



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

58249 7590 04/14/2026
COOLEY LLP
ATTN: IP Docketing Department
1299 Pennsylvania Avenue, NW
Suite 700
Washington, DC 20004

EXAMINER	
FANTU, YALKEW	
ART UNIT	PAPER NUMBER

2859

DATE MAILED: 04/14/2026

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

18/424,557	01/26/2024	Samuel Redmond D'Amico	IMPU-007/02US 357792-2020	7692
------------	------------	------------------------	------------------------------	------

TITLE OF INVENTION: SYSTEMS, APPARATUSES AND METHODS FOR APPLIANCES WITH INTEGRATED ENERGY STORAGE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$516	\$0.00	\$0.00	\$516	07/14/2026

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via the USPTO patent electronic filing system.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 6 should be completed where appropriate. All further correspondence will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

58249 7590 04/14/2026

COOLEY LLP

ATTN: IP Docketing Department
1299 Pennsylvania Avenue, NW
Suite 700
Washington, DC 20004

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via the USPTO patent electronic filing system or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

18/424,557

01/26/2024

Samuel Redmond D'Amico

IMPU-007/02US

7692

TITLE OF INVENTION: SYSTEMS, APPARATUSES AND METHODS FOR APPLIANCES WITH INTEGRATED ENERGY STORAGE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
-------------	---------------	---------------	---------------------	----------------------	------------------	----------

nonprovisional

SMALL

\$516

\$0.00

\$0.00

\$516

07/14/2026

EXAMINER	ART UNIT	CLASS-SUBCLASS
----------	----------	----------------

FANTU, YALKEW

2859

320-128000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required)

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via the USPTO patent electronic filing system ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

6. Courtesy Ceremonial Copy

☐ Applicant requests a courtesy ceremonial copy of the electronic patent grant. Applicant understands that the electronic patent grant is the official statutory patent grant.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/424,557	01/26/2024	Samuel Redmond D'Amico	IMPU-007/02US	7692
58249	7590	04/14/2026	357792-2020	
COOLEY LLP			EXAMINER	
ATTN: IP Docketing Department			FANTU, YALKEW	
1299 Pennsylvania Avenue, NW				
Suite 700				
Washington, DC 20004				
			ART UNIT	PAPER NUMBER
			2859	
DATE MAILED: 04/14/2026				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013).

<https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf>

Routine uses of the information in this record may include disclosure to:

- 1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;
- 2) a federal, state, local, or international agency, in response to its request;
- 3) a contractor of the USPTO having need for the information in order to perform a contract;
- 4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;
- 5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;
- 6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;
- 7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;
- 8) another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c));
- 9) the Office of Personnel Management (OPM) for personnel research purposes; and
- 10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

Notice of Allowability	Application No. 18/424,557	Applicant(s) D'Amico et al.	
	Examiner YALKEW FANTU	Art Unit 2859	AIA (First Inventor to File) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/06/2026.
☐ A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are 1,3-11,18 and 21-34 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information , please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. ☐ Notice of References Cited (PTO-892) | 5. ☒ Examiner's Amendment/Comment |
| 2. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 2/10/2026 and 1/6/2026. | 6. ☒ Examiner's Statement of Reasons for Allowance |
| 3. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material _____. | 7. ☐ Other _____. |
| 4. ☐ Interview Summary (PTO-413),
Paper No./Mail Date. _____. | |

/YALKEW FANTU/
Primary Examiner, Art Unit 2859

03/20/2026

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA. As per the remarks of 01/06/2026, claims 1, 6, 11 and 18 have been amended; claims 12-17 and 19-20 have been cancelled. claim 2 was previously cancelled. Claims 22-34 are newly added.

Applicant amended and further argues that Griffith in view of Wang fail to disclose or teach "... 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; and redistributing power to the first circuit panel and the second panel according to the determined priority" and "...makes no mention whatsoever regarding determining priority (at the circuit panel level or otherwise), much less redistributing power to the first circuit panel and the second circuit panel according to the determined priority.

Examiner discussed and suggested to further amend, at least, the independent claims. Applicant agreed the suggested amendments as described in the below Examiner Amendments.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Michael W.J. Minsch on 03/19/2026.

The application has been amended as follows: Please **cancel claims 8, 23, 32**, amend **claims 1, 6, 18, 29, 30, 31 and add claim 34** as follow:

Claim 1: 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; 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.

Claim 6: The system of claim 1, wherein the one or more sensors including 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.

Claim 18: 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.

Claim 29: The system of claim 1, wherein the one or more sensors including an electrical current sensor mechanically and electrically coupled to the appliance.

Claim 30: The system of claim 1, wherein the one or more sensors including a temperature sensor mechanically and electrically coupled to the appliance.

Claim 31: 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; 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.

Claim 34: 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.

Reasons For Allowance

The following is the examiner's statement of reasons for allowance.

The prior art and any art of record do not disclose or suggest the following claim 1 limitations: "... a system for intelligent power management 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; 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 ...**" in combination with the remaining claim elements as set forth in Claim 1 and its dependent claims 3-11, 21, 29 and 30.

The following is the examiner's statement of reasons for allowance.

The prior art and any art of record do not disclose or suggest the following claims 18 and 31 limitations: "... 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.... 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... **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; 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...**” in combination with the remaining claim elements as set forth in Claims 18 , 31 and their dependent claims 22-28 and 32-34 respectively. *Therefore claims 1, 3-11, 18, 21-34 are allowed.*

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YALKEW FANTU whose telephone number is (571)272-8928. The examiner can normally be reached Monday-Friday 7:00AM-4:00PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taelor Kim can be reached at 571-270-7166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YALKEW FANTU/
Primary Examiner, Art Unit 2859