NCTPC TRANSMISSION COST ALLOCATION

I. SUMMARY OF TRANSMISSION COST ALLOCATION FOR LOCAL NCTPC PROJECTS

Transmission cost allocation typically is governed by the OATT of each Transmission Provider. The NCTPC Participants have developed cost allocation methodologies that apply in special circumstances that are described in this document.

The NCTPC Participants have developed an “avoided cost” cost allocation methodology that applies to Joint Local Reliability Projects where there is a demonstration that a local transmission solution and local approach to cost allocation results in cost savings. Such “Joint Local Regional Reliability Projects” are projects that are proposed in lieu of “Reliability Projects,” which are projects required to preserve system reliability. The NCTPC Participants also have developed a “requestor pays” cost allocation methodology that applies to “Joint Local Economic Projects” which improve economic power transfers between control areas. These two cost allocation methodologies apply to projects that are within the scope of the planning performed by the NCTPC, which focuses on the bulk transmission system (i.e., 230 kV and above facilities and lower-voltage facilities that substantively affect the transmission planning process).

Please note that for purposes of the following cost allocation discussion, all monetary amounts are net present value (NPV) amounts, unless otherwise noted.

II. OATT COST ALLOCATION FOR RELIABILITY PROJECTS

A transmission system is a complex system where each Transmission Provider’s system reliability is also dependent upon its neighboring transmission systems. In recognition of this interdependence, reliability issues affecting one transmission system may require transmission upgrades on an adjacent transmission system. In addition, the reliability needs of a transmission system will change over time as a result of network and native load growth, the addition of new generation resources, the retirement of generation, and the provision of additional long-term firm point-to-point transmission service. FERC’s OATT requires that Transmission Providers construct the facilities necessary to maintain reliable service in light of these needs. Any such facilities that are integrated network transmission facilities are denominated "Reliability Projects" herein. The various types of "Reliability Projects" are described briefly below.

A. Generation Interconnection Network Upgrade Projects

Generation interconnection network upgrade projects are Reliability Projects that consist of the integrated transmission facilities required to reliably connect a new generating plant into the transmission system and reliably dispatch its output into the network. For these projects, the upfront costs are allocated to the generation developer in accordance with the OATT, subject to crediting when transmission service is obtained from the relevant resource.

B. Transmission Service Projects

It is each Transmission Provider's responsibility to plan and operate a reliable transmission system in accordance with NERC and its applicable regional reliability standards. Reliability Projects that are required to provide transmission service fall into two categories -- Existing Transmission Service Projects and New Transmission Service Projects.

Existing Transmission Service Projects include the transmission facilities required for maintaining system reliability to serve network and native load and to meet existing firm point-to-point service obligations. As load grows and the existing transmission facilities age, new projects and upgrades may be necessary to ensure reliable service. New Transmission Service Projects include facilities required to fulfill new long-term firm point-to-point transmission requests and projects related to requests to designate new Network Resources.

Currently, for both New and Existing Transmission Service Projects, the Transmission Provider is responsible for incurring those transmission costs and recovering its costs through its transmission revenue requirement under its existing OATT rate structures. For Network Customers, these transmission costs typically are allocated to all Network Load on a load-ratio share. Point-to-point customers pay the higher of a rolled-in rate or an incremental rate.

III. “AVOIDED COST” COST ALLOCATION METHODOLOGY FOR RELIABILITY PROJECTS THAT QUALIFY AS “JOINT LOCAL RELIABILITY PROJECTS”

A. Identification of Joint Local Reliability Projects Subject to Avoided-Cost Cost Allocation

While individual Reliability Projects may arguably (and alternately) benefit customers on a neighboring system or may benefit some customers on one system more than others on the same system, the NCTPC believes that Reliability Projects generally benefit all customers within the relevant service territory of the Transmission Provider and that therefore the costs should be allocated in accordance with the “or” pricing policy currently included in the Commission’s *pro forma* OATT. The NCTPC, however, recognizes an exception to the general rule that the costs of projects needed for reliability should be allocated to a particular Transmission Provider’s customers. Specifically, Joint Local Reliability Projects, which can be identified through the NCTPC’s local planning process, should have their costs allocated on an avoided-cost basis.

