



2007 Supplemental Report

Appendix A

Collaborative Transmission Plan

Major Project Listing

May 16, 2008

Collaborative Transmission Plan – Major Project Listing (Estimated Cost > \$10M) ¹							
Project ID	Reliability Project	Issue Resolved	Status ²	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) ³	Project Lead Time (Years) ⁴
0002	Lee Sub-Wommack 230 kV South Line, Reconductor	Address loading on Lee-Wommack 230 kV South line	Underway	Progress	6/1/2008	13	0.5
0003	Durham 500 KV Sub, Loop Mayo Plant-Wake 500 KV Line	Address loading on Wake 500/230 transformer banks	Underway	Progress	6/1/2008	31	0.5
0017	Durham-Falls 230 kV Line, Construct line	Address loading on Method-East Durham 230 kV line	Underway	Progress	6/1/2008	10	0.5
0005	Rockingham-West End 230 kV Line, Construct Wadesboro Bowman School 230 kV Tap, Uprate line	Address loading on Rockingham-Blewett-Tillery 115 kV corridor	Underway	Progress	6/1/2009	11	1.5
0007	Richmond 500 kV Substation, Install 500 kV series reactor in Richmond-Newport 500 kV Line	Address large post contingency phase angle differences at times of high 500 kV flow	Underway	Progress	12/1/2009	10	1.5
0004	Clinton-Lee 230kV Line, Construct line	Address loading on Clinton-Vander 115 kV line & Lee Sub-Wallace 115 kV line	Underway	Progress	6/1/2010	21	2.5
0011	Asheville-Enka, Convert 115 kV Line to 230 kV, Construct new 115 kV line	Address Asheville 230/115 kV transformer loading	Planned	Progress	12/1/2010 12/1/2012	28	3.0 5.0

Collaborative Transmission Plan – Major Project Listing – Continued (Estimated Cost > \$10M) ¹							
Project ID	Reliability Project	Issue Resolved	Status ²	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) ³	Project Lead Time (Years) ⁴
0008	Greenville-Kinston Dupont 230 KV Line , Construct line	Address loading on Greenville-Everetts 230 kV Line	Underway	Progress	6/1/2011	19	3.5
0010	Rockingham-West End 230kV East Line, Construct line	Address loading on Rockingham-West End 230 kV Line	Underway	Progress	6/1/2011	32	3.5
0010A	Harris Plant-RTP 230 kV Line, Establish a new 230 kV line by utilizing the Amberly 230kV Tap, converting existing Green Level 115kV 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	6/1/2011	56	3.5
0010B	Asheboro-Pleasant Garden 230 kV Line, Construct new line, at Asheboro replace 2-200 MVA 230/115 kV Banks with 2-300 MVA Banks	Address loading on Badin-Tillery 100kV lines, Biscoe-Asheboro 115 kV line, Tillery-Biscoe 115 kV corridor, Newport-Richmond 500 kV line, Wake 500/230 banks	Underway	Progress & Duke	6/1/2011	42	3.5
0018	Rockingham-Lilesville 230 kV Line, Add third line	Address loading on Lilesville-Rockingham 230 kV lines	Underway	Progress	6/1/2011	19	3.5
0021	Richmond-Ft Bragg Woodruff Street 230 kV Line	Address loading of several transmission lines out of the Richmond/Rockingham area due to Richmond Co. Combined Cycle generator	Planned	Progress	6/1/2011	85	3.5
0022	Jacksonville Static VAR Compensator	Address inadequate dynamic voltage recovery after system faults during periods of high imports	Planned	Progress	6/1/2012	30	2
0016	Wake 500 kV Sub, Add 3rd 500/230 kV Transformer Bank	Address loading on existing Wake 500/230 banks	Planned	Progress	6/1/2013	23	4.0
0019	Cape Fear-West End 230 kV West Line, Install a 230 kV Series Reactor at West End 230 kV Sub	Address loading on Rockingham-West End 230 kV and Cape Fear-West End 230 kV lines	Planned	Progress	6/1/2016	12	4.0

Collaborative Transmission Plan – Major Project Listing – Continued (Estimated Cost > \$10M) ¹							
Project ID	Reliability Project	Issue Resolved	Status ²	Transmission Owner	Projected In-Service Date	Estimated Cost (\$M) ³	Project Lead Time (Years) ⁴
0013	Replace Antioch 500/230 kV transformers #1 & #2	Contingency loading of the remaining Antioch bank on loss of the parallel bank	Planned	Duke	2013	52	5
0020	Reconductor Fisher 230 kV Lines (Central-Shady Grove Tap #1 & #2)	Contingency loading of the remaining line on loss of the parallel line when Cliffside 5 is off line	Planned	Duke	2016	29	3
0014	Reconductor London Creek 230 kV Lines (Peach Valley-Riverview #1 & #2)	Contingency loading of the remaining line on loss of the parallel line when an Oconee unit is off line	Deferred	Duke			

¹ The Henderson-Kerr Dam 115 kV Line was listed in the 2006 Supplemental Report with an estimated cost of \$10 million or more. The 2007 Study results continue to identify the need for the project, but the project is not listed in the 2007 Collaborative Transmission Plan since the estimated cost is now less than \$10 million.

² Status:

In-service: Projects with this status are in-service.

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.

Deferred: Projects with this status were identified in the 2006 Supplemental Report and have been deferred beyond the end of the planning horizon based on analysis performed to develop the 2007 Collaborative Transmission Plan.

³ 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.

⁴ For projects with a status of Underway, the project lead time is the time remaining to complete construction and place in-service.