CLAIMS

[Claim 1]

A power delivery/reception system which delivers/receives power using a storage battery, the power delivery/reception system comprising:

a power storage information management device configured to manage attribute information of power stored in the storage battery,

wherein the power storage information management device includes:

an attribute evaluation section configured to evaluate an attribute of the power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged; and

an attribute information storage section in which the attribute information of the power evaluated by the attribute evaluation section is stored, and

the attribute information of the power stored in the storage battery includes the number of points of a point service given depending on the attribute of the power and a charging amount of power by which the storage battery is charged.

[Claim 2]

The power delivery/reception system according to claim 1,

wherein the power storage information management device further includes:

an attribute data reception section configured to receive attribute data including the attribute information of the power supplied to the storage battery from a device which manages the attribute information of the power of a power supply source when the storage battery is charged with the power supplied from the power supply source, and

wherein the attribute evaluation section evaluates the attribute of the power stored in the storage battery after charging based on the attribute information included in the attribute data received by the attribute data reception section and the attribute information stored in the

attribute information storage section.

[Claim 3]

The power delivery/reception system according to claim 1 or 2,

wherein the power storage information management device further includes:

an attribute data transmission section configured to transmit the attribute data including the attribute information of the power discharged from the storage battery to a device which manages the attribute information of the power of a power supply destination when the power discharged from the storage battery is supplied to the power supply destination, and

wherein the attribute evaluation section evaluates the attribute of the power stored in the storage battery after discharging based on the attribute information included in the attribute data transmitted by the attribute data transmission section and the attribute information stored in the attribute information storage section.

[Claim 4]

The power delivery/reception system according to any one of claims 1 to 3, wherein the power storage information management device manages information about a power generation scheme as the attribute information of the power.

[Claim 5]

The power delivery/reception system according to any one of claims 1 to 4, wherein the power storage information management device manages information about a power company generating the power as the attribute information of the power.

[Claim 6]

The power delivery/reception system according to any one of claims 1 to 5, wherein the power storage information management device manages information about a charging infrastructure selling the power as the attribute information of the power.

[Claim 7]

A power storage information management device which manages attribute information of power stored in a storage battery, the power storage information management device comprising:

an attribute evaluation section configured to evaluate an attribute of the power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged; and

an attribute information storage section in which the attribute information of the power evaluated by the attribute evaluation section is stored, wherein

the attribute information of the power stored in the storage battery includes the number of points of a point service given depending on the attribute of the power and a charging amount of power by which the storage battery is charged.

[Claim 8]

A control method of controlling a power storage information management device which manages attribute information of power stored in a storage battery, the control method comprising:

an attribute evaluation step of evaluating an attribute of power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged, wherein

the attribute information of the power stored in the storage battery includes the number of points of a point service given depending on the attribute of the power and a charging amount of power by which the storage battery is charged.

[Claim 9]

A program for use in a power storage information management device which manages attribute information of power stored in a storage battery, the program causing the

power storage information management device to function as:

an attribute evaluation section configured to evaluate an attribute of the power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged; and

an attribute information storage section in which the attribute information of the power evaluated by the attribute evaluation section is stored, wherein

the attribute information of the power stored in the storage battery includes the number of points of a point service given depending on the attribute of the power and a charging amount of power by which the storage battery is charged.

CLAIMS

1. A power delivery/reception system which delivers/receives power using a storage battery, the power delivery/reception system comprising:

a power storage information management device configured to manage attribute information of power stored in the storage battery,

wherein the power storage information management device includes:

an attribute evaluation section configured to evaluate an attribute of the power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged; and

an attribute information storage section in which the attribute information of the power evaluated by the attribute evaluation section is stored, and

the attribute information of the power stored in the storage battery includes:

a power generation source representing a power company or a charging infrastructure that has generated power with which the storage battery is charged;

a power generation method by which the power with which the storage battery is charged has been generated; and

points representing the number of points of a point service issued from the power company or a provider of the charging infrastructure and given depending on the attribute of the power and a charging amount of the power by which the storage battery is charged, wherein

the power generation source, the power generation method, and the points are associated with each other.