The NCTPC Planning Process results in a set of projects that satisfy the reliability criteria of the Transmission Providers who are a party to the NCTPC agreement (i.e., Reliability Projects). Through this process, a project may be identified that meets a reliability need in a more cost-effective manner than if each Transmission Provider were only considering projects on its system to meet its reliability criteria. For purposes of eligibility, a Joint Local Reliability Project can be defined as any reliability project that requires an upgrade to a Transmission Provider’s system that would not have otherwise been made at that time based upon the reliability needs of the Transmission Provider. For example, assume that there is a reliability issue on the system of Duke (Duke Energy Carolinas), and this issue can be addressed by: Option 1 - a project that consists of upgrades solely on the system of Duke; Option 2 - a project that consists of upgrades solely on the system of Progress (Duke Energy Progress); or Option 3 - a project that encompasses upgrades on both the Duke and Progress systems. Options (2) and (3) would qualify as Joint Local Reliability Projects, if they are lower cost than Option (1). In both cases, there is an upgrade that is not needed to maintain reliability on the transmission system of at least one of the Transmission Provider’s whose system is being upgraded. In addition, if accelerating a Reliability Project on the Progress system results in the elimination of an upgrade on the Duke system, the cost of the acceleration will be designated a Joint Local Reliability Project. A Joint Local Reliability Project must have a cost of at least $1 million to be subject to the cost allocation proposal described below. The costs of a Joint Local Reliability Project with a cost of less than $1 million would be borne by each Transmission Provider based on the costs incurred on its system.

B. Avoided Cost Methodology

As noted, unless a Joint Local Reliability Project is determined by the NCTPC to be the most cost-effective solution to a reliability need, it will not be selected to be included in the Plan of the NCTPC. But, if a Joint Local Reliability Project is included, it will have its costs allocated based on an avoided cost approach, whereby each Transmission Provider looks at the next-best approach to maintaining reliable service and shares the savings on a pro-rata basis. These cost responsibility determinations will then be reflected in transmission rates. Each Transmission Provider will be reimbursed for its investment for the Joint Local Reliability Project based on a transmission levelized fixed charge rate filed with FERC. Where practical, Joint Local Reliability Projects may be grouped to net out allocations across Transmission Provider borders.

C. Example 1: A Joint Local Reliability Project on system of one Transmission Provider solves reliability issue on system of other Transmission Provider.

(1) Transmission Provider	(2) Cost to Meet Reliability Needs on a Stand Alone Basis (MM)	(3) Cost of Joint Local Reliability Project (MM)	(4) Avoided Transmission Project Cost (MM)	(5) Costs to Meet Reliability Needs on a Joint Local Basis (MM) (2) + (3) - (4) = (5)
Duke	$500	0	$50	$450
Progress	$400	$30	0	$430
Total	**$900**	**$30**	**$50**	**$880**

In this example, Duke needs to spend $500 million to meet all of its Reliability Project needs, assuming it does not have the option of meeting its reliability need with a project on system of Progress. The $500 million includes $50 million for a Reliability Project on its system. But, by

Progress spending $30 million on a Joint Local Reliability Project, Duke could avoid building that $50 million project. Progress needs to spend $400 million for Reliability Projects on its system to meet its needs. Progress also will spend an additional $30 million on its system to meet the Duke reliability need.

The avoided cost methodology for allocating cost responsibility would apply as follows:

(Duke's Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($50 million/$50 million) * $30 million = $30 million

(Progress Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($0 million/$50 million) * $30 million = $0

In sum, from a cost incurrence perspective, Duke spends $450 million and Progress spends $430 million. But, from a cost responsibility perspective Duke is allocated $30 million of Progress' costs.

D. Example 2: A Joint Local Reliability Project on system of two Transmission Providers solves reliability issue on system of one Transmission Provider.

(1) Transmission Provider	(2) Cost to Meet Reliability Needs on a Stand Alone Basis (MM)	(3) Cost of Joint Local Reliability Project (MM)	(4) Avoided Transmission Project Cost (MM)	(5) Costs to Meet Reliability Needs on a Joint Local Basis (MM) (2) + (3) - (4) = (5)
Duke	$500	$20	$50	$470
Progress	$400	$10	0	$410
Total	**$900**	**$30**	**$50**	**$880**

In this example, Duke needs to spend $500 million to meet all of its Reliability Project needs, assuming it does not have the option of meeting its reliability need with a project on system of Progress. The $500 million includes $50 million for a Reliability Project on its system. But, by Progress spending $10 million on a Joint Local Reliability Project and Duke spending $20 million on the same project, Duke could avoid building that $50 million project. Progress needs to spend $400 million for Reliability Projects on its system to meet its needs. Progress also will spend an additional $10 million on its system to meet the Duke reliability need.

