TAG Meeting
September 10, 2012

ElectriCities Office
Raleigh, North Carolina

TAG Meeting Agenda

1. Administrative Items – Rich Wodyka
2. FERC Order 1000 Report – Sam Waters and Diane Huis
3. 2011 Transmission Plan Update – Orvane Piper
4. NCTPC 2012 Study Activities Update – Denise Roeder
5. 2012 Study Preliminary Results – Orvane Piper and Mark Byrd
6. Regional Studies Update – Bob Pierce
7. 2012 TAG Work Plan Update – Rich Wodyka
8. TAG Open Forum – Rich Wodyka

FERC Order No. 1000 Rule on Transmission Planning and Cost Allocation Compliance Update

Sam Waters - Duke Energy

Diane Huis - NCEMC

on behalf of the North Carolina Transmission Planning Collaborative

FERC Order 1000 Compliance Update

- Draft Tariff/OATT Attachment N language provided on August 24th with subsequent revision on September 7th
- September 7th draft Tariff revision was related to cost allocation for Regional Projects
- Overview of the Tariff changes
- Review of Next Steps

Cost Allocation Revision

- **Previous Proposal**
  - **Included multiple categories of Regional Projects for cost allocation purposes (reliability, economic, public policy and multiple) with different methodology for each category**

- **Revised Proposal**
  - **Single cost allocation methodology based on avoided transmission costs**

Cost Allocation Revision – Why the change?

- **NCTPC had developed different cost allocation approaches for reliability, economic and public policy projects that the NCTPC believed were appropriate for the NCTPC region and were compliant with Order 1000.**

- **However, feedback received on these cost allocation approaches indicated that they provided too much flexibility and thus might not have been acceptable.**

- **The revised cost allocation approach, which is based on avoided transmission cost, has been determined by the NCTPC to be an alternative approach that will also work well for the NCTPC region and is believed to be fully compliant with Order 1000 requirements.**

Cost Allocation Revision – Why the change? (cont.)

- **Why an avoided cost methodology works well for the NCTPC region and is believed to be fully compliant with Order 1000 requirements:**
  - **Order 1000 allows for regional differences**
  - **NCTPC region includes vertically integrated utilities that have IRP processes, which Order 1000 states will not be impacted.**
  - **IRP processes are used to determine the resources required to meet reliability, economics and public policy needs. These IRP processes preliminarily identify the transmission needed to support planned use of resources.**
  - **Regional Projects are projects that would provide a more cost effective and/or efficient solution to the transmission projects that are in the current transmission plan, which plan is derived largely from resource decisions made in IRP processes.**

Cost Allocation Revision – Why the change? (cont.)

- **Why an avoided cost methodology works well for the NCTPC region and is believed to be fully compliant with Order 1000 requirements (cont.):**
  - **The NCTPC region has no retail access and does not operate in an RTO organized market environment. Therefore, region-wide market oriented solutions are not a good fit in the NCTPC region.**
  - **An avoided transmission cost allocation methodology can be fully supported as an *ex ante* cost allocation approach in which the transmission studies can be replicated.**
  - **Provides a consistent regional cost allocation approach – same approach is being proposed throughout the southeast in non-RTO regions, reflecting the similarities of the regional regulatory environments.**
  - **Reduces the potential for disputes over whether projects will provide benefits.**

NCTPC Current (Revised) Approach

- Current proposal is to use Avoided Transmission Cost approach
- Serves two purposes:
  1. Selection of alternative project
     - 1.25 Benefit-to-Cost Threshold based on avoided transmission cost, if passing other screens
  2. Determination of cost allocation for any type of regional project (reliability, economic or public policy)

Avoided Transmission Cost Approach

- **Pros:**
  - Clearly defined
  - Ex-ante approach and studies can be replicated
  - Indication from FERC staff that this is an acceptable approach

Avoided Transmission Cost Approach

- **Cons:**
  - Does not provide any consideration of additional benefits that could be provided, such as reduction in congestion costs, reduction in losses, generation capacity and ancillary services savings, public policy benefits
  - Assumes that proposed projects will always be replacing other projects – this may not always be the case

Alternative Approach

- Add an Option that allows developers to provide evidence of additional factors and benefits to be considered in **project selection**, along with a proposal for **allocating costs commensurate with the additional benefits** identified
- Difficult at the outset to define all the different types of benefits, hence tariff language would be sufficiently broad so as to not limit options

Alternative Approach

Cost Allocation Options

- Default: avoided transmission cost
- Option: Developer can propose other methods based on claimed benefits
  - Could include hiring an independent consultant to run production cost models when and if requested by developer
  - Choosing the option to have project evaluated under a different methodology does not preclude going back to default methodology

Overview of Tariff Changes

2. Definitions

- **Added key Order 1000 compliance related terms:**
  - **Developer**
  - **Local Project**
  - **Non-incumbent Developer**
  - **Merchant Transmission Developer**
  - **Regional Project**

3. Enrollment of Transmission Providers

- Enrolled Transmission Providers are entities that have the statutory or tariffed obligation to ensure that adequate transmission facilities exist in order to allow their customers to deliver energy from their network resources to their loads and to fulfill other long-term firm transmission obligations.
- Duke Energy Carolinas and Carolina Power & Light Company have enrolled.
- A process has been identified for others to enroll.

