

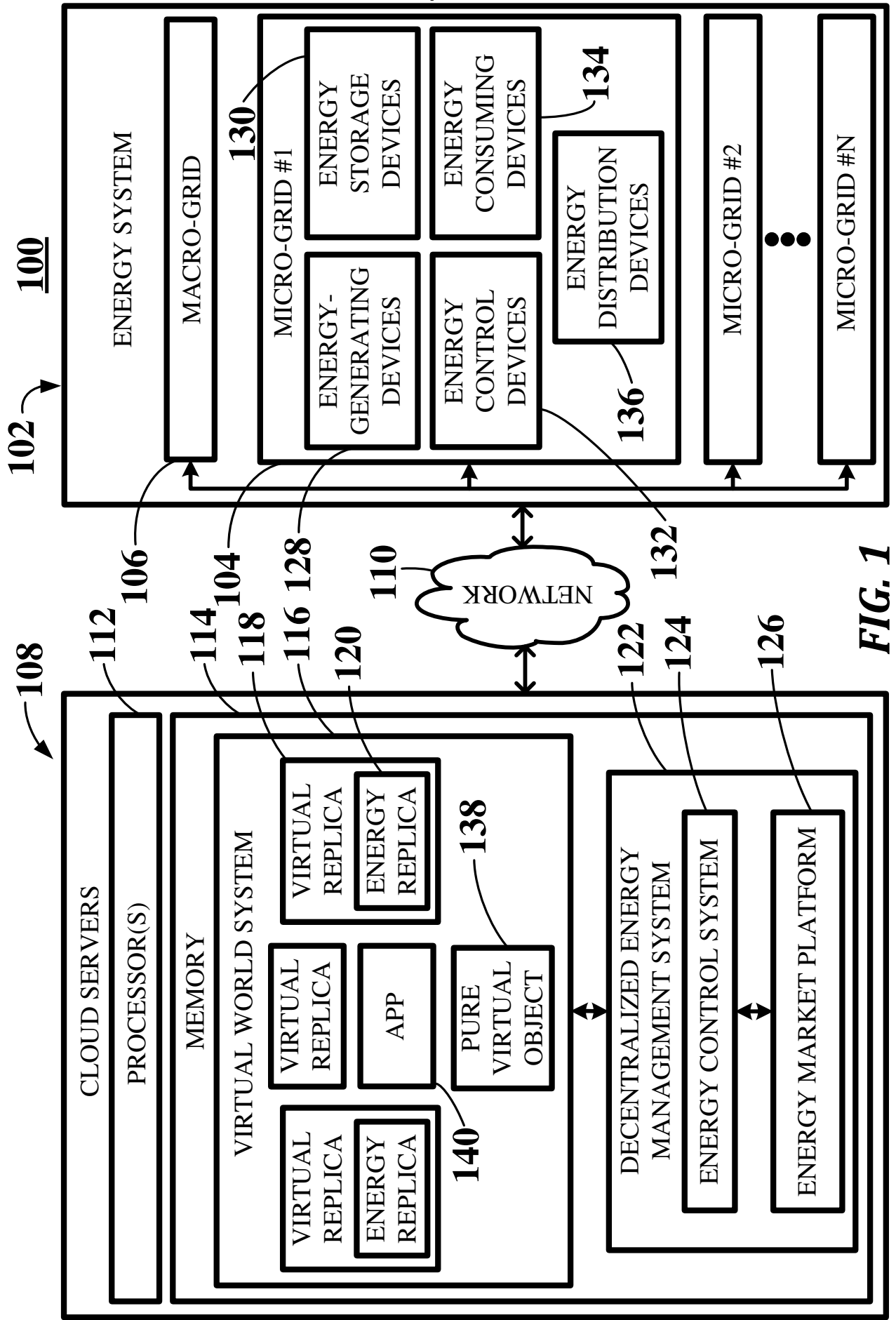