2. The power delivery/reception system according to claim 1,

wherein the power storage information management device further includes:

an attribute data reception section configured to receive attribute data including the attribute information of the power supplied to the storage battery from a device which manages the attribute information of the power of a power supply source when the storage battery is charged with the power supplied from the power supply source, and

wherein the attribute evaluation section evaluates the attribute of the power stored in the storage battery after charging based on the attribute information included in the attribute data received by the attribute data reception section and the attribute information stored in the attribute information storage section.

3. The power delivery/reception system according to claim 1 or 2,

wherein the power storage information management device further includes:

an attribute data transmission section configured to transmit the attribute data including the attribute information of the power discharged from the storage battery to a device which manages the attribute information of the power of a power supply destination when the power discharged from the storage battery is supplied to the power supply destination, and

wherein the attribute evaluation section evaluates the attribute of the power stored in the storage battery after discharging based on the attribute information included in the attribute data transmitted by the attribute data transmission section and the attribute information stored in the attribute information storage section.

4. The power delivery/reception system according to any one of claims 1 to 3, wherein the power storage information management device manages information about a charging

infrastructure selling the power as the attribute information of the power.

5. A power storage information management device which manages attribute information of power stored in a storage battery, the power storage information management device comprising:

an attribute evaluation section configured to evaluate an attribute of the power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged; and

an attribute information storage section in which the attribute information of the power evaluated by the attribute evaluation section is stored, wherein

the attribute information of the power stored in the storage battery includes:

a power generation source representing a power company or a charging infrastructure that has generated power with which the storage battery is charged;

a power generation method by which the power with which the storage battery is charged has been generated; and

points representing the number of points of a point service issued from the power company or a provider of the charging infrastructure and given depending on the attribute of the power and a charging amount of the power by which the storage battery is charged, wherein

the power generation source, the power generation method, and the points are associated with each other.

6. A control method of controlling a power storage information management device which manages attribute information of power stored in a storage battery, the control method

comprising:

an attribute evaluation step of evaluating an attribute of power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged, wherein

the attribute information of the power stored in the storage battery includes:

a power generation source representing a power company or a charging infrastructure that has generated power with which the storage battery is charged;

a power generation method by which the power with which the storage battery is charged has been generated; and

points representing the number of points of a point service issued from the power company or a provider of the charging infrastructure and given depending on the attribute of the power and a charging amount of the power by which the storage battery is charged, wherein

the power generation source, the power generation method, and the points are associated with each other.

7. A program for use in a power storage information management device which manages attribute information of power stored in a storage battery, the program causing the power storage information management device to function as:

an attribute evaluation section configured to evaluate an attribute of the power stored in the storage battery based on the attribute information of the power stored in the storage battery every time the storage battery is charged and discharged; and

an attribute information storage section in which the attribute information of the power evaluated by the attribute evaluation section is stored, wherein

the attribute information of the power stored in the storage battery includes:

a power generation source representing a power company or a charging infrastructure that has generated power with which the storage battery is charged;

a power generation method by which the power with which the storage battery is charged has been generated; and

points representing the number of points of a point service issued from the power company or a provider of the charging infrastructure and given depending on the attribute of the power and a charging amount of the power by which the storage battery is charged, wherein

the power generation source, the power generation method, and the points are associated with each other.

8. A power delivery/reception system which delivers/receives power using a storage battery, the power being generated by power generation methods, the power delivery/reception system comprising:

a power storage information management device provided in an electric vehicle and configured to manage attribute information including information representing a transaction value of power stored in the storage battery mounted on the electric vehicle, the information representing the transaction value of the power including at least information representing the power generation methods by which the power stored in the storage battery has been generated, and information representing an average unit price of the power generated by each of the power generation methods and stored in the storage battery,

wherein the power storage information management device includes:

an attribute evaluation section configured to update at least the information

representing the average unit price among the information representing the transaction value in accordance with information representing a transaction condition received from a device of a transaction partner to which power is sold or from which power is purchased every time power is sold to the transaction partner and discharged from the storage battery of the electric vehicle or power is purchased from the transaction partner and stored in the storage battery of the electric vehicle; and

an attribute information storage section in which the attribute information including information updated by the attribute evaluation section is stored.

