General

- With a catastrophic storm of the size and magnitude of Harvey, there are the unavoidable infrastructure challenges as we enter the recovery phase of the storm.
- As the water recedes and power is being restored, the state's fuel production and distribution system is being systematically and safely restored. This process will not be immediate at all facilities.
- Texans need to know, there is a plan.
- The men and women of the oil and natural gas industry are working around the clock to stabilize the fuel supply chain.

Redirecting Fuel

- The availability of supplies will depend on damage that may have occurred because of the storm.
- The United States' natural gas and oil infrastructure is large, geographically diverse and integrated into the larger global market. (Source: API)
- While typical supply patterns may be disrupted, alternative routes may be available.
- Some pipelines, when able, have reversed lines to ensure product goes to needed markets.
- Refineries and pipelines are pulling product from wherever they can source it, from within Texas and out of state.
- Retailers and wholesaler suppliers are using the trucking and rail systems to acquire product and redirecting them here to meet needs in Texas.

Timing of Refineries' Restart

- It's unclear how long refinery constraints in the impacted area will continue.
- In some cases, a refinery may be safe to bring back online, but crude oil, electricity to run the plant and water to cool the process units might not be immediately available due to flooding or other factors. (Source: API)
- Several refineries have begun the process of safely resuming operations. (Source: DOE situation report)
- Some systems will take a little longer as they are assessed for damage and repaired as needed. *See below for more information about Refinery Startup/Shutdown.*

Port of Corpus Christi Open

- The U.S. Coast Guard approved the Port of Corpus Christi to resume operations. The approval allows several refineries to begin restarting their operations. (Source: <u>San Antonio Business Journal</u>)
- With the reopening of the port, barges and shipments of products are positioning themselves to prepare for processing and/or distribution.

Consumers Should Maintain Routine Buying Habits

- Fuel supply shortages in some areas are clearly exacerbated because normal buying habits have changed.
- Consumers returning to their routine buying habits recognizing that they need fuel for a few days and not a few weeks will be a great help as the system is being brought back fully online.
- According to Federal Emergency Management Agency, consumers should maintain regular buying habits for their vehicles, which can help alleviate a sudden surge in demand. (Source: API)

About Refinery Startup/Shutdown (From API)

Taking a refinery off line and then restarting it are complex operations in which safety is paramount. Here's a sequence of steps and factors that helps illustrate that complexity:

• In the hours before a large storm like Hurricane Harvey makes landfall, refiners usually will evacuate all non-essential personnel and begin shutting down or reducing operations. Even

- operations in areas not in the forecast zone are shut down or curtailed because a storm may suddenly change direction.
- Once a facility is deemed safe by experts, teams arrive to assess whether there has been damage and/or flooding. Any damage must be repaired before the refinery can come back online.
- The refinery must have access to crude oil to process, electricity and water.
- The process of restarting a refinery can take some time. Safety is ensured by returning the facility's process units and associated equipment to operation in specific stages.
- After repairs are made and it's determined that ancillary facilities such as pipelines that carry oil and natural gas from the refinery are ready to accept shipments, production can be restarted.