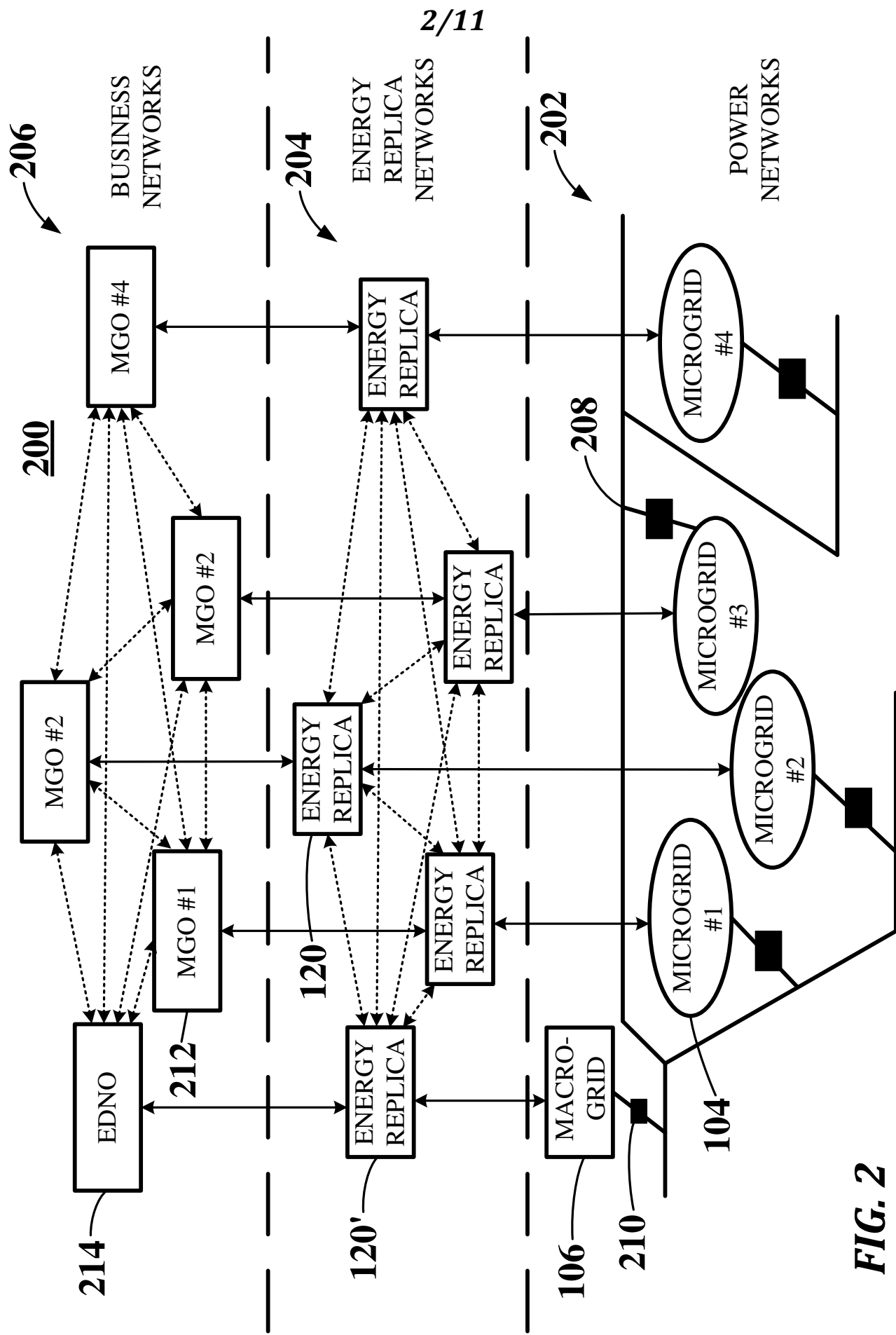
