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(71) Applicant: MYENERSAVE, INC. [US/US]; 20278 Clay Street, Cupertino, CA 95014 (US).

(72) Inventors: GUPTA, Abhay; 20278 Clay Street, Cupertino, CA 95014 (US). GARUD, Vivek; 7513 Heatherwood Drive, Cupertino, CA 95014 (US). MOHAN, Rahul; 1569 Blackhawk Drive, Sunnyvale, CA 94087 (US). CHENG, Hsien-ting; 972 Pacific Avenue, San Jose, CA 95126 (US). HE, Ye; 1935 Mount Vernon Court, Apt. 8, Mountian View, CA 94040 (US).

(74) Agent: MURPHY, Gregory, M.; Landmark Intellectual Property Law, PC, 23 Seascape Village, Aptos, CA 95003 (US).

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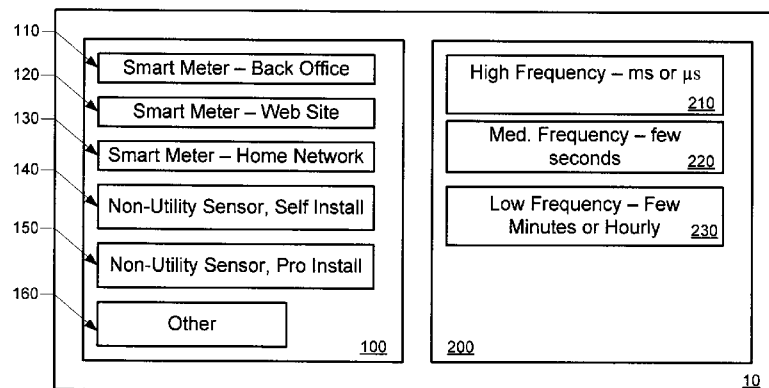
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FIGURE 1



(57) Abstract: Aspects in accordance with embodiments of the invention may include a method for remotely setting, controlling, or modifying settings on a programmable communicating thermostat (PCT) in order to customize settings to a specific house and user, including steps of: receiving at a remote processor information entered into the PCT by the user; receiving at the remote processor: non-electrical information associated with the specific house or user; and energy usage data of the specific house; performing by the remote processor energy disaggregation on the energy usage data; determining by the remote processor a custom schedule for the PCT based upon the information entered by the user, the non-electrical information associated with the specific house or user, and disaggregated energy usage data; revising by the remote processor, the custom schedule for the PCT based upon additional user input or seasonal changes; providing the custom schedule for the PCT to the PCT.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/12203

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - G06F 11/00 (2014.01)
 CPC - G05B 23/02
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 CPC: G05B 23/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 CPC: G06Q 10/06, G05B 2219/13; USPC: 702/188, 700/286, 700/295; IPC: G06F 11/00 (keyword limited - see search terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PatBase; Google; Google Scholar
 Terms: energy, utility, power, meter, disaggregate, separate, individualize, customize, schedule, calendar, thermostat, home, house, usage, habit, behavior, train, learn, database, weather, profile, user, appliance, setpoint, season, smart, solar, capacity, zigbee.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2009/0195349 A1 (Frader-Thompson et al.) 06 August 2009 (06.08.2009), entire document, especially abstract, para [0036], [0042], [0085], [0141], [0153], [0155], [0171], [0181], [0187], [0190], [0200], [0210], [0214], [0216], [0220], [0235].	1-3, 5-7, 11-15, 21 ----- 4, 8-10, 16-20
Y	US 2012/0053740 A1 (Venkatakrishnan et al.) 01 March 2012 (01.03.2012), entire document, especially abstract, para [0003], [0005], [0006].	4, 8-10, 16-20
Y	US 2011/0277471 A1 (Shinnar) 17 November 2011 (17.11.2011), entire document, especially abstract, para [0005], [0018], [0077], [0092].	10
A	US 2012/0166115 A1 (Apostolakis) 28 June 2012 (28.06.2012), entire document.	1-21

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
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