig Safe	Required
Final Inspection	Required

Capital Project Update/Request for the Board of Directors

BOD Request Title	Youngs Corner Switching Station
BOD Meeting Date	6/27/2018
BOD Update Type	Funding Request
BOD Requested Amount	\$2,840,000
BOD Request/Update	Management requests Board of Director approval for \$2.84 million (including overheads and AFUDC), for the pupose of rebuilding the Young's Corner switching Station and completing the high-speed protection for the MDI Transmission loops.
Project Information	See attached Board slides.
Alternative Projects	
BOD Cost Summary	
Project Update	
Key Risks	
BOD Request Status	Approved
BOD Comments	
Signature	Rob Belliveau
Related Projects	856B
Projects Lookup:Title (linked to item)	Youngs Corner Switching Station
Related Projects:In Service Date	12/30/2020
Attachments	Youngs Corner Switching Station Board Approval.pdf
Content Type: BOD Request	
Version: 2.0	
Created at 3/18/2019 11:55 AM by <input type="checkbox"/> WRIGHT, AMY	
Last modified at 3/18/2019 11:59 AM by <input type="checkbox"/> WRIGHT, AMY	