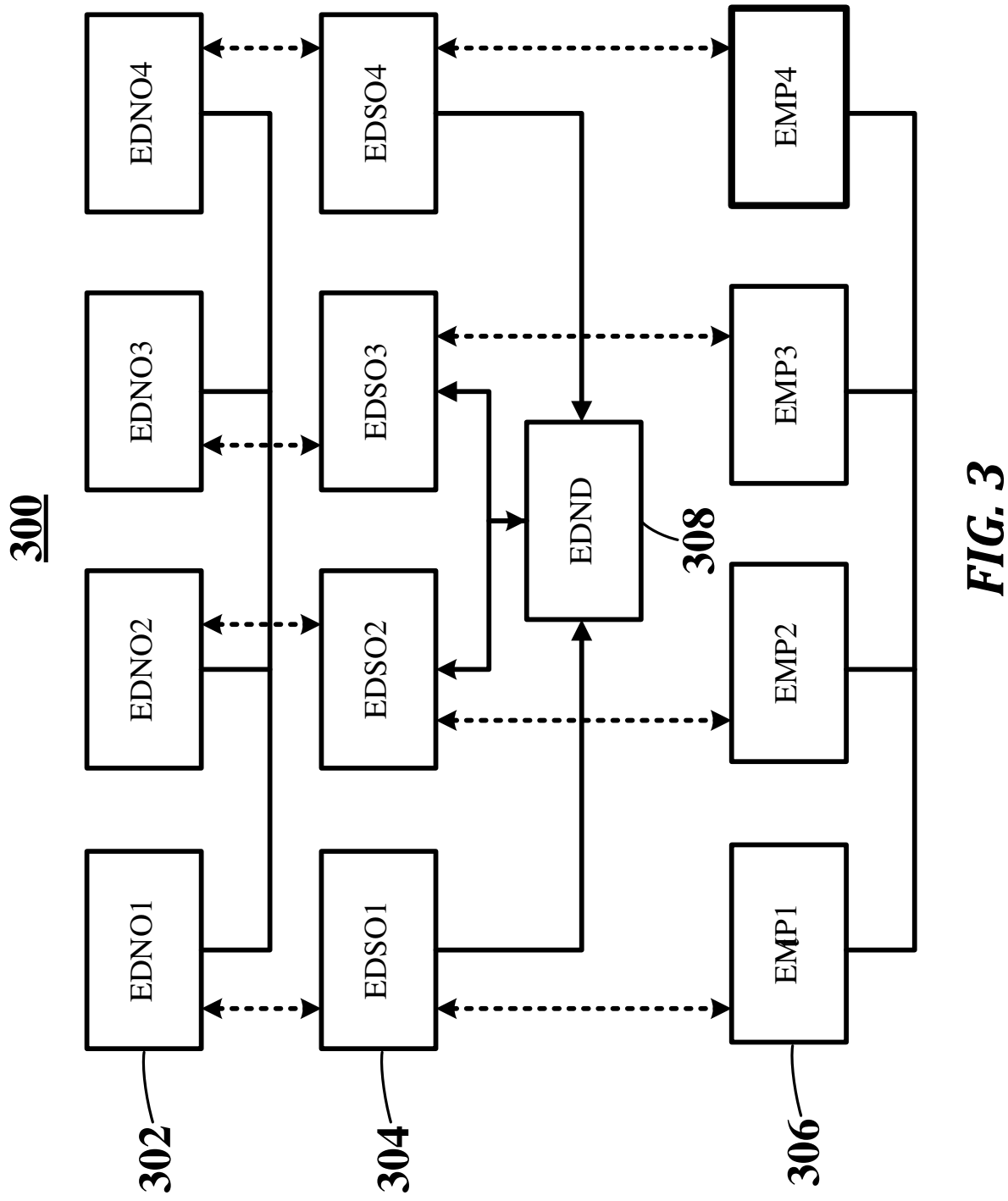
