Doe geothermal liftoff report

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Next-gen geothermal vastly expands the total resource available for geothermal power generation and creates a unique value proposition as a clean firm technology with the potential for flexible generation/energy storage, a minimal footprint, and broad geographic availability.

The combination of large near-term grid system imbalances and the cost of rectifying these imbalances with existing technologies are driving buyers to pay between $70-$100 per MWh for the procurement of new clean firm geothermal power (Table 1), and geothermal has emerged as a valuable supplier in this market.

PATHWAYS TO COMMERCIAL LIFTOFF REPORTS. DOE is working to accelerate clean energy technologies from the lab to market to achieve net-zero emissions by 2050. The historic Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) have reinforced this mandate, positioning DOE to invest billions of dollars in large-scale ...

"Pathways to Commercial Liftoff: Next-Generation Geothermal Power," marks the ninth installment in the Liftoff series which launched in March 2023. This report shows how advanced geothermal technology could increase the United States" geothermal energy production to 90 gigawatts or more by 2050, a twentyfold increase.

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DOE is working to accelerate clean energy technologies from the lab to market to achieve net-zero emissions by 2050. The historic Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) have reinforced this mandate, positioning DOE to invest billions of dollars in large-scale demonstration and deployment of these technologies over the next decade. In service of its mandate, the Department began publishing its Pathways to Commercial Liftoff Reports in March 2023 to provide a common fact base and a tool for ongoing dialogue with the private sector.

Each Liftoff Report takes the view of a technology or suite of technologies and is designed to build a common understanding with the private sector and broader ecosystem around the current state, pathways to commercial liftoff, and challenges and solutions to unlock scale for each. They do not represent DOE policy or strategy; they are a representation of DOE"s current understanding based on a synthesis of available facts. Given the

rapidly evolving market, technology, and policy environment, the Liftoff Reports are intended to be "living documents" and will be updated as the commercialization outlook on each technology evolves.

The Office of Technology Transitions (OTT) in partnership with theLoan Programs Office (LPO), the Office of Clean Energy Demonstrations (OCED) and other DOE offices played a key role in developing the Pathways to Commercial Liftoff Reports. OTT led and contributed to the structuring, quantitative analysis, and stakeholders engagement that went into developing each of these reports. Through its ongoing dialogue with the private sector, LPO gave aunique vantage point into the market barriers facing emerging sectors critical to the energy transition.

Watch the webinars on DOE"s channel and download the associated reports and sign-up to be notified when new reports and webinars are available at: https://liftoff.energy.gov.

Currently, reports and webinars are available for the following technology areas: