control method that can carry out ancillary services based on the capacities of storage batteries or the availability of storage batteries for ancillary services.

[0007] According to a first aspect of the present disclosure, there is provided a storage battery control method, the method comprising receiving capacity information indicating chargeable and dischargeable capacities of a plurality of storage batteries, receiving use permission information indicating whether at least some of the plurality of storage batteries are available for the frequency control, determining target storage batteries to be used for the frequency control, from the at least some of the plurality of storage batteries indicated as available by the received use permission information, determining a bid capacity used for the frequency control, the bid capacity being equal to or less than a total value of the chargeable and dischargeable capacities of the target storage batteries, and submitting a bid for the frequency control under a bid condition including the bid capacity, wherein, when the bid for the frequency control is established, the bid capacity is distributed to at least some of the target storage batteries, and wherein the bid capacity is determined to be a capacity a predetermined margin less than the total value of the chargeable and dischargeable capacities of the target storage batteries.

[0008] In the storage battery control method according to the present disclosure, barriers to entering frequency control services can be reduced.

[0008a] According to yet another aspect of the present disclosure, there is provided a storage battery control apparatus, the apparatus comprising one or more memories; and circuitry operative to receive capacity information indicating chargeable and dischargeable capacities of a plurality of storage batteries; receive

use permission information indicating whether at least some of the plurality of storage batteries are available for the frequency control; determine target storage batteries to be used for the frequency control, from the at least some of the plurality of storage batteries indicated as available by the received use permission information; determine a bid capacity used for the frequency control, the bid capacity being equal to or less than a total value of the chargeable and dischargeable capacities of the target storage batteries; and submit a bid for the frequency control under a bid condition including the bid capacity, wherein, when the bid for the frequency control is established, the bid capacity is distributed to at least some of the target storage batteries, and wherein the bid capacity is determined to be a capacity a predetermined margin less than the total value of the chargeable and dischargeable capacities of the target storage batteries.

[0009] It should be noted that general or specific embodiments may be implemented as a system, an apparatus, an integrated circuit, a computer program, a recording medium, or any selective combination thereof.

[0010] Additional benefits and advantages of the disclosed embodiments will become apparent from the specification and drawings. The benefits and/or advantages may be individually obtained by the various embodiments and features of the specification and drawings, which need not all be provided in order to obtain one or more of such benefits and/or advantages.

WHAT IS CLAIMED IS:

1. A storage battery control method comprising:

receiving capacity information indicating chargeable and dischargeable capacities of a plurality of storage batteries;

receiving use permission information indicating whether at least some of the plurality of storage batteries are available for the frequency control;

determining target storage batteries to be used for the frequency control, from the at least some of the plurality of storage batteries indicated as available by the received use permission information;

determining a bid capacity used for the frequency control, the bid capacity being equal to or less than a total value of the chargeable and dischargeable capacities of the target storage batteries; and

submitting a bid for the frequency control under a bid condition including the bid capacity,

wherein, when the bid for the frequency control is established, the bid capacity is distributed to at least some of the target storage batteries, and

wherein the bid capacity is determined to be a capacity a predetermined margin less than the total value of the chargeable and dischargeable capacities of the target storage batteries.

2. The storage battery control method according to Claim 1, wherein the bid capacity is distributed depending on a number of the at least some of the target storage batteries.

3. The storage battery control method according to Claim 1, wherein the bid capacity is distributed depending on service lives of the target storage batteries so that a target storage battery with a longer service life is provided with more of the bid capacity, the target storage battery being one of the target storage batteries.

4. The storage battery control method according to Claim 1, wherein the bid capacity is distributed depending on frequencies at which the target storage batteries are used for the frequency control so that a target storage battery with a lower frequency for the frequency control is provided with more of the bid capacity,

the target storage battery being one of the target storage batteries.

5. The storage battery control method according to Claim 1, wherein the bid capacity is distributed depending on the chargeable and dischargeable capacities of the target storage batteries so that a target storage battery with a larger chargeable and dischargeable capacity is provided with more of the bid capacity, the target storage battery being one of the target storage batteries.

6. The storage battery control method according to Claim 1, wherein the chargeable and dischargeable capacities are received before the use permission information is received.

7. The storage battery control method according to Claim 1, wherein the chargeable and dischargeable capacities are received each time the use permission information is received.

8. The storage battery control method according to Claim 1, wherein the chargeable and dischargeable capacities set by a user of the storage batteries are received.

9. The storage battery control method according to Claim 1, wherein the frequency control is performed by charging and discharging the target storage batteries to which the bid capacity has been distributed.

10. A storage battery control apparatus comprising:

one or more memories; and circuitry operative to:

receive capacity information indicating chargeable and dischargeable capacities of a plurality of storage batteries;

receive use permission information indicating whether at least some of the plurality of storage batteries are available for the frequency control;

determine target storage batteries to be used for the frequency control, from the at least some of the plurality of storage batteries indicated as available by the received use permission information;

determine a bid capacity used for the frequency control, the bid capacity being equal to or less than a total value of the chargeable and dischargeable capacities of the target storage batteries; and

submit a bid for the frequency control under a bid condition including the bid capacity,

wherein, when the bid for the frequency control is established, the bid capacity is distributed to at least some of the target storage batteries, and

wherein the bid capacity is determined to be a capacity a predetermined margin less than the total value of the chargeable and dischargeable capacities of the target storage batteries.