#T32 – Byron 345kV/Collins 765kV
Generation Interconnection

Option 1:

Network Impacts

The T32 project was studied as a 2500 MW Energy (925 MW Capacity) injection into the Station 6 Byron 345kV substation in the ComEd area. Project T32 was evaluated for compliance with reliability criteria for summer peak conditions in 2012.

The initial Feasibility Studies performed on the 2012 RTEP model indicated significant overloads caused by the T32 project for various contingencies. The magnitude and number of these overloads suggested that new 345kV circuits from west to east across the ComEd transmission system would be required. There are several 345kV lines required to mitigate transient and voltage stability criteria violations. Most of the new lines were identified in the R queue and consist of two new 345kV lines from Byron to Wayne and an additional Byron to Nelson 345kV line. To accommodate the T32 project, the addition of a fourth 345kV line from Cherry Valley to Pleasant Valley is needed as described in the Generator Deliverability Impacts section below, along with the upgrade at Prospect Heights described in the Multiple Facility Contingency Impacts section below.

Potential network impacts were as follows:

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

Table 1 below provides a summary of the impacts caused by the T32 project on the ComEd transmission system for generator deliverability:

Table 1: Generator Deliverability Impact								
Item #	Project	Contribution MVA	Overloaded Element	Overload %		Rating		Contingent Element
				From	To	Type	MVA	
1a	T32	255.5	Cherry Valley to Silver Lake 345kV line 15616	82.10%	102.80%	Normal	1234	None
1b	T32	296.3	Byron to Cherry Valley Blue 345kV line 0621	93.80%	113.10%	Emergency	1530	Byron to Cherry Valley Red 345kV line 0622
1c	T32	310.3	Byron to Cherry Valley Red 345kV line 0621	97.90%	118.20%	Emergency	1530	Byron to Cherry Valley Blue 345kV line 0621
1d	T32	148.8	Wempletown to T92/T93 Blue 345kV line 17101	88.00%	100.30%	Emergency	1214	Wempletown to T92/T93 Red 345kV line 17102
1e	T32	201.6	Nelson to Walton Rd. (P20) 345kV line 15502	87.40%	103.70%	Emergency	1234	Cherry Valley to Silver Lake 345kV line 15616
1f	T32	201.6	Walton Rd. (P20) to Electric Junction 345kV line 18402	88.30%	104.70%	Emergency	1234	Cherry Valley to Silver Lake 345kV line 15616
1g	T32	69.0	Cherry Valley 345/138kV transformer #82	85.20%	100.10%	Emergency	465	Cherry Valley to Silver Lake 345kV line 15616
1h	T32	71.5	Alpine Tap to Belvidere Red portion of Cherry Valley to Belvidere 138kV line 15623	84.10%	101.00%	Emergency	423	Cherry Valley to Silver Lake 345kV line 15616
1i	T32	22.2	Roscoe Bert Tap to Harlem Tap Blue portion of Wempletown to Belvidere 138kV line 17105	97.80%	110.20%	Emergency	178	Cherry Valley-Daimler Chrysler-Belvidere Blue 138kV line 15624
1j	T32	64.3	Marengo Tap to Woodstock Blue portion of Belvidere to Woodstock 138kV line 12205	77.70%	102.30%	Emergency	261	Cherry Valley to Silver Lake 345kV line 15616
1k	T32	87.0	Marengo Tap to Pleasant Valley Red portion of Belvidere to Pleasant Valley 138kV line 12204	88.20%	117.90%	Emergency	293	Cherry Valley to Silver Lake 345kV line 15616
1l	T32	37.3	Waterman Tap to Waterman 138kV Bus 3	89.60%	107.00%	Emergency	215	Walton Rd. (P20) to Electric Junction 345kV line 18402

T32 Generator Deliverability results indicate the overload of the Cherry Valley to Silver Lake 345 kV line 15616 (Item 1a) under normal conditions, and the overload of other 345 kV lines for loss of Cherry Valley to Silver Lake 345 kV (Item 1e, Item 1f, and Item 1g). T32 also overloads 138 kV facilities for loss of Cherry Valley to Silver Lake 345 kV (Item 1h, Item 1j, and Item 1k) and 138 kV facilities which provide parallel paths for Cherry Valley to Silver Lake 345 kV (Item 1i).