9. The power delivery/reception system according to claim 8,

wherein the attribute evaluation section configured to update the information representing the average unit price in association with selling power to the transaction partner and discharging power from the storage battery of the electric vehicle, based on (i) information representing a storage amount of power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (ii) information representing the average unit price of the power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (iii) information representing a discharging amount of power that is discharged from the storage battery of the electric vehicle, and (iv) information representing a purchase price of power that is included in the transaction condition received from the device of the transaction partner to which power is sold.

10. The power delivery/reception system according to claim 9,

wherein the power storage information management device further includes:

an attribute data reception section configured to, when the storage battery is charged

with power supplied from a power supply source, receive attribute data including the attribute information including the information representing the transaction value of the power supplied to the storage battery, from a device which manages the attribute information including the information representing the transaction value of the power of the power supply source, and

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after charging of the storage battery, based on the information representing the transaction value of the power included in the attribute data received by the attribute data reception section and the information representing the transaction value of the power stored in the attribute information storage section.

11. The power delivery/reception system according to claim 9 or 10,

wherein the power storage information management device further includes:

an attribute data transmission section configured to, when power discharged from the storage battery is supplied to a power supply destination, transmit attribute data including the attribute information including the information representing the transaction value of the power discharged from the storage battery, to a device which manages the attribute information including the information representing the transaction value of the power of the power supply destination, and

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after discharge from the storage battery, based on the information representing the transaction value of the power included in the attribute data transmitted by the attribute data transmission section and

the information representing the transaction value of the power stored in the attribute information storage section.

12. The power delivery/reception system according to any one of claims 9 to 11,

wherein the power storage information management device is configured to manage the attribute information further including information about a power company that generates the power as the information representing the transaction value of the power.

13. The power delivery/reception system according to any one of claims 9 to 12,

wherein the power storage information management device is configured to manage the attribute information further including information about a charging infrastructure that supplies the power to the storage battery as the information representing the transaction value of the power.

14. A power storage information management device provided in an electric vehicle and configured to manage attribute information including information representing a transaction value of power stored in a storage battery mounted on the electric vehicle, the power being generated by power generation methods, the power storage information management device comprising:

an attribute evaluation section configured to update at least information representing an average unit price of the power generated by each of the power generation methods and stored in the storage battery among the information representing the transaction value that includes at least information representing the power generation methods by which the power stored in the storage battery has been generated and the information representing the average

unit price, in accordance with information representing a transaction condition received from a device of a transaction partner to which power is sold or from which power is purchased every time power is sold to the transaction partner and discharged from the storage battery of the electric vehicle or power is purchased from the transaction partner and stored in the storage battery of the electric vehicle; and

an attribute information storage section in which the attribute information including information updated by the attribute evaluation section is stored.

15. The power storage information management device according to claim 14,

wherein the attribute evaluation section configured to update the information representing the average unit price in association with selling power to the transaction partner and discharging power from the storage battery of the electric vehicle, based on (i) information representing a storage amount of power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (ii) information representing the average unit price of the power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (iii) information representing a discharging amount of power that is discharged from the storage battery of the electric vehicle, and (iv) information representing a purchase price of power that is included in the transaction condition received from the device of the transaction partner to which power is sold.

16. The power storage information management device according to claim 15, further including:

an attribute data reception section configured to, when the storage battery is charged with power supplied from a power supply source, receive attribute data including the attribute

information including the information representing the transaction value of the power supplied to the storage battery, from a device which manages the attribute information including the information representing the transaction value of the power of the power supply source,

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after charging of the storage battery, based on the information representing the transaction value of the power included in the attribute data received by the attribute data reception section and the information representing the transaction value of the power stored in the attribute information storage section.