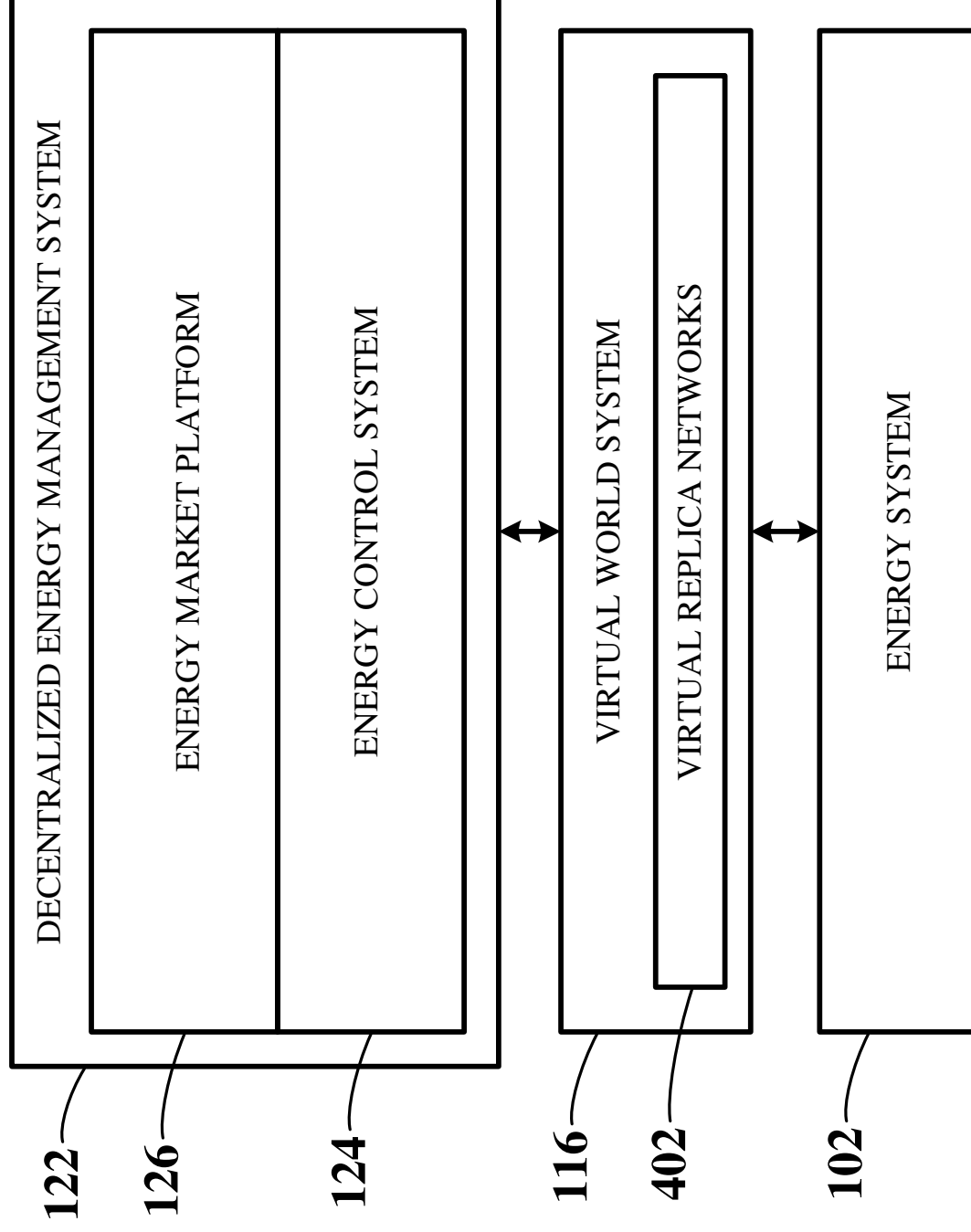


