

# APPEAL OF TAC DECISION REGARDING 2009 CSC RECOMMENDATION

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<b>Market Segment</b>	Investor Owned Utility

## Appeal of TAC Decision Regarding 2009 CSC Recommendation

American Electric Power respectfully appeals the decision of the ERCOT Technical Advisory Committee ("TAC) made at its October 8, 2008 meeting to recommend the Commercially Significant Constraints (CSCs), Zonal Clustering Closely Related Elements (CREs) and Boundary Units associated with Scenario 3i. It is AEP's belief, for the reasons that follow, that the ERCOT Board should instead approve the CSCs, Zonal Clustering, CREs and Boundary Units associated with Scenario 3h.

The ERCOT Protocols Section 7.2, CSC Zone Determination Process, provides the general outline of the process to be utilized to determine the Congestion Zones each year. This outlines the selection of CSCs, performance of clustering analysis and the identification of CREs and Boundary Units. However, much of the specific detailed procedures have been developed through the historical actions taken each year since the implementation of the ERCOT administered markets. Historically, these procedures appear to have been applied on a consistent and non-discriminatory basis.

The historically accepted process first requires the selection of the appropriate CSCs. Next in the process comes the clustering of generators and loads that have similar impacts on those constraints. As relevant to this appeal, there is agreement concerning the proper 2009 CSC's, since both Scenarios are based on identical CSC selections.

Concern arose, however, in connection with the second step in the process. Using the historically accepted clustering process, a significant amount of generation currently in the West 2008 Congestion Zone would be placed in what would become the North 2009 Congestion Zone. Although the proper procedures were followed – in fact precisely the same procedure that have always been used in connection with the clustering process - and no reliability issues were identified, some parties became alarmed by the significant movement of certain generation into the North Zone. As a result, these parties immediately sought out ways to overturn the decision or somehow reduce this shift in generation. The result of those efforts was the creation of Scenario 3i through

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the addition of unprecedented and inconsistently applied assumptions which uniquely and adversely impacts one single generating unit (Oklaunion) .

The critical ERCOT 3i assumptions are unprecedented and appear to be end result oriented. Specifically, the assumption that certain segments of the ERCOT transmission system affecting only one CSC were out of service, is itself unprecedented; and, piling one unprecedented assumption upon another – ERCOT assumes that Oklaunion- - a low cost base load coal fired unit - is likely to vary its output. Through the course of this year's analysis, other erroneous assumptions in use by ERCOT specifically regarding the Oklaunion plant also came to light. It is AEP's belief that all these unique assumptions are both inconsistent with the ERCOT Protocols and may be inconsistent with ERCOT's requirement to provide nondiscriminatory access to the ERCOT transmission system.

- (1) ERCOT Protocol 7.2.1 requires: "... ERCOT staff will complete an analysis of Load flow data using the latest Steady State Working Group Data Set A summer peak case and will determine expected operating limits, candidate CSCs and associated constraints to be used in the designation of CSCs for the upcoming calendar year." This model includes the line segment from Oklaunion to Fisher Road and from Fisher Road to Bowman. ERCOT's actions to remove only this line segment for the purposes of performing the 3i cluster analysis, creates three problems:
  - a. This results in a significant a departure from historical practices since all prior years' analysis were based upon a fully intact ERCOT transmission system for all CSCs. This would have included the Oklaunion to Bowman line segment being operational/in service.
  - b. ERCOT and others justify this unprecedented post contingency analysis by explaining it is part of the real time post contingency operation of the ERCOT grid. While this may be true, post contingency analysis also is applied to every other CSC interface and element of the transmission grid in ERCOT's real time operations. Exclusively applying this standard to the West interface causes generators and loads which impact that CSC to be treated in a manner differently than those generators and loads impacting other CSCs. Such different treatment, most severely impacted the Oklaunion plant. Under these alternate procedures the Oklaunion plant is clustered into the West 2009 zone instead of being properly clustered in the North 2009 zone. This treatment robs the Oklaunion plant of its proper access to make deliveries in the North 2009 congestion zone. In taking these steps, these actions amount to a violation of Protocol 1.2 (1) which call upon ERCOT to "Ensure access to the transmission and distribution systems for all buyers and sellers of electricity on **nondiscriminatory** terms.(emphasis added)"

