CLAIMS

[Claim 1]

A power demand amount calculation system for calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation system comprising:

a power demand amount calculation apparatus configured to calculate a demand amount of power necessary for each electric vehicle,

wherein the power demand amount calculation apparatus includes:

a power demand amount calculation unit configured to calculate a demand amount of power necessary for an electric vehicle satisfying a predetermined condition among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle satisfying the predetermined condition.

[Claim 2]

The power demand amount calculation system according to claim 1,

wherein the power demand amount calculation apparatus further includes:

an actual capacity calculation unit configured to calculate the actual capacity of the battery based on the rated capacity and a charge level of the battery of the electric vehicle, and

wherein the power demand amount calculation unit calculates the demand amount of the power based on the actual capacity calculated by the actual capacity calculation unit.

[Claim 3]

The power demand amount calculation system according to claim 2,

wherein the power demand amount calculation apparatus further includes:

a floating car data reception unit configured to receive floating car data

including at least information representing the rated capacity and information representing the charge level of the battery of the electric vehicle from a vehicle-mounted apparatus of the electric vehicle, and

wherein the actual capacity calculation unit calculates the actual capacity based on the information representing the rated capacity and the information representing the charge level included in the floating car data received by the floating car data reception unit.

[Claim 4]

The power demand amount calculation system according to any one of claims 1 to 3, wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged.

[Claim 5]

The power demand amount calculation system according to any one of claims 1 to 4, wherein the power demand amount calculation apparatus further includes:

a visualized data generation unit configured to generate data in which the demand amount of the power calculated by the power demand amount calculation unit is visualized.

[Claim 6]

The power demand amount calculation system according to any one of claims 1 to 5, wherein the power demand amount calculation apparatus further includes:

a charging pattern analysis unit configured to analyze a charging pattern of the electric vehicle based on at least a time-dependent change in the actual capacity of the battery of the electric vehicle.

[Claim 7]

The power demand amount calculation system according to claim 6, wherein the charging pattern analysis unit further analyzes the charging pattern based on position information of the electric vehicle.

[Claim 8]

A power demand amount calculation method of calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation method comprising:

a power demand amount calculation step of calculating a demand amount of power necessary for an electric vehicle satisfying a predetermined condition among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle satisfying the predetermined condition.

[Claim 9]

A power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation apparatus comprising:

a power demand amount calculation unit configured to calculate a demand amount of power necessary for an electric vehicle satisfying a predetermined condition among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle satisfying the predetermined condition.

[Claim 10]

A program for causing a computer to function as a power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles,

wherein the program causes the computer to function as a power demand amount calculation unit configured to calculate a demand amount of power necessary for

an electric vehicle satisfying a predetermined condition among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle satisfying the predetermined condition.

[Claim 11]

A recording medium recording a program for causing a computer to function as a power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles,

wherein the program causes the computer to function as a power demand amount calculation unit configured to calculate a demand amount of power necessary for an electric vehicle satisfying a predetermined condition among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle satisfying the predetermined condition.

Amendment under Article 19

CLAIMS

[Claim 1] (Amended)

A power demand amount calculation system for calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation system comprising:

a power demand amount calculation apparatus configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for each electric vehicle,

wherein the power demand amount calculation apparatus includes:

a power demand amount calculation unit configured to calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region.

[Claim 2]

The power demand amount calculation system according to claim 1,

wherein the power demand amount calculation apparatus further includes:

an actual capacity calculation unit configured to calculate the actual capacity of the battery based on the rated capacity and a charge level of the battery of the electric vehicle, and

wherein the power demand amount calculation unit calculates the demand amount of the power based on the actual capacity calculated by the actual capacity calculation unit.

[Claim 3] (Amended)

The power demand amount calculation system according to claim 2,

wherein the power demand amount calculation apparatus further includes:

a floating car data reception unit configured to receive floating car data including at least information representing the rated capacity and information representing the charge level of the battery of the electric vehicle and position information of the electric vehicle from the vehicle-mounted apparatus of the electric vehicle, and

wherein the actual capacity calculation unit calculates the actual capacity based on the information representing the rated capacity and the information representing the charge level included in the floating car data received by the floating car data reception unit.

[Claim 4]

The power demand amount calculation system according to any one of claims 1 to 3, wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged.

[Claim 5]

The power demand amount calculation system according to any one of claims 1 to 4, wherein the power demand amount calculation apparatus further includes:

a visualized data generation unit configured to generate data in which the demand amount of the power calculated by the power demand amount calculation unit is visualized.

[Claim 6]

The power demand amount calculation system according to any one of claims 1 to 5, wherein the power demand amount calculation apparatus further includes:

a charging pattern analysis unit configured to analyze a charging pattern of the electric vehicle based on at least a time-dependent change in the actual capacity of the battery of the electric vehicle.

[Claim 7]

The power demand amount calculation system according to claim 6, wherein the charging pattern analysis unit further analyzes the charging pattern based on position information of the electric vehicle.

[Claim 8] (Amended)

A power demand amount calculation method of calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation method comprising:

a power demand amount calculation step of communicating with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculating a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region.

