

(43) International Publication Date
21 February 2013 (21.02.2013)(51) International Patent Classification:
H02J 3/00 (2006.01)(21) International Application Number:
PCT/EP2012/065715(22) International Filing Date:
10 August 2012 (10.08.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1113932.6 12 August 2011 (12.08.2011) GB
11193220.8 13 December 2011 (13.12.2011) EP(71) Applicant (for all designated States except US): **OPEN-HYDRO IP LIMITED** [IE/IE]; South Dock House, Hanover Quay, Dublin, 2 (IE).

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(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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, 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, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR CONTROLLING HYDROELECTRIC TURBINES

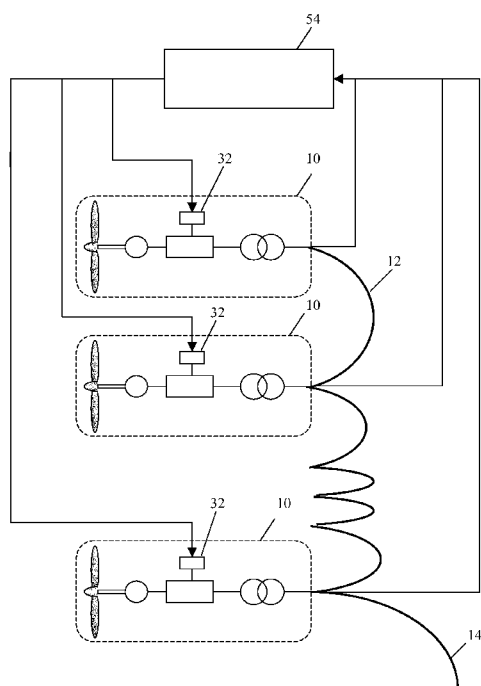


Fig. 7

(57) Abstract: A hydroelectric turbine array system comprises an array of turbine systems and a supervisory controller. Each turbine system of the array comprises a hydroelectric turbine and a control system. The control system includes a converter system arranged to convert AC power, supplied by a generator connected to the hydroelectric turbine and having a voltage and frequency that is a function of a rotational speed of the hydroelectric turbine, to AC power having a voltage and frequency of a transmission system for transmitting the AC power to a receiving station and a control unit co-operable with the converter system to adjust the AC voltage supplied by the generator. The supervisory controller determines a performance level of a plurality of hydroelectric turbines within the array and instructs the control unit of at least one of the turbine systems to adjust the AC voltage supplied by the generator to alter the power generated by the at least one of the turbine systems to thereby control the overall power generated by the array.



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