Press release

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Siemens Energy to Help U.S. Government Reduce Emissions on New National Oceanographic and Atmospheric Administration (NOAA) Ships

- Siemens Energy will equip two research vessels with advanced diesel-electric propulsion systems and battery energy storage solution (lithium-ion batteries)
- The technologies will reduce operational costs including lowering fuel consumption and associated CO_2 emissions by approximately 15,000 gallons per year and 5,700 tons, respectively.

Thoma-Sea Marine Constructors, LLC awarded Siemens Energy a contract to supply power, propulsion, and control systems along with Siemens Energy's battery storage technology for two research vessels. The new ships, named the Oceanographer and Discoverer, are being acquired by the National Oceanographic and Atmospheric Administration (NOAA) and will support various missions, including general oceanographic research and exploration, climate and ocean ecosystem studies, and worldwide ocean survey and data collection.

Siemens Energy will equip both ships with SiSHIP Blue Drive PlusC™ advanced diesel-electric propulsion systems and BlueVault™ Battery Storage Solutions. The combination of technologies will enable additional fuel savings and emissions reductions by allowing NOAA to optimize loading on variable speed diesel engines. It will also reduce maintenance associated with the engines.

Walter Thomassie, managing director, Thoma-Sea Marine Constructors, L.L.C. stated "The NOAA NAV Variant is truly the result of an intense, collaborative effort by the Thoma-Sea Marine team, analyzing and implementing the best solutions brought by the shipyard, our design agent (TAI), Siemens Energy, and others. As the first shipyard to install and commission the Siemens Energy Blue Drive PlusC™ advanced diesel-electric propulsion systems in the United States, Thoma-Sea immediately recognized Siemens Energy was able to optimize the system according to our specifications to further enhance the vessel's capabilities and efficiencies."

Anil Raj PE, president and chief engineer of TAI Engineers said "TAI Engineers worked closely with Thoma-Sea Marine and Siemens Energy to develop, for the government, an optimal vessel design with superior performance. The Siemens Energy installation helped in providing an ideal solution to maximize the vessel's endurance, reduce fuel consumption and minimize its carbon footprint.

Compared to vessels with traditional fixed-speed diesel engines of similar size and operating profile, it's estimated that the technology provided by Siemens Energy will lead to fuel savings of 15,000 gallons per year for each vessel – resulting in a reduction of approximately 5,700 tons of CO_2. To offset this amount would require planting more than 370,000 trees.

"We are proud to work alongside our project partners Thoma-Sea and TAI Engineers, and the operators NOAA, and Naval Sea Systems Command, to build these two state-of-the-art research vessels. The contract award is a testament to the performance and reliability of our advanced emissions reducing technologies families, which have developed an extensive track record across a broad range of marine applications in recent years." said Luke Briant, Head of Marine Solutions Americas at Siemens Energy.

The SiSHIP Blue Drive PlusC™ diesel propulsion technology has been installed on more than 80 marine vessels worldwide, including the world's first all-electric car ferry, and the world's largest cruise PAX ferry.

The two NOAA vessels are scheduled to enter operation in 2024 and 2025 respectively. Each will host a crew of 20 and can accommodate up to 28 scientists.

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Siemens Energy is one of the world's leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs around 91,000 people worldwide in more than 90 countries and generated revenue of $32.4 billion in fiscal year 2021. www.siemens-energy.com.