IN THE CLAIMS:

Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Changes to any amended claims are indicated by [[double brackets]], ~~strikethrough~~ and /or underlining. This listing also reflects any cancellation and/or addition of claims.

1. (Currently Amended) A system for intelligent power management, comprising:

an appliance;

a battery module mechanically and electrically coupled to the appliance, the battery module being configured to provide power to the appliance based on temperature data that is (1) related to the appliance and (2) not related to the battery module;

a bidirectional converter mechanically and electrically coupled to the battery module by a power bus, the bidirectional converter converting between alternating current (AC) and direct current (DC) and interfacing with an AC power infrastructure external to the appliance;

a control unit communicatively coupled to the battery module, the bidirectional converter, and the appliance; and

one or more sensors coupled to the control unit and configured to collect contextual information that includes the temperature data,

the control unit ~~is further~~ configured to adjust a predetermined charge and discharge schedule based on the collected contextual information,

the bidirectional converter having a first AC-DC converter for a 110 V power supply and a second AC-DC converter for a 220 V power supply,

the bidirectional converter configured to automatically accept a predefined range of non-zero AC voltages and a predefined range of non-zero DC voltages.

2. (Canceled)

3. (Currently Amended) The system of claim 1, wherein the battery module provides power to the appliance according to [[a]]the predetermined charge and discharge schedule.

4. (Previously Presented) The system of claim 1, wherein the control unit is further configured to determine a power usage pattern of the appliance and a power supply pattern of the AC power infrastructure for providing power to the battery module.

5. (Currently Amended) The system of claim 4, wherein the control unit is further configured to determine [[a]]the predetermined charge and discharge schedule for the battery module based on the power usage pattern and the power supply pattern.

6. (Currently Amended) The system of claim 1, wherein the one or more sensors ~~including~~ includes at least one of an audio sensor or an image sensor, the at least one of the audio sensor or the image sensor being mechanically and electrically coupled to the appliance.

7. (Previously Presented) The system of claim 6, wherein the control unit further comprises a machine learning model trained to predict a usage of the appliance at a time point based on the collected contextual information.

8. (Canceled)

9. (Currently Amended) The system of claim 1, further comprising a physical user interface configured to receive a user input for manually editing [[a]]the predetermined charge and discharge schedule for the battery module at a time point.

10. (Previously Presented) The system of claim 1, wherein the appliance is included within a plurality of appliances, and the battery module is included within a plurality of battery modules, and at least two of the plurality of appliances are coupled to the plurality of battery modules.

11. (Previously Presented) The system of claim 10, wherein:
the battery module is a first battery module, and

the control unit is further configured to redistribute power stored in the plurality of battery modules by providing power to the appliance from a second battery module different from the first battery module.

12.-17. (Canceled).

18. (Currently Amended) A method comprising:

determining whether a power redistribution is required for a first appliance and a second appliance, the first appliance being mechanically and electrically coupled to a first bidirectional converter, the second appliance being mechanically and electrically coupled to a second bidirectional converter;

collecting (1) temperature data related to the first appliance and not related to a battery module to define first contextual information and (2) temperature data related to the second appliance and not related to the battery module to define second contextual information;

when it is determined that the first appliance and the second appliance require the power redistribution, determining a priority for the first appliance and the second appliance based on each of the first contextual information and the second contextual information;

redistributing power sequentially to the first bidirectional converter mechanically and electrically coupled to the first appliance and the second bidirectional converter mechanically and electrically coupled to the second appliance according to the determined priority of each of the first appliance and the second appliance;

dynamically adjusting a predetermined charge and discharge schedule of a first battery module mechanically and electrically coupled to the first appliance, based on the first contextual information; and

dynamically adjusting a predetermined charge and discharge schedule of a second battery module mechanically and electrically coupled to the second appliance, based on the second contextual information.

19. (Canceled)

20. (Canceled)

21. (Previously Presented) The system of claim 1, wherein the bidirectional converter further has a DC-DC converter.

22. (Previously Presented) The method of claim 18, wherein:

the power redistributed to the first bidirectional converter is from a predefined range of non-zero AC voltages, and

the power redistributed to the second bidirectional converter is from a predefined range of non-zero DC voltages.

23. (Canceled)

24. (Previously Presented) The method of claim 18, wherein:

the first appliance is coupled to a circuit of a circuit panel of a first apartment unit of an apartment building, and

the second appliance is coupled to a circuit of a circuit panel of a second apartment unit of the apartment building.

25. (Previously Presented) The method of claim 18, wherein:

the first appliance and the second appliance are each coupled to a different circuit of a circuit panel.

26. (Previously Presented) The method of claim 18, wherein the power redistribution is required in response to a power outage.

27. (Previously Presented) The method of claim 18, wherein:

the first contextual information further includes first data that is representative of a first set of electrical measurement values associated with the first appliance and not the battery module, and

the second contextual information further includes second data that is representative of a second set of electrical measurement values associated with the second appliance and not the battery module.

28. (Previously Presented) The method of claim 18, wherein:

the first contextual information further includes at least one of (a) first audio data associated with the first appliance and not the battery module or (b) first video data associated with the first appliance and not the battery module, and

the second contextual information further includes at least one of (a) second audio data associated with the second appliance and not the battery module or (b) second video data associated with the second appliance and not the battery module.

29. (Currently Amended) The system of claim 1, wherein the one or more sensors ~~including~~ includes an electrical current sensor mechanically and electrically coupled to the appliance.

30. (Currently Amended) The system of claim 1, wherein the one or more sensors ~~including~~ includes a temperature sensor mechanically and electrically coupled to the appliance.

31. (Currently Amended) A method, comprising:

determining whether a power redistribution is required for a first circuit panel that provides power to a first portion of a building and a second circuit panel that provides power to a second portion of the building, the first circuit panel having circuits coupled to at least two appliances from a first plurality of appliances, the second circuit panel having circuits coupled to at least two appliances from a second plurality of appliances different from the first plurality of appliances;

collecting (1) first temperature data (a) related to the at least two appliances from the first plurality of appliances associated with the first circuit panel and (b) not related to a battery module to define first contextual information and (2) second temperature data (a) related to the at least two appliances from the second plurality of appliances associated with the second circuit panel and (b) not related to the battery module to define second contextual information;

when it is determined that the first circuit panel and the second circuit panel require the power redistribution, determining a priority for each of the first circuit panel and the second circuit panel based on each of the first contextual information and the second contextual information;

redistributing power sequentially to the first circuit panel and the second circuit panel according to the determined priority of each of the first circuit panel and the second circuit panel; and

dynamically adjusting a predetermined charge and discharge schedule of the battery module associated with the first circuit panel, based on a state of at least one appliance from the at least two appliances from the first plurality of appliances associated with the first circuit panel and not based on a state of the battery module.

32. (Canceled)

33. (Previously Presented) The method of claim 31, wherein the first circuit panel has a higher priority than the second circuit panel, based on a presence of a medical support device in the first portion of the building, the medical support device receiving power from a circuit from the first circuit panel.

34. (Previously Presented) The method of claim 31, wherein: the first portion of the building is a first apartment unit, and the second portion of the building is a second apartment unit.