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(72) Inventor: **ANDERSEN, Rune B**; Ivar Wellesvei 15, 0672 Oslo (NO).

(74) Agent: **ROTH, Thomas**; c/o Siemens Energy Global GmbH & Co. KG, Siemenspromenade 9, 91058 Erlangen (DE).

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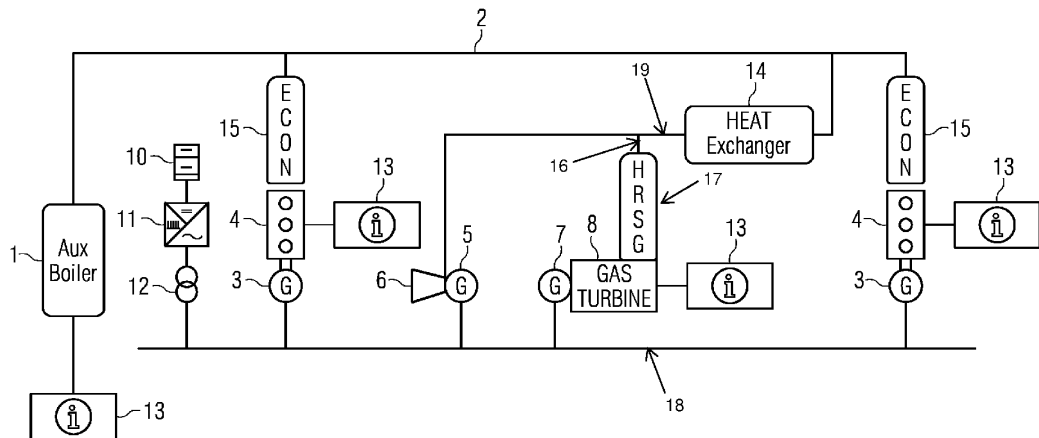
(71) Applicant: **SIEMENS ENERGY AS** [NO/NO]; Oestre Aker vei 88, 0596 Oslo (NO).

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(54) Title: HYBRID COMBINED CYCLE POWER SYSTEM

FIG 1



(57) Abstract: A vessel hybrid combined cycle power and propulsion system comprises a steam turbine (6), at least one gas turbine (8), at least one auxiliary generator (3); an electric propulsion drive system and an energy storage system (10), each connected to a section of an AC bus (20, 21). The system further comprises a source of steam for the steam turbine (6), and a control system for controlling operation of the steam turbine, gas turbine, auxiliary generators, electric drive propulsion system and energy storage system. The primary source of steam for the steam turbine is exhaust gas (16) from the gas turbine (8). The primary source of gas for the gas turbine (8) is boil off gas from the cargo hold. The AC bus comprises a plurality of sections of AC bus (20, 21, 72, 75, 32, 33) coupled together by bus ties closed in normal operation forming a closed ring AC bus. The electric propulsion drive system comprises a variable speed drive, driving an electric motor (24, 25) coupled through a drive shaft (76) to a propeller (77).

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