FIG. 1



**FIG. 2**





**FIG. 4A**



END CUSTOMER

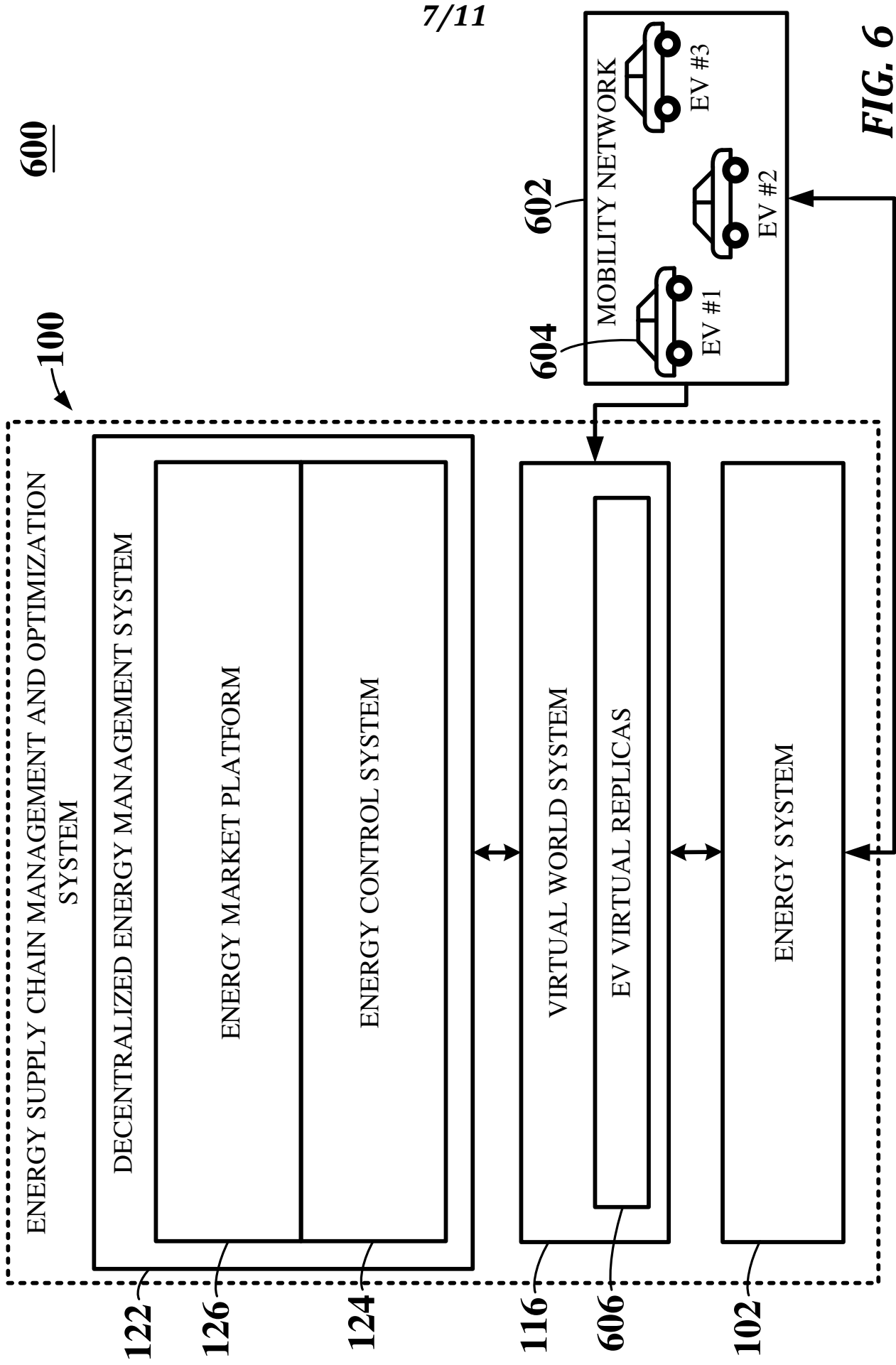


DER

# DECENTRALIZED ENERGY MANAGEMENT SYSTEM

EDSOS