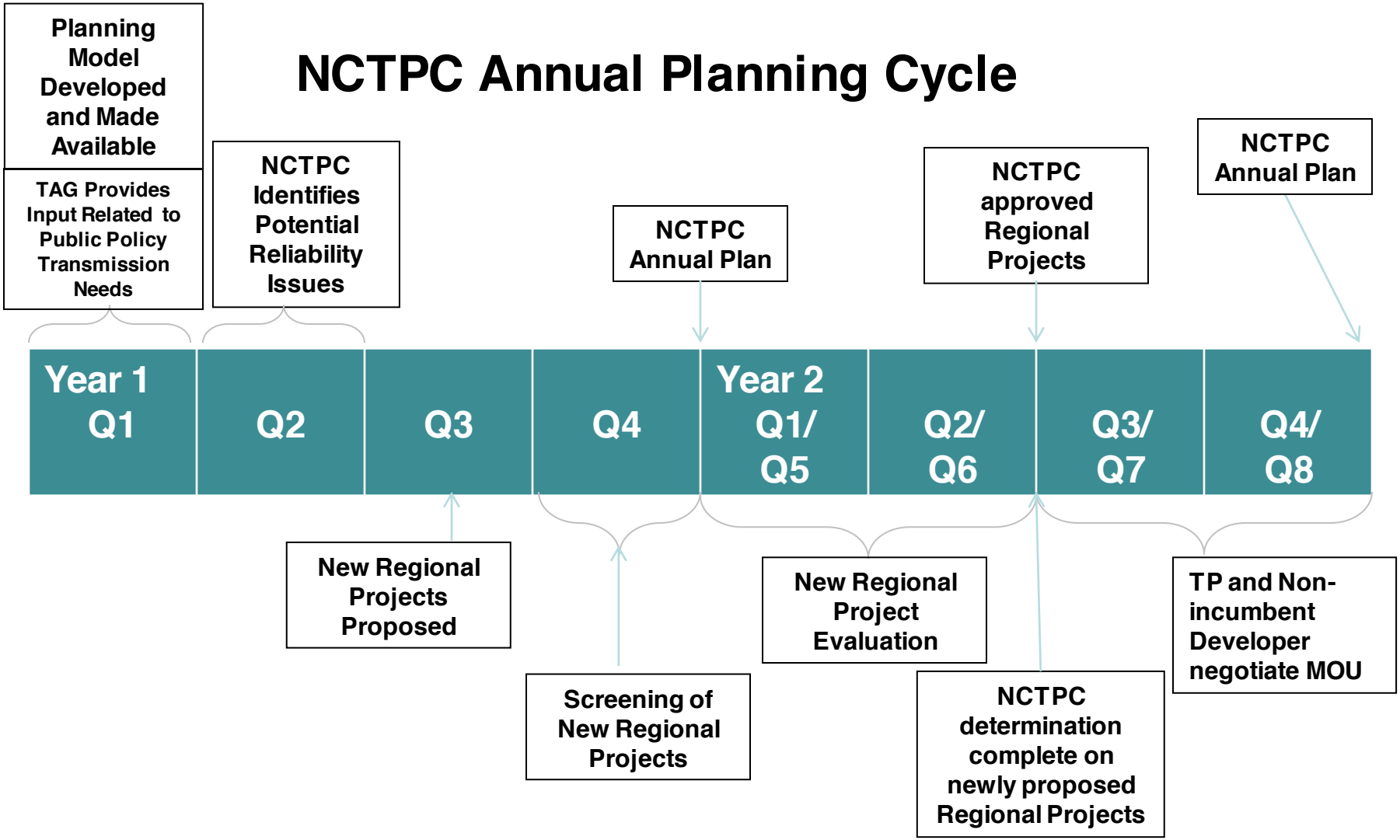
6. Overview of Economic Study Process

- The Economic Study process that was implemented in accordance with Order 890 is being preserved.
- TAG participants may request up to five economic studies.
- Regional Economic Transmission Paths (RETPs) language was taken out since it was replaced by the Order 1000 Regional Project evaluation process.

7.1.5 Collaborative Transmission Plan Development

- An explanation of how the Regional Project selection process will be included within the overall NCTPC transmission planning cycle is provided along with a matrix that provides an Overview of the Planning Process by Quarter.
- A high level timeline of this process is provided in the next slide.

NCTPC Annual Planning Cycle



Regional Project Development and Evaluation

7.2 Public Policy that drives transmission needs *(Q1)*

- **NCTPC will annually hold a stakeholder process to determine if any public policies exist that drive transmission.**
- **Criteria for determining if public policy drives transmission need:**
  - **Public policy must be reflected in state, federal, or local law or regulation (including order of a state, federal, or local agency).**
  - **A transmission need will not be considered to be driven by public policy, if the need is readily addressed through the individual resource planning processes of LSEs and individual requests for Network Resource designations, i.e., where there is no apparent benefit to a collective approach.**
- **OSC will issue decision as to whether public policy is driving a transmission need. If public policy(ies) are identified, Local Projects and Regional Projects may be proposed by TAG participants (including Developers) as solutions to those needs.**

7.5.2 Merchant Transmission Developer *(Q1)*

- **A Merchant Transmission Developer that is considering constructing a project that will interconnect with the facilities of a Transmission Provider is encouraged to provide their key transmission information to the NCTPC in Q1.**

- **Submittal of this information is not a substitute for a request for interconnection service, which should be directed to the relevant Transmission Provider(s).**

7.5.11 Status Reports *(Q2)*

- **In Q2, the Transmission Providers and any Developers responsible for approved Local and Regional Projects will provide the ITP a written report on the status of the transmission upgrades presented in the previous Collaborative Transmission Plans.**
- **A composite update will be posted on the NCTPC Website and will be reviewed at the Q2 TAG meeting.**

7.9.3 *Merchant Transmission Developer may propose a Participant-Funded Project (Q3)*

- **A Merchant Transmission Developer may propose a participant-funded project as an alternative solution and use this planning process to promote the proposal among TAG stakeholders.**

7.10 Selection of Preferred Transmission Plan *(Q3)*

- **The Regional Projects that are identified in the Final Report on Regional Project Selection will be included as the PWG develops a set of solutions to be recommended for inclusion in the annual Collaborative Transmission Plan.**

7.11 Collaborative Transmission Plan Report *(Q4)*

- **Clarifications were made to distinguish the "Draft Plan" that is initially created by the PWG, released by the OSC to the TAG, and reviewed and discussed with the TAG from the "Final" annual plan that is published each year.**
- **Also clarified that if a Regional Project is selected in the Collaborative Transmission Plan it has been selected for regional cost allocation.**

8. Regional Project Selection Process

8.1 Regional Projects are projects that:

- As a general rule, encompass multiple Transmission Providers' service territories
- Voltage level of 230 kV or above
- Project cost must be at least $10 million
- Will be subject to the Tariff of the Transmission Provider(s) for open access purposes
- Must be materially different than projects currently in the NCTPC Final Collaborative Transmission Plan

8.2 Submission of Regional Project Proposals *(Q3)*

- **NCTPC will announce a date in Q3 by which all Developers must submit Regional Project Proposals.**
- **Such Regional Project Proposals must include the two sets of information identified below:**
  - **Project Information (8.2.3)**
  - **Developer Qualification Information (8.2.4)**
- **Developer must also submit a deposit of $25,000. The actual costs incurred by the NCTPC to analyze Regional Projects will be borne by the Developer and the deposit will be trued up based on the documented cost of the analysis.**

8.2 Submission of Regional Project Proposals (cont.)

- **Upgrades:**
  - **Regional Project Proposal may include upgrades to existing or proposed (i.e., facilities that a Developer is expected to own but are not yet in service) facilities of one or more Transmission Providers, Non-Incumbent Developers, or Merchant Transmission Developers.**
  - **If a Regional Project Proposal includes such upgrades and the Developer is not also the owner of the facilities to be upgraded, the Developer must offer the owner of the facilities the option to design, build, operate, and maintain the portions of the Regional Project that are upgrades to such owner's facilities.**

8.2 Submission of Regional Project Proposals (cont.)

- **Upgrades (cont.):**
  - **If the owner of the facilities to be upgraded declines to design, build, operate, and/or maintain the portions of the Regional Project that are upgrades to its facilities, the Developer proposing the Regional Project may design, build, operate, and/or maintain the portions of the Regional Project that are upgrades to the owner(s)' facilities.**
  - **Nothing in the OATT affects any Developer's rights under state law with regard to its real property (including rights of way and easements).**

8.2.5 *ITP Review of Submission of Regional Project Proposals (Q3)*

- **ITP will review the Regional Project Proposals and ensure that they are complete.**
- **If incomplete, the Developer(s) will be given an explanation of the deficiencies and an opportunity to resubmit its proposal within 14 days.**
- **The purpose of this review is to ensure that the NCTPC has sufficient information to perform the screening analyses.**

8.2.6 *Regional Project Proposals will be posted on the NCTPC website (Q3)*

8.3 Screening Process for Regional Projects *(Q4)*

- **Types of Screens to be performed:**
  - **Developer Screen**
  - **Technical Analysis Screen**
  - **Benefit Analysis Screen**
- **OSC will issue a report on the results of the screening analysis**
- **Failure of the screening analysis**
  - **Developer may challenge through the Dispute Resolution process**
  - **Developer may revise the proposal and resubmit during the next submittal window.**

