brication circuit (22) to the heat-exchange fluid.

7. The combined-cycle plant according to any one of Claims 2 to 6, **characterized in that** it comprises at least one third heat-exchanger (39) for transferring the heat from the siderurgical gases compressed by the compression unit (14) to the heat-exchange fluid.

8. The combined-cycle plant according to Claim 7, **characterized in that** the compression unit (14) comprises a first compressor (16) and a second compressor (17) and a recirculation duct (29) for connecting the outlet of the first compressor (16) to inlet of the first compressor (16); the third heat-exchanger (39) being set along the recirculation duct (29) for transferring the heat of the siderurgical gases compressed by the first compressor (16), which are introduced again into the first compressor (16), to the heat-exchange fluid.

9. The combined-cycle plant according to Claim 8, **characterized in that** the compression unit (14) comprises a connection duct (30) set between the outlet of the first compressor (16) and the inlet of the second compressor (17); the heat-exchange unit (34) comprising a fourth heat-exchanger (40) set along the connection duct (30) for transferring the heat from the siderurgical gases, compressed by the first compressor (16) and supplied to the second compressor (17), to the heat-exchange fluid.

10. The combined-cycle plant according to any one of Claims 2 to 9, **characterized by** comprising a fifth heat-exchanger (41) for transferring the heat from the heat-exchange fluid to the condensed vapour.

11. The combined-cycle plant according to Claim 10, characterized in that the fifth heat-exchanger (41) is traversed by the circuit (13) for supply of the condensed steam and by the circuit (35) for supply of the heat-exchange fluid.

12. A method for the production of electrical energy in a combined-cycle plant (1) comprising:

supplying the combustion chamber (5) of a gas-turbine plant (3) with siderurgical gases compressed by a compression unit (14);
supplying condensed steam along a supply circuit (13) to a degasser (11) and, in succession, to a boiler (12) of a steam-turbine unit (9); and
conveying the siderurgical gases burnt in the combustion chamber (5)) to the boiler (12) in which a recovery of heat is carried out for heating the condensed steam;
the method being **characterized in that** the heat generated by the compression unit (14) is transferred, at least in part, to the condensed steam upstream of the degasser (11) by means of a heat-exchange fluid.

13. The method according to Claim 12, **characterized by** circulating the heat-exchange fluid in a circuit (35) of the heat-exchange unit for transferring the heat from the compression unit (14) to the circuit (13) for supply of the condensed vapour.

14. The method according to Claim 12 or Claim 13, **characterized by** transmitting motion from the gas-turbine unit (3) to the compression unit (14) by means of a hydraulic converter (18); and in that the heat of the oil of the hydraulic converter (18) is transferred to the heat-exchange fluid by means of a first heat-exchanger (37).

15. The method according to any one of Claims 12 to 14, **characterized by** transferring the heat generated in a lubrication circuit (22) of the compression unit (14) to the heat-exchange fluid by means of a second heat-exchanger (38).

16. The method according to any one of Claims 12 to 15, **characterized by** transferring the heat from the siderurgical gases compressed by the compression unit (14) to the heat-exchange fluid.

17. The method according to Claim 16, **characterized in that** the compression unit (14) comprises a first compressor (16) and a second compressor (17) connected in series; the method envisaging transfer of the heat from the siderurgical gases compressed by the first compressor (16).

18. The method according to Claim 17, **characterized in that** the siderurgical gases at output from the first compressor (16) are re-circulated at inlet to the first compressor (16) and **in that** the heat of the siderurgical gases is transferred to the heat-exchange fluid during the re-circulation step by means of a third heat-exchanger (39).

19. The method according to Claim 17 or Claim 18, **characterized by** supplying the siderurgical gases compressed by the first compressor (16) to the second compressor (17) and transferring the heat of the siderurgical gases, supplied to the second compressor (17), to the heat-exchange fluid by means of a fourth heat-exchanger (40).

20. The method according to any one of Claims 12 to 19, **characterized by** transferring the heat from the heat-exchange fluid to the condensed steam by means of a fifth heat-exchanger (41).