CONCISE EXPLANATION OF RELEVANCY

Reference #1 Griffith et. al. – (U.S. Patent Pub. 2022/0344941 issued as US 11,870,263)

US Pub. 2023/0238819 **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**US Pub. 2022/0344941** **Griffith Disclosure** **Priority Date: March 11, 2021**
21. A system for intelligent power management, comprising:	"FIG. 4 illustrates one example embodiment of a battery system that can comprise one or more batteries, a processor, a memory, a clock, a battery control system, a communication system, an interface and an electrical power bus." (Para. [0012]).
an appliance having a battery module, the battery module being configured to provide power to the appliance;	"FIG. 3a illustrates an example of a stove load source that comprises a battery system…" (Para. [0009], see also Fig. 3a). "…the first load source being configured to be fully powered by power stored by the first battery and configured to be fully powered by power obtained from the first receptacle and configured to be partially powered by both the first battery and power obtained from the first receptacle..." (Para. [0067]).

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
a sensor coupled to the appliance to monitor an operation condition of the appliance at a specific time point; and	"For example, in various embodiments, a battery system 300 can comprise various suitable sensors to determine such aspects, characteristics or states of the battery 305 or aspects, characteristics or states of other elements of a building system 100 which can include environmental conditions such as temperature, humidity, or the like internal to or external to a building 105." (Para. [0070]). "For example, in some embodiments a battery system 300 can include a fire suppression system that comprises sensors operable to determine whether a fire is occurring in the battery, and if so, execute fire-suppression measures such as releasing foam, liquid, gas, generating a vacuum, or the like to extinguish the fire." (Para. [0120], See also Figs. 6a and 6b and Paras. [0089]-[0104]).
a control unit communicatively coupled to the sensor to collect information obtained from the sensor,	"The battery control system 440 in various embodiments can be configured to control power storage and/or power discharge of the battery 305 based on instructions from the processor, or the like. Additionally, in some embodiments, the battery control system 440 can determine various aspects, characteristics or states of the battery 305 such as a charge state (e.g., percent charged or discharged), battery charge capacity, battery health, battery temperature, or the like. For example, in various embodiments, a battery system 300 can comprise various suitable sensors to determine such aspects, characteristics or states of the battery 305 or aspects, characteristics or states of other elements of a building system 100 which can include environmental conditions such as temperature, humidity, or the like internal to or external to a building 105." (Para. [0070]).

US Pub. 2023/0238819 **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**US Pub. 2022/0344941** **Griffith Disclosure** **Priority Date: March 11, 2021**
the control unit being configured to determine whether to adjust power provided to the appliance from the battery module based on the operation condition of the appliance.	"Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources, while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104], see also Figs. 6a and 6b and Paras. [0070] and [0089]-[0104]).
22. The system of claim 21, wherein the appliance is a stove and the sensor is a video sensor.	"stove" (see e.g., Figs. 1, 2, 3a, 3b, 3c and 11 and Paras. [0009], [0020], [0038], [0039], [0049]-[0053], [0057], [0061]-[0062], [0064], [0108], [0122], [0125] and [0126]). "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
23. The system of claim 22, wherein the video sensor is configured to monitor a cooking process.	"For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]). "power use session (e.g., cooking dinner, cooking breakfast…" (Para. [0099]). "cooking session" (See Paras. [0104], [0108]). "cook a large meal" (Para. [0125]). "cook a meal" (Para. [0137]).
24. The system of claim 23, wherein the control unit is configured to determine whether to adjust power provided to the stove from the battery module according to the cooking process and a predefined cooking protocol.	"Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources, while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104], see also Figs. 6a and 6b and Paras. [0070] and [0089]-[0104]).

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
	"power use session (e.g., cooking dinner, cooking breakfast…" (Para. [0099]). "cooking session" (See Paras. [0104], [0108]). "cook a large meal" (Para. [0125]). "cook a meal" (Para. [0137]).
25. The system of claim 21, wherein the appliance is a refrigerator and the sensor is a video sensor.	"refrigerator" (See e.g., Figs. 1, 2, 11 and 16-18 and Paras. [0039], [0054] and [0059]-[0061]). "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).
26. The system of claim 25, wherein the video sensor is configured to detect type of items stored in the refrigerator.	"REFRIGERATION" (Fig. 2). "refrigerator" (See e.g., Figs. 1, 2, 11, 16-18 and Paras. [0039], [0054] and [0059]-[0061]). "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	<u>US Pub. 2022/0344941</u> **Griffith Disclosure** **Priority Date: March 11, 2021**
27. The system of claim 26, wherein the control unit is configured to determine whether to adjust power provided to the refrigerator from the battery module according to the detected type of items stored in the refrigerator.	"Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources, while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104], see also Figs. 6a and 6b and Paras. [0070] and [0089]-[0104]). "REFRIGERATION" (Fig. 2). "refrigerator" (See e.g., Figs. 1, 2, 11, 16-18 and Paras. [0039], [0054] and [0059]-[0061]). "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).