17. The power storage information management device according to claim 15 or 16, further including:

an attribute data transmission section configured to, when power discharged from the storage battery is supplied to a power supply destination, transmit attribute data including the attribute information including the information representing the transaction value of the power discharged from the storage battery, to a device which manages the attribute information including the information representing the transaction value of the power of the power supply destination,

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after discharge from the storage battery, based on the information representing the transaction value of the power included in the attribute data transmitted by the attribute data transmission section and the information representing the transaction value of the power stored in the attribute

information storage section.

18. The power storage information management device according to any one of claims 15 to 17, being configured to manage the attribute information further including information about a power company that generates the power as the information representing the transaction value of the power.

19. The power storage information management device according to any one of claims 15 to 18, being configured to manage the attribute information further including information about a charging infrastructure that supplies the power to the storage battery as the information representing the transaction value of the power.

20. A control method of controlling a power storage information management device that is provided in an electric vehicle and configured to manage attribute information including information representing a transaction value of power stored in a storage battery mounted on the electric vehicle, the power being generated by power generation methods, the control method comprising:

an attribute evaluation step of updating at least information representing an average unit price of the power generated by each of the power generation methods and stored in the storage battery among the information representing the transaction value that includes at least information representing the power generation methods by which the power stored in the storage battery has been generated and the information representing the average unit price, in accordance with information representing a transaction condition received from a device of a transaction partner to which power is sold or from which power is purchased every time

power is sold to the transaction partner and discharged from the storage battery of the electric vehicle or power is purchased from the transaction partner and stored in the storage battery of the electric vehicle; and

an attribute information storage step of storing the attribute information including information updated in the attribute evaluation step in an attribute information storage section.

21. The control method according to claim 20,

wherein the attribute evaluation step includes updating the information representing the average unit price in association with selling power to the transaction partner and discharging power from the storage battery of the electric vehicle, based on (i) information representing a storage amount of power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (ii) information representing the average unit price of the power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (iii) information representing a discharging amount of power that is discharged from the storage battery of the electric vehicle, and (iv) information representing a purchase price of power that is included in the transaction condition received from the device of the transaction partner to which power is sold.

22. The control method according to 20, further including:

an attribute data reception step of, when the storage battery is charged with power supplied from a power supply source, receiving attribute data including the attribute information including the information representing the transaction value of the power supplied to the storage battery, from a device which manages the attribute information including the information representing the transaction value of the power of the power supply

source,

wherein the attribute evaluation step includes updating the information representing the transaction value of the power stored in the storage battery after charging of the storage battery, based on the information representing the transaction value of the power included in the attribute data received in the attribute data reception step and the information representing the transaction value of the power stored in the attribute information storage section.

23. The control method according to claim 21 or 22, further including:

an attribute data transmission step of, when power discharged from the storage battery is supplied to a power supply destination, transmitting attribute data including the attribute information including the information representing the transaction value of the power discharged from the storage battery, to a device which manages the attribute information including the information representing the transaction value of the power of the power supply destination,

wherein the attribute evaluation step includes updating the information representing the transaction value of the power stored in the storage battery after discharge from the storage battery, based on the information representing the transaction value of the power included in the attribute data transmitted in the attribute data transmission step and the information representing the transaction value of the power stored in the attribute information storage section.

24. A program that causes a computer to function as a power storage information management device that is provided in an electric vehicle and configured to manage attribute information including information representing a transaction value of power stored in a

storage battery mounted on the electric vehicle, the power being generated by power generation methods, the program causing the computer to function as:

an attribute evaluation section configured to update at least information representing an average unit price of the power generated by each of the power generation methods and stored in the storage battery among the information representing the transaction value that includes at least information representing the power generation methods by which the power stored in the storage battery has been generated and the information representing the average unit price, in accordance with information representing a transaction condition received from a device of a transaction partner to which power is sold or from which power is purchased every time power is sold to the transaction partner and discharged from the storage battery of the electric vehicle or power is purchased from the transaction partner and stored in the storage battery of the electric vehicle; and

an attribute information storage section in which the attribute information including information updated by the attribute evaluation section is stored.

