**Questions from Shell Energy North America**

Shell Energy North America (Shell Energy) appreciates ERCOT’s efforts in working with stakeholders on developing switchable generation resource (SWGR) processes. Shell Energy understands ERCOT’s responsibility to maintain reliability and hence is committed to work with ERCOT and stakeholders to develop needed market-based solutions to manage reliability issues without relying on command/control actions to the maximum extent possible. Reliance on market-based solutions is a critical enable to the quality of the ERCOT market. In the extreme case that market-based solutions cannot be developed, it is imperative to develop the appropriate compensation for affected entities and steps to mitigate the impacts on the ERCOT market outcomes. Based on the discussion on July 11, 2018, Shell Energy respectfully submits the following questions to seek clarification on the current ERCOT process for SWGR.

Need for improvements in market-based incentives: Does ERCOT believe that the current Energy-only market design will be ineffective in attracting the SWGRs to ERCOT during system wide emergency even with potential for prices at $9,000?

* + Have there been scenarios in the past where SWGRs were needed for reliability but were not switched into ERCOT?
	+ If so, should there be changes to market design to ensure that prices reflect the need for the resource and create the correct market incentives for switching to ERCOT? Has ERCOT considered what potential changes are needed?

Change in allowed discretion for SWGR owners/operators: Until the end of May 2018, based on the following bullet points, SWGRs had the option to make market-based switching decisions. This was changed by ERCOT’s change to Operating Procedure Manual for Shift Supervisor Desk change on May 31, 2018 and ERCOT’s July 11, 2018 clarification that a generation owner must follow ERCOT procedures per PURA 39.151(j). Please explain how the need for this change out-weighs the concerns expressed by stakeholders and IMM in adopting command/control solutions and the steps that stakeholders/ERCOT need to take to work towards developing a market based alternative solution.

* + Per zonal protocol 4.4.15 QSE Resource Plans, “A Resource may be listed as unavailable to ERCOT if the Resource’s capacity has been committed to markets in regions outside of ERCOT.”
	+ Per nodal Protocol 3.9.1 Current Operating Plan (COP) Criteria, SWGRs can indicate a resource status of OUT to show that the resource is “offline and unavailable” to ERCOT grid.
	+ On April 5th,2017 WMS members voted on a motion that the Command and Control option for Switchable Generation is not the preferred option by WMS. The motion carried with two abstentions.
	+ Until May 31, 2018, ERCOT’s Operating Procedure Manual for Shift Supervisor Desk stated the following “it is up to the QSE as to whether they want to switch”. On May 31, 2018, it was changed [(Bulletin No: 850)](http://www.ercot.com/content/wcm/pobs/157287/Power_Operations_Bulletin_850.doc) to “Coordinate with the RC and the QSE for the SWGR to become available to the ERCOT Grid.”

Costs of switching SWGRs between grids: In the ERCOT’s [SWGR white paper](http://www.ercot.com/content/wcm/key_documents_lists/108818/07._Switchable_Generation_Resources_Whitepaper_V1.0.pdf), ERCOT recommended that SWGRs should be eligible for make whole payments as well as additional settlement treatment to cover contractual penalties, and penalties from market obligations. Listed below is the summary of the cost discussions in the stakeholder process. Please explain the process that ERCOT will use to pay the contractual penalties, and penalties (not lost opportunity) from market obligations if a SWGR is ordered to switch from non-ERCOT Reliability Coordinator region so that the generation operator will not lose money when switching to help maintain reliability of the ERCOT grid.

* + Resource Cost Working Group (RCWG) worked with stakeholders to [estimate worse-case scenario costs](http://www.ercot.com/content/wcm/key_documents_lists/93644/RCWG_SWGR_Examples.pptx) associated with forced switching of SWGR and presented [two options and corresponding costs](http://www.ercot.com/content/wcm/key_documents_lists/77687/14.__Settlement_Options_for_SWGRs.docx) to WMS on September 7, 2016 WMS meeting. The costs associated with switching would vary by scenario and could include operating costs as well as penalties based on pipeline tariffs and non-ERCOT ISO rules. This could run into millions of dollars depending on the scenario that materialize.
	+ Different options and potentials costs were discussed the following months during which stakeholders expressed preference for optional switching because it would likely result in lower uplift cost to load. On [April 5, 2017 WMS meeting](http://www.ercot.com/calendar/2017/4/5/108817-WMS), based on the potential uplift cost and impact to the wholesale energy market, WMS members approved the conclusion that “Command and Control option for Switchable Generation is not the preferred option by WMS”.
	+ During the extensive discussions, ERCOT’s IMM director and several stakeholders discussed the potential costs verses potential benefits and opined that that generation owners are in the best position to understand the costs and risks of moving a unit between grids, and that if Market Participants support ERCOT command/control of SWGR, then consideration should be given to the lost opportunity costs and appropriate compensation.

Shell Energy appreciates the opportunity to submit questions/comments to ERCOT. We look forward to ERCOT’s response to the questions and working with ERCOT on developing market-based solutions to maintain the grid reliability without adversely affecting the market outcomes.