CLAIMS

[Claim 1] A battery control system that controls a plurality of batteries, the battery control system comprising:

a first inverter configured to convert direct current power from a first battery into alternating current power;

a second inverter configured to convert direct current power from a second battery into alternating current power; and

an integrated controller configured to control the first inverter and the second inverter, wherein

the first inverter is configured to switch operations between GFM control for causing the first battery to function as a voltage source and GFL control for causing the first battery to function as a current source,

the second inverter is configured to switch operations between GFM control for causing the second battery to function as a voltage source and GFL control for causing the second battery to function as a current source,

the integrated controller switches operations of the first inverter and the second inverter between the GFL control and the GFM control based on:

temperatures of the first battery and the second battery or temperatures of the first inverter and the second inverter; or

SOH of the first battery and the second battery, and

an operating state of the current source is adjusted based on a change in amplitude and frequency in an alternating current voltage generated by the voltage source.

[Claim 2] The battery control system according to Claim 1 or 2, wherein

the integrated controller sets reference power for the first inverter and the second inverter.

[Claim 3] The battery control system according to Claim 1 or 2, wherein

the operating state is active power and reactive power of the current source, and

the first inverter or the second inverter that performs the GFL control adjusts the active power and the reactive power of the current source based on the change in the amplitude and the frequency.

[Claim 4] A battery control method comprising:

a step of switching operations of a first inverter configured to convert direct current power from a first battery into alternating current power and a second inverter configured to convert direct current power from a second battery into alternating current power between GFL control and GFM control based on:

temperatures of the first battery and the second battery or temperatures of the first inverter and the second inverter; or

SOH of the first battery and the second battery, and

a step of adjusting an operating state in the GFL control based on a change in amplitude and frequency in an alternating current voltage generated based on the GFM control, wherein

the GFM control is control for causing the first battery or the second battery to function as a voltage source, and

the GFL control is control for causing the first battery or the second battery to function as a current source.

[Claim 5] A battery control program that causes a computer to execute:

a step of switching operations of a first inverter configured to convert direct current power from a first battery into alternating current power and a second inverter configured to convert direct current power from a second battery into alternating current power between GFL control and GFM control based on feature values of the first battery and the second battery or temperatures of the first inverter and the second inverter; and

a step of adjusting an operating state in the GFL control based on a change in amplitude and frequency in an alternating current voltage generated based on the GFM control, wherein

the GFM control causes the first battery or the second battery to function as a voltage source, and

the GFL control causes the first battery or the second battery to function as a current source.

[Claim 6] An integrated controller that controls a first inverter converting direct current power from a first battery into alternating current power and a second inverter converting direct current power from a second battery into alternating current power,

wherein the integrated controller is configured to output an operation switching signal for switching operations of the first inverter and the second inverter between GFL control and GFM control based on:

temperatures of the first battery and the second battery or temperatures of the first inverter and the second inverter; or

SOH of the first battery and the second battery,

the GFM control causes the first battery or the second battery to function as a voltage source,

the GFL control causes the first battery or the second battery to function as a current source, and

an operating state of the current source is adjusted based on a change in amplitude and frequency in an alternating current voltage generated by the voltage source.