

Project of common interest:

3.23

COUNTRIES INVOLVED

Bulgaria (BG)

PROJECT PROMOTERS

NATSIONALNA ELEKTRICHESKA
KOMPANIA EAD (NEK EAD)

BASIC TECHNICAL DATA

Capacity: 788 MW (pumping capacity)

LOCATION

Yadenitsa site is located about 20 km to the South of Belovo, along the valley of Belovska River

Connection point to transmission network: substation Vetren

COMMISSIONING DATE

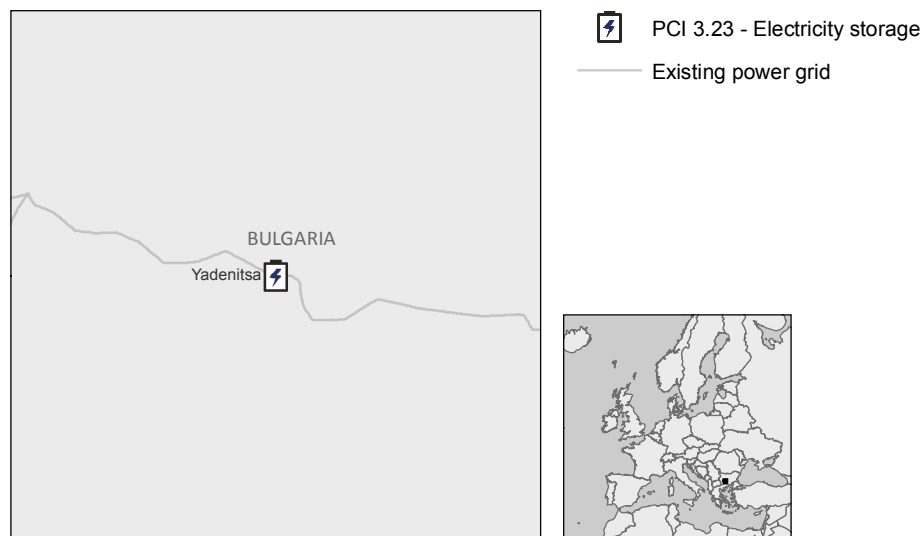
2022

LAST UPDATE

March 2018

Electricity interconnection

North-South electricity interconnections in Central Eastern and South Eastern Europe



Source: PLATTS, GISCO, European Commission

Definition

3.23 - Hydro-pumped storage in Bulgaria — Yadenitsa

Type of technology employed

Chaira PSHPP with its 788 MW pumping capacity is the most significant regulating capacity in the Bulgarian EPS. In the existing situation the four hydro units in Chaira PSHPP during a pumping mode transfer waters from the lower reservoir Chaira to the upper reservoir Belmeken for 8,5 hours, which is not enough for the purposes of the EPS control and for balancing the night minimal load of the power system when there is wind. The reason for that comes from the small volume of the lower reservoir Chaira - 5.6 mln m³. This problem can be solved by increasing the production potential of Chaira PSHPP by the construction of Yadenitsa Dam at the level of Chaira Dam and their connecting by pressure derivation. This system of connected vessels will allow transfer of waters in a gravity way from one reservoir to the other, which will mean volume increase of the lower reservoir of Chaira PSHPP by 9 mln m³.

Implementation status

Permitting

Financial assistance under the Connecting Europe Facility (CEF)

2014

PCI Hydro pumped storage in Bulgaria – Yadenitsa

Maximum amount of EU financial assistance: EUR 3,213,000

For more information:

https://ec.europa.eu/inea/sites/inea/files/download/CEF_project_fiches/energy/bg/fiche_3230063bgsm14_final.pdf