What is claimed is:

1. A three-phase power control method for load(s) in a photovoltaic energy storage and power system, comprising:

obtaining a drawing or feeding power of a grid, an charging or discharging power of energy storage, and a photovoltaic generation power;

determining a generation power of an electric power system based on the drawing or feeding power of the grid, the charging or discharging power of the energy storage, and the photovoltaic generation power; and

distributing the generation power of the electric power system evenly to load(s) of each phase to achieve three-phase dynamic balancing, comprising:

obtaining a consumption power of the load(s) of the each phase at an alternating current consumption power end by an energy router provided for the load(s) of the each phase at the alternating current consumption power end of the photovoltaic energy storage and power system; and

distributing the consumption power of the load(s) of the each phase at the alternating current consumption power end of the photovoltaic energy storage and power system according to the generation power of the electric power system by the energy router provided for the load(s) of the each phase at the

alternating current consumption power end, comprising: equalizing consumption powers of load(s) of various phases at the alternating current consumption power end, the consumption power of the load(s) of the each phase being equal to one-third of the generation power of the electric power system.

2. The three-phase power control method for the load(s) in the photovoltaic energy storage and power system according to claim 1, wherein the obtaining the drawing or feeding power of the grid, the charging or discharging power of the energy storage, and the photovoltaic generation power comprises:

obtaining the drawing or feeding power of the grid, the charging or discharging power of the energy storage, and the photovoltaic generation power by energy routers provided at a grid side, an energy storage device side and a photovoltaic device side of the photovoltaic energy storage and power system.

3. The three-phase power control method for the load(s) in the photovoltaic energy storage and power system according to claim 1, wherein the equalizing the consumption powers of the load(s) of the various phases at the alternating current consumption power end, the consumption power of the load(s) of the each phase being equal to one-third of the generation power of the electric power system comprises:

for the load(s) of the each phase at the alternating current consumption power end, comparing a consumption power of the load(s) and the generation power of the electric power system;

in response to the consumption power of the load(s) being greater than one-third of the generation power of the electric power system, reducing the consumption power of the load(s) by an energy router provided for the load(s), so that the consumption power of the load(s) is equal to one-third of the generation power of the electric power system; and

in response to the consumption power of the load(s) being less than one-third of the generation power of the electric power system, increasing the consumption power of the load(s) by the energy router provided for the load(s), so that the consumption power of the load(s) is equal to one-third of the generation power of the electric power system.

4. The three-phase power control apparatus for the load(s) in the photovoltaic energy storage and power system according to claim 3, wherein the three-phase power control apparatus for the load(s) in the photovoltaic energy storage and power system is used to perform the operations of the three-phase power control method for the load(s) in the photovoltaic energy storage and power system according to any one of claims 1 to 3.

5. A three-phase power control apparatus for load(s) in a photovoltaic energy storage and power system, comprising:

a memory for storing instructions;

a processor for executing the instructions to cause the three-phase power control apparatus for the load(s) in the photovoltaic energy storage and power system to perform operations of the three-phase power control method for the load(s) in the photovoltaic energy storage and power system according to any one of claims 1 to 3.

6. A three-phase power control device for load(s) in a photovoltaic energy storage and power system, comprising:

energy routers provided for a grid side, an energy storage device side, a photovoltaic device side, and load(s) of each phase at an alternating current consumption power end; and

the three-phase power control apparatus for load(s) in a photovoltaic energy storage and power system according to any one of claims 4 to 5.

7. A photovoltaic energy storage and power system comprising the three-phase power control device for the load(s) in the photovoltaic energy storage and power system according to claim 6.

8. The photovoltaic energy storage and power system according

to claim 7, wherein the photovoltaic energy storage and power system is a photovoltaic air conditioning system.

9. A non-transitory computer-readable storage medium having stored thereon computer instructions that, when executed by a processor, implement a three-phase power control method for load(s) in a photovoltaic energy storage and power system according to any one of claims 1 to 3.