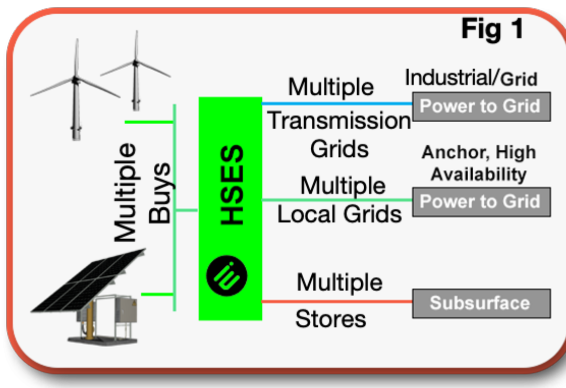
Energy Internet Corporation (EIC) is an energy technology company, that helps assure and accelerate the achievement of Sustainability and Zero Carbon goals. EIC helps Oil & Gas (O&G) companies avoid abandonment costs and double or more their returns on investment with clean energy. The EIC solution is an inexpensive, long duration (10-100 days) energy storage for GW scale power. It enables continuous, quality renewable-power supply at half the current cost.

Our solution is an isothermal Compressed Air Energy Storage (iCAES) system. The design architecture of hydro-pneumatic and electric circuits is composed of low-cost, commodity equipment such as water pumps & turbines, pressure vessels, batteries and inverters. Uniquely, high-pressure water from the pumps, act as a piston in pressure vessels to compress air. The compressed air is then stored at pressures in-excess of 100 bar in sub-surface reservoirs, such as depleted O&G reservoirs, salt caverns and aquifers. To generate power, the process is reversed, with compressed air from these reservoirs acting as the piston to pressurize water in the pressure vessels, to run the turbines.

EIC's approach avoids the risks of new hardware or process development, that held back CAES initiatives in the last decade. Our approach shifts risks of development from hardware to software layer, allowing faster development times and rapid iterations.

The EIC team is drawn from an exclusive pool of experienced entrepreneurs and industry veterans from domains of software, electrical, mechanical, oil & gas, and data centers. EIC has developed alpha software, and process design of its 64 MW and 1 MW modules. These are now in detailed design for construction, ready for commercial deployment in Q1/2022 and Q4/2021 respectively. EIC has MOUs with customers for a phased deployment, starting with pilot demonstration plants.

EIC's software control plane uses IoT & AI to orchestrate internal operations of its numerous hydro-pneumatic and electrical circuits, in conjunction with the flows from renewable supply and local grids, to deliver high-availability power to direct customers, or transmission grids.

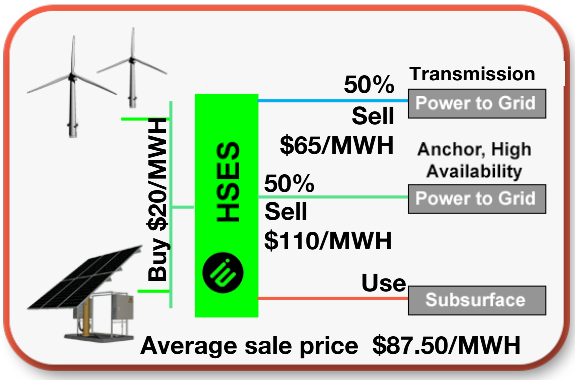


EIC's Ei Hyper Scale Energy System (HSES) (see Fig 1) delivers a huge competitive capability to an O & G company. This includes:

- Avoidance of decommissioning costs, by repurposing reservoirs for iCAES
- A Zero Carbon energy strategy for growth
- High value anchor customers for high-availability power service on local grid(s)
- Low-Cost CO2 sequestration, and Carbon free power for drilling operations
- By-products, such as, low-cost treated water 'desalination' and lower-cost LNG.

Ei HSES leverages an O & G company's expertise in reservoir management and decontamination of returning CA from reservoirs.

Fig 2 illustrates a scenario of HSES operation.

