CLAIMS

1. An operation plan generation device comprising:

a consumption amount computer configured to compute an amount of primary energy consumption to be consumed by a plurality of energy supply apparatuses that generates energy for a load;

a cost computer configured to compute an energy cost for the plurality of energy supply apparatuses to generate the energy; and

an operation plan generator configured to generate an operation plan for the plurality of energy supply apparatuses to achieve a target relating to the energy cost for minimizing the energy cost under a condition that a target relating to the amount of primary energy consumption for making the amount of primary energy consumption zero or negative is achieved, based on the amount of primary energy consumption computed by the consumption amount computer, and on the energy cost computed by the cost computer.

2. The operation plan generation device according to claim 1, wherein the operation plan generator generates the operation plan for the plurality of energy supply apparatuses based on a value obtained by adding a multiplied value to a value which is computed by the cost computer and which indicates the energy cost, the multiplied value being obtained by multiplying the amount of primary energy consumption computed by the consumption amount computer by a coefficient.

3. The operation plan generation device according to claim 1 or claim 2, wherein the consumption amount computer computes the amount of primary energy consumption for a predefined period of time, and the cost computer computes the energy cost for the predefined period of time.

4. The operation plan generation device according to claim 3, wherein:

the consumption amount computer computes a first value of an amount of

primary energy consumption for the predefined period of time, and computes a second value of an amount of primary energy consumption for a period of time which is shorter than the predefined period of time;

the cost computer computes a first value of energy cost for the predefined period of time, and computes a second value of energy cost for the period of time which is shorter than the predefined period of time; and

the operation plan generator modifies the operation plan generated based on the first value of the amount of primary energy consumption, and on the first value of the energy cost, by using the second value of the amount of primary energy consumption and the second value of the energy cost.

5. A control device for controlling a plurality of energy supply apparatuses based on the operation plan for the plurality of energy supply apparatuses generated by the operation plan generation device according to any one of claims 1 through 4.

6. A method of generating an operation plan, the method comprising:

a consumption amount computation process by an operation plan generation device for computing an amount of primary energy consumption to be consumed by a plurality of energy supply apparatuses that generates energy for a load;

an energy cost computation process by the operation plan generation device for computing an energy cost for the plurality of energy generation apparatus to generate the energy; and

an operation plan generation process by the operation plan generation device to generate an operation plan for the plurality of energy supply devices to achieve a target relating to the energy cost for minimizing the energy cost under a condition that a target relating to the amount of primary energy consumption amount for making the amount of primary energy consumption zero or negative is achieved, based on the amount of primary energy consumption computed by the consumption amount computation process and on the energy cost computed by the cost computation process.

7. A storage medium that stores a program for causing a computer to implement:

a consumption amount computation procedure for computing an amount of primary energy consumption to be consumed by a plurality of energy supply apparatuses that generates energy for a load;

a cost computation procedure for computing an energy cost for the plurality of energy generation apparatus to generate the energy; and

an operation plan generation procedure for generating an operation plan for the plurality of energy supply devices to achieve a target relating to the energy cost for minimizing the energy cost under a condition that a target relating to the amount of primary energy consumption for making the amount of primary energy consumption zero or negative is achieved, based on the amount of primary energy consumption computed by the consumption amount computation and on the energy cost computed by the cost computation.