CLAIMS

1. An energy accumulation and distribution system, comprising:

an energy accumulator for accumulating waste energy, the energy accumulator comprising:

a first electrical device adapted for receiving first waste energy to be accumulated from a braking power reserve;

a second electrical device adapted for receiving second waste energy to be accumulated from a power generation reserve;

an energy store adapted for accumulating said received first and second waste energy; and

a third energy interface adapted for providing the accumulated waste energy to at least one of an auxiliary energy exchanger and a main steam line so as to distribute the accumulated energy.

2. The energy accumulation and distribution system according to claim 1, wherein the energy store is a fluid storage, such as a steam accumulator drum.

3. The energy accumulation and distribution system according to claim 1, further comprising:

a first brake chopper operatively connected to the first electrical device and adapted for providing the first waste energy from the braking power reserve.

4. The energy accumulation and distribution system according to claim 1, further comprising:

a second brake chopper operatively connected to the second electrical device and adapted for providing the second waste energy from the power generation reserve.

5. The energy accumulation and distribution system according to claim 3, further comprising:

a bus operatively connected to the first brake chopper and the second brake chopper and adapted for receiving the first waste energy and the second waste energy

from a drilling system and for providing the first waste energy and the second waste energy to the first brake chopper and the second brake chopper, respectively.

6. The energy accumulation and distribution system according to claim 5, further comprising:

a variable frequency drive, VFD, operatively connected between the bus and the drilling system and adapted for distributing power to the drilling system from a power source and for distributing the first waste energy and the second waste energy from the drilling system to the bus.

7. The energy accumulation and distribution system according to claim 1, further comprising a pressure transmitter operatively connected to the energy accumulator.

8. The energy accumulation and distribution system according to claim 7, further comprising:

a control valve operatively connected to the pressure transmitter and adapted for, at a predetermined set-pressure from the pressure transmitter, opening and releasing the accumulated waste energy to the auxiliary energy exchanger.

9. The energy accumulation and distribution system according to claim 1, wherein the auxiliary energy exchanger is a heat exchanger or a dumping condenser.

10. The energy accumulation and distribution system according to claim 9, wherein the heat exchanger or dumping condenser is a water cooled two phase heat exchanger or dumping condenser.

11. The energy accumulation and distribution system according to claim 1, wherein the energy accumulator further comprises a fourth energy interface; the energy accumulation and distribution system further comprising: a steam generator operatively connected to the fourth energy interface arranged and adapted for deliver, at a predetermined level as provided by a pressure transmitter, a steam pressure to the energy accumulator.

12. The energy accumulation and distribution system according to claim 11, further comprising:

a feed water and/or condensate return tank operatively connected to the steam generator and the energy accumulator and adapted for providing feed water to the steam generator and the energy accumulator, respectively.

13. The energy accumulation and distribution system according to claim 1, further comprising:

a controller adapted for controlling the energy accumulation and distribution system.

14. A vessel comprising an energy accumulation and distribution system including:

an energy accumulator for accumulating waste energy, the energy accumulator comprising:

a first electrical device adapted for receiving first waste energy to be accumulated from a braking power reserve;

a second electrical device adapted for receiving second waste energy to be accumulated from a power generation reserve;

an energy store adapted for accumulating said received first and second waste energy; and

a third energy interface adapted for providing the accumulated waste energy to at least one of are auxiliary energy and a main steam line so as to distribute the accumulated energy.

15. A method for energy accumulation and distribution, the method comprising:

controlling a first electrical device to receive first waste energy to be accumulated from a braking power reserve;

controlling a second electrical device to receive second waste energy to be accumulated from a power generation reserve;

controlling an energy store to accumulate said received first and second waste energy; and

controlling a third energy interface to provide the accumulated waste energy to at least one of an auxiliary energy exchanger and a main steam line so as to distribute the accumulated energy.