

PRESS RELEASE

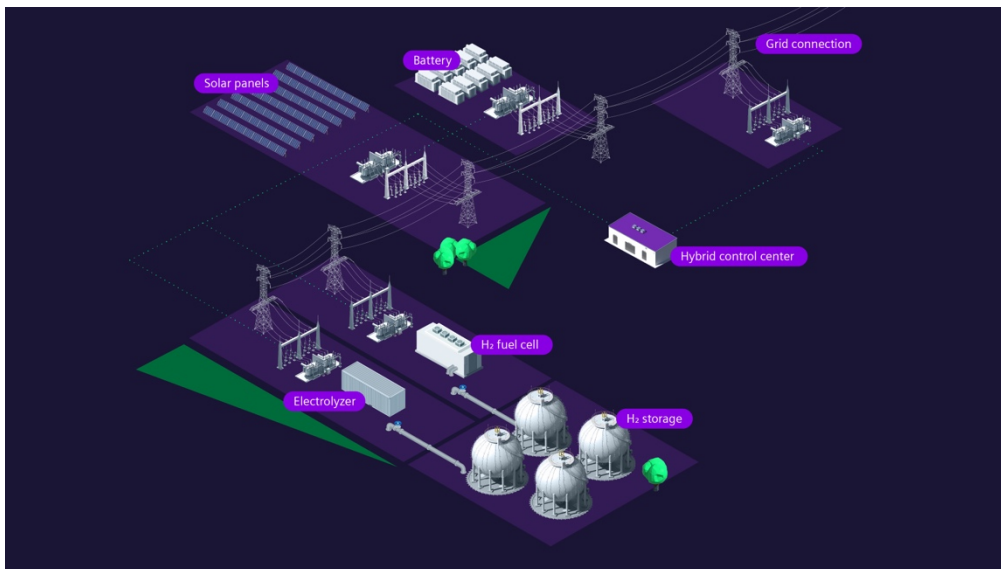
DC Power Supply | Hydrogen Production | June 28, 2022

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AEG Power Solutions provides DC power supplies for the electrolysis process of the world's largest green hydrogen plant

- 8 high efficiency rectifier systems power the 16 MW electrolysis platform of the CEOG power plant in French Guiana
- High efficiency, Integrated grid compliance in combination with compact design were key factors for the choice of Siemens Energy

Zwanenburg, The Netherlands // June 28, 2022 - [AEG Power Solutions](#), a global provider of power supply systems and solutions for all types of critical and demanding applications, announced today that it will deliver 8 [Thyrobox DC-3](#) systems to [Siemens Energy](#). The DC systems will provide the power supply for the hydrogen production process of [the CEOG \(Centrale Électrique de l'Ouest Guyanais\) power plant project](#).



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The world's largest power plant CEOG project which combines photovoltaic with green hydrogen energy storage, is located in Western French Guiana and stores up to 128 MWh. The hydrogen yield of 860 tons per year will be produced by a 16 MW electrolysis platform, stored under pressure in hydrogen storage tanks and then provide secure and 24/7 available electricity via high-power fuel cells in a reverse electrolysis process – enough to power 10,000 households in French Guiana at a competitive price compared to local thermal power plants.

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AEG PS will deliver 8 Thyrobox power supply systems to Siemens Energy as EPC of the project. Each system consists of 4 power modules Thyrobox DC-3 to increase reliability and efficiency in partial load and to support container integration. The B12 thyristor rectifiers have an IGBT bridge for the DC/DC conversion and will be delivered in 8 transformer rectifier units (TRU) forming a 21,5 MVA / 18,6 MW power supply solution to power the electrolyzer system. The rectifier modules will be provided on power frames to allow forklift and crane handling for easy installation and decreased handling costs and support the required Safety Integrity Level (SIL). A Profinet interface will allow the Integration of the rectifier control into the electrolyzer control system.



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Besides AEG PS as expert for the power conversion system, each stakeholder of the project will bring its expertise in the fields of production, distribution, and storage of green energies:

- **Hydrogène de France (HDF)**: a global pioneer in hydrogen energy, HDF develops and operates multi-megawatts Hydrogen- to-Power power plants, incorporating its high-power fuel cells, to provide continuous or on-demand electricity from intermittent renewable energies.
- **Meridiam**: a leader in public infrastructure investment and asset management for public authorities.
- **SARA (French West Indies refinery limited company, Group Rubis)**: a key player in energy production in the French West Indies and French Guiana for over 50 years.
- **Siemens Energy**: a strong global specialist in power plant construction for sustainable future and innovative technologies, who will cover the 24/7 support from its Remote Control Center.

“We are very enthusiastic about this project. It will proof the usability of green hydrogen in large scale power plants. Our power supply solution in combination with the electrolyzer has already been proven in previous projects. Thanks to its compactness, **Siemens Energy** will be able to integrate all components in a containerized solution. The decisive factors for the choice were the low installation and assembly costs, reduced cabling, and our technical know-how. CEOG will benefit from its high efficiency and the good grid compatibility”, states Andreas Becker, Head of Grid & Storage at AEG Power Solutions.

“The CEOG power plant produces economical, clean and reliable electricity that will be fed into the national grid non-stop. Half of the energy demand of the population of Saint-Laurent-du-Maroni and Mana will be covered this way. The residents of French Guiana can look forward to a sufficient energy supply - without fuel imports, without greenhouse gas emissions and almost entirely noiseless”, added Mario Hüffer, Sales Director Hybrid Solutions at Siemens Energy.

After completion of the construction work and the subsequent test operation, the power plant should be feeding into the grid in the second quarter of 2024. Based on renewable energy sources, **CEOG** will avoid 39,000 tons of CO2 emissions per year compared to a fossil fuel power plant.

About AEG Power Solutions

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[AEG Power Solutions](#) ensures continuous power availability and the safe operation of critical applications thanks to with a wide portfolio of power supply systems and services: AC and DC UPS, battery chargers, rectifier systems, service and maintenance on 24/7 basis, as well as fully customized UPS systems to customer specifications.

AEG Power Solutions has developed a distinctive expertise and world-class engineering capacities that bridge both AC and DC power technologies and span conventional and renewable energy platforms. AEG Power Solutions has decades of experience with UPS and power electronics, and grid integration, and is leveraging its conversion expertise to engineer and deliver solutions for the energy transition.

AEG Power Solutions is the sole subsidiary of the holding company 3W Power. For more information, visit www.aegps.com.

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