PRESS RELEASE

The conclusions of the investigation committee for the power cuts at Rhodes electricity system

After the power cut at Rhodes electricity system on 9 March 2016, HEDNO set up a special experts' committee consisting of a NTUA professor and specialized staff of the Company in order to detect and deal with the causes of the power cuts. The scope of the committee was later expanded to include the similar incidents of 19 March 2016.

After the close examination of the data, cooperation with all involved parties and a visit to Rhodes Dispatch Center (*ΚΚΦ in Greek),* and the Steam Electric Power Plant (SEPP) in Rhodes, the special committee made an analysis and simulation of all incidents at Rhodes electricity system.

The committee's main conclusions are briefly the following:

- The common conditions for all power cuts were the system's operation in low demand in combination with high reactive power levels in the network. These operation conditions, namely such high reactive power levels in a small independent system with a single power plant, as in the case of the island of Rhodes, are extremely rare internationally. Said increase of the reactive power in the network resulted from the essential upgrading of the transmission network from 66 kV to 150 kV, which was concluded in April 2015, and in no case is it a technical weakness of Rhodes electricity grid or power plant.

- In all incidents, the total need for the absorption of reactive power was within the capabilities of Rhodes SEPP generation units in operation and fell under the provisions of the Code for Non-Interconnected Islands.

- It was confirmed that the safe operation of the Rhodes system in terms of voltage stability can be secured via the absorption of reactive power by the power plant generators in operation, provided they all operate with an automatic voltage regulation, which means that there is no need for additional units to operate to absorb reactive power and, therefore, there is no change in the economic operation of Rhodes SEPP.

- With regard to the operation of RES (Renewable Energy Sources), specifically the Wind Farms, no negative involvement in the incidents, as shown by the data of the three power cuts, was observed.

Taking into account the above conclusions, coordinated efforts between the PPC/Generation and HEDNO services have been initiated to prevent any similar phenomena at Rhodes electricity system.

It is underlined that the excessive increase of reactive power occurs when the system operates in the lowest demand, meaning that there are not enough loads to absorb it. Rhodes system does not run such a risk in high demand periods, i.e. during the tourist period.

Finally, it is especially stressed that a substation must be constructed in the city, according to HEDNO's development program, to secure the power supply in Rhodes city.

Athens, 10 May 2016 **Press Office**