536



**FIG. 6**

700

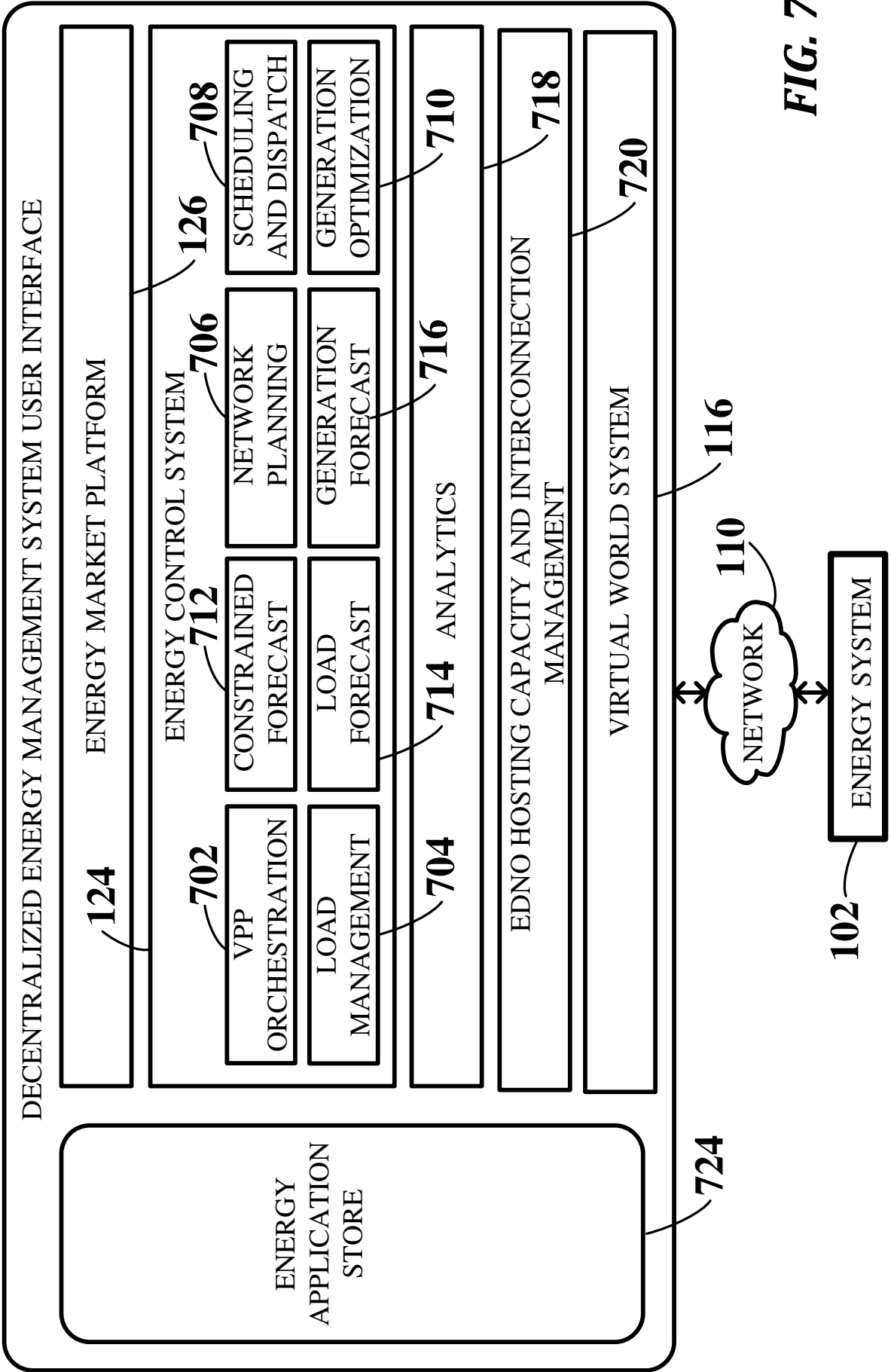
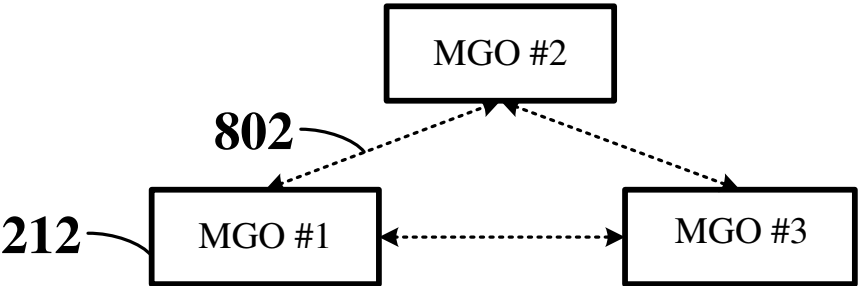
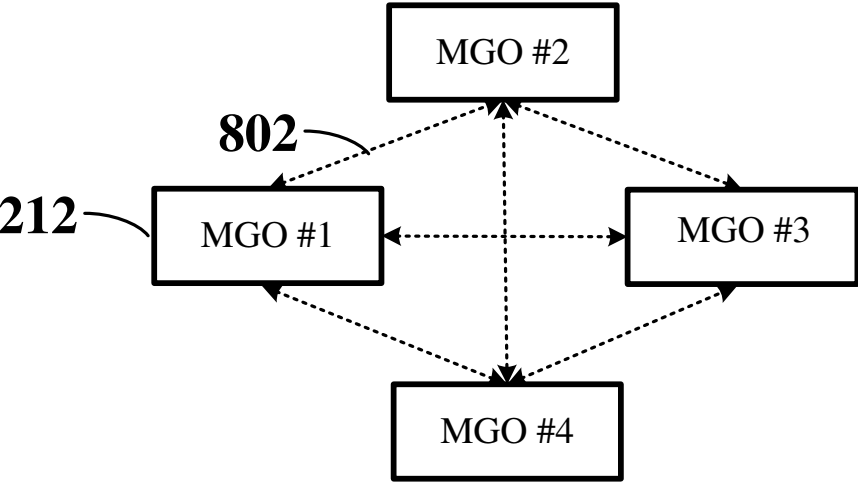