28. The system of claim 21, wherein the control unit is further configured to determine a charge and discharge schedule for the battery module based on a power usage pattern of the appliance.	"Additionally, in some embodiments, on-board or network control laws can be adaptive to patterns of use, which can allow a given battery capacity to adapt to expected demands. Further, these laws in various embodiments can be configured to adapt to local time-of-use rates, allowing behind-the-scenes energy arbitrage. Implementation of these control laws can be based on reinforcement learning and controls techniques, accompanied by best practice user interfaces allowing homeowner monitoring and tuning. For example, FIG. 6a illustrates an example method 600 of updating a user power profile, which begins in block 605, where user power data is obtained. In block 610, power cost data is obtained, and in block 615, a user power profile is updated. The method 601 cycles back to block 605, such that the user power profile can continue to be updated, which can include updates in real-time or periodic updates at various suitable intervals (e.g., a number of seconds, minutes, hours, days, or the like)." (Para. [0089], see also Figs. 6a and 6b and Paras. [0090]-[0104]). "For example, in some embodiments, user power use data can be obtained by one or more battery systems 300 of a battery network 500, with such data being stored at one or more of the battery systems 300, a battery server 510 and user device 520. Such data can include time and duration of one or more power use sessions, the identity of a load source associated with such a power use session, a type of power use session (e.g., cooking dinner, cooking breakfast, running a dishwasher, washing clothes, drying clothes, watching television, playing a video game console, operating a computer, heating a home, cooling a home, or the like), and efficiency or issues associated with such a power use session (e.g., running out of power, not being able to output sufficient power to meet demand, and the like). Additionally, such data can include information about power consumed by one

	or more batteries 305 of one or more battery systems 300, power consumed from a grid energy source 110, power consumed from a solar energy source, and the like." (Para. [0099]). "In various embodiments, a user power profile can be associated with one or more powered building system 100, and can comprise data at a building-level, battery system level 300, battery-level, load source level, or the like. For example, a power profile can comprise a location of a building 105, location of and type(s) of battery systems 300 in the building 105, along with real-time and historical data on power used, stored or provided by one or more batteries 305, load source 200, battery system 300, grid power source 110, solar power source 115, or the like. As discussed herein, such data can include data regarding power use along with health, capacity, and the like of one or more batteries 305, battery system 300, load source 200, solar energy source 115, grid power source 110, or the like." (Para. [0101]). "Turning to FIG. 6b, an example method 601 of determining a power output configuration is illustrated, which includes block 620 where current power use data is obtained, and block 625 where current power output capacity data is obtained. At block 630, a power output configuration is determined, and at 635, a determination is made whether the determined power output configuration is different than a current power output configuration. If so, at 640, the current power output configuration is modified (e.g., to the determined output configuration). However, if not, the current power output configuration is maintained at 645. The method 601 returns to 620 regardless of whether a current power output configuration is changed or modified, which can allow for monitoring of whether a change in a power configuration is necessary, desirable, or the like. Such monitoring can be in real-time or periodically at various suitable intervals (e.g., a number of seconds,

	minutes, hours, days, or the like).” (Para. [0101]). “In some embodiments, such a method 601 can be performed by one or more battery systems 300 individually and/or separately or can be performed by one or more battery systems 300, user device 520 or battery server 510 to configure one or more battery systems 300. For example, using FIG. 5 for purposes of illustration, in some embodiments, each of the battery systems 300A, 300B, 300C can individually control its own configuration (e.g., via the method 601) and/or one or more of the battery systems can be configured by another device (e.g., another battery system 300, the battery server 510, the user device 520, or the like). In other words, in some embodiments, individual battery systems 300 can be self-controlled and/or a set of battery systems 300 can be controlled individually or as a group by another device or one of the battery systems 300 (e.g., a primary battery system 300). Accordingly, power use data and power output capacity data can be obtained from a plurality of battery systems 300 or from a single battery system 300, which may or may not include communication of such data via a network (e.g., network 530).” (Para. [0103]). “Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources,

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
	while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104]).

