



North Carolina Transmission Planning Collaborative

NCTPC 2011 Collaborative Transmission Plan Update September 2012

Attached is the mid-year update to the NCTPC 2011 Collaborative Transmission Plan issued January 19, 2012. The status and timing of all projects presented in that plan have been reviewed, and the attached update reflects all changes that have been identified. In addition, all cost projections have been reviewed and updated to reflect current assumptions. The cost projections increased from \$296M to \$309M.

The key differences between the original plan and this updated plan are summarized below:

Project	Change	Reason for Change
#0028: Brunswick #1 – Jacksonville 230 kV Line Loop-In to Folkstone 230 kV substation	In-service date moved from 6/1/2016 to 6/1/2020	Original estimated Folkstone substation location and line impedance assumptions were updated to design values
#0008 : Greenville - Kinston DuPont 230 KV Line Construct line	In-service date moved from 6/1/2017 to 6/1/2014	Project required for the Duke-Progress merger – moved up to go in service by the 2014 deadline of that agreement
#0029 : Arabia 230 kV substation	Removed from Plan	Replaced by alternative project #0030 Raeford
#0030 : Raeford 230 kV substation, loop-in Richmond-Ft Brg Woodruff St 230 kV Line and replace banks	Replaced #0029 Arabia	Found an alternate solution that solved multiple loading issues
#0024 : Durham-RTP 230 kV Line, Reconductor	In-service date moved from 6/1/2021 to 6/1/2022	Projected load growth less than anticipated
#0014 : Reconductor London Creek 230 kV Lines	In-service date moved from 6/1/2021 to 6/1/2017	Driven by change in Duke’s ratings philosophy



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2011 Collaborative Transmission Plan – Major Project Listing (Estimated Cost > \$10M)							
Project ID	Reliability Project	Issue Resolved	Status ¹	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) ²	Project Lead Time (Years) ³
0011	Asheville - Enka, Convert 115 kV Line to 230 kV, Construct new 115 kV line	Address Asheville 230/115 kV transformer loading	Partial In-Service	Progress	12/1/2010 12/1/2012	30	- 1
0026	Brunswick 1 - Castle Hayne 230 kV Line, Construct New Cape Fear River Crossing	Address loading on Sutton Plant - Castle Hayne 230 kV Line	Underway	Progress	12/31/2012	27	1
0022	Jacksonville Static VAR Compensator	Address inadequate dynamic voltage recovery after system faults during periods of high imports	Underway	Progress	6/1/2013	32	1.5
0023	Folkstone 230/115 kV Substation	Address voltage on Castle Hayne - Jacksonville City 115 kV Line	Underway	Progress	12/1/2012	19	1
0010A	Harris Plant-RTP 230 kV Line, Establish a new 230 kV line by utilizing the Amberly 230 kV Tap, converting existing Green Level 115 kV Feeder to 230 kV operation, construction of new 230 kV line, remove 230/115 kV transformation and connection at Apex US1	Address the need for new transmission source to serve rapidly growing load in the western Wake County area; helps address loading on Cary Regency Park - Durham 230 kV line	Underway	Progress	6/1/2014	59	2.5



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0028	Brunswick #1 – Jacksonville 230 kV Line Loop-In to Folkstone 230 kV substation	Address loading on Folkstone – Jacksonville City 115 kV Line	Planned	Progress	6/1/2020	14	4
0008	Greenville - Kinston DuPont 230 KV Line Construct line	Address loading on Greenville - Everetts 230 kV Line	Planned	Progress	6/1/2014	25	4
0029	Arabia 230 kV substation	Address loading on Raeford 230/115 kV transformer	Removed	Progress			
0030	Raeford 230 kV substation, loop-in Richmond-Ft Brg Woodruff St 230 kV Line and replace banks	Address loading on Raeford 230/115 kV transformer	Planned <i>(Replaced 0029)</i>	Progress	6/1/2018	14	4
0024	Durham - RTP 230 kV Line, Reconductor	Address loading on the Durham - RTP 230 kV Line	Planned	Progress	6/1/2022	15	4
0027	Reconductor Caesar 230 kV Lines (Pisgah Tie - Shiloh Switching Station #1 & #2)	Contingency loading of the remaining line on loss of the parallel line during high imports to Progress West	Underway	Duke	6/1/2013	26	1



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0014	Reconductor London Creek 230 kV Lines (Peach Valley Tie - Riverview Switching Station #1 & #2)	Contingency loading of the remaining line on loss of the parallel line when a 230 kV connected Oconee unit is off line	Planned	Duke	6/1/2017	48	4
TOTAL						309	

¹ 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.

² 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.

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