

Abstract

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Presentation title: The Power of Intersections: Using the oilfield as a base for alternative energy production

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Deep River Group is a new key participant and equity owner in a legacy Geopressure Geothermal (GPGT) project located within the DeWitt geopressure fairway of south central Texas gulf coast. This is the only project currently dealing with re-tasking existing deep oil and gas boreholes for geothermal power generation in Texas.

Deep River is leading the development of re-tasking produced geothermal deep brines and E&P production waste streams into surface-level holding containers to capture and store solar energy into baseline, load-leveling electrical power generation. This system, called Salinity Gradient Solar Pond (SGSP), and the GPGT system use identical heat engines and associated heat exchangers to generate electricity.

The combining of two systems which use the same base fluids, heat engines and heat exchangers radically changes the economics of brine capture and unitization. By adding a third dynamic of brine transport via large volume pipelines (LVP), siting limitations of both systems are eliminated.

Mr. Wynn will also discuss the current status of manufacturing of small scale Organic Rankin Cycle (ORC) and associated heat exchanger manufacturing, which has stalled and been abandoned due to lack of both demand and reliability of market growth. The combination of GPGT, SGSP, and LVP's are critical to expand, stabilize and capture this strained source of alternative energy potential and to create the market conditions required for manufacturing support.

Mr. Wynn will describe the tools needed to realize the full potential of this grid-scale, baseline (7/24), load-leveling, non-fossil-fuel alternative energy solution. This intersection of geopressure geothermal power production, solar power production, recycling of oilfield boreholes and salt water waste, large volume pipelines and revitalization of the manufacture of organic Rankin cycle heat exchangers will require industry support, regulatory support and large-scale financing by investors with vision.