WHAT IS CLAIMED IS:

1. A renewable energy management system, comprising:

an energy system configured to store battery power;

a monitoring apparatus electrically coupled to the energy system, wherein the monitoring apparatus Is configured to:

select a target curve from a plurality of prediction curves, wherein each of the prediction curves comprises a plurality of time points and a target feed power corresponding to each time point;

control the energy system to provide target feed power according to the target curve at each time point to an external energy system;

compute a smooth compensation parameter when determining that a change rate of an actual feed curve of the energy system is larger than a rated value;

adjust the actual feed curve according to the smooth compensation parameter, such that the actual feed curve of the energy system satisfies the target curve; and

reselect the target curve when determining that a difference value between the battery power at the time point and a sum of the target feed power after the time point is larger than a threshold.

2. The renewable energy management system of claim 1, wherein the monitoring apparatus is further configured to:

receive weather forecast data;

determine an electric-power generation curve according to the weather forecast data; and

select the target curve from the plurality of prediction curves according

to the electric-power generation curve, wherein total electric quantity generated at each time point of the electric-power generation curve is larger than or equal to total electric quantity provided by the target feed power at each time point of the target curve.

3. The renewable energy management system of claim 1, wherein an instantaneous change rate of the target feed power at each time point of the target curve is smaller than a first threshold and is larger than a second threshold.

4. The renewable energy management system of claim 2, wherein the target curve comprises initial time and initial electric quantity corresponding to the initial time, and the monitoring apparatus controls an electric quantity which is stored at the initial time of the energy system to be the initial electric quantity.

5. The renewable energy management system of claim 1, wherein the monitoring apparatus is further configured to:

determine a storable electric quantity at each time point according to an electric-power generation curve;

wherein when the storable electric quantity is larger than the target feed power, the monitoring apparatus controls the energy system to be charged; and

wherein when the storable electric quantity is smaller than the target feed power, the monitoring apparatus controls the energy system to be discharged.

6. The renewable energy management system of claim 1, wherein when the monitoring apparatus determines that the difference value is smaller than a

rated released value, the monitoring apparatus decreases the smooth compensation parameter to zero gradually.

7. The renewable energy management system of claim 1, wherein the actual feed curve and the target curve have a same peak-supplying time-segment, wherein the peak-supplying time-segment is a time segment that the electric power is utilized at peak.

8. The renewable energy management system of claim 1, wherein the monitoring apparatus is further configured to:

when determining that the difference value, between the battery power at the time point and the sum of the target feed power after the time point, is not larger than the threshold, keep controlling the energy system based on the target curve to provide the electric power with the target feed power at each time point to the external energy system.

9. The renewable energy management system of claim 4, wherein the target curve comprises a time period, and the monitoring apparatus is further configured to:

when determining that the time period of the target curve is finished, receive the weather forecast data to select the electric-power generation curve of a next time period;

select the target curve among the plurality of prediction curves according to the electric-power generation curve of the next time period; and

when determining that the battery power is not equal to the initial electric quantity of the target curve, control the battery power of the energy system at

the initial time to be the initial electric quantity.