**VCWG Proposed Alternative to Verifiable Cost Whitepaper**

**Summary of Proposed Strategy:**

VCWG believes that a revised methodology for Verifiable Cost, which introduces a generic cost component to Verifiable Cost (referred to as “Standard Costs” herein), can be implemented before the Texas Nodal Market Implementation Date. The assumptions made within this white paper used to derive a Standard Cost[[1]](#footnote-1) are based on publicly available data which VCWG believes to be a reasonable method.

The following is a summary of the rules proposed to implement a Standard Cost structure along with calculation examples which compare the proposed costs to the current Zonal costs.

**Proposed Framework:**

Resource Entities will have the option of selecting their method of compensation for RUC instructions by either submitting Verifiable Costs according to the ERCOT Nodal Verifiable Cost Manual or by utilizing a Standard Cost structure. The Standard Cost structure consists of a fuel component, which is entirely verifiable and based on fuel verification methodologies already established within the Nodal Protocols and the Verifiable Cost manual, and a standard cost component, comprised of startup and variable costs which are calculated based on a fixed cost structure by Resource type.

Resource Entities who chose not to make an election for either the Standard or Verifiable cost structure will be compensated utilizing Generic Costs according to the Nodal Protocols section 4.4.9.2.3 (Note: These generic costs are not fully compensatory). However, prior to or upon the fifth RUC instruction in a rolling twelve month period for a single Resource, the Resource Entity will be required to choose between submitting Verifiable or Standard Costs.

Should the proposed Standard Cost structure be implemented, Resource Entities who have already submitted Verifiable Costs will have the opportunity to elect the Standard Cost method prior to the initial Texas Nodal Market Implementation Date.

**Verifiable Fuel Cost Component:**

***Fuel Consumption*** *–* Fuel usage during startup, shutdown, and operation at the LSL is verifiable information which the Resource Entity will provide to ERCOT on a regular basis according to the procedures in the Verifiable Cost Manual.

***Mitigated Offer Cap*** *–* Heat rate curves provided to ERCOT by Market Participants are an equitable method to use when considering the Mitigated Offer Curve. The rules for submitting a heat rate curve data will be extracted from the Verifiable Cost Manual.

***Emissions*** *–* Emission costs will be verified according to the rules outlined in the Verifiable Cost Manual.

***Fuel Cost*** *–* As approved in NPRR 174, fuel cost can be established utilizing the Fuel Index Price (FIP) plus a $.50 adder.

**Standard Costs Component:**

***Start-up***– The Startup costs in Table 1 are primarily up-lifted from the current Zonal Protocols with the exception of Advanced Simple Cycle units. Advanced Simple Cycle units have been reduced to better reflect the operating costs of current technology.

***Variable O&M*** *–* Variable O&M costs include scheduled outage maintenance, including annual maintenance and overhauls, forced outage maintenance, water supply costs and environmental equipment maintenance. The California Energy Commission Comparative Costs of California Central Station Electricity Generation Report[[2]](#endnote-1) can be used to established generic Variable O&M costs. These costs are outlined in Table 1 Below.

Table 1



**Calculation Example 1:**





**Calculation Example 2:**

\* Minimum Energy Fuel and Start Fuel in this example is based on the ICAPWG[[3]](#endnote-2) Demand Curve Study.



**Final Considerations:**

While it is currently expected that the majority of RUC instructions in the Nodal Market will be for a few Resources, due to the limitations of the currently drafted Nodal Protocols, the vast majority of Resource Entities will incur the expense to submit Verifiable Costs to avoid being financially harmed by RUC generic compensation (4.4.9.2.3). Because the Verifiable Cost process will determine the bidding parameters for each Resource, many Resource Entities will utilize consultants or other costly mechanisms to assist in the calculation of its costs to ensure their bidding strategies cover their costs. Implementing a NPRR which allows a Resource Entity to opt for Standard Cost compensation will relieve the administrative cost burden in providing Verifiable Costs to ERCOT.

In addition to these considerations, there are certain instances that are not contemplated by the Nodal Protocols or the Verifiable Cost Manual in which it will not be possible for Resource Entities to meet the requirements for Verifiable Cost submission.

***Third Party Confidentiality Obligations –*** Long Term Service Agreements (LTSA) and Power Purchase Agreements (PPA) are highly negotiated, very sensitive contracts between Market Participants and Third Parties that may not be Market Participants. Confidentiality agreements and pre-existing contractual limitations may prevent Resources from disclosing LTSA’s or PPA’s to any party, including ERCOT, therefore the verifiability of those costs become impossible.

***Absence of Historical Data –*** As a result of asset acquisitions and divestitures, historical data may not be available to the new owner. In such scenarios, owners would then lack sufficient historical data to meet the current Nodal Protocol requirements for Verifiable Cost data.  Similarly, a new Resource will lack sufficient historical data not only because of its age, but also because actual costs can only be an estimate without the execution of an LTSA. The execution of an LTSA is a business decision made by individual Market Participants to manage costs and should not be required in order to fulfill a market requirement. Should a Market Participant of a new Resource choose to execute an LTSA. Again the confidentiality as previously mentioned becomes a concern.

**Conclusion:**

Adequately determining Verifiable Costs for current or emerging technologies will result in increased administrative costs to the market and continuous revisions to the Protocols and Manual. Utilizing a Standard Cost structure for RUC compensation, one based on Resource Type categories which are more specific than in the current Zonal market, Market Participants can appropriately balance desired levels of accuracy while simultaneously controlling execution costs.

1. Empirical reasoning for Standard Cost structure proposed within this whitepaper is a result of the dynamic engineering requirements to accurately allocate maintenance costs of a Resource between fired hours and number of starts as recommended in *The* *Heavy-Duty Gas Turbine Operating and Maintenance Considerations* document by GE. <http://www.gepower.com/prod_serv/products/tech_docs/en/downloads/ger3620k.pdf> [↑](#footnote-ref-1)
2. CEC – Comparative Costs of California Central Station Electricity Generation, CEC-200-2009-017-SD, August, 2009.

   Retrieved December 20, 2009, from <http://www.energy.ca.gov/2009publications/CEC-200-2009-017/CEC-200-2009-017-SD.PDF> [↑](#endnote-ref-1)
3. Meehan, G. F. (2007, August 15). ICAPWG Demand Curve Study. Retrieved 1 6, 2010, from http://www.nyiso.com/public/webdocs/committees/bic\_icapwg/meeting\_materials/2007-08-24/ICAPWG\_Demand\_Curve\_Study\_Report\_final\_82407.pdf [↑](#endnote-ref-2)