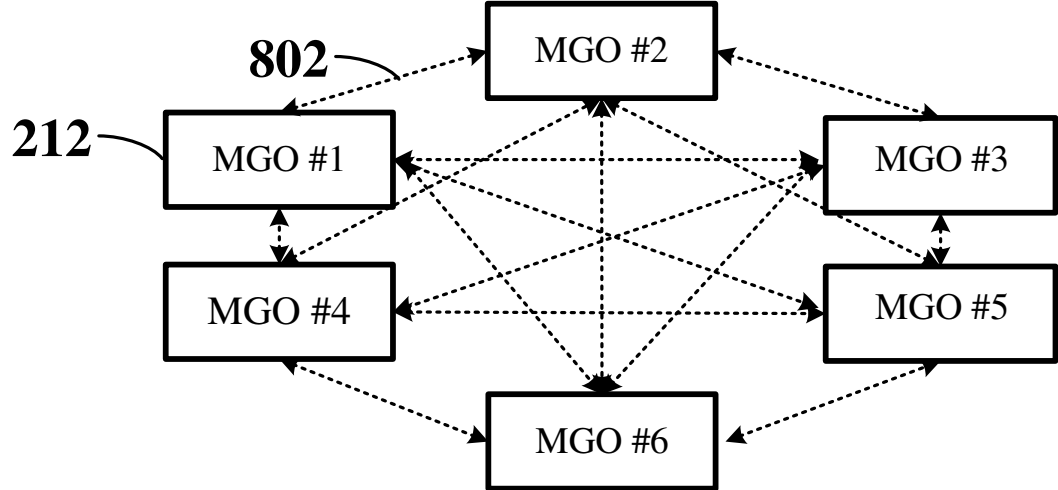
FIG. 7



**FIG. 8A**



**FIG. 8B**



**FIG. 8C**

**900**

PROVIDE PERSISTENT VIRTUAL WORLD SYSTEM CONNECTED TO AN ENERGY SYSTEM

**902**

PROVIDE DECENTRALIZED ENERGY MANAGEMENT SYSTEM CONNECTED TO THE  
PERSISTENT VIRTUAL WORLD SYSTEM COMPRISING AT LEAST AN ENERGY CONTROL  
SYSTEM AND AN ENERGY MARKET PLATFORM

**904**

RECEIVE, BY THE PERSISTENT VIRTUAL WORLD SYSTEM, ENERGY DATA FROM THE  
ENERGY SYSTEM THAT IS USED TO UPDATE THE VIRTUAL REPLICAS IN THE PERSISTENT  
VIRTUAL WORLD SYSTEM

