When electricity is <$25/MWh, the system turns electricity into ammonia and sells it.

When electricity is >$25/MWh, the rSOFC runs in fuel cell mode to make electricity. The ammonia loop runs on stored hydrogen.

During extended high price periods, the NH3 loop shuts down and the rSOFC makes electricity from natural gas or NH3.
100 MW SOEC 88% of hours, $9.9M electric load
25 MW SOFC 12% of hours, $.84M electric sales + capacity value
1 NH3 loop outage/yr, some summer turndown
83% annual load factor NH3 loop
91,000 mt/yr NH3
Energy cost $110/mt
Loaded cost $220/mt

2017 Locational Marginal Prices (LMPs) for Electricity in Western Nebraska