The avoided cost methodology for allocating cost responsibility would apply as follows:

(Duke's Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($50 million/$50 million) * $30 million = $30 million

(Progress Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($0 million/$50 million) * $30 million = $0

In sum, from a cost incurrence perspective, Duke spends $470 million and Progress spends $410 million. But, from a cost responsibility perspective Duke is allocated $10 million of Progress' costs.

E. Example 3: A Joint Local Reliability Project on system of two Transmission Providers solves reliability issues on systems of both Transmission Providers.

(1) Transmission Provider	**(2) Cost to Meet Reliability Needs on a Stand Alone Basis (MM)**	**(3) Cost of Joint Local Reliability Project (MM)**	**(4) Avoided Transmission Project Cost (MM)**	**(5) Costs to Meet Reliability Needs on a Joint Local Basis (MM) (2) + (3) - (4) = (5)**
Duke	$500	$20	$50	$470
Progress	$400	$10	$5	$405
Total	**$900**	**$30**	**$55**	**$875**

In this example, Duke needs to spend $500 million to meet all of its Reliability Project needs, assuming it does not have the option of meeting its reliability need with a project on system of Progress. The $500 million includes $50 million for a Reliability Project on its system. But, by Progress spending $10 million on a Joint Local Reliability Project and Duke spending $20 million on the same project, Duke could avoid building that $50 million project. Progress needs to spend $400 million for Reliability Projects on its system to meet its needs. But, as a result of the same Joint Local Reliability Project, Progress can avoid spending $5 million to meet its own reliability needs.

The avoided cost methodology for allocating cost responsibility would apply as follows:

(Duke's Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($50 million/$55 million) * $30 million = $27.3 million

(Progress Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($5 million/$55 million) * $30 million = $2.7 million

In sum, from a cost incurrence perspective, Duke spends $470 million and Progress spends $405 million. But, from a cost responsibility perspective Duke is allocated $7.3 million of Progress' costs.

F. Example 4: Accelerating a Reliability Project on one Transmission Providers' system solves reliability issues on another Transmission Providers' system.

(1) Transmission Provider	(2) Cost to Meet Reliability Needs on a Stand Alone Basis (MM)	(3) Cost of Joint Local Reliability Project (MM) (Cost of Acceleration)	(4) Avoided Transmission Project Cost (MM)	(5) Costs to Meet Reliability Needs on a Joint Local Basis (MM) (2) + (3) - (4) = (5)
Duke	$500	$20	$0	$520
Progress	$400	$0	$50	$350
Total	**$900**	**$20**	**$50**	**$870**

In this example, Duke needs to spend $500 million to meet all of its Reliability Project needs. The $500 million includes $120 million for a Reliability Project on its system. Progress needs to spend $400 million to meet all of its Reliability Project needs, including $50 million for a Reliability Project on its system. However, if Duke accelerates the $120 million project by 5 years, Progress could avoid building its $50 million project. The cost of accelerating the Reliability Project by 5 years is a lower cost solution and thus is designated as a Joint Local Reliability Project. The cost of the Joint Local Reliability Project is the cost of the 5-year acceleration of the $120 million Reliability Project, or $20 million, which is calculated by subtracting the NPV of completing the project in 5 years from the NPV of completing the project in 10 years.

The avoided cost methodology for allocating cost responsibility would apply as follows:

(Duke's Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($0 million/$50 million) * $20 million = $0

(Progress Avoided Cost/Total Avoided Cost) * cost of Joint Local Reliability Project

($50 million/$50 million) * $20 million = $20 million

In sum, from a cost incurrence perspective, Duke spends $520 million and Progress spends $350 million. But, from a cost responsibility perspective Progress is allocated $20 million of Duke's costs.

G. Joint Local Reliability Projects that Include Transmission Providers Outside the NCTPC Footprint

If a Joint Local Reliability Project that is suitable for this alternate cost allocation approach involves a Transmission System(s) outside the NCTPC, the costs should be fairly allocated among the affected Transmission Providers based on good-faith negotiation among the parties involved. It would be the intent of the NCTPC Participants that the "avoided cost" approach outlined above be used as a starting point in the negotiations. The resulting transmission costs and the associated revenue requirements of each Transmission Provider will be recovered through their respective existing rate structures at the time. In the event that the affected

Transmission Providers are unable to reach a negotiated solution then the NCTPC would propose that the parties utilize the Commission's Dispute Resolution Service to settle any issues.