To address these overloads, a new 31-mile 345 kV Cherry Valley to Pleasant Valley line is proposed. One 345kV breaker at Cherry Valley substation and a three-breaker 345kV ring bus at Pleasant Valley will be required to terminate the proposed line. This line will provide a second 345 kV path between Cherry Valley and Silver Lake. The estimated costs for these facilities are $**97,000,000**.

This new 345 kV line also reduces the flows on the 345 kV network and addresses the overloads on these facilities (Item 1d and Item 1l).

For the reinforcements required for Item 1b and Item 1c, please see the Contribution to Previously Identified Overloads section.

Multiple Facility Contingency

(Double Circuit Tower Line contingencies were studied for the full energy output. The contingencies of Line with Failed Breaker and Bus Fault will be performed for the Impact Study.)

Table 2 below provides a summary of the impacts caused by the T32 project on the ComEd transmission system for multiple facility contingency:

Table 2: Multiple Facility Contingency								
Item #	Project	Contribution MVA	Overloaded Element	Overload %		Rating		Contingent Element
				From	To	Type	MVA	
2a	T32	789.2	Byron to Cherry Valley Blue 345kV line 0621	78.70%	117.70%	Applicable Load Dump Rating	2024	Byron to Cherry Valley Red 345kV line 0622 & Cherry Valley to Dixon 138kV line 15621
2b	T32	1267.7	Nelson to Lee County 345kV line 15501	63.90%	126.50%	Applicable Load Dump Rating	2024	Byron to Cherry Valley Red 345kV line 0622 & Byron to Cherry Valley Blue 345kV line 0621
2c	T32	488.5	Nelson to Walton Rd. (P20) 345kV line 15502	98.70%	129.80%	Applicable Load Dump Rating	1572	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
2d	T32	184.3	Alpine Tap to Belvidere portion of the Cherry Valley-E Rockford-Alpine-Belvidere 138kV line 15623	83.60%	117.50%	Applicable Load Dump Rating	544	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
2e	T32	184.3	Belvidere to Marengo Red Tap portion of Belvidere-Marengo-Pleasant Valley 138kV line 12204	69.50%	103.40%	Applicable Load Dump Rating	544	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
2f	T32	160.4	Woodstock to Pleasant Valley Blue 138kV line 14106	60.50%	106.90%	Applicable Load Dump Rating	345	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
2g	T32	114.2	Steward to Haumesser Rd. (Q57) 138kV line 18623	82.70%	101.40%	Applicable Load Dump Rating	610	Libertyville to Prospect Heights Red 345kV line 11723 & Libertyville to Prospect Heights Blue 345kV line 15424
2h	T32	76.1	H440 (Rochelle) Tap to Steward portion of McGirr Road-H440-Steward 138kV line 16914	96.40%	119.40%	Applicable Load Dump Rating	332	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
2i	T32	36.0	R96 Tap to Maryland 138kV line 11902	94.60%	109.20%	Applicable Load Dump Rating	247	T92/T93 to Rockdale Blue 345kV line 17101 & T92/T93 to Paddock Red 345kV line 17102
2j	T32	26.9	T143 to Hennepin Station 138kV line (One span owned by ComEd)	93.70%	103.80%	Applicable Load Dump Rating	212	LaSalle Co-LaSalle Co Pump-Mazon 138kV line 0108 & T143-Ogelsby Tap-Mazon 138kV line 7713
2k	T32	25.3	P39 Option 2 to E D Edwards 138kV line 7423	97.80%	113.20%	Applicable Load Dump Rating	164	Kewanee to T1433 138kV line 6101 & Crescent Ridge to T143 138kV line 7713

T32 Multiple Facility results indicate the overload of the Nelson to P20 345 kV line for the multiple facility outage which includes the loss of Cherry Valley to Silver Lake 345 kV (Item 2c). T32 also overloads 138 kV facilities for multiple facility outages which include loss of Cherry Valley to Silver Lake 345 kV (Item 2d, Item 2e, Item 2f, and Item 2h).