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- c. The mere action of removing the Oklaunion to Bowman lines from the case is a modification of the case. One simply can not take the “Steady State Working Group Data Set A summer peak case,” remove any element from service, much less a major 345 KV line, and still call it the “Steady State Working Group Data Set A summer peak case.” Such a modified case is clearly not the case called for under the Protocols and, as a result, its use as the basis for the clustering analysis is in conflict with the requirements of the Protocols.
- (2) ERCOT Protocol 7.2.4, Determining Generation Resources Deemed Likely to Vary Their Output, requires ERCOT each year to define a list of resources “fueled by nuclear fuel, coal or lignite.” Since the Oklaunion plant is fueled by coal, in accordance with this section of the protocols it is excluded from the list of units likely to vary their output. These units like Oklaunion, commonly referred to as unmovable, are then excluded from the Zonal Shift factor calculations for the reset of the year. In each prior year this status has also been utilized as ERCOT performs its analysis to determine Closely Related Elements (CREs). This year, in contrast, ERCOT decided to treat the Oklaunion station as movable for the purposes of the CRE selection process. It is unclear how this assumption impacted the remaining steps of the CRE selection process, but two things are clear:
- a. The Oklaunion plant was treated differently than any other coal fired unit has been treated in the past (including its own treatment in prior years).
  - b. This treatment was applied exclusively to the Oklaunion plant and such discriminatory treatment is a violation of ERCOT Protocol 1.2 stating “In the exercise of its sole discretion under these Protocols, ERCOT shall act in a reasonable, **nondiscriminatory** manner. (emphasis added)” During the TAC/WMS Technical Review WebEx on October 6, 2008, the ERCOT staff justified this treatment as reasonable by explaining that (i) technically the Protocols do not state how they have to conduct the CRE analysis and (ii) there is “pretty good evidence that it does move in response to price.” AEP does not argue with ERCOT’s reasonable consideration of a generating unit’s actual behavior in the CRE analysis. However, AEP does take issue with the discriminatory way in which it was applied exclusively to the Oklaunion station. There is “pretty good evidence” that most, if not all, of the coal fired units in the ERCOT region move in response to price. If ERCOT is to make such reasonable assumptions, they must be implemented on a nondiscriminatory basis. In this case all coal fired units should have been treated as movable for the purposes of the remaining CRE analysis and to do differently creates a conflict with Protocols Section 1.2.
- (3) The issue or concern over stability limits has also been raised from time to time during the debate over the West Zone CSCs. From discussions that have taken

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place in the Congestion Management Working Group, several conclusions are apparent:

- a. The modeling of the stability limits has been flawed for quite some time and may have resulted in stability limits that were below what was necessary. During the very few instances where this stability limit was the binding constraints, this would have resulted in the unnecessary reduction in exports from the West zone, since the system was being operated at levels that were below its capabilities (“phantom congestion”).
- b. This error was in part due to incorrect assumptions regarding the Power System Stabilizer (“PSS”) in use at the Oklaunion plant. ERCOT’s modeling assumed the Oklaunion PSS was not operational and therefore assumed Oklaunion contributed to the small signal instability in the region. The Oklaunion PSS is in fact operational, as is required by Protocol 6.5.7.2 (4). As a result, any contribution the Oklaunion plant would have to the stability issues is mitigated by the operation of its PSS. Any use of ERCOT’s small signal stability issues as a justification for moving Oklaunion into the West zone would effectively and unreasonably require Oklaunion to resolve problems created by other resources not having operational PSSs.
- c. Given the errors in assumptions, changes in system topology and CSCs it is clear that a comprehensive review of ERCOT’s small signal instability limits is necessary. While the broad arc/interface in prior years has loosely correlated to the west zone, this may no longer be the proper interface/measuring point for the stability limit and is of little use as guidance when comparing Scenario 3i and 3h.

In addition to the problems addressed above, concerns have been raised that Scenario 3h will somehow lead to greater costs. In response to these concerns AEP suggests:

- (1) ERCOT has indicated, and AEP agrees, that the interaction of the many different ERCOT functions/activities make it almost impossible to determine the total net impact of any of the scenarios considered.
- (2) Placing the Oklaunion plant in the North 2009 zone will not lead to higher uplift and costs for the following reasons:
  - a. ERCOT staff confirmed at the TAC meeting on October 8, 2008 that under Scenario 3h there will be sufficient generation, even without Oklaunion, to relieve any West to North congestion. As a result, any West to North congestion will be capable of being relieved by reducing output from units in the West and will not require any OOME instructions to the Oklaunion plant.

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- b. AEP has indicated that it is its intent to fully schedule its shares of the output of the Oklaunion plant. When placed in the North 2009 zone, it is likely the unit will be running at or very near its scheduled output at all times. In the event ERCOT does find it necessary to issue OOME instructions to the plant as a result of its being identified as a Boundary Unit, such instructions to operate at scheduled levels will result in little or no additional compensation.
- c. As explained earlier, no specific instructions for Oklaunion plant related to stability limits should be necessary. The remaining units in the West zone should be capable of resolving any actual stability limit problems that exist. In the unlikely event that changes in the operation of units outside the West zone are necessary, other units are also capable of providing similar relief and this relief should not be applied to Oklaunion plant alone.

A transparent and equitable application of the rules and procedures protects a competitive market by assuring all market participants, large and small, of a fair opportunity to compete in the market. AEP respectfully submits that these selective departures from established procedures are inconsistent with principles of market fairness. AEP has no objection to revisiting the CSC Zone Determination procedures, but submits that it should be a comprehensive review conducted when time permits, in connection with analysis performed for calendar year 2010. Therefore, AEP respectfully requests that the ERCOT Board reject TAC's recommendation of Scenario 3i in favor of Scenario 3h.