8.4 Regional Project Selection *(Q5 & Q6)*

- **More thorough review of all proposed Regional Projects that passed the screening analysis**
- **Open project meetings will be held to fully vet each proposed Regional Project**
- **OSC will seek written comments from the TAG on the Regional Project proposals**
- **Section 8.4.3 provides factors that the NCTPC will consider when evaluating a Regional Project**

8.5 Draft Report and Final Report on Regional Project Selection *(Q6)*

- **OSC will issue a Draft Report on Regional Project Selection indicating which Regional Projects are approved and which are not and provide a written basis for its decision.**
- **TAG will be asked to comment on the Draft Report.**
- **After considering the submitted comments, if any, the OSC will issue a Final Report.**

8.6 *Disputes*

- **Disputes over the approval or failure to approve Regional Projects will be addressed through the Dispute Resolution provisions.**

8.7 Activities After Issuance of the Final Regional Project Selection Report *(Q7 & Q8)*

- **Transmission Providers and non-incumbent Developer(s) with approved Regional Projects negotiate MOU addressing the below areas:**
  - **Interconnection provisions**
  - **Responsibilities for NERC standards**
  - **Transmission service under incumbents' OATTs**
  - **Operational control and O&M responsibilities**
  - **Cost allocation (as set by OSC)**
  - **Assignment of agreement to new owner**
  - **Liability/indemnification**

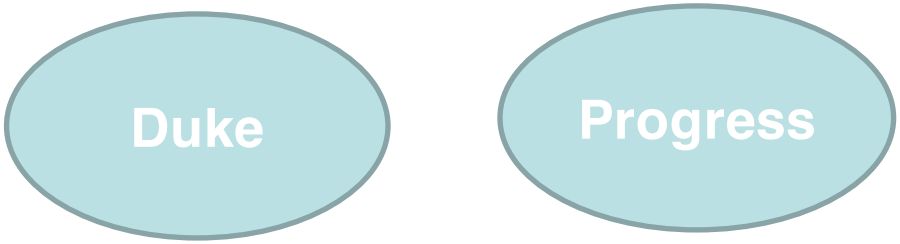
9. Cost Allocation for Regional Projects

- Order 1000-compliant methodology will replace existing Regional Reliability and Regional Economic Project cost allocations in current Tariff.
- New Regional Cost Allocation methodology is based on avoided transmission costs.
- A Benefit to Cost ratio of 1.25 must be demonstrated for Regional Projects.
- Costs will be allocated to beneficiaries in proportion to the benefits received.
  - Duke and Progress, in their roles as Transmission Providers, would be the project beneficiaries.
  - Costs allocated to Duke and Progress would in turn be recovered through their retail and wholesale transmission rates.
  - Cost allocation would be reflected in an agreement among Developer and Transmission Providers.

Cost Allocation for Regional Projects

Regional Project

- Regional Project where Duke and Progress each receive benefits from the project
- The Transmission Project Developer is a non-incumbent Transmission Developer



Assumptions:

- Total cost of the Regional Project = $400 M
- Avoided Transmission Cost ($500 M):
  - Duke = $300 M
  - Progress = $200 M

Benefit to Cost Ratio:

- Total Cost of Transmission Avoided ($500 M) / Cost of the Regional Project ($400 M) = 1.25, therefore this Regional Project passes the Benefit to Cost ratio threshold.

Regional Cost Allocation:

- Project beneficiaries:
  - Duke = 60% of the transmission cost responsibility
  - Progress = 40% of the transmission cost responsibility

Review of Next Steps

- **TAG invited to submit comments to OSC by September 24th send to Rich Wodyka - ITP (rawodyka@aol.com)**
- **Regional Compliance filing submitted to FERC by October 11, 2012**
- **Interregional Compliance filing due to FERC by April 11, 2013, but may be delayed due to the SERTP expansion since that is a key interregional NCTPC interface**

Questions ?

NCTPC 2011 Transmission Plan Update

Orvane Piper

Duke Energy

2012 Mid-Year Update to the 2011 Collaborative Transmission Plans

- **3** Progress Energy project in-service date changes
- **1** Progress Energy project replaced
- **1** Duke Energy project in-service date change
- Total Project Cost changed from $296M to $309M

Major Projects in 2011 Plan		
Reliability Project	TO	Planned I/S Date
Asheville-Enka 230 kV line, Convert 115 kV line; & Asheville-Enka 115 kV, Build new line	Progress	In-Service December 2012
Brunswick 1-Castle Hayne 230kV Line, Construct New Cape Fear River Crossing	Progress	December 2012
Jacksonville Static VAR Compensator	Progress	June 2013
Folkstone 230/115kV Substation	Progress	December 2012
Harris-RTP 230 kV line	Progress	June 2014

Major Projects in 2011 Plan		
Reliability Project	TO	Planned I/S Date
Brunswick 1 - Jacksonville 230 kV Line Loop - in to Folkstone 230 kV substation	Progress	June 2020
Greenville-Kinston Dupont 230 kV line	Progress	June 2014
Arabia 230 kV substation	Progress	Removed
Raeford 230 kV substation, Loop-In Richmond – Ft Brg Woodruff St 230 kV Line and replace banks	Progress	June 2018
Durham-RTP 230kV Line, Reconductor	Progress	June 2022

Major Projects in 2011 Plan (Continued)		
Reliability Project	TO	Planned I/S Date
Reconductor Caesar 230 kV Lines (Pisgah Tie-Shiloh Switching Station)	Duke	June 2013
Reconductor London Creek 230 kV Lines (Peach Valley Tie-Riverview Switching Station)	Duke	June 2017

Questions ?

NCTPC 2012 Study Activities Update

Denise Roeder

ElectriCities

Study Process Overview / Status

- **Purpose: Single Collaborative Transmission Plan**
- **Steps & Status**
  1. Assumptions Selected
  2. Study Criteria Established
  3. Study Methodologies Selected
  4. Models and Cases Developed
  5. Technical Analysis Performed
  6. **Problems Identified and Solutions Developed**
  7. **Collaborative Plan Projects Selected**
  8. **Study Report Prepared**

Study Years for Reliability Analyses

- Near-term: Base Screening and "Pre-Merger" Comparisons
  - 2017 Summer
  - 2017/2018 Winter
- Longer-term: Resource Supply Option Case
  - 2022 Summer
- NCTPC-PJM Inter-regional Offshore Wind Study
  - 2027 Summer

Base Case Models

2011 MMWG cases

+ Detailed Duke & Progress models

+ Neighboring transmission system adjustments

+ 2011 Collaborative Transmission Plan additions

= "PRE-MERGER" COMPARISON MODELS

+ Duke/Progress merger projects

= BASE CASE MODELS

Resource Supply Option: Hypothetical New Generation

- Davidson County
- 500 MW Base Load
- Sink/Source in Duke

Offshore Wind Study Scenarios

Location	Scenario #1	Scenario #2	Scenario #3
	MWs by Injection Point		
PJM / Dominion Landstown	1,000	2,000	4,500
NCTPC / Morehead City	1,000	1,500	3,500
NCTPC / Southport	1,000	1,500	2,000
TOTAL MWs Injected	**3,000**	**5,000**	**10,000**
	MWs by Sink Location		
PJM	0	2,000	6,000
NCTPC (40% PEC / 60% Duke)	3,000	3,000	4,000

These MW levels are assumed to occur during the off-peak period.
On-peak MW assumptions are approximately 40% of these values.

