

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
19 June 2008 (19.06.2008)

PCT

(10) International Publication Number  
WO 2008/073477 A3

- (51) International Patent Classification:  
**B60L 11/18** (2006.01)
- (21) International Application Number:  
PCT/US2007/025444
- (22) International Filing Date:  
11 December 2007 (11.12.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/869,439 11 December 2006 (11.12.2006) US
- (71) Applicant (for all designated States except US):  
**V2GREEN, INC.** [US/US]; 1725 Westlake Ave N.,  
Seattle, WA 98109 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BRIDGES, Seth, W.**  
[US/US]; 5432 Kirkwood Pl. N., Seattle, WA 98103 (US).  
**POLLACK, Seth, B.** [US/US]; 2920 Queen Ann Ave. N.,  
Seattle, WA 98109 (US). **KAPLAN, David, L.** [US/US];  
610 W. Prospect St., Seattle, WA 98119 (US).
- (74) Agents: **FARRELL, Mark** et al.; Lee & Hayes, PLLC,  
421 W. Riverside Ave, Suite 500, Spokane, WA 99201  
(US).
- (81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,  
ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK,  
LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW,  
MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,  
PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA,  
ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

[Continued on next page]

(54) Title: CONNECTION LOCATOR IN A POWER AGGREGATION SYSTEM FOR DISTRIBUTED ELECTRIC RESOURCES

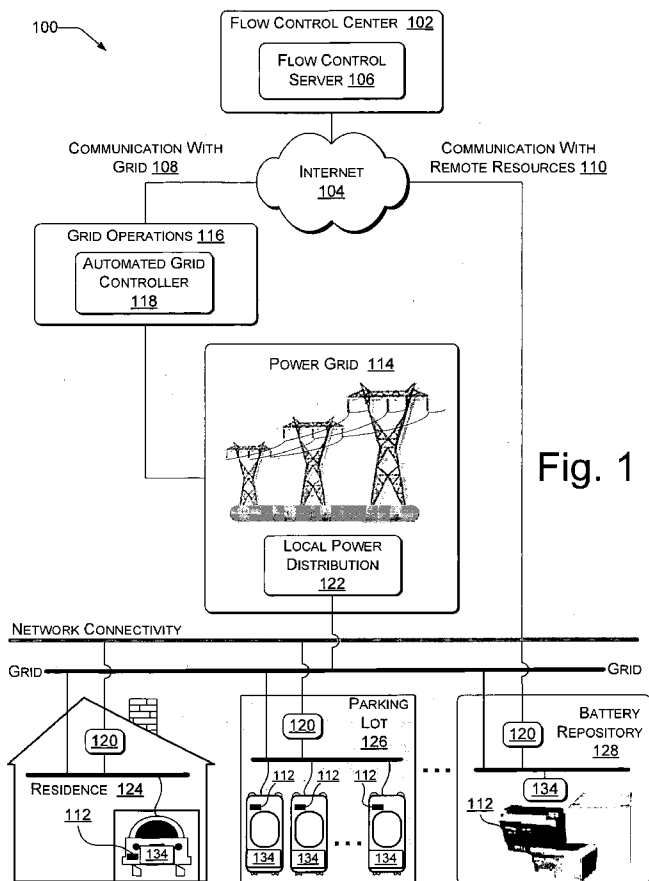


Fig. 1

(57) Abstract: Systems and methods are described for a power aggregation system. In one implementation, a service establishes individual Internet connections to numerous electric resources intermittently connected to the power grid, such as electric vehicles. The Internet connection may be made over the same wire that connects the resource to the power grid. The service optimizes power flows to suit the needs of each resource and each resource owner, while aggregating flows across numerous resources to suit the needs of the power grid. The service can bring vast numbers of electric vehicle batteries online as a new, dynamically aggregated power resource for the power grid. Electric vehicle owners can participate in an electricity trading economy regardless of where they plug into the power grid.

WO 2008/073477 A3



PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

**Published:**

— *with international search report*

**(88) Date of publication of the international search report:**

7 August 2008

**A. CLASSIFICATION OF SUBJECT MATTER*****B60L 11/18(2006.01)i***

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)

IPC 8 : B60L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS(KIPO internal) "power", "grid", "electric", "resource"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 06388564 B1(Digital Security Controls Ltd.) 14/05/2002 : Abstract, Figure 1-5, Claims,	1, 17, 21
A	Detailed Description of the Preferred Embodiments	2-16, 18-20, 22, 23
Y	US 2005/0138432 A1(Douglas S. Ransom, et al.) 23/06/2005 : Abstract, Figures, Claims 1, 12	1, 17, 21
A	Detailed Description of the Presently Preferred Embodiments, see also paragraph 0052, 0055, 0062, 0063, 0081, 0088-0092	2-16, 18-20, 22, 23

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

26 MAY 2008 (26.05.2008)

Date of mailing of the international search report

**27 MAY 2008 (27.05.2008)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office  
Government Complex-Daejeon, 139 Seonsa-ro, Seo-  
gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

LEE, Saang Woong

Telephone No. 82-42-481-5650



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2007/025444**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US06388564	14.05.2002	AU132899A1	28.06.1999
		AU199913289A1	28.06.1999
		AU199913289B2	28.06.1999
		AU753823B2	31.10.2002
		CA2223666AA	04.06.1999
		CA2223666C	05.02.2002
		CA2223666C	04.06.1999
		EP01036436A1	20.09.2000
		EP1036436A1	20.09.2000
		US6157292A	05.12.2000
		US6388564B1	14.05.2002
		US6388564BA	14.05.2002
		W09930434A1	17.06.1999
		US07248978	24.07.2007
US2005138432AA	23.06.2005		
US7248978BB	24.07.2007		