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PROJECT NO. 38578

ENERGY EFFICIENCY	§	PUBLIC UTILITY
IMPLEMENTATION PROJECT	§	COMMISSION OF TEXAS
UNDER 16 TAC § 25.181	§	

COMMENTS OF ARMADA POWER, LLC

Armada Power LLC, headquartered in Columbus, Ohio and manufactured in Solon, Ohio, offers a device which can be used with nearly any residential electric resistance water heater to manage the charging and provide maintenance alerts. The device was invented at the Battelle Memorial Institute and has been proven to be a cost effective and impactful solution that provides energy grid services including demand response, grid firming and cold load pick up. The devices, which can be retrofitted onto existing residential water heater, can shift approximately 1 kW, with a maximum of 4.5 kW, and eliminates approximately one ton of power plant carbon emission annually.

Armada Power previously submitted comments to the Public Utility Commission of Texas (PUCT) in the Energy Efficiency Implementation Project (EEIP) Docket (38578). The previous comments called upon the PUCT to include residential demand response (DR) control devices in the Technical Reference Manual (TRM) beyond just smart thermostats. Armada Power again requests that the TRM include DR devices and calls for a "deemed energy savings" calculation for hot water tank controllers be included like what has been established for smart thermostats. Including this calculation would spur new and innovative residential load control programs that could be more effective than smart thermostat control programs.

In addition to inserting a "deemed energy savings" calculation for hot water tank controllers in the TRM, actions must also be taken to establish new measurement and verification protocols and compliance pathways that recognize and accepts the DR impacts of each individual device via device level metering. This is needed because under the current use of premise level metering, when more than one DR device is installed by a residential customer the utility can't discern which device is responsible for the response to a load control event.

The residential smart thermostat load control programs currently offered will stagnate if measurement and verification rely solely on the premise meter. This is evident in the Smart Thermostat Pilot Market Transformation Program proposed by the Alliance for Retail Markets and the Texas Energy Association for Marketers that aims to increase automated demand response capabilities in ERCOT through residential customer participation in demand response programs offered by retail electric providers.



The proposed program only contemplates the use of smart thermostats when there are other effective and proven DR technologies that could be used to increase automated demand response capabilities in ERCOT through residential customer participation. The program should be broadened to include these technologies and the program titled "Smart Device Pilot Market Transformation Program" because smart thermostats are only one piece of the solution for addressing ERCOT's growing need for residential demand response.

Respectfully submitted,

Scott Koehler
Chief Commercial Officer
Armada Power, LLC