Current Stage of Study Process

- **STEP 6: Problems Identified and Solutions Developed:**
  - **Preliminary analysis results to be presented today followed by opportunity for stakeholder feedback**
  - **Continue to review/test/evaluate results & potential solutions**
  - **Estimate project costs and schedule**

Remaining Steps of Study Process

- **STEP 7: Collaborative Plan Projects Selected**
  - **Compare all alternatives and select preferred solutions**
- **STEP 8: Study Report Prepared**
  - **Prepare draft report and distribute to TAG for review and comment**

Questions ?

2012 Study
Preliminary Results

Duke / Progress Energy

Preliminary Base Case Results - Duke

- No new issues identified
- Merger projects did not impact projects that were included in 2011 Collaborative Plan

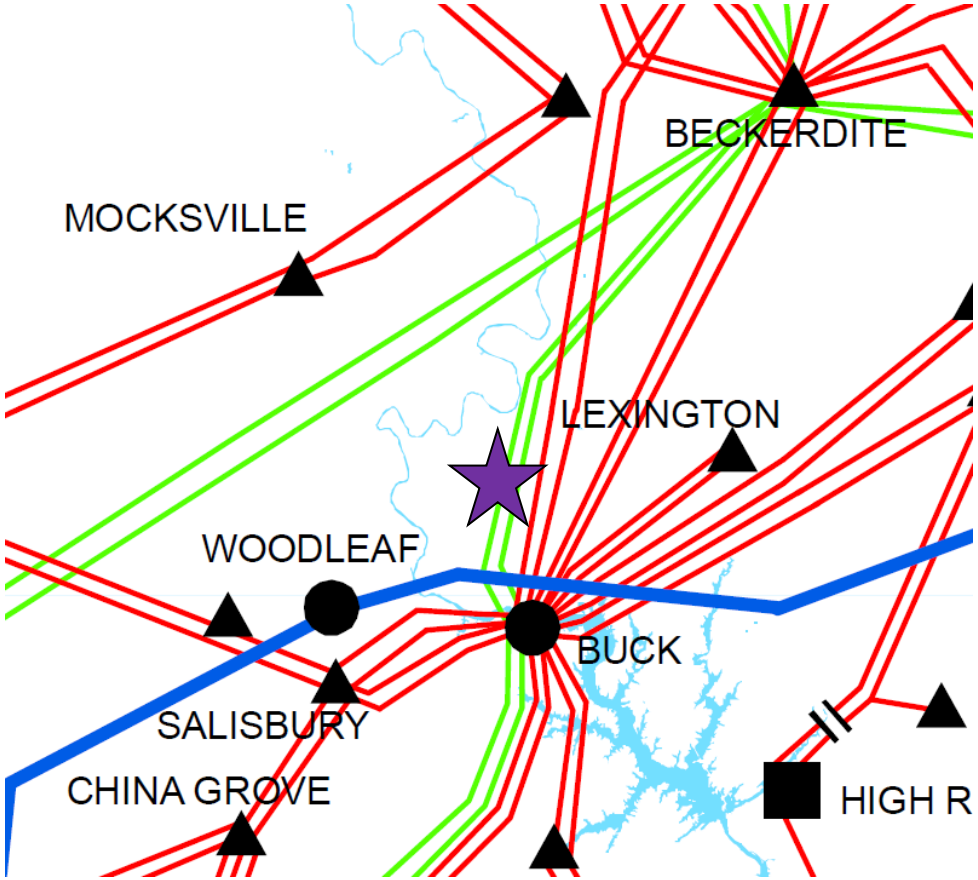
Preliminary Base Case Results – Progress Energy

- Contingency overload issue was found on the Weatherspoon-Raeford 115 kV Line in 2018
- An alternate solution to the Arabia 2022 project was identified in the Raeford 2018 replacement project that mitigates both the above line and original transformer overload issues
- Merger projects did not impact base reliability analysis results

Questions ?

Resource Supply Option: Hypothetical New Generation

Davidson County 500 MW Resource



- Hypothetical New Generation in 2022
- 5 miles north of Buck Steam Station
- Sink/Source in Duke

Davidson County 500 MW Resource

- **Progress**
  - No previously unidentified issues
- **Duke**
  - Rebuild 100 kV bus lines between Buck Steam and Buck Tie, 2022
  - (2) Additional 230/100 kV transformers at Buck, 2022
    - Presently (1) 230/100 kV transformer at Buck

Questions ?

2012 NCTPC-PJM Inter-regional Wind Study

Offshore Wind Study Scenarios

Location	Scenario #1	Scenario #2	Scenario #3
	MWs by Injection Point		
PJM / Dominion Landstown	1,000	2,000	4,500
NCTPC / Morehead City	1,000	1,500	3,500
NCTPC / Southport	1,000	1,500	2,000
TOTAL MWs Injected	**3,000**	**5,000**	**10,000**
	MWs by Sink Location		
PJM	0	2,000	6,000
NCTPC (40% PEC / 60% Duke)	3,000	3,000	4,000

These MW levels are assumed to occur during the off-peak period.
On-peak MW assumptions are approximately 40% of these values.

Preliminary 2012 Wind Study Results – Duke

- No new issues identified

Preliminary 2012 Wind Study Results – Progress Energy

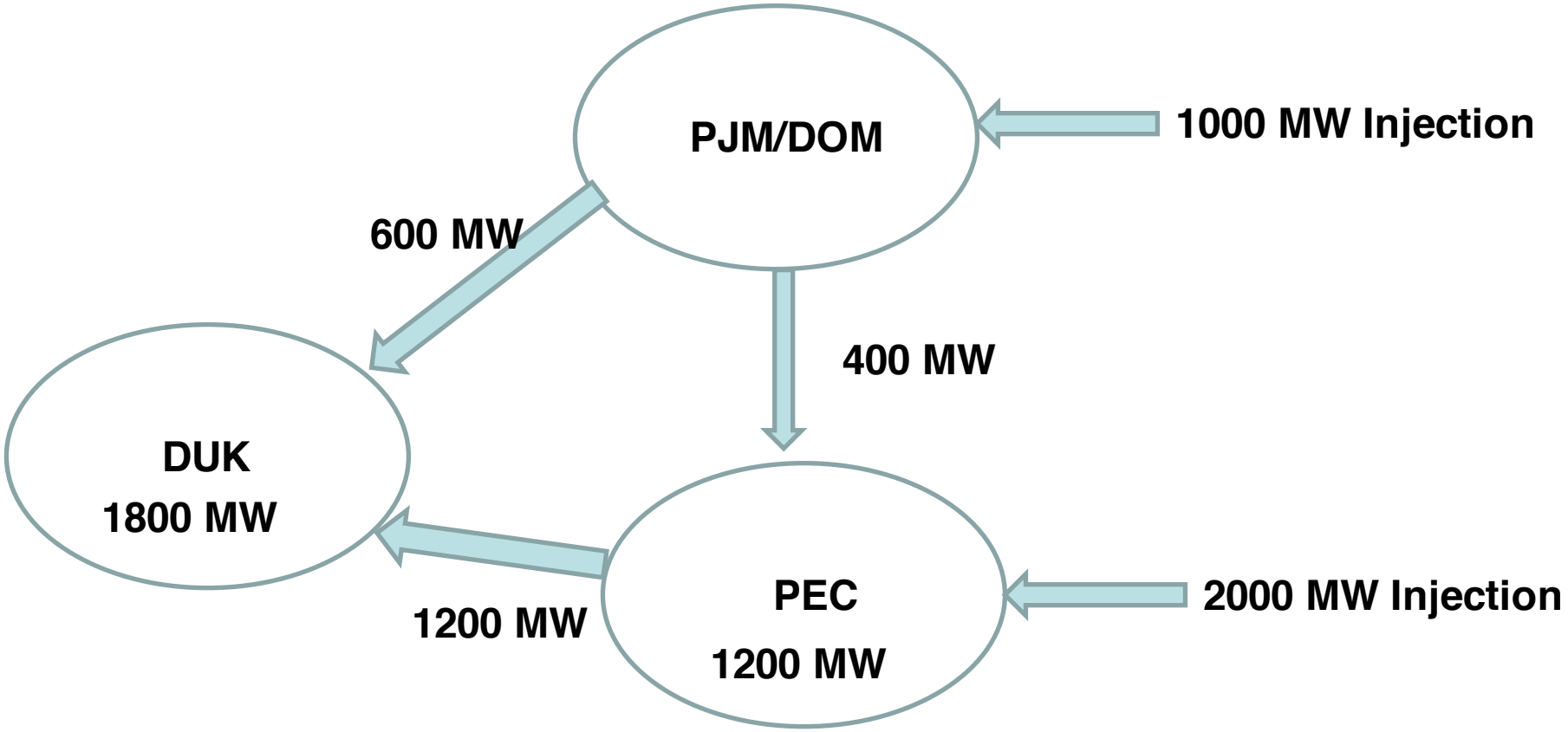
- Transmission projects are needed to deliver the wind generation to the PEC transmission backbone. The PEC proposals for these projects are shown on the upcoming slides.