The new Cherry Valley to Pleasant Valley 345 kV line addresses these multiple facility overloads. This new 345 kV line also reduces the flows on the 345 kV network and addresses the multiple facility overload on the facility identified for Item 2i.

T32 Multiple Facility results indicate the overload of the Libertyville 345/138kV transformer #81 (Item 2g). To address this overload, a 345 kV line breaker and associated facilities on the 345 kV Red bus at Prospect Heights is required. The estimated costs for these facilities are $**2,000,000**.

For the reinforcements required for Item 2a and Item 2b, please see the Contribution to Previously Identified Overloads section.

Short Circuit

(Summary of impacted circuit breakers)

To be determined in the System Impact Study.

Contribution to Previously Identified Overloads

(T32 contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

Table 3 below provides a summary of the impacts on the ComEd transmission system for contributions to previously identified overloads with additional contribution by the T32 project:

Table 3: Contributions to Previously Identified Overloads

Item #	Project	Contribution MVA	Overloaded Element	Overload %		Rating		Contingent Element
				From	To	Type	MVA	
3a	T32	1187.6	Byron to Wempletown 345kV line 0624	110.10%	162.30%	Emergency	2277	Byron to Cherry Valley Red 345kV line 0622 & Byron to Cherry Valley Blue 345kV line 0621
3b	T32	488.5	Walton Rd. (P20) to Electric Junction 345kV line 18402	103.60%	134.70%	Emergency	1572	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3c	T32	194.1	Belvidere to Marengo Tap Blue portion of Belvidere-Marengo-Woodstock 138kV line 12205	100.30%	141.30%	Emergency	473	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3d	T32	256.4	Marengo Red Tap to Pleasant Valley portion of Belvidere-Marengo-Pleasant Valley Red 138kV line 12204	109.20%	175.30%	Emergency	388	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3e	T32	160.4	Marengo Tap to Woodstock Blue portion of Belvidere to Woodstock 138kV line 12205	100.50%	154.00%	Emergency	300	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3f	T32	80.6	Haumesser Rd. (Q57) to W. DeKalb Tap portion of Haumesser Rd. (Q57) to Waterman 138kV line 11323	153.90%	179.40%	Emergency	316	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3g	T32	80.6	Steward to Haumesser Rd. (Q57) 138kV line 18623	103.40%	128.50%	Emergency	321	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3h	T32	80.9	McGirr Rd. to H440 (Rochelle) Tap portion of McGirr Rd.-H440-Steward 138kV line 16914	105.80%	129.30%	Emergency	345	Cherry Valley to Silver Lake 345kV line 15616 & Cherry Valley-W. DeKalb-Glidden 138kV line 15627
3i	T32	34.0	Kewanee to Kewanee IP 138kV tie	183.70%	194.20%	Emergency	323	Kewanee to T143 138kV line 6101 & Crescent Ridge to T143 138kV line 7713
3j	T32	26.9	Crescent Ridge to T143 138kV line 7713	202.60%	225.80%	Emergency	116	Electric Junction-N Aurora-Sugar Grove-Waterman-Glidden 138kV line 1106 & P20 to Electric Junction 345kV line 18402

Previous projects in the PJM Queue have established the need for two 345 kV lines from Byron to Wayne and a second Byron to Nelson 345 kV line to satisfy ComEd's transient stability criteria.

Summary of Required Upgrades to Satisfy Stability Criteria

1. First 345kV transmission line between Byron and Wayne (56 miles). This line is required to mitigate transient stability criteria violations initially caused by the R16 project. The T32 project may have a cost allocation to this upgrade. The cost estimate for this upgrade is $**250,000,000**. (PJM Network Upgrade# N**1606**)

2. Second 345kV transmission line between Byron and Wayne (56 miles). This line is required to mitigate transient stability criteria violations initially caused by the R33 project. The T32 project may have a cost allocation to this upgrade. The cost estimate for this upgrade is $**50,000,000** (PJM Network Upgrade# N**1638**).