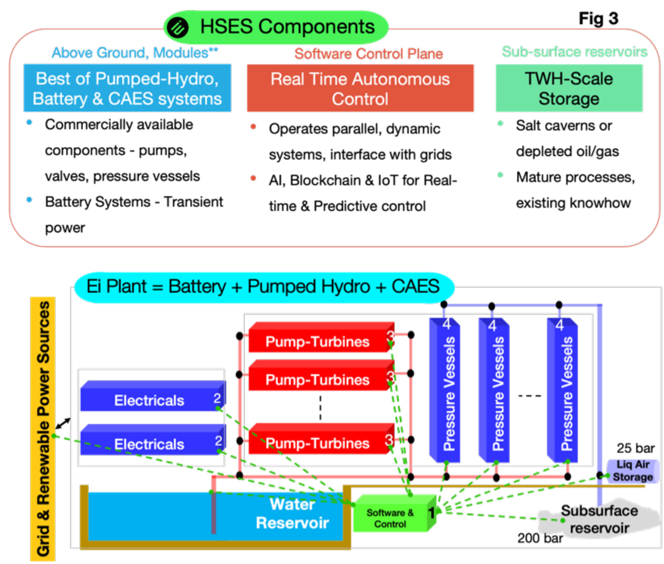


The HSES provider sources energy from an optimized mix of very-large-scale wind and solar energy (say by, contracting to 100% of their output at $20/MWH). It can then sell power to mix of customers, including high value, high availability ones on its local grids (e.g 50% at $110/MWH); and the balance to one or more transmission grids, with a high-availability guarantee. It may also store surplus energy from the transmission grids.

Possible financial benefits are illustrated below:

- Produce energy at $30/MWH[1], with the flexibility to deliver power to customer demand, under extended conditions (40+ days) of zero renewable source availability.
- Average Return on Investment (ROI) of 28% (3.6 years payback) going up to 35% on decommissioning credits and further up to 45% for providing desalination services [2]
- Sequestering CO2 compressed to high pressures in reservoirs at about half today's costs, turning the $50/Ton[3] of government subsidy into a highly profitable venture.

Fig 3 shows key HSES system components.



The above-surface systems (Ei Plant) are modular units that are assembled and tested offsite, for quick on-site deployment. Multiple redundancies at different system levels provide superior resilience, allowing maintenance during operations. The Ei software optimizes its own plant operation, while interfacing with the sub-surface reservoirs[4], the circuits feeding renewable power and distributing or transmitting grid power.

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[1] Based on EIC's target 2023 price of GW scale HSES at $2/W, 68% HSES round trip efficiency, average 62.5% load factor, 30-year target life, 5% p.a maintenance, $20/MWH renewable purchase, 40% of power from HSES-balance supplied directly- to customer.
System cost = {[(1/30 +5%) per year X $2,000,000/MW]/ [(62.5% X 24hrs/day) X (365 days/year)]} = $30/MWH.
Total cost of delivered power = {[$30/MWH +($20/MWH/68%)] X40% + ($20/MWH X 60%)} = $36/MWH. This also means that the additional cost of HSES delivered energy would be ($36 -$20) per MWH = $16/MWH.

[2] HSES: 1 MW @ 62.5% load factor = (62.5% X 8,760 hrs/year X 1 MW) = 5475 MWH/MW/yr. At $87.50/MWH → $0.48 Mill/MW/yr revenues → Margin of (87.5-36)/87.5X$0.48 = $0.28 Mill/MW/Yr; or ($0.28 Mill/MW/Yr)/ ($ 1 Mill/MW) = 28% ROI. Decommissioning can save as much as 20% of HSES investment. This can bump up the ROI to (27%)/ (1-20%) = 35%. Desalination service can add about 25% revenues, at a marginal 5% additional CapEx, increasing the returns further to 35%/ [(1-25%) (1+5%)] = 45%.

[3] US Dept of Agriculture - https://www.fs.fed.us/pnw/pubs/pnw_gtr888.pdf

[4] Fig 3 also shows a liquid air storage system. HSES provides bolt on options to use its compressed air generation. It can be used to produce liquid air, and store as Liquid Air Energy Storage (LAES); and generate energy from LAES as a backup. Not shown in the figure, are other optional services with the compressed air - water desalination, CO2 compression/liquefaction or NG liquefaction.