- Transmission projects to deliver the wind generation from off-shore to on-shore are not included.

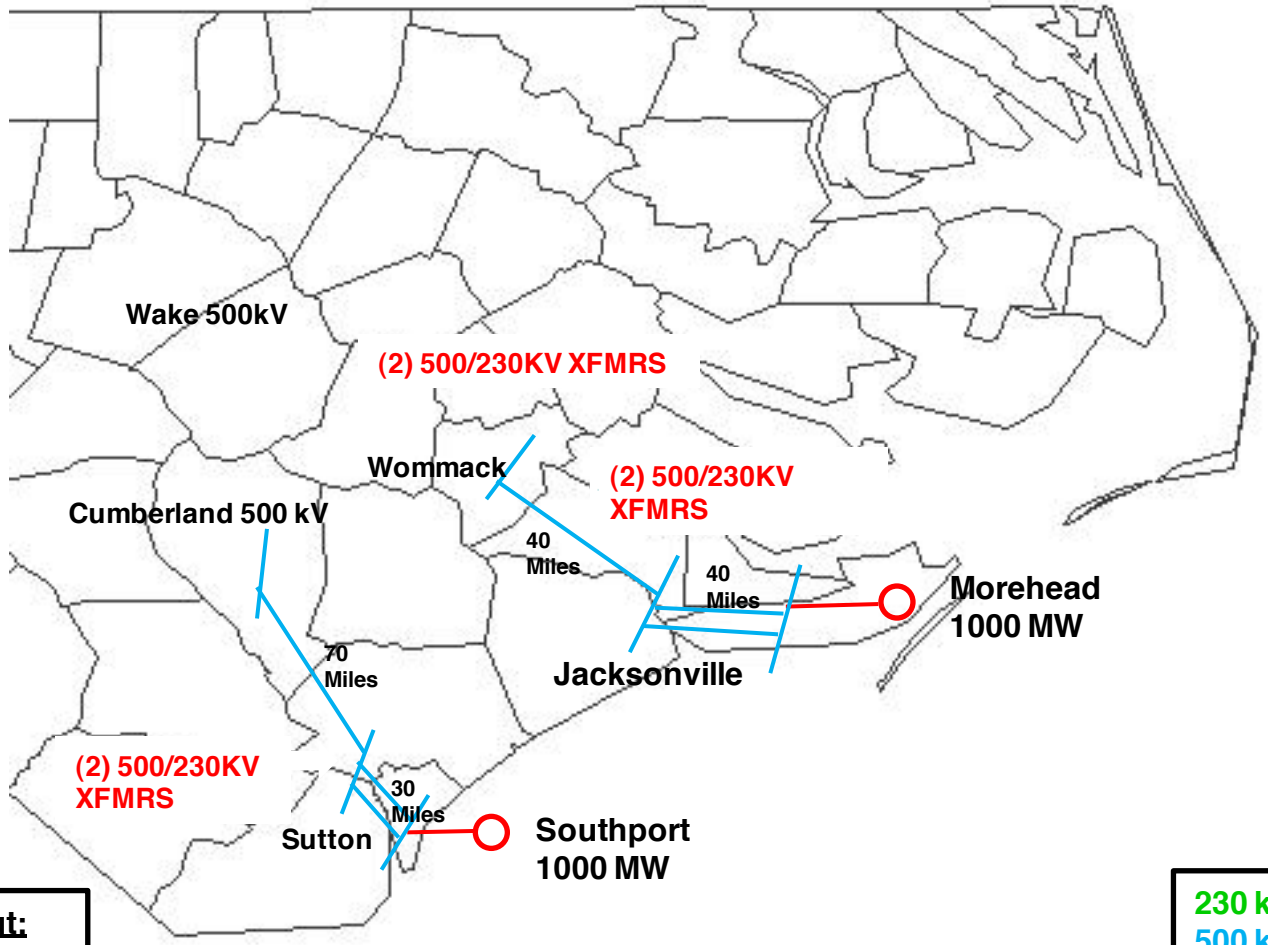
- Local contingency screening has been performed but joint analysis with PJM has not been reviewed.

2027 Summer
60% of Peak Case

Scenario #1



NCTPC/PJM Wind Scenario #1 (PEC Upgrades)