25. The program according to claim 24,

wherein the attribute evaluation section configured to update the information representing the average unit price in association with selling power to the transaction partner and discharging power from the storage battery of the electric vehicle, based on (i) information representing a storage amount of power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (ii) information representing the average unit price of the power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (iii) information representing a discharging amount of power that is discharged from the storage battery of the electric vehicle, and (iv)

information representing a purchase price of power that is included in the transaction condition received from the device of the transaction partner to which power is sold.

26. The program according to claim 25, causing the computer to further function as:

an attribute data reception section configured to, when the storage battery is charged with power supplied from a power supply source, receive attribute data including the attribute information including the information representing the transaction value of the power supplied to the storage battery, from a device which manages the attribute information including the information representing the transaction value of the power of the power supply source,

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after charging of the storage battery, based on the information representing the transaction value of the power included in the attribute data received by the attribute data reception section and the information representing the transaction value of the power stored in the attribute information storage section.

27. The program according to claim 25 or 26, causing the computer to further function as:

an attribute data transmission section configured to, when power discharged from the storage battery is supplied to a power supply destination, transmit attribute data including the attribute information including the information representing the transaction value of the power discharged from the storage battery, to a device which manages the attribute information including the information representing the transaction value of the power of the

power supply destination,

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after discharge from the storage battery, based on the information representing the transaction value of the power included in the attribute data transmitted by the attribute data transmission section and the information representing the transaction value of the power stored in the attribute information storage section.

28. An electric vehicle comprising:

a power storage information management device configured to manage attribute information including information representing a transaction value of power stored in a storage battery mounted on the electric vehicle, the power being generated by power generation methods,

wherein the power storage information management device includes:

an attribute evaluation section configured to update at least information representing an average unit price of the power generated by each of the power generation methods and stored in the storage battery among the information representing the transaction value that includes at least information representing the power generation methods by which the power stored in the storage battery has been generated and the information representing the average unit price, in accordance with information representing a transaction condition received from a device of a transaction partner to which power is sold or from which power is purchased every time power is sold to the transaction partner and discharged from the storage battery of the electric vehicle or power is purchased from the transaction partner and stored in the storage battery of the electric vehicle; and

an attribute information storage section in which the attribute information including information updated by the attribute evaluation section is stored.

29. The electric vehicle according to claim 28,

wherein the attribute evaluation section configured to update the information representing the average unit price in association with selling power to the transaction partner and discharging power from the storage battery of the electric vehicle, based on (i) information representing a storage amount of power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (ii) information representing the average unit price of the power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (iii) information representing a discharging amount of power that is discharged from the storage battery of the electric vehicle, and (iv) information representing a purchase price of power that is included in the transaction condition received from the device of the transaction partner to which power is sold.

30. The electric vehicle according to claim 29,

wherein the power storage information management device further includes:

an attribute data reception section configured to, when the storage battery is charged with power supplied from a power supply source, receive attribute data including the attribute information including the information representing the transaction value of the power supplied to the storage battery, from a device which manages the attribute information including the information representing the transaction value of the power of the power supply source, and

wherein the attribute evaluation section configured to update the information

representing the transaction value of the power stored in the storage battery after charging of the storage battery, based on the information representing the transaction value of the power included in the attribute data received by the attribute data reception section and the information representing the transaction value of the power stored in the attribute information storage section.

