CLAIMS

1. A system for providing load control, the system comprising:
an electric meter connected to a power network;
one or more end devices connected to the electric meter, each end device comprising (i) a load control switch configured to control the load supplied to or received from the end device by the power network, (ii) a controller configured to control the load control switch, and (iii) a communication interface;
wherein the controller is configured to control the load control switch responsive to receiving a first control signal via the communication interface;
wherein at least one end device is configured to send the first control signal to the other end devices.

2. The system of claim 1, wherein the electric meter is configured to send the first control signal to the end device.

3. The system of claim 2, wherein the electric meter is configured to send the first control signal to the end device responsive to receiving a second control signal over a communications network.

4. The system of claim 1 wherein the at least one end device is configured to send the first control signal to the end device responsive to receiving a second control signal over a communications network.

5. The system of claim 3:

wherein the second control signal comprises a control signal transmitted by a utility provider of the power network, or

wherein the second control signal comprises a control signal transmitted by at least one end device.

6. The system of any preceding claim,

wherein said controlling of the load supplied to or received from the end device by the power network comprises turning the end device on or off, or setting the device to a predetermined load value, and optionally

wherein setting the device to a predetermined load value comprises setting the device to an on state and controlling the load supplied to the predetermined load value, wherein the predetermined load value is greater than a minimum load value that can be supplied to or received from the end device by the power network and less than a maximum load value that can be supplied to or received from the end device by the power network.

7. The system of claim 6, wherein the at least one end device comprises a power generation device, and the predetermined load value is selected based on a desired power generation level of the power generation device.

8. The system of claim 7:

wherein the predetermined load value is selected such that the power generation level of the power generation device is less than a maximum power generation level of the power generation device;

wherein optionally the power generation level is set to a percentage between 0% and 100% of the maximum power generation level of the power generation device, including non-integer values,

and optionally wherein the power generation level is set to 10% to 90% of the maximum power generation level of the power generation device, optionally wherein the power generation level is set to 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80% or 90% of the maximum power generation level of the power generation device.

9. The system of any preceding claim,

wherein at least one end device is further configured to (i) collect data associated with the end device and (ii) send the collected data via the communications interface, and optionally

wherein the collected data comprises one or more of usage data of the end device, the device type of the end device, maximum rated load or sourcing capability of the end device, a present load state of the end device, and end device user comfort settings, and optionally

wherein the electric meter is configured to receive the collected data, and wherein said controlling of the load control switch by sending of the first control signal is based on the received collected data.

10. The system of any preceding claim, herein the plurality of end devices comprises one or more of an electric vehicle charger, an HVAC system, a hot water heater, an air conditioner, a thermostat, a heat pump, a pool pump, a refrigerator, a dryer, a solar inverter, and a battery system.

11. The system of any preceding claim, wherein the load control switch of the end device is integrated with the end device.

12. The system of any preceding claim,

wherein said first control signal comprises control instructions and wherein the system comprises one or more processors configured to determine contents of said control instructions, the one or more processors being provided at one or more of the end devices, at the electric meter, and/or at a server of a provider of the power network, and optionally

wherein the determination is based on one or more of: end device user comfort settings, an energy price, a carbon content of energy, one or more rules determined by a provider of the power network.

13. The system of any preceding claim, wherein the load control switch is a software-defined load control switch configured to provide load control functionality.

14. A method of controlling an end device in a power network having a plurality of end devices, the method comprising:

sending, by one of the end devices, an end device management control signal to one or more of the other end devices, the end device management control signal;

receiving, by the one or more other end devices, the end device management control signal; and

controlling a load control switch of the end devices based on the received end device management control signal.

15. The method of claim 14, wherein said sending of the end device management control signal of one or more of the other end devices comprises sending the end device management control signal via an electric meter.