29. The system of claim 28, further comprising one or more sensors	"For example, in various embodiments, a battery system 300 can comprise various suitable sensors to determine such aspects, characteristics or states of the battery 305 or aspects, characteristics or states of other elements of a building system 100 which can include environmental conditions such as temperature, humidity, or the like internal to or external to a building 105." (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104] and [0120]).
or third party services coupled to the control unit and configured to collect contextual information related to one or more of the battery module or the appliance.	"In various embodiments, the communication system 450 can be configured to allow the battery system 300 to communicate via one or more communication network as discussed in more detail herein, which in some embodiments can include wireless and/or wired networks and can include communication with devices such as one or more other battery systems 300, user device, server, or the like." (Para. [0071], see also Fig. 5 and Paras. [0081]-[0084], [0087] and [0099]-[0103]). "In some examples, the battery server 510 can be a remote physical or cloud-based server or server system that can be configured to store data related to the battery systems 300, store data provided by the battery systems 300 and/or user device 520, or configure the battery systems 300 and/or user device 520 as discussed in more detail herein." (Para. [0082]). "Power cost data can be obtained from various suitable sources, such as directly via a public or private utility server or a server that collects data from multiple sources that provide energy cost data (e.g., a battery server 510). Such data can include real-time changes in energy cost, scheduled changes in cost based on time of day, day of the week, season, or the like. Such power cost data can be relevant to the location of where a given battery system 300, powered building system 100, or the like is located (e.g., data that

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
	effects the cost of power consumed where such a battery system 300 and/or powered building system 100 is located). Additionally, power cost data in some embodiments can include a price that will be paid for energy provided to the grid 110, which can include real-time, time-of-day, day-of-the-week, and seasonal prices." (Para. [0100]). "Fifth, they may use data about electricity rates (e.g., time-of-use rates) from the utility to tailor control laws to use the cheapest electricity from the grid." (Para. [0125]).
30. The system of claim 29, wherein the control unit further comprises a machine learning model trained to predict a usage of the appliance based on the collected contextual information.	"As the battery system 300 (or a powered building system 100 or battery network 500) monitors and learns the particular behavior of the load source 200, user behavior related to the load source 200, and the like,…" (Para. [0076]). "Additionally, in some embodiments, on-board or network control laws can be adaptive to patterns of use, which can allow a given battery capacity to adapt to expected demands. Further, these laws in various embodiments can be configured to adapt to local time-of-use rates, allowing behind-the-scenes energy arbitrage. Implementation of these control laws can be based on reinforcement learning and controls techniques, accompanied by best practice user interfaces allowing homeowner monitoring and tuning. For example, FIG. 6a illustrates an example method 600 of updating a user power profile,…" (Para. [0098], see also Figs. 6a and 6b and Paras. [0089]-[0104]).
31. The system of claim 30, wherein the control unit is further configured to adjust the determined charge and discharge schedule based on the predicted usage of the appliance by the trained machine learning model.	See above regarding claim 30, including Figs. 6a and 6b and Paras. [0076] and [0089]-[0104].

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
32 The system of claim 28, further comprising a physical user interface configured to receive a user input for manually editing the charge and discharge schedule for the battery module at a time point.	"The interface 460 can include various elements configured to receive input and/or present information (e.g., to a user). For example, in some embodiments, the interface can comprise a touch screen, a keyboard, one or more button, one or more light, a speaker, a microphone, a haptic interface, and the like. In various embodiments, the interface 460 can be used by a user for various suitable purposes, such as to configure the battery system 300, view an aspect, characteristic or state of the battery system 300, configure network connections of the battery system 300, or the like." (Para. [0072]). "The interface 460 can comprise a plurality of interface elements or a complex interface in some examples, or can be a simple interface 460 in some embodiments, or can be absent. In some embodiments, an interface for the battery system 300 can be embodied on a separate device such as a user device (e.g., a smart phone, laptop, home automation system, or other suitable device)." (Para. [0077], see also Figs. 6a and 6b and Paras. [0089]-[0104]). "Additionally, in some embodiments, on-board or network control laws can be adaptive to patterns of use, which can allow a given battery capacity to adapt to expected demands. Further, these laws in various embodiments can be configured to adapt to local time-of-use rates, allowing behind-the-scenes energy arbitrage. Implementation of these control laws can be based on reinforcement learning and controls techniques, accompanied by best practice user interfaces allowing homeowner monitoring and tuning. For example, FIG. 6a illustrates an example method 600 of updating a user power profile,…" (Para. [0098]).