**906**

RECEIVE, BY THE ENERGY CONTROL SYSTEM, UPDATED ENERGY DATA FROM THE  
PERSISTENT VIRTUAL WORLD SYSTEM AND ENERGY TRANSACTION DATA FROM THE  
ENERGY MARKET PLATFORM

**908**

COORDINATE FUNCTIONS BETWEEN THE ENERGY CONTROL SYSTEM AND ENERGY  
MARKET PLATFORM, THROUGH THE VIRTUALIZATION OF REALITY IN THE PERSISTENT  
VIRTUAL WORLD SYSTEM, IN ORDER TO INTEGRATE AND CONTROL ENERGY FLOWS BASED  
ON DATA RECEIVED FROM THE ENERGY SYSTEM

**910**

AGGREGATE AND EXCHANGE ENERGY BETWEEN ENERGY ACTORS THROUGH ENERGY-  
RELATED DEVICES VIA THE ENERGY MARKET PLATFORM

**912**

**1000**

**1002**

**1004**

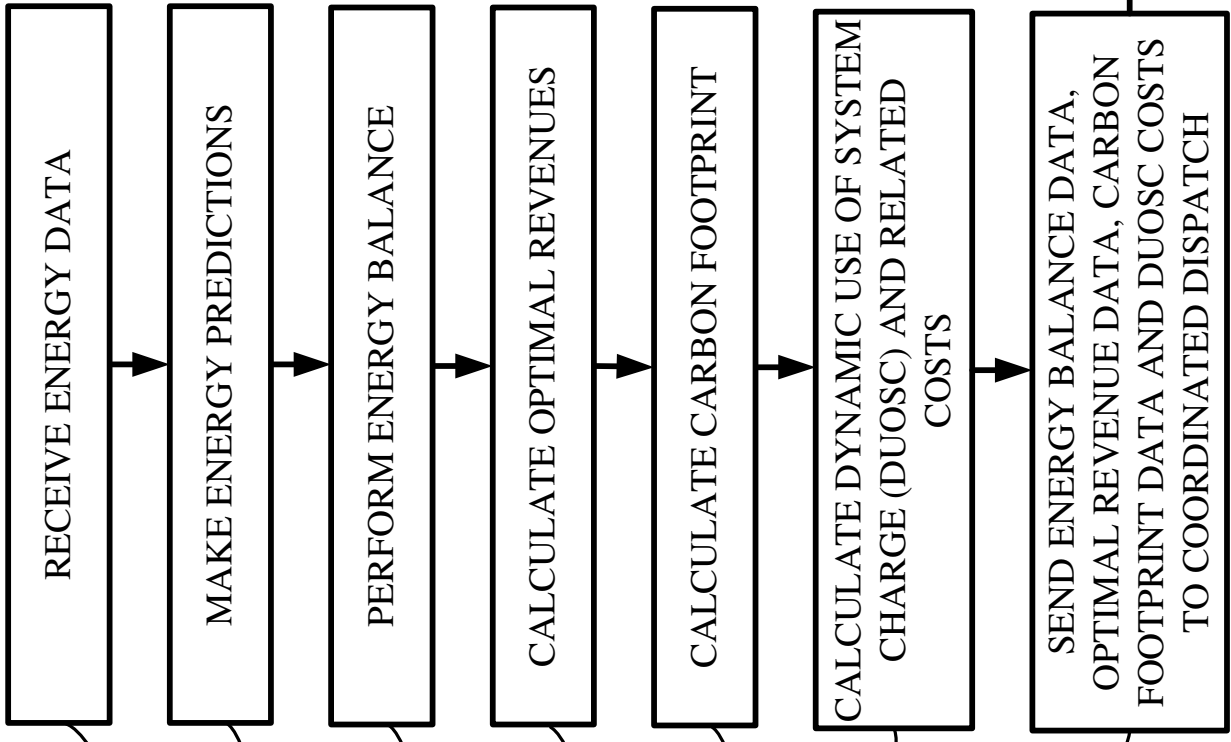
**1006**

**1008**

**1010**

**1012**

**1014**



**FIG. 10**