[Claim 9] (Amended)

A power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation apparatus comprising:

a power demand amount calculation unit configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the

plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region.

[Claim 10] (Amended)

A program for causing a computer to function as a power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles,

wherein the program causes the computer to function as a power demand amount calculation unit configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for a electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region.

[Claim 11] (Amended)

A recording medium recording a program for causing a computer to function as a power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles,

wherein the program causes the computer to function as a power demand amount calculation unit configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region.

[Claim 12] (New)

The power demand amount calculation system according to any one of claims 1 to 7, wherein the power demand amount calculation apparatus further includes:

a history information storage unit that stores informations that are associated with each other, the informations including a date and time (Year, Month, Day, Hour, Minute), a vehicle identifier (ID) of each electric vehicle, a rated capacity (kWh), a charge level (%), an actual capacity (kWh), information concerning whether or not charging is in progress (Yes or No), a position (latitude and/or longitude), and a vehicle model is associated and stored.

CLAIMS

1. A power demand amount calculation system for calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation system comprising:

a power demand amount calculation apparatus configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for each electric vehicle,

wherein the power demand amount calculation apparatus includes:

a power demand amount calculation unit configured to calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region, and

wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged among the plurality of electric vehicles.

2. The power demand amount calculation system according to claim 1,

wherein the power demand amount calculation apparatus further includes:

an actual capacity calculation unit configured to calculate the actual capacity of the battery based on the rated capacity and a charge level of the battery of the electric vehicle, and

wherein the power demand amount calculation unit calculates the demand amount of the power based on the actual capacity calculated by the actual capacity calculation unit.

3. The power demand amount calculation system according to claim 2,

wherein the power demand amount calculation apparatus further includes:

a floating car data reception unit configured to receive floating car data including at least information representing the rated capacity and information representing the charge level of the battery of the electric vehicle and position information of the electric vehicle from the vehicle-mounted apparatus of the electric vehicle, and

wherein the actual capacity calculation unit calculates the actual capacity based on the information representing the rated capacity and the information representing the charge level included in the floating car data received by the floating car data reception unit.

4. The power demand amount calculation system according to any one of claims 1 to 3, wherein the power demand amount calculation apparatus further includes:

a visualized data generation unit configured to generate data in which the demand amount of the power calculated by the power demand amount calculation unit is visualized.

5. The power demand amount calculation system according to any one of claims 1 to 4, wherein the power demand amount calculation apparatus further includes:

a charging pattern analysis unit configured to analyze a charging pattern of the electric vehicle based on at least a time-dependent change in the actual capacity of the battery of the electric vehicle.

6. The power demand amount calculation system according to claim 5, wherein the charging pattern analysis unit further analyzes the charging pattern based on position information of the electric vehicle.

7. A power demand amount calculation method of calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation method comprising:

a power demand amount calculation step of communicating with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculating a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region,

wherein the power demand amount calculation step calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged among the plurality of electric vehicles.

8. A power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles, the power demand amount calculation apparatus comprising:

a power demand amount calculation unit configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region,

wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged

among the plurality of electric vehicles.

9. A program for causing a computer to function as a power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles,

wherein the program causes the computer to function as a power demand amount calculation unit configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the predetermined region,

wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged among the plurality of electric vehicles.

10. A recording medium recording a program for causing a computer to function as a power demand amount calculation apparatus for calculating a demand amount of power necessary for a plurality of electric vehicles,

wherein the program causes the computer to function as a power demand amount calculation unit configured to establish a communication connection with a plurality of vehicle-mounted apparatuses mounted on the electric vehicles via a communication circuit and calculate a demand amount of power necessary for an electric vehicle located within a predetermined region among the plurality of electric vehicles based on at least a rated capacity and an actual capacity of a battery of the electric vehicle located within the

predetermined region,

wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged among the plurality of electric vehicles.

11. The power demand amount calculation system according to any one of claims 1 to 6, wherein the power demand amount calculation apparatus further includes:

a history information storage unit that stores informations that are associated with each other, the informations including a date and time (Year, Month, Day, Hour, Minute), a vehicle identifier (ID) of each electric vehicle, a rated capacity (kWh), a charge level (%), an actual capacity (kWh), information concerning whether or not charging is in progress (Yes or No), a position (latitude and/or longitude), and a vehicle model is associated and stored.

12. A vehicle-mounted apparatus for establishing a communication connection with a power demand amount calculation apparatus via a communication circuit including a power demand amount calculation unit which calculates a demand amount of power necessary for an electric vehicle located within a predetermined region and being mounted on the electric vehicle,

wherein the power demand amount calculation unit calculates a demand amount of power necessary for an electric vehicle excluding an electric vehicle which is being charged.

13. The vehicle-mounted apparatus according to claim 12,

wherein the vehicle-mounted apparatus transmits floating car data including at least one of identification information of the electric vehicle, information representing whether the electric vehicle is being charged, and information representing a model of the electric vehicle

to the power demand amount calculation apparatus.

14. A electric vehicle for mounting the vehicle-mounted apparatus according to one of claims 12 and 13.