33. (New) A method of intelligent power management, comprising:	"FIG. 4 illustrates one example embodiment of a battery system that can comprise one or more batteries, a processor, a memory, a clock, a battery control system, a communication system, an interface and an electrical power bus." (Para. [0012]).
monitoring an operation condition of an appliance at a specific time point, wherein the operation condition is monitored by a sensor coupled to the appliance;	"For example, in various embodiments, a battery system 300 can comprise various suitable sensors to determine such aspects, characteristics or states of the battery 305 or aspects, characteristics or states of other elements of a building system 100 which can include environmental conditions such as temperature, humidity, or the like internal to or external to a building 105." (Para. [0070]). "For example, in some embodiments a battery system 300 can include a fire suppression system that comprises sensors operable to determine whether a fire is occurring in the battery, and if so, execute fire-suppression measures such as releasing foam, liquid, gas, generating a vacuum, or the like to extinguish the fire." (Para. [0120], See also Figs. 6a and 6b and Paras. [0089]-[0104]).
collecting power usage data of the appliance at the specific time point, wherein the power usage data indicates power provided to the appliance by a battery module included in the appliance; and	"The battery control system 440 in various embodiments can be configured to control power storage and/or power discharge of the battery 305 based on instructions from the processor, or the like. Additionally, in some embodiments, the battery control system 440 can determine various aspects, characteristics or states of the battery 305 such as a charge state (e.g., percent charged or discharged), battery charge capacity, battery health, battery temperature, or the like. For example, in various embodiments, a battery system 300 can comprise various suitable sensors to determine such aspects, characteristics or states of the battery 305 or aspects, characteristics or states of other elements of a building system 100 which can include environmental conditions such as temperature, humidity, or the like internal to or external to a building 105." (Para. [0070],

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
	See also Figs. 6a and 6b and Paras. [0089]-[0104]).
determining whether to adjust power provided to the appliance from the battery module based on the operation condition of the appliance and power usage data of the appliance.	"Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources, while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104], see also Figs. 6a and 6b and Paras. [0070] and [0089]-[0104]).
34. The method of claim 33, wherein the appliance is a stove and	"stove" (see e.g., Figs. 1, 2, 3a, 3b, 3c and 11 and Paras. [0009], [0020], [0038], [0039], [0049]-[0053], [0057], [0061]-[0062], [0064], [0108], [0122], [0125] and [0126]).
the sensor is a video sensor.	"For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
35. The method of claim 34, wherein the video sensor is configured to monitor a cooking process.	"For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]). "power use session (e.g., cooking dinner, cooking breakfast…" (Para. [0099]). "cooking session" (See Paras. [0104], [0108]). "cook a large meal" (Para. [0125]). "cook a meal" (Para. [0137]).
36. The method of claim 35, wherein determining whether to adjust power provided to the appliance includes determining whether to adjust power provided to the stove from the battery module according to the cooking process and a predefined cooking protocol.	"Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources, while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104], see also Figs. 6a and 6b and Paras. [0070] and [0089]-[0104]).

<u>US Pub. 2023/0238819</u> **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**<u>US Pub. 2022/0344941</u>** **Griffith Disclosure** **Priority Date: March 11, 2021**
	"power use session (e.g., cooking dinner, cooking breakfast…" (Para. [0099]). "cooking session" (See Paras. [0104], [0108]). "cook a large meal" (Para. [0125]). "cook a meal" (Para. [0137]).
37. The method of claim 33, wherein the appliance is a refrigerator and the sensor is a video sensor.	"refrigerator" (See e.g., Figs. 1, 2, 11, 16-18 and Paras. [0039], [0054] and [0059]-[0061] "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).
38. The method of claim 37, wherein the video sensor is configured to detect type of items stored in the refrigerator.	"REFRIGERATION" (Fig. 2). "refrigerator" (See e.g., Figs. 1, 2, 11, 16-18 and Paras. [0039], [0054] and [0059]-[0061]). "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).

US Pub. 2023/0238819 **Pending Claims as of Jan. 25, 2024** **Priority Date: Jan. 21, 2022**	**US Pub. 2022/0344941** **Griffith Disclosure** **Priority Date: March 11, 2021**
39. The method of claim 38, wherein determining whether to adjust power provided to the appliance includes determining whether to adjust power provided to the refrigerator from the battery module according to the detected type of items stored in the refrigerator.	"Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources, while a longer, more demanding nighttime cooking session could be powered jointly by the battery 305 and low-capacity outlet (e.g., receptacle 165). In this way, the charge and discharge control laws of the system and/or network can maximize the use of renewable-generated electricity, in some examples, without impacting the experience of the user." (Para. [0104], see also Figs. 6a and 6b and Paras. [0070] and [0089]-[0104]). "REFRIGERATION" (Fig. 2). "refrigerator" (See e.g., Figs. 1, 2, 11, 16-18 and Paras. [0039], [0054] and [0059]-[0061]). "For example, in various embodiments, a battery system 300 can comprise various suitable sensors…" (Para. [0070], see also Figs. 6a and 6b and Paras. [0089]-[0104]).