3. A new 345kV transmission line between Byron and Nelson (33 miles). This line is required to mitigate transient stability criteria violations initially caused by the R33 project. The T32 project may have a cost allocation to this upgrade. The cost estimate for this upgrade is $**125,000,000** (PJM Network Upgrade# N**1639**).

In addition to the new Cherry Valley to Pleasant Valley 345kV line described in the previous section, the two new Byron to Wayne 345kV lines and the additional Byron to Nelson 345kV line are also required for the T32 project to mitigate the remaining thermal violations described below:

- These facilities address the remaining overloads in the Generator Deliverability Impacts (Item 1b and Item 1c).

- These facilities also address overloads in the Multiple Facility Contingency Impacts (Item 2a and Item 2b).

- The two 345 kV lines from Byron to Wayne and the Byron to Nelson 345 kV line also directly address the Byron to Wempletown 345 kV line overload (Item 3a). In addition they reduce the flows on the 345 kV network thus addressing the overload on this facility (Item 3b). The additional Byron 345 kV lines also reduce flows on the 138 kV and address the T32 contributions to previous overloads on 138 kV facilities which include loss of Cherry Valley to Silver Lake 345 kV (Item 3c, Item 3d, Item 3e, Item 3f, Item 3g, and Item 3h).

Previous items in the PJM R-Queue have identified the need for additional 345 kV facilities in the Kewanee area. These additions will address the T32 Multiple Facility Contingency Impacts (Item 2j and Item 2k). These additions will also address the T32 contributions to previous overloads (Item 3i and Item 3j).

Cost allocations for T32 will be determined in the System Impact Study

Steady-State Voltage Requirements
(Summary of the VAR requirements based upon the results of the steady-state voltage studies)

To be determined in the System Impact Study.

Stability and Reactive Power Requirement for Low Voltage Ride Through
(Summary of the VAR requirements based upon the results of the dynamic studies)

To be determined in the System Impact Study.

Potential Issues

The Byron/Nelson area of the ComEd transmission system has historically been limited by transient and dynamic stability concerns and previous studies for new generator interconnections have identified severe limitations. Stability studies for this project will be performed during the System Impact Study. It is possible that significant cost contributions may be required of this project for new or previously identified stability upgrades.

Impacts on the MISO member transmission systems are not included in this analysis, but they will be included in the Impact Study, which may reveal upgrades needed in the MISO system not identified in this Feasibility Study.

Delivery of Energy Portion of Interconnection Request
PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

As a result of the aggregate energy resources in the area, the following violations were identified:

Table 4: Potential Congestion Issues								
Item #	Project	Contribution MVA	Overloaded Element	Overload %		Rating		Contingent Element
				From	To	Type	MVA	
4a	T32	800.9	Byron to Cherry Valley Blue 345kV line 0621	101.00%	153.30%	Emergency	1530	Byron to Cherry Valley Red 345kV line 0622
4b	T32	874.2	Byron to Cherry Valley Red 345kV line 0622	76.10%	133.20%	Emergency	1530	Nelson to Lee County 345kV line 15501
4c	T32	1011.6	Cherry Valley to Silver Lake 345kV line 15616	97.80%	163.90%	Emergency	1530	Nelson to Lee County 345kV line 15501
4d	T32	402.3	Wempletown to T92/T93 Blue 345kV line 17101	108.00%	141.10%	Emergency	1214	Wempletown to T92/T93 Red 345kV line 17102
4e	T32	401.5	Wempletown to T92/T93 Red 345kV line 17102	97.50%	127.50%	Emergency	1341	Wempletown to T92/T93 Blue 345kV line 17101
4f	T32	394.0	T92/T93 to Paddock Red 345kv line 17102	94.60%	124.00%	Emergency	1341	T92/T93 to Rockdale Blue 345kv line 17101
4g	T32	338.9	T92/T93 to Rockdale Blue 345kv line 17101	88.70%	116.60%	Emergency	1214	T92/T93 to Paddock Red 345kv line 17102
4h	T32	1163.6	Nelson to Lee County 345kV line 15501	71.80%	147.90%	Emergency	1530	Cherry Valley to Silver Lake 345kV line 15616
4i	T32	463.1	Nelson to Walton Rd. (P20) 345kV line 15502	122.40%	160.00%	Emergency	1234	Cherry Valley to Silver Lake 345kV line 15616
4j	T32	463.1	Walton Rd. (P20) to Electric Junction 345kV line 18402	128.60%	166.20%	Emergency	1234	Cherry Valley to Silver Lake 345kV line 15616
4k	T32	158.5	Cherry Valley 345/138kV transformer #82	76.50%	110.60%	Emergency	465	Cherry Valley to Silver Lake 345kV line 15616
4l	T32	200.3	Cherry Valley 345/138kV transformer #83	58.30%	100.10%	Emergency	480	Nelson to Lee County 345kV line 15501
4m	T32	164.4	Alpine Tap to Belvidere portion of the Cherry Valley-E Rockford-Alpine-Belvidere 138kV line 15623	98.80%	137.70%	Emergency	423	Cherry Valley to Silver Lake 345kV line 15616
4n	T32	183.2	Belvidere to Marengo Tap Blue portion of Belvidere-Marengo-Woodstock 138kV line 12205	99.50%	142.10%	Emergency	430	Cherry Valley to Silver Lake 345kV line 15616

Table 4: Potential Congestion Issues (Continued)								
Item #	Project	Contribution MVA	Overloaded Element	Overload %		Rating		Contingent Element
				From	To	Type	MVA	
4o	T32	147.7	Marengo Tap to Woodstock Blue portion of Belvidere to Woodstock 138kV line 12205	101.20%	157.80%	Emergency	261	Cherry Valley to Silver Lake 345kV line 15616
4p	T32	199.8	Marengo Red Tap to Pleasant Valley portion of Belvidere-Marengo-Pleasant Valley Red 138kV line 12204	123.40%	191.60%	Emergency	293	Cherry Valley to Silver Lake 345kV line 15616
4q	T32	100.9	Waterman 138kV bus tie 2-3	231.60%	278.50%	Emergency	215	Walton Rd. (P20) to Electric Junction 345kV line 18402
4r	T32	53.7	W DeKalb Tap to Waterman portion of Haumesser Rd. (Q57) to Waterman 138kV line 11323	216.20%	240.00%	Emergency	225	Walton Rd. (P20) to Electric Junction 345kV line 18402
4s	T32	53.7	Haumesser Rd. (Q57) to W. DeKalb Tap portion of Haumesser Rd. (Q57) to Waterman 138kV line 11323	193.80%	214.40%	Emergency	261	Walton Rd. (P20) to Electric Junction 345kV line 18402
4t	T32	53.7	Steward to Haumesser Rd. (Q57) 138kV line 18623	129.60%	150.10%	Emergency	261	Walton Rd. (P20) to Electric Junction 345kV line 18402
4u	T32	50.7	H440 (Rochelle) Tap to Steward portion of McGirr Road-H440-Steward 138kV line 16914	126.50%	145.90%	Emergency	261	Walton Rd. (P20) to Electric Junction 345kV line 18402
4v	T32	53.9	McGirr Rd. to H440 (Rochelle) Tap portion of McGirr Rd.-H440-Steward 138kV line 16914	142.20%	162.90%	Emergency	261	Walton Rd. (P20) to Electric Junction 345kV line 18402
4w	T32	131.4	Dixon to R65/O68 138kv line 10721	99.40%	171.60%	Emergency	182	Nelson to Lee County 345kV line 15501
4x	T32	22.1	R96 to Maryland 138kV line 12402	124.20%	133.70%	Emergency	232	Lancaster to Freeport 138kv line 11901
4y	T32	25.0	Kewanee to T143 138kV line 6101	104.50%	117.60%	Emergency	190	Crescent Ridge to T143 138kV line 7713
4z	T32	26.1	Crescent Ridge to T143 138kV line 7713	213.00%	136.70%	Emergency	110	Nelson to Walton Rd. (P20) 345kV line 15502
4aa	T32	20.1	T143 to Oglesby Tap portion of T143-Oglesby Tap-Mazon 138kV line 7713	187.30%	205.50%	Emergency	110	T143 to Hennepin Station 138kV line (formerly line 6101)
4ab	T32	10.4	Oglesby Tap to Maxon portion of Hennepin Tap-Oglesby Tap-Mazon 138kV line 7713	109.10%	118.20%	Emergency	115	Powerton Blue to Powerton Red 345kV bus tie & Powerton Red to Cayuga Ridge North (O27) 345kV line 0303

