

**CLAIMS**

1. An electrical energy distribution system for a vessel or platform comprising a plurality of DC buses, each DC bus coupled to a corresponding energy storage bus; each energy storage bus being coupled to a neighbouring energy storage bus of the system through a first DC/DC converter; wherein the plurality of energy storage buses are connected together to form a ring; and wherein each energy storage bus is further coupled to an energy store through a second DC/DC converter.
2. A system according to claim 1, wherein the first DC/DC converter comprises two pairs of parallel connected transistor diode arrangements connected through an inductor.
3. A system according to claim 1, wherein the system further comprises physically separated zones, each zone being coupled to one adjacent zone by the first DC/DC converter comprising one of a parallel connected transistor diode arrangement, or a pair of parallel connected transistor diode arrangements, and an inductor; and to the other adjacent zone by a third DC/DC converter comprising a pair of parallel connected transistor diode arrangements and an inductor .
4. A system according to any preceding claim, wherein the system comprises at least three DC buses and at least three energy storage buses.
5. A system according to any preceding claim, wherein the system further comprises at least a primary energy source; wherein the primary energy source comprises an AC generator connected to an AC bus; wherein the AC bus is coupled to the or each DC bus via a transformer and an AC to DC converter
6. A system according to any preceding claim, wherein the system further comprises an intermediate AC bus at a lower voltage than the AC bus.
7. A system according to any preceding claim, wherein the energy storage comprises one of a battery, bank of batteries, capacitors, supercapacitors, or flywheels.

8. A system according to any preceding claim, wherein the plurality of DC buses comprise normally open switches between adjacent DC buses.
9. A method of operating an electrical energy distribution system according to any preceding claim, the method comprising detecting a voltage difference between an energy storage device and a DC bus and allowing current flow from the higher voltage to the lower voltage.
10. A method according to claim 9, wherein the or each energy storage device charges when there is an excess of energy on any of the DC buses and discharges to a consumer connected to any of the DC buses when the voltage of the DC bus is lower than the voltage of the energy bus for that energy storage device.