40. The method of claim 33, further comprising: determining a charge and discharge schedule for the battery module based on a power usage pattern of the appliance.	"Additionally, in some embodiments, on-board or network control laws can be adaptive to patterns of use, which can allow a given battery capacity to adapt to expected demands. Further, these laws in various embodiments can be configured to adapt to local time-of-use rates, allowing behind-the-scenes energy arbitrage. Implementation of these control laws can be based on reinforcement learning and controls techniques, accompanied by best practice user interfaces allowing homeowner monitoring and tuning. For example, FIG. 6a illustrates an example method 600 of updating a user power profile, which begins in block 605, where user power data is obtained. In block 610, power cost data is obtained, and in block 615, a user power profile is updated. The method 601 cycles back to block 605, such that the user power profile can continue to be updated, which can include updates in real-time or periodic updates at various suitable intervals (e.g., a number of seconds, minutes, hours, days, or the like)." (Para. [0089], see also Figs. 6a and 6b and Paras. [0090]-[0104]). "For example, in some embodiments, user power use data can be obtained by one or more battery systems 300 of a battery network 500, with such data being stored at one or more of the battery systems 300, a battery server 510 and user device 520. Such data can include time and duration of one or more power use sessions, the identity of a load source associated with such a power use session, a type of power use session (e.g., cooking dinner, cooking breakfast, running a dishwasher, washing clothes, drying clothes, watching television, playing a video game console, operating a computer, heating a home, cooling a home, or the like), and efficiency or issues associated with such a power use session (e.g., running out of power, not being able to output sufficient power to meet demand, and the like). Additionally, such data can include information about power consumed by one

	or more batteries 305 of one or more battery systems 300, power consumed from a grid energy source 110, power consumed from a solar energy source, and the like." (Para. [0099]). "In various embodiments, a user power profile can be associated with one or more powered building system 100, and can comprise data at a building-level, battery system level 300, battery-level, load source level, or the like. For example, a power profile can comprise a location of a building 105, location of and type(s) of battery systems 300 in the building 105, along with real-time and historical data on power used, stored or provided by one or more batteries 305, load source 200, battery system 300, grid power source 110, solar power source 115, or the like. As discussed herein, such data can include data regarding power use along with health, capacity, and the like of one or more batteries 305, battery system 300, load source 200, solar energy source 115, grid power source 110, or the like." (Para. [0101]). "Turning to FIG. 6b, an example method 601 of determining a power output configuration is illustrated, which includes block 620 where current power use data is obtained, and block 625 where current power output capacity data is obtained. At block 630, a power output configuration is determined, and at 635, a determination is made whether the determined power output configuration is different than a current power output configuration. If so, at 640, the current power output configuration is modified (e.g., to the determined output configuration). However, if not, the current power output configuration is maintained at 645. The method 601 returns to 620 regardless of whether a current power output configuration is changed or modified, which can allow for monitoring of whether a change in a power configuration is necessary, desirable, or the like. Such monitoring can be in real-time or periodically at various suitable intervals (e.g., a number of seconds,

	minutes, hours, days, or the like)." (Para. [0101]). "In some embodiments, such a method 601 can be performed by one or more battery systems 300 individually and/or separately or can be performed by one or more battery systems 300, user device 520 or battery server 510 to configure one or more battery systems 300. For example, using FIG. 5 for purposes of illustration, in some embodiments, each of the battery systems 300A, 300B, 300C can individually control its own configuration (e.g., via the method 601) and/or one or more of the battery systems can be configured by another device (e.g., another battery system 300, the battery server 510, the user device 520, or the like). In other words, in some embodiments, individual battery systems 300 can be self-controlled and/or a set of battery systems 300 can be controlled individually or as a group by another device or one of the battery systems 300 (e.g., a primary battery system 300). Accordingly, power use data and power output capacity data can be obtained from a plurality of battery systems 300 or from a single battery system 300, which may or may not include communication of such data via a network (e.g., network 530)." (Para. [0103]). "Determining an output configuration can be for various suitable purposes, such as to maximize use of renewable energy sources (e.g., solar panels 115); to maximize storage of power from renewable energy sources; to maximize storage of power from a power grid 110 when such power is at a low or lower cost; to maximize performance of a load source 200; to maximize energy efficiency of a load source; to maximize energy storage by one or more batteries 305; to minimize charging time for one or more batteries 305; and the like. For instance, a shorter nighttime cooking session can be completely covered in some examples by an on-board or associated battery 305, charged during the day with ample solar resources,

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