Option 2:

Network Impacts

The T32 project was studied as a 2500 MW Energy (925 MW Capacity) injection into the Station 23 Collins 765kV substation in the ComEd area. Project T32 was evaluated for compliance with reliability criteria for summer peak conditions in 2012. Potential network impacts were as follows:

Generator Deliverability
(Single or N-1 contingencies for the Capacity portion only of the interconnection)

None.

Multiple Facility Contingency
(Double Circuit Tower Line contingencies were studied for the full energy output. The contingencies of Line with Failed Breaker and Bus Fault will be performed for the Impact Study.)

None.

Short Circuit
(Summary of impacted circuit breakers)

To be determined in the System Impact Study.

Contribution to Previously Identified Overloads
(T32 contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

None.

Steady-State Voltage Requirements
(Summary of the VAR requirements based upon the results of the steady-state voltage studies)

To be determined in the System Impact Study.

Stability and Reactive Power Requirement for Low Voltage Ride Through
(Summary of the VAR requirements based upon the results of the dynamic studies)

To be determined in the System Impact Study.

Potential Issues

A baseline overload for a Plano 345/138kV transformer with T32 contributions appeared in the results for this study. After the T queue study case was locked, another Plano 345/138kV transformer was added to the baseline upgrades, which should relieve this overload. No allocations will be made to the T32 project at this time. This overload will be reviewed again during the System Impact Study.

Previous projects in the PJM queue contribute significantly to the flows across the ComEd system. In reviewing the section on Delivery of Energy, it is noted that prior projects in the PJM queue result in large loadings on several facilities. For example, without any output from T32, the Collins 765/345 kV transformer is loaded to 95% of its

emergency rating for loss of the 765kV line from Wilton Center to Collins. Also without any output from T32 the Plano 765/345 kV transformers are loaded from 75% to 85% of their emergency ratings for loss of this same 765 kV line. A major 765 kV line from the Collins area to the East or Southeast may be needed to allow for additional energy to be exported from the Collins area.

The T32 Option 2 project may impact stability at Dresden and/or Kendall County stations due to the interconnection into the existing Collins substation. Stability studies will be performed during the System Impact Study.

Impacts on the MISO member transmission systems are not included in this analysis, but they will be included in the Impact Study, which may reveal upgrades needed in the MISO system not identified in this Feasibility Study.

Delivery of Energy Portion of Interconnection Request

PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

As a result of the aggregate energy resources in the area, the following violations were identified:

Table 6: Potential Congestion Issues

Item #	Project	Contribution MVA	Overloaded Element	Overload %		Rating		Contingent Element
				From	To	Type	MVA	
6a	T32	1004.9	Collins 765/345kV transformer TR 92	97.20%	170.00%	Emergency	1380	Wilton Center to Collins 765kV line 11216
6b	T32	750.1	Plano 765/345kV transformer TR 93	84.00%	138.40%	Emergency	1380	Wilton Center to Collins 765kV line 11216
6c	T32	745.0	Plano 765/345kV transformer TR 94	74.30%	128.30%	Emergency	1380	Wilton Center to Collins 765kV line 11216