31. The electric vehicle according to claim 29 or 30,

wherein the power storage information management device further includes:

an attribute data transmission section configured to, when power discharged from the storage battery is supplied to a power supply destination, transmit attribute data including the attribute information including the information representing the transaction value of the power discharged from the storage battery, to a device which manages the attribute information including the information representing the transaction value of the power of the power supply destination, and

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after discharge from the storage battery, based on the information representing the transaction value of the power included in the attribute data transmitted by the attribute data transmission section and the information representing the transaction value of the power stored in the attribute information storage section.

32. The electric vehicle according to any one of claims 29 to 31,

wherein the power storage information management device is configured to manage the attribute information further including information about a power company that generates

the power as the information representing the transaction value of the power.

33. The electric vehicle according to any one of claims 29 to 32,

wherein the power storage information management device is configured to manage the attribute information further including information about a charging infrastructure that supplies the power to the storage battery as the information representing the transaction value of the power.

34. A customer comprising:

a power reception facility; and

a power reception information management device configured to manage attribute information including information representing a transaction value of power received by the power reception facility,

wherein the power reception information management device includes:

a transaction condition transmission section configured to transmit a transaction condition to a device of a transaction partner from which power is purchased, the transaction condition including information representing a purchase price when the power is purchased.

35. A system module for an electric vehicle, the system module comprising:

a power storage information management device configured to manage attribute information including information representing a transaction value of power stored in a storage battery mounted on the electric vehicle, the power being generated by power generation methods,

wherein the power storage information management device includes:

an attribute evaluation section configured to update at least information representing an average unit price of the power generated by each of the power generation methods and stored in the storage battery among the information representing the transaction value that includes at least information representing the power generation methods by which the power stored in the storage battery has been generated and the information representing the average unit price, in accordance with information representing a transaction condition received from a device of a transaction partner to which power is sold or from which power is purchased every time power is sold to the transaction partner and discharged from the storage battery of the electric vehicle or power is purchased from the transaction partner and stored in the storage battery of the electric vehicle; and

an attribute information storage section in which the attribute information including information updated by the attribute evaluation section is stored.

36. The system module according to claim 35,

wherein the attribute evaluation section configured to update the information representing the average unit price in association with selling power to the transaction partner and discharging power from the storage battery of the electric vehicle, based on (i) information representing a storage amount of power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (ii) information representing the average unit price of the power that has been stored in the storage battery of the electric vehicle before discharge from the storage battery, (iii) information representing a discharging amount of power that is discharged from the storage battery of the electric vehicle, and (iv) information representing a purchase price of power that is included in the transaction condition received from the device of the transaction partner to which power is sold.

37. The system module according to claim 36,

wherein the power storage information management device further includes:

an attribute data reception section configured to, when the storage battery is charged with power supplied from a power supply source, receive attribute data including the attribute information including the information representing the transaction value of the power supplied to the storage battery, from a device which manages the attribute information including the information representing the transaction value of the power of the power supply source, and

wherein the attribute evaluation section configured to update the information representing the transaction value of the power stored in the storage battery after charging of the storage battery, based on the information representing the transaction value of the power included in the attribute data received by the attribute data reception section and the information representing the transaction value of the power stored in the attribute information storage section.

38. The system module according to claim 36 or 37,

wherein the power storage information management device further includes:

an attribute data transmission section configured to, when power discharged from the storage battery is supplied to a power supply destination, transmit attribute data including the attribute information including the information representing the transaction value of the power discharged from the storage battery, to a device which manages the attribute information including the information representing the transaction value of the power of the power supply destination, and

wherein the attribute evaluation section configured to update the information

representing the transaction value of the power stored in the storage battery after discharge from the storage battery, based on the information representing the transaction value of the power included in the attribute data transmitted by the attribute data transmission section and the information representing the transaction value of the power stored in the attribute information storage section.

39. The system module according to any one of claims 36 to 38,

wherein the power storage information management device is configured to manage the attribute information further including information about a power company that generates the power as the information representing the transaction value of the power.

40. The system module according to any one of claims 36 to 39,

wherein the power storage information management device is configured to manage the attribute information further including information about a charging infrastructure that supplies the power to the storage battery as the information representing the transaction value of the power.