Hybrid Architect Snapshot

What does it do
The Hybrid Architect is a techno-economic modeling tool that evaluates hybrid renewable power plant project economics and fine tunes system configuration to help to improve value for the plant owner.

- Accommodates dozens of generation source combinations including Solar PV, wind, BESS and gas turbines
- Simulates hourly plant operation for the life of the project
- Calculates project life costs, including CAPEX, OPEX, financing, depreciation, capital reserves, tax liability and incentives
- Enhances plant configuration for maximized return on investment

Customer value
- Refines plant configuration to enhance KPIs – IRR, NPV, LCOE
- Proforma calculation for global sites using market specific use cases, financial and tax inputs
- Detailed report ranging from KPIs to annual plant performance to plant hourly operation details

Key Applications
- PPA: flat rate/tiered
- Merchant markets
- Capacity: Peak hours for capacity payment calculation.
- Ancillary services/Load-following: Hourly price strips and load profiles for all major ISOs and Grid Authorities.

How does it do it

Inputs
- Location
- Turbine model MWh output
- Engine/Turbine model
- Location
- Module technology MWh output
- Battery type/usage, Capacity
- Revenue streams, 8,760 hourly power
- Project Life
- CAPEX + OPEX
- Debt/equity/financing
- Tax rates & incentives
- Depreciation schedule
- Price to buy MWh

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