applying the electrical energy to a plurality of loads coupled with the electrical power distribution system;

monitoring an electrical characteristic of the electrical energy;

adjusting an amount of the electrical energy applied to at least one of the loads responsive to the monitoring;

calculating a deficit of the electrical energy of the electrical power distribution system responsive to the monitoring; and

associating a plurality of threshold values with respective ones of the loads, and wherein the adjusting comprises adjusting responsive to the electrical characteristic triggering respective ones of the threshold values, and wherein the determining comprises determining using the threshold values.

88. The method of claim **87** wherein the deficit is indicative of a relationship of generation and consumption of the electrical energy on the grid of the electrical power distribution system.

89. An electrical power distribution control method comprising:

providing electrical energy using an electrical power distribution system;

applying the electrical energy to a load using a power management device;

detecting a power oscillation within the electrical power distribution system;

adjusting an amount of electrical energy applied to the load using the power management device and responsive to the detecting; and

wherein the detecting comprises monitoring system frequency of the electrical energy; and

wherein the monitoring comprises:

decimating data of the system frequency of the electrical energy;

low pass filtering the data;

Fourier processing the data; and

comparing the processed data to an oscillation threshold.

90. An electrical power distribution control method comprising:

providing electrical energy using an electrical power distribution system;

applying the electrical energy to a load using a power management device;

detecting a power oscillation within the electrical power distribution system;

adjusting an amount of electrical energy applied to the load using the power management device and responsive to the detecting;

further detecting an electrical characteristic of the electrical energy triggering a shed threshold; and

adjusting an amount of electrical energy applied to the load responsive to the further detecting.

91. A power management device comprising:

an interface configured to receive electrical energy from an electrical power distribution system;

control circuitry configured to control an amount of the electrical energy provided to a load coupled with the power management device, to detect a power oscillation within the electrical power distribution system, and to adjust an amount of the electrical energy provided to the load responsive to the detection of the power oscillation; and

wherein the control circuitry is configured to modulate the amount of the electrical energy provided to the load and synchronized with the power oscillation.

92. A power management device comprising:

an interface configured to receive electrical energy from an electrical power distribution system;

control circuitry configured to control an amount of the electrical energy provided to a load coupled with the power management device, to detect a power oscillation within the electrical power distribution system, and to adjust an amount of the electrical energy provided to the load responsive to the detection of the power oscillation; and

wherein the control circuitry is configured to monitor an electrical characteristic of the electrical energy, to detect the electrical characteristic triggering a shed threshold, and to adjust the amount of the electrical energy provided to the load responsive to the detection of the triggering.

93. An electrical energy demand monitoring method comprising:

providing electrical energy from an electrical power distribution system;

applying the electrical energy to a plurality of loads coupled with the electrical power distribution system;

monitoring an electrical characteristic of the electrical energy;

adjusting an amount of the electrical energy applied to at least one of the loads responsive to the monitoring;

calculating a deficit of the electrical energy of the electrical power distribution system responsive to the monitoring;

wherein the calculating comprises calculating the deficit of the electrical energy on a grid of the electrical power distribution system;

wherein the calculating further comprises:

determining a number of the toads having the application of electrical energy adjusted responsive to the monitoring; and

quantifying an amount of electrical energy consumed by the number of the loads; and

associating a plurality of threshold values with respective ones of the loads, and wherein the adjusting comprises adjusting responsive to the electrical characteristic triggering respective ones of the threshold values, and wherein the determining comprises determining using the threshold values.

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