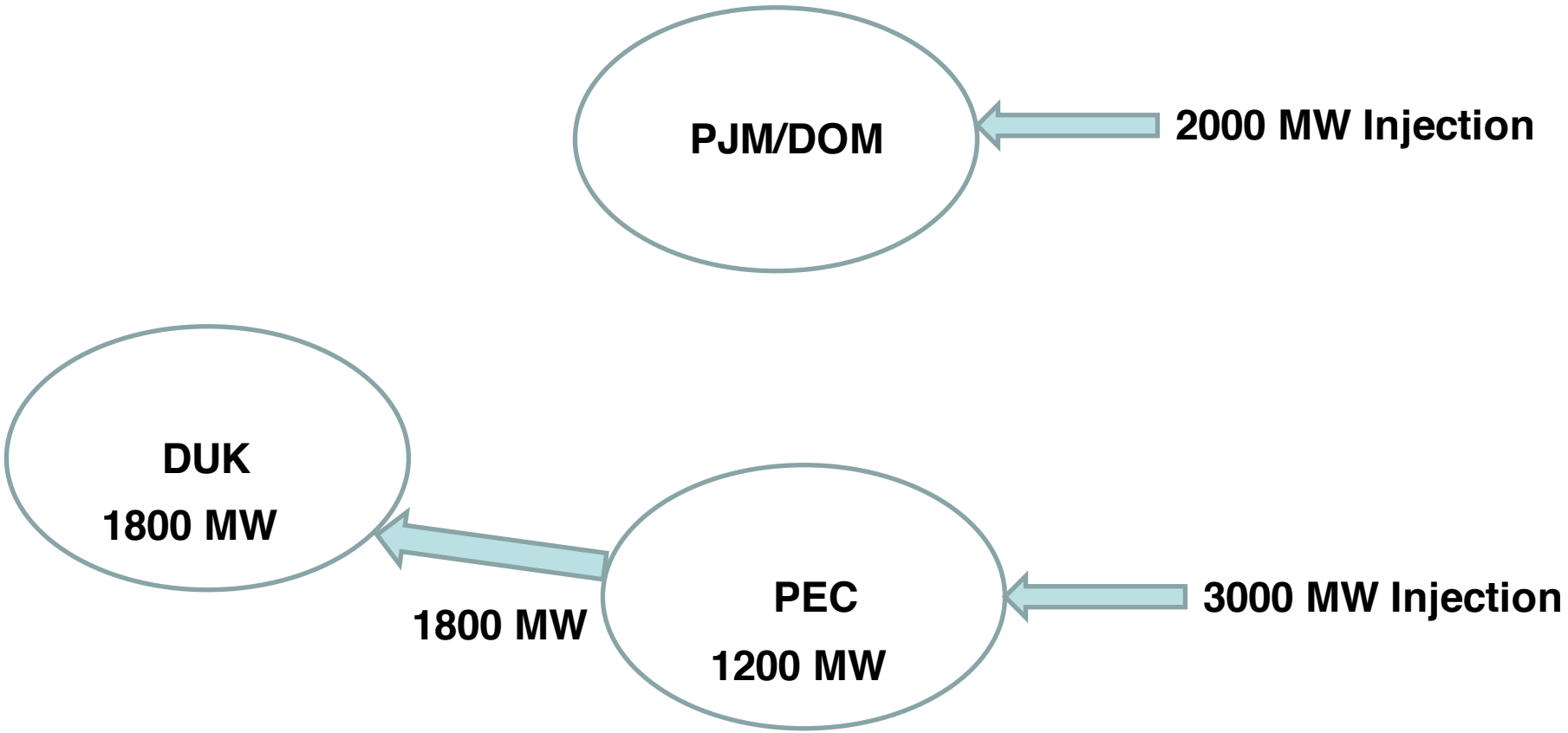


Total Wind Output:
2000 MW

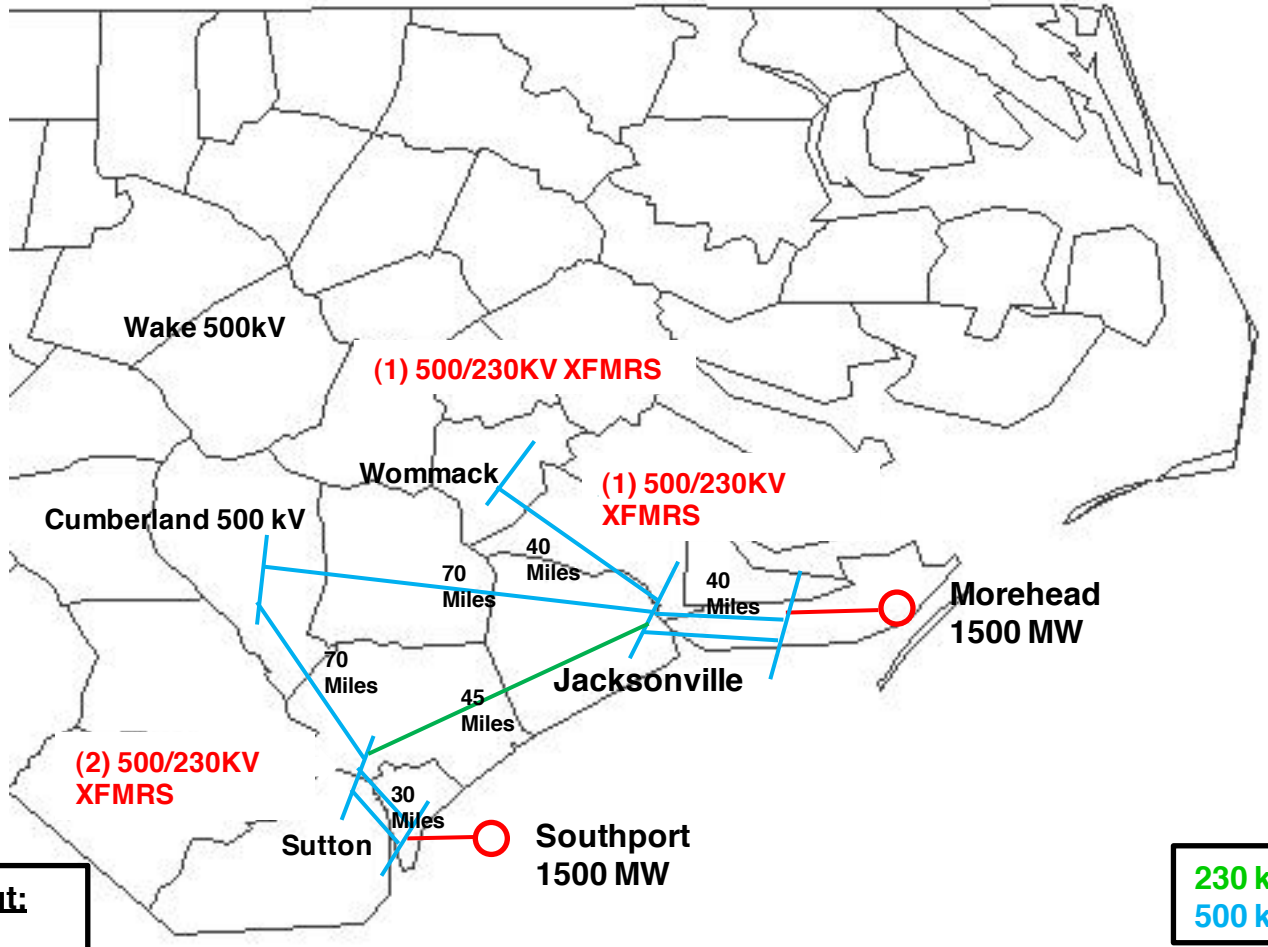
230 kV
500 kV

2027 Summer
60% of Peak Case

Scenario #2



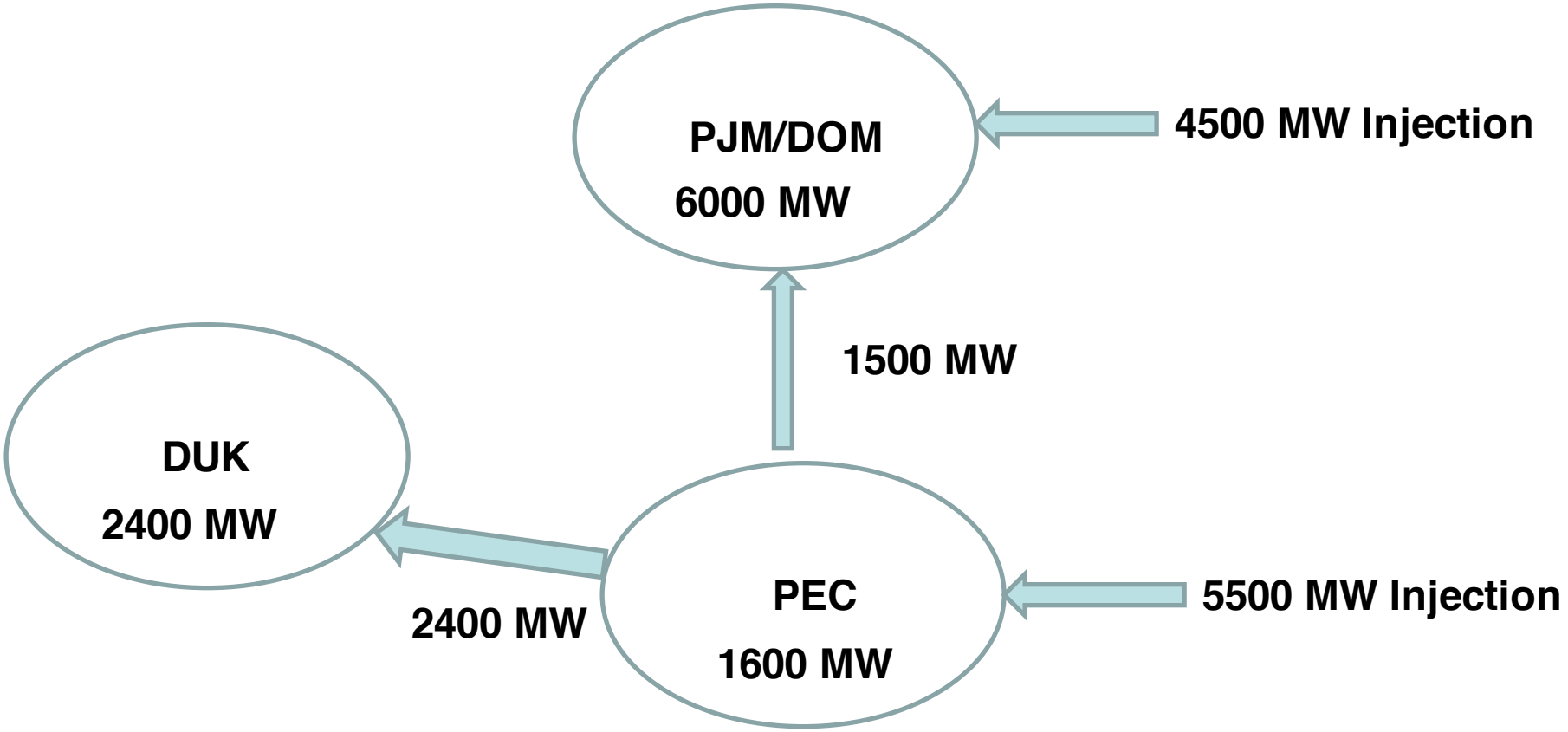
NCTPC/PJM Wind Scenario #2 (PEC Upgrades)



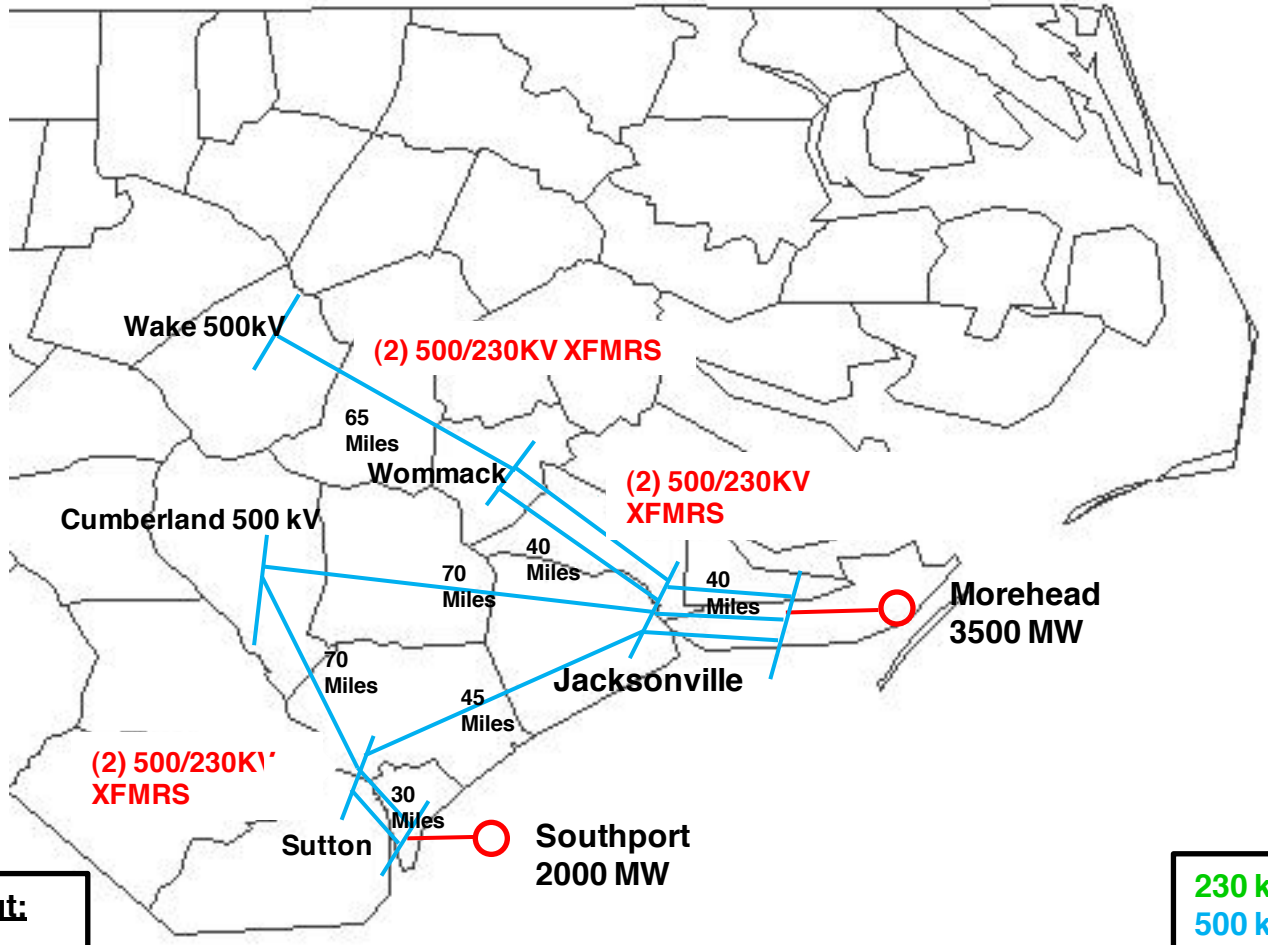
Total Wind Output:
3000 MW

2027 Summer
60% of Peak Case

Scenario #3



NCTPC/PJM Wind Scenario #3 (PEC Upgrades)



Total Wind Output:
5500 MW

230 kV
500 kV

Preliminary 2012 Wind Study Results – Next Steps

- NCTPC will review and address the joint analysis results from PJM
- NCTPC will review and update it's proposed projects
- Cost estimates for proposed projects will be developed

TAG Input Request

- TAG is requested to provide input to the OSC on the 2012 Preliminary Study results, as well as to propose alternative solutions to those study results identified
- Provide input by September 28, 2012 to Rich Wodyka - ITP (rawodyka@aol.com)

Questions ?

