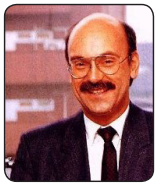

A New Paradigm for Large Volume Electric Energy Storage with Thermal Batteries and Efficient Retrieval

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Abstract:
The present study investigated the price dynamics of carbon dioxide, electricity, natural gas, and capital interest rates to generate a series of cost curves for designing power to gas energy storage systems in different locations. The profitability of power to gas energy storage systems is driven by commodity and regulatory markets that control energy, greenhouse gas, and labour prices. The ability to rapidly determine the feasibility of this technology in different locations requires a rigorous sensitivity analysis of these four parameters in order to determine the net cost or profit of any installation. An iterative calculation approach was utilized to generate profitability curves for a variety of different applications and locations. The analysis was based on CO2Storage Ltd's power-to-gas technology that converts combustion exhaust emissions into renewable methane. This approach yields a profitable path for converting all existing combustion systems into renewable based energy storage systems.

Biography:

Entrepreneur with over 35 years consulting experience in Japan's trade and technology transfer world.

Over the last 10 years mainly engaged in developing projects for renewable energy production in Asia,IndiaandAfrica.

Specialties: Market access consulting, Intercultural business negotiations in German, English and Japanese

Project development, namely for mega solar, floating solar and biomass power projects as well as PCM energy storage for renewable energy sources.

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4. https://pronto-core-cdn.prontomarketing.com/581/wp-content/uploads/sites/2/2018/06/Hans-Henning-Judek-Floating-Solar-and-Low-Cost-Energy-Storage-for-Developing-Countries.pdf
5. https://energycentral.com/news/1320mw-power-plant-connected-national-grid

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