



(51) International Patent Classification:

G01R 22/06 (2006.01) G01R 19/175 (2006.01)
G01R 22/10 (2006.01)

(21) International Application Number:

PCT/US2024/060679

(22) International Filing Date:

18 December 2024 (18.12.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/613,979 22 December 2023 (22.12.2023) US

(71) Applicant: LANDIS+GYR TECHNOLOGY, INC.

[US/US]; 30000 Mill Creek Avenue, Suite 100, Alpharetta,
Georgia 30022 (US).

(72) Inventors: BUSEKRUS, Doug; c/o Landis+Gyr Technology, Inc., 30000 Mill Creek Avenue, Suite 100, Alpharetta, Georgia 30022 (US). KRAUS, Matthew E.; c/o Landis+Gyr Technology, Inc., 30000 Mill Creek Avenue, Suite 100, Alpharetta, Georgia 30022 (US). STENBERG, David; c/o Landis+Gyr Technology, Inc., 30000 Mill Creek Avenue, Suite 100, Alpharetta, Georgia 30022 (US).

(74) Agent: HARRIS, Christopher P. et al.; 950 Main Avenue, Suite 710, Cleveland, Ohio 44113 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,

(54) Title: ELECTRICITY METER WITH SERVICE DISCONNECT SWITCH

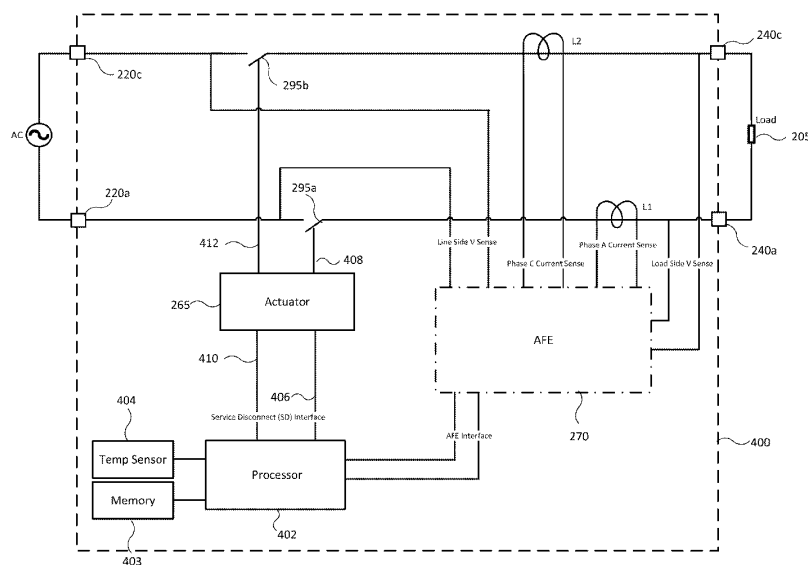


Figure 4

(57) Abstract: An electricity meter comprising: an actuator coupled to a switch, the actuator configured to output a switching signal to the switch; and a processor arranged to output a control signal to the actuator to cause the output of the switching signal; wherein the processor is configured to: determine that the switching state of the switch is to be changed; use a switch characterization tool to determine an estimated switching time period between (i) output of a control signal and (ii) a change of the switching state; monitor a waveform; determine an output time at which to output the control signal such that the switching state changes when the waveform reaches a target point; output the control signal to the actuator at the output time; monitor a load-side waveform to detect an actual switching time period; and modify the switch characterization tool based on the actual switching time period.

[Continued on next page]

NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*