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Siemens to build a world-leading 2-pole electric motor

- **Siemens Large Drives Applications (LDA) to deliver a high voltage (HV) motor with 105 MW and a 40 MW starting frequency converter for an energy storage project in China**
- **The motor will have an efficiency of beyond 98 percent**

Siemens LDA has received an order from a Chinese customer to deliver a special machine with dual shaft extension. It can be used in motor operation with a power of 105 MW and as generator with up to 129 MVA in power generation mode. The motor will have an efficiency of beyond 98 percent and will be a world-leading 2-pole electric motor.

Beside the motor, the contract includes the delivery of a 40 MW Sinamics GL150 starting frequency converter. This LCI-converter (load commutated inverter) is designed for single-motor applications with variable and constant torque characteristics. As a result of the low switching losses and the low loss thyristor technology, the efficiency of the LCI converter is extremely high and lies at 99 percent.

The drive system will be part of an energy storage project. Energy storage technologies have been viewed as a supporting key technology for the energy revolution and a national strategic emerging technology in China. This kind of technology holds decisive advantages such as high capacity, low costs, high efficiency, and environmental friendliness.

The plants operate by using motors to drive compressors, whose energy will be stored in suitable storage vessels. The stored energy can be released to drive an expander, which in turn drives a generator to produce electricity. Compared with other energy storage technologies, the plants have a very large power rating and

storage capacity, low self-discharge, and a long lifetime. These attributes generally make it the most promising and cost-effective method for bulk energy storage grid services.

The motor will be manufactured at the Siemens Dynamowerk Berlin, Germany, which is the oldest manufacturing plant of Siemens and has existed for 115 years.

“Once completed, this project will be the largest and most efficient energy storage station in the world. We are happy to support our customer in the energy transition and this project with a drive system that sets a benchmark – a world-leading 2-pole electric motor with an efficiency of above 98 percent”, says Hermann Kleinod, CEO of Siemens Large Drives Applications (LDA).



Siemens Large Drives Applications Simotics HV motor

This press release is available at <https://sie.ag/3jKoGeT>

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Siemens Large Drives Applications (LDA) engineers and produces heavy-duty electrical drive systems for medium and high voltage ranges: electrical motors, converters, and generators. LDA belongs to Siemens' Portfolio Companies; these units are agile and flexible, decentralized and with fast decision-making and reaction times. This enables them to be more competitive in their respective markets with more focus on their customers in different industries (oil and gas, marine, mining, cement, water, or power generation and storage).

Siemens AG (Berlin and Munich) is a technology company focused on industry, infrastructure, transport, and healthcare. From more resource-efficient factories, resilient supply chains, and smarter buildings and grids, to cleaner and more comfortable transportation as well as advanced healthcare, the company creates technology with purpose adding real value for customers. By combining the real and the digital worlds, Siemens empowers its customers to transform their industries and markets, to transform the everyday for billions of people. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a globally leading medical technology provider shaping the future of healthcare. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power.

In fiscal 2020, which ended on September 30, 2020, the Siemens Group generated revenue of €55.3 billion and net income of €4.2 billion. As of September 30, 2020, the company had around 293,000 employees worldwide. Further information is available on the Internet at www.siemens.com.