

Title (en)
METHOD FOR CONTROLLING POWER EXCHANGES AND HEAT EXCHANGES BETWEEN A PLURALITY OF ENERGY SYSTEMS BY MEANS OF A CENTRAL CONTROL PLATFORM

Title (de)
VERFAHREN ZUM STEUERN VON STROM- UND WÄRMEAUSTAUSCHEN ZWISCHEN MEHREREN ENERGIESYSTEMEN MITTELS EINER ZENTRALEN STEUERUNGSPLATTFORM

Title (fr)
PROCÉDÉ DE COMMANDE D'ÉCHANGES D'ÉNERGIE ET D'ÉCHANGES THERMIQUES ENTRE UNE PLURALITÉ DE SYSTÈMES D'ÉNERGIE AU MOYEN D'UNE PLATEFORME DE COMMANDE CENTRALE

Publication
EP 4193315 A1 20230614 (DE)

Application
EP 21754732 A 20210722

Priority
• DE 102020212610 A 20201006
• EP 2021070507 W 20210722

Abstract (en)
[origin: WO2022073667A1] The invention relates to a method for controlling power exchanges (41) and heat exchanges (21) between a plurality of energy systems (10) by means of a control platform (1) that is central with respect to the energy systems (10), wherein the power exchanges (41) are carried out by means of an electrical grid (4) and the heat exchanges (21) are carried out by means of a heat network (2). The method is characterised by the following steps: - calculating the outputs associated with the power exchanges (41) and heat exchanges (21) by means of a mathematical optimisation by the control platform (1); wherein - the optimisation is based on a target function comprising a coupling (42) between power exchanges (41) and heat exchanges (21); and - calculating the outputs associated with the power exchanges (41) and heat exchanges (21) so as to comply with grid boundary conditions of the power grid (4); and - carrying out the power exchanges (41) and heat exchanges (21) between the power systems (10) according to the calculated outputs. The invention also relates to a control platform (1).

IPC 8 full level
G06Q 10/04 (2023.01); **G06Q 50/06** (2012.01)

CPC (source: EP US)
G05B 13/042 (2013.01 - US); **G06Q 10/04** (2013.01 - EP); **G06Q 30/018** (2013.01 - US); **G06Q 50/06** (2013.01 - EP US); **H02J 13/00002** (2020.01 - US)

Citation (search report)
See references of WO 2022073667A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102020212610 A1 20220407; CN 116324834 A 20230623; EP 4193315 A1 20230614; US 2023377064 A1 20231123; WO 2022073667 A1 20220414

DOCDB simple family (application)
DE 102020212610 A 20201006; CN 202180068387 A 20210722; EP 2021070507 W 20210722; EP 21754732 A 20210722; US 202118247723 A 20210722