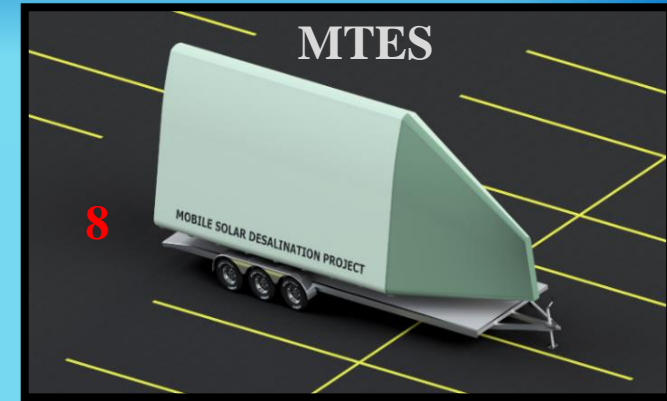
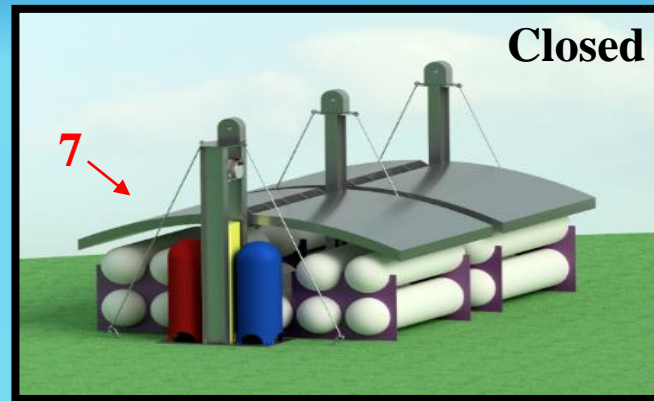
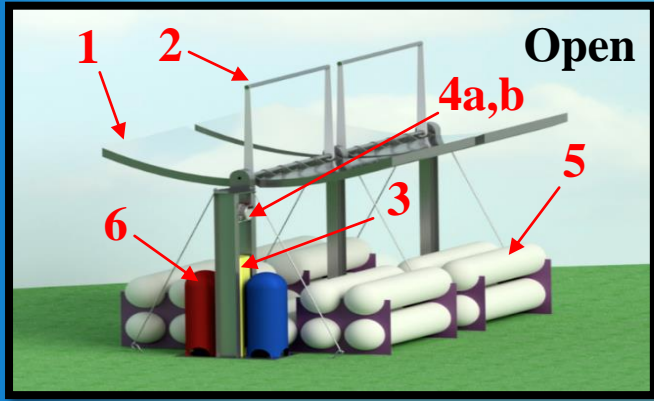


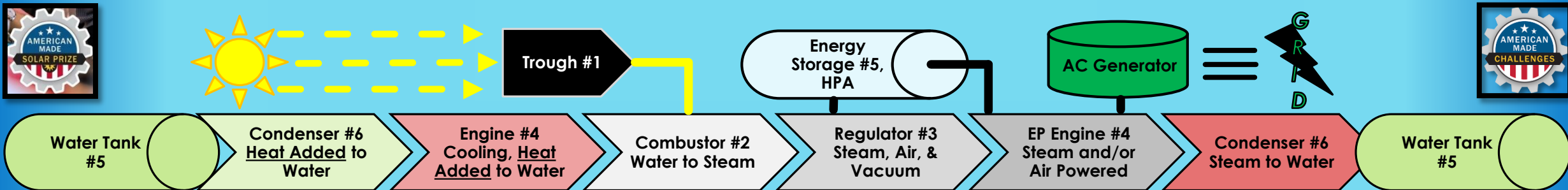
“SOLAR TROUGH - ENGINE SYSTEM (TES)”



1. Precision parabolic trough; Sun tracking. 2. Steam combustor; Focus controlling. 3. Steam regulator; Compressor & Pump. 4a. EP Engine 4b. Alternator. 5. Air & Water storage; Closed water/steam system. 6. Condenser; Energy recirculation. 7. Self-protecting; Weather aware.

DOE SOLAR PRIZE ROUND #4

8. Mobile TES (MTES) demonstrating greatest watts/\$; ^50% efficiency; Energy Storage; Recycled Energy; HPA; Purified Water; & More...



Sunlight is concentrated and focused by the trough on the combustor flashing preheated water to steam. Steam powers the engine which drives the generator creating grid level electricity. The engine’s exhaust (cold steam) is condensed back into water for reuse. Some energy is stored as high pressure air (HPA) to power the engine when sunlight wanes and after sunset. Energy is recovered through condensation and engine cooling improving overall efficiency. The TES is self-protecting; closing the trough when threatened by weather or during non-use.