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- (71) **Applicant:** ENVISION DIGITAL INTERNATIONAL PTE. LTD. [SG/SG]; 1 Harbourfront Avenue, #17-01, Keppel Bay Tower, Singapore 098632 (SG).
- (72) **Inventors:** RAHBAR, Katayoun; c/o Envision Digital International Pte. Ltd., 1 Harbourfront Avenue, #17-01, Keppel Bay Tower, Singapore 098632 (SG). NAIR, Sajitha; c/

o Envision Digital International Pte. Ltd., 1 Harbourfront Avenue, #17-01, Keppel Bay Tower, Singapore 098632 (SG). **PENG, Peng;** c/o Envision Digital International Pte. Ltd., 1 Harbourfront Avenue, #17-01, Keppel Bay Tower, Singapore 098632 (SG). **LUO, Chuan;** c/o Envision Digital International Pte. Ltd., 1 Harbourfront Avenue, #17-01, Keppel Bay Tower, Singapore 098632 (SG).

(74) **Agent:** YUSARN AUDREY LLC; 4 Shenton Way, #14-03, SGX Centre 2, Singapore 068807 (SG).

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(54) **Title:** AN ELECTRICAL POWER SYSTEM AND A MULTI-TIMESCALE COORDINATED OPTIMIZATION SCHEDULING METHOD THEREFOR

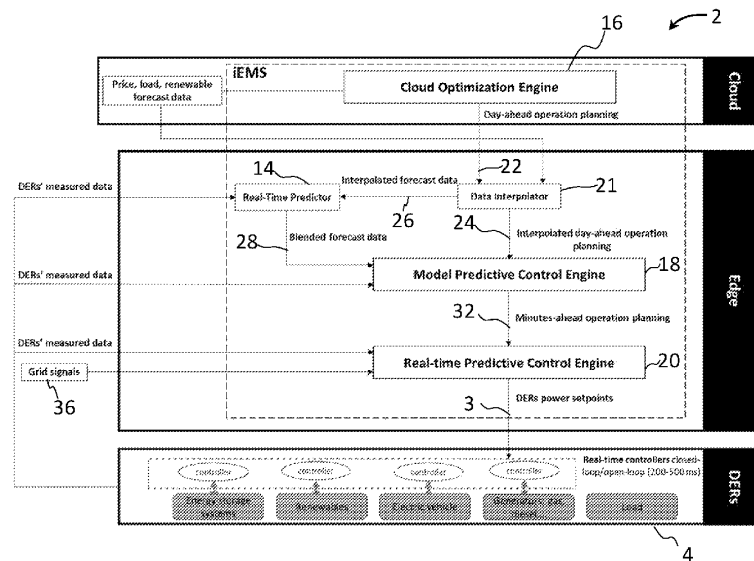


Fig. 2

(57) **Abstract:** A multi-timescale coordinated optimization scheduling method for an electrical power system that includes a number of distributed energy resources (DERs) is disclosed. The method includes performing long-timescale optimization scheduling for the electrical power system based at least on renewable energy generation forecast data of the DERs to obtain long-timescale operation planning data. The method further includes performing mid-timescale optimization scheduling for the electrical power system based on the long-timescale operation planning data and measured data of the DERs to obtain mid-timescale operation planning data. The method further includes performing at least close to real-time optimization scheduling for the electrical power system based on the mid-timescale operation planning data, the measured data of the DERs and grid signals of the electrical power system to obtain short-timescale power setpoints for the DERs. An electrical power system in which the method is used is also disclosed.

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