



# North Carolina Transmission Planning Collaborative

## NCTPC 2020 Collaborative Transmission Plan Update

### June 2021

Attached is the mid-year update to the NCTPC 2020 Collaborative Transmission Plan dated January 15, 2021. The status and timing of all projects presented in that plan have been reviewed and the attached update reflects all changes (shown in red) that have been identified. In addition, all cost projections have been reviewed and updated to reflect current assumptions.

The total cost estimate of 2020 Plan Reliability Projects changed from \$804 million to \$846 million. The key differences between the original plan and this updated plan are summarized below:

<b>Updates to the 2020 Collaborative Plan</b>		
<b>Project</b>	<b>Change</b>	<b>Reason for Change</b>
Sutton-Castle Hayne 115 kV North Line Rebuild	Project went in-service and final cost updated (-3M)	Project in-service
Craggy-Enka 230 kV Line	Accelerated project by 2 years	Rebuild on existing ROW allowed more timely construction
Carthage 230/115 kV Substation, Construct Sub	Updated project cost estimate (+5M) and accelerated need date	Recent cost projections up and assessments show earlier need date
Castle Hayne–Folkstone 115 kV Line, Rebuild	Updated project cost estimate (+33M) by Engineering and accelerated need date	Unusually wet ROW causes need for additional matting and other costs and recent assessments show earlier need date
Holly Ridge North 115 kV Switching Station, Construct	Accelerated project by 2 years	Recent assessments call for earlier need date
Windmere 100 kV Line (Dan River-Sadler), Construct	Updated project cost estimate (+2M) and delayed completion date	Recent projections
Cokesbury 100 kV Line (Coronaca-Hodges), Upgrade	Updated project cost estimate (+4M)	Recent projections
South Point Switching Station, Construct	Updated project cost estimate (+1M)	Recent projections
<b>Total Change</b>	<b>+42 Million</b>	<b>Plan up from \$804 M to \$846 M</b>



# North Carolina Transmission Planning Collaborative

2020 Collaborative Transmission Plan – Reliability Projects (Estimated Cost > \$10M)							
Items identified in red are changes from the previous report							
Project ID	Reliability Project	Issue Resolved	Status <sup>1</sup>	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) <sup>2</sup>	Project Lead Time (Years) <sup>3</sup>
0024	Durham - RTP 230 kV Line, Reconductor	Address loading on the Durham - RTP 230 kV Line	Conceptual	DEP	TBD	20	4
0028	Brunswick #1 – Jacksonville 230 kV Line Loop-In to Folkstone 230 kV substation	Address loading on the Castle Hayne - Folkstone 115 kV Line	Removed	DEP	-	-	-
0031	Jacksonville-Grants Creek 230 kV North Line and Grant’s Creek 230/115 kV Substation	Mitigate loading and voltage issues on existing Havelock-Jacksonville 230 kV Line	In-service	DEP	6/1/2020	72	-
0032	Newport-Harlowe 230 kV Line and Harlowe 230/115 kV Substation	Mitigate loading and voltage issues on existing Havelock-Morehead Wildwood 115 kV North Line	In-service	DEP	6/1/2020	55	-
0034	Sutton-Castle Hayne 115 kV North Line Rebuild	Mitigate contingency loading	In-service	DEP	4/29/2021	27	-
0039	Asheboro-Asheboro East 115 kV North Line Reconductor	Mitigate contingency loading	Underway	DEP	6/1/2022	24	1



# North Carolina Transmission Planning Collaborative

2020 Collaborative Transmission Plan – Reliability Projects (Estimated Cost > \$10M)							
Items identified in red are changes from the previous report							
Project ID	Reliability Project	Issue Resolved	Status <sup>1</sup>	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) <sup>2</sup>	Project Lead Time (Years) <sup>3</sup>
0042	Rural Hall 100 kV, Install SVC	Additional voltage support	In-Service	DEC	3/17/2020	44	-
0043	Orchard Tie 230/100 kV Tie Station, Construct	Load growth	In-service	DEC	8/26/2020	104	-
0046	Windmere 100 kV Line (Dan River-Sadler), Construct	Mitigate contingency loading	Underway	DEC	12/1/2023	28	2.5
0048	Wilkes 230/100 kV Tie Station, Construct	Mitigate contingency loading and voltage issues	Underway	DEC	6/1/2024	69	3
0050	Craggy-Enka 230 kV Line, Construct	Mitigate contingency loading	Conceptual	DEP	12/1/2024	80	3.5
0051	Cokesbury 100 kV Line (Coronaca-Hodges), Upgrade	Mitigate contingency loading	Planned	DEC	12/1/2024	20	3
0052	South Point Switching Station, Construct	Transformer contingency loading	Planned	DEC	12/1/2024	111	3
0053	Wateree 115 kV Plant, Upgrade 115/100 kV Transformers	Mitigate contingency loading	Underway	DEP	12/1/2022	12	1.5



# North Carolina Transmission Planning Collaborative

2020 Collaborative Transmission Plan – Reliability Projects (Estimated Cost > \$10M)							
Items identified in red are changes from the previous report							
Project ID	Reliability Project	Issue Resolved	Status <sup>1</sup>	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) <sup>2</sup>	Project Lead Time (Years) <sup>3</sup>
0054	Carthage 230/115 kV Substation, Construct Sub	Mitigate contingency loading and voltage issues	Conceptual	DEP	12/1/2025	20	4
0055	Falls 230 kV Sub, Add 300 MVAR SVC	Mitigate future voltage issues with retirement of Person Co. generation	Conceptual	DEP	12/1/2028	50	4
0056	Castle Hayne–Folkstone 115 kV Line, Rebuild	Address loading on the Castle Hayne - Folkstone 115 kV Line	Conceptual	DEP	12/1/2026	85	5
0057	Holly Ridge North 115 kV Switching Station, Construct	Mitigate contingency low voltage	Conceptual	DEP	12/1/2026	25	4
<b>TOTAL</b>						<b>846</b>	

<sup>1</sup> Status: *Underway*: Projects with this status range from the Transmission Owner having some money in its current year budget for the project to the Transmission Owner having completed some construction activities for the project. *Planned*: Projects with this status do not have money in the Transmission Owner’s current year budget, and the project is subject to change. *Conceptual*: Projects with this status are not *Planned* at this time but will continue to be evaluated as a potential project in the future.

<sup>2</sup> The estimated cost is in nominal dollars which reflects the sum of the estimated annual cash flows over the expected development period for the specific project (typically 2 – 5 years), including direct costs, loadings and overheads; but not including AFUDC. Each year’s cash flow is escalated to the year of the expenditures. The sum of the expected cash flows is the estimated cost.

<sup>3</sup> For projects with a status of Underway, the project lead time is the time remaining to complete construction and place in-service.