Regional Studies Reports

Bob Pierce

Duke Energy

Eastern Interconnection Planning Collaborative (EIPC)

EIPC Structure

Eastern Interconnection Planning Collaborative (EIPC)
(Open Collaborative Process)

EIPC Analysis Team
Principal Investigators
Planning Authorities

Steering Committee

Stakeholder Work Groups

Executive Leadership

Technical Leadership & Support Group

Stake-holder Groups

States

Provinces

Federal

Owners Operators Users

EIPC Focus

Phase II

- **Analyze the 3 scenarios selected by the SSC.**
  - **Scenario 1 - Nationally Implemented Federal Carbon Constraint with Increased EE/DR**
  - **Scenario 2 - Regionally-Implemented National RPS Scenario**
  - **Scenario 3 - Business as Usual Scenario**

EIPC Focus

- CRA performing production cost analysis of 3 scenarios
- Phase II report being drafted
- EIPC future responsibilities being discussed

http://www.eipconline.com/

Southeast Inter-Regional Participation Process (SIRPP)

- **No change in study results**
- **Next Stakeholder meeting in October**

http://www.southeastirpp.com/

SERC LTSG

LTSG activities

- Summer 2016 study in progress
- Discussing FAC-013-2 compliance
- MMWG cases being finalized

SERC LTSG to study impact on reliability of delays in EPA regulation related projects requiring:

- **Retirement of existing units**
- **Upgraded emissions controls**
- **Transmission system upgrades**

DOE Congestion Study

- **EPAct 2005 – DOE study every three years**
- **Specific concerns in 3 of 4 regions but sees overall improvement in congestion compared to past studies**
- **Unable to find enough publically available information about the Southeast**
- **No comprehensive, consistent information available on transmission usage, no consistent reporting requirements – even from RTO/ISO's**

Congestion is coming down for a lot of reasons, only one of which is additional transmission capacity

- Poor economy = slowed demand growth
- Abundant and cheap natural gas, as overall generation costs come down, so does the cost of congestion and natural gas fired units are generally closer to load

Solar PV Projects

Solar PV Issues – Transmission & Distribution

- Stability (inverter controls modeling)
- Power factor (leading & lagging under various voltage conditions)
- Power Quality (intermittent nature of pv)
- Harmonics
- Low-voltage ride through
- Under-frequency ride through
- Over-frequency ride through
- kV range of operation
- Anti-islanding protection

NERC Reliability Standards Update

- **TPL - 001 Footnote b and data request**
- **Adequate Level of Reliability**
- **Order 754**

Questions ?

2012 TAG Work Plan

Rich Wodyka
Independent Consultant

2012 NCTPC Overview Schedule

Reliability Planning Process

- Evaluate current reliability problems and transmission upgrade plans
- Perform analysis, identify problems, and develop solutions
- Review Reliability Study Results

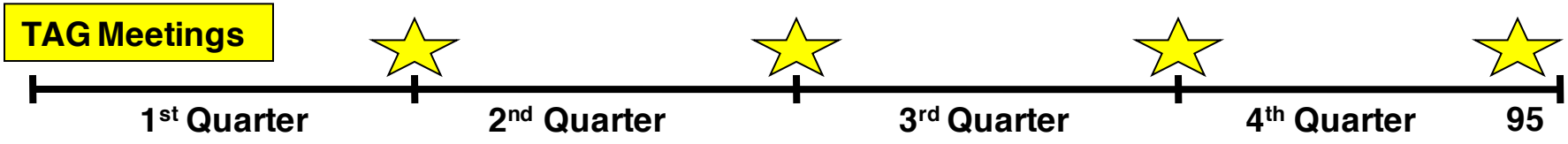
Enhanced Access Planning Process

- *No requests were received for 2012*

Coordinated Plan Development

- Combine Reliability and Enhanced Results
- OSC publishes DRAFT Plan
- TAG review and comment

FERC Order 1000 Updates



2012 TAG Work Plan

January – February

- **2012 Study – Finalize Study Scope of Work**
  - ✓ **Receive final 2012 Reliability Study Scope for comment**
  - ✓ **Review and provide comments to the OSC on the final 2012 Study Scope**
  - ✓ **Receive request from OSC to provide input on proposed Enhanced Transmission Access scenarios and interfaces for study**
  - ✓ **Provide input to the OSC on proposed Enhanced Transmission Access scenarios and interfaces for study - *No requests were received for 2012***

March

TAG Meeting

- **2012 Study Update**
  - ✓ **Receive a progress report on the Reliability Planning study activities**
- **Order 1000 Update**
  - ✓ **Receive report on the direction that the NCTPC is heading on the Order 1000 regional compliance**
  - ✓ **Receive an updated overall Compliance Timeline highlighting when continued stakeholder involvement in the process will occur**

April - May - June

- **2012 Study - Technical Analysis, Problem Identification, and Solution Development**
  - ✓ **TAG will be requested to provide input to the OSC and PWG on the technical analysis performed, the problems identified as well as proposing alternative solutions to the problems identified – Delayed until September**
  - ✓ **TAG will be requested to provide input to the OSC and PWG on any proposed alternative solutions to the problems identified through the technical analysis – Delayed until September**
- **Order 1000**
  - ✓ **NCTPC will release Draft #1 of regional compliance documents to TAG for comment**

June

TAG Meeting – Tuesday - June 19th

- **2012 Study Update**
  - ✓ **Receive a progress report on the Reliability Planning study activities and preliminary results**
- **Order 1000 Update**
  - ✓ **Receive an update on the Order 1000 regional compliance work**
  - ✓ **Receive an updated overall Compliance Timeline highlighting when continued stakeholder involvement in the process will occur**

July - August - September

- **2012 Study - Technical Analysis, Problem Identification, and Solution Development**
  - ✓ **TAG will be requested to provide input to the OSC and PWG on the technical analysis performed, the problems identified as well as proposing alternative solutions to the problems identified**
  - ✓ **TAG will be requested to provide input to the OSC and PWG on any proposed alternative solutions to the problems identified through the technical analysis**
- **2012 Study Update**
  - ✓ **Receive a progress report on the Reliability Planning study activities and preliminary results**
  - ✓ **Receive update status of the upgrades in the 2011 Collaborative Plan**

July – August - September

- **2012 Selection of Solutions**
  - **TAG will receive feedback from the OSC on any alternative solutions that were proposed by TAG members – delayed until October**
- **Order 1000 Update**
  - ✓ **Receive an update on the Order 1000 regional compliance work and the changes that will be coming in Draft #2 of the regional compliance documents**
  - ✓ **Receive an updated overall Compliance Timeline highlighting when continued stakeholder involvement in the process will occur**

July - August - September

TAG Meeting – September 10, 2012

- **2012 Study Update**
  - ✓ **Receive a progress report on the Reliability Planning study activities and preliminary results**
- **Order 1000 Update**
  - ✓ **Receive an update on the Order 1000 regional compliance work and the changes that will be coming in Draft #2 of the regional compliance documents**
  - ✓ **Receive an updated overall Compliance Timeline highlighting when continued stakeholder involvement in the process will occur**

October - November - December

- **2012 Study Update**
  - **TAG will receive feedback from the OSC on any alternative solutions that were proposed by TAG members**
  - **Receive and comment on final draft of the 2012 Collaborative Transmission Plan report**

TAG Meeting

- **2012 Study Update**
  - **Receive presentation on the draft report of 2012 Collaborative Transmission Plan**
- **Order 1000 Update**
  - **Receive update on the Order 1000 interregional compliance concepts and provide updated interregional Compliance Timeline highlighting when stakeholder involvement in the process will occur**

Questions ?

TAG
Open Forum Discussion

Comments or Questions ?