CLAIMS

What is claimed is:

1. A method for reporting a power headroom report, applied to a terminal and comprising:

in a case that a trigger condition for reporting a power headroom report is satisfied, reporting a power headroom report, wherein the power headroom report comprises power headroom report information of at least one power control object, and the power control object is an antenna panel or a beam;

wherein the trigger condition comprises at least one of:

a link quality value or a variation of a link quality value of a current power control object satisfying a fifth preset condition; or

a link quality difference between the current power control object and the first power control object satisfying a sixth preset condition; wherein

the first power control object is any power control object or a specified power control object in power control objects of the terminal, other than the current power control object.

2. The method according to claim 1, wherein the reporting a power headroom report comprises:

reporting the power headroom report by using at least one medium access control control element MAC CE.

3. The method according to claim 1, wherein the reporting the power headroom report by using at least one MAC CE comprises:

reporting the power headroom report by using one MAC CE, wherein the MAC CE carries power headroom report information of a preset power control object.

4. The method according to claim 3, wherein the preset power control object is a current power control object, a to-be-changed-to power control object, or a changed-to power control object.

5. The method according to claim 2, wherein the reporting the power headroom report by using at least one MAC CE comprises:

reporting the power headroom report by using one MAC CE, wherein the MAC CE carries power headroom report information of at least one power control object.

6. The method according to claim 5, wherein the MAC CE further carries identification information or corresponding index information of the at least one power control object.

7. The method according to claim 5, wherein the power control object comprises a current power control object.

8. The method according to claim 2, wherein the reporting the power headroom report by using at least one MAC CE comprises:

reporting the power headroom report by using a plurality of MAC CEs, wherein each of the MAC CEs carries power headroom report information of at least one power control object.

9. The method according to claim 5 or 8, wherein when the MAC CE carries power headroom report information of a plurality of power control objects, the power headroom report information of the plurality of power control objects is arranged in a preset order.

10. The method according to claim 8, wherein

each of the MAC CEs further carries identification information or corresponding index information of the power control object; or

identification information of each of the MAC CEs corresponds to identification information of a corresponding power control object.

11. The method according to claim 6 or 10, wherein the identification information or the corresponding index information comprises at least one of the following:

identification information or corresponding index information of an antenna panel;

identification information or corresponding index information of a beam; and

identification information or corresponding index information of an antenna panel, and identification information or corresponding index information of a beam corresponding to the antenna panel.

12. The method according to claim 3, 5, or 8, wherein the power headroom report information comprises at least one of the following:

power headroom;

information about a serving cell;

maximum transmit power;

P-MPR;

duty cycle; and

indication information used to indicate whether there is power backoff.

13. The method according to claim 12, wherein

in a case that the MAC CE carries the power headroom report information of the at least one power control object, any one piece of information in the power headroom report information is specific to the serving cell, or is specific to the power control object, or is specific to a power control object corresponding to the serving cell.

14. The method according to claim 1, before the reporting a power headroom report, further comprising:

determining power headroom information based on a measurement result corresponding to the power control object.

15. The method according to claim 14, wherein the determining power headroom information based on a measurement result corresponding to the power control object comprises:

measuring a downlink reference signal corresponding to the power control object; and

determining a power headroom of the power control object based on a measurement result of the downlink reference signal.

16. A terminal, comprising:

a reporting module, configured to: in a case that a trigger condition for reporting a power headroom report is satisfied, report a power headroom report, wherein the power headroom report comprises power headroom report information

of at least one power control object, and the power control object is an antenna panel or a beam;

wherein the trigger condition comprises at least one of:

a link quality value or a variation of a link quality value of a current power control object satisfying a fifth preset condition; or

a link quality difference between the current power control object and the first power control object satisfying a sixth preset condition; wherein

the first power control object is any power control object or a specified power control object in power control objects of the terminal, other than the current power control object.

17. A terminal, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the method for reporting a power headroom report according to any one of claims 1 to 15 are implemented.