IV. "REQUESTOR PAYS" COST ALLOCATION METHODOLOGY FOR JOINT LOCAL ECONOMIC PROJECTS

A. Identification and Study of Joint Local Economic Projects

A Joint Local Economic Project is a project that permits energy to be transferred on a Point-to Point basis from an interface or a Point of Receipt on the Duke or Progress system to an interface or a Point of Delivery on the other company's system for a specified time period. Joint Local Economic Projects may be identified in the NCTPC Transmission Advisory Group (TAG) process. The parameters of the project will also be identified through that process including the amount of megawatts that are being requested and the transmission customers who are requesting this project. The Joint Local Economic Project will be evaluated through the NCTPC local planning process and cost estimates for the project will be developed.

B. "Requestor Pays" Cost Allocation Methodology for Joint Local Economic Projects

"Requestor Pays" is the approach to cost allocation under which the Transmission Customer(s) that are requesting the Joint Local Economic Project provides the up-front funding of any transmission construction that is required to ensure that the path is available for the relevant time period. These "requestor(s)" are the Transmission Customers that were allocated the MWs during this evaluation process. An example of this cost allocation is provided below in Section IV.D. Transmission Customers on the Duke and Progress systems would pay for firm PTP transmission service on each Transmission System along the Joint Local Economic Project path at the embedded cost rate.

The Transmission Customer would receive a levelized repayment of this initial funding amount from Duke and/or Progress in the form of monthly transmission credits over a maximum 20-year period. Duke and Progress will be permitted to work with the Transmission Customers to provide shorter or different crediting. As credits are paid, Duke and Progress could have the opportunity to include the costs of upgrades that were needed for the Joint Local Economic Project in transmission rates, similar to the Generator Interconnection pricing/rate approach.

As part of the Joint Local Economic Project process, a network customer may ensure that power can be delivered from an interface on, or utilizing transmission capability created by, a Joint Local Economic Project to network load. Such network transmission service would not be subject to the requestor pays approach. This transmission cost allocation would be in accordance with OATT provisions for network service.

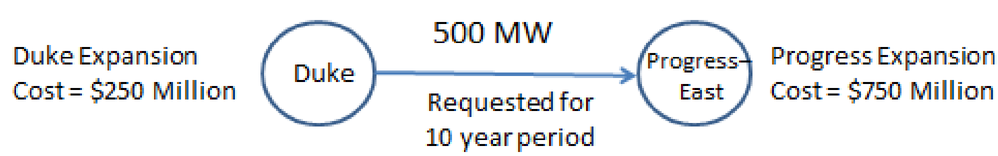
No additional compensation is provided to the requestors of the Joint Local Economic Project for any head-room or excess transmission capability that would be created on the Duke or Progress systems.

C. Adjustments to Costs to Reflect Impacts of Joint Local Economic Projects on Reliability Projects Included in Transmission Plans

The total project cost for the transmission expansion required due to a Joint Local Economic Project will be adjusted to provide compensation for the positive impacts that the Joint Local Economic Project would provide, given the existing Local Transmission Plan. Specifically, if the Joint Local Economic Project resulted in the delay of Reliability Projects, the net present value of this would be computed and subtracted from the net present value of the computed total project cost for the transmission expansion. For example, if the cost for the Joint Local Economic Project on the system of one Transmission Provider was computed to be $100 million, but this project would eliminate the need for a $25 million Reliability Project, then this positive impact would be subtracted from the total estimated cost of the Joint Local Economic Project and requestor(s) would be assessed a transmission expansion funding amount equivalent to $75 million NPV ($100 million - $25 million).

D. Example

"Within NCTPC" – Duke to Progress-East – Increase interface by 500 MW



Assumptions:

- This Joint Local Economic Project will require projects that increase the Duke to Progress-East interface capability by 500 MW for 10 years.
    - Transmission Customer 1 subscribes to 200 MW.
    - Transmission Customer 2 subscribes to 300 MW.
- Total up-front funding requirement of $1 billion
    - Duke investment of $250 million
    - Progress investment of $750 million
- Transmission Customer allocations for this funding:
    - TC 1 pays up-front payment of $400 million with a payment of 25% of these funds ($100 million) going to Duke and 75% of these funds going to Progress ($300 million)
    - TC 2 pays up-front payment of $600 million with a payment of 25% of these funds ($150 million) going to Duke and 75% of these funds going to Progress ($450 million)