AEGIS Snapshot Report

PROJECT

General project metadata

ACER project ID: AE-STO-0008
Name: Compressed air energy storage in Middlewich [currently known as ‘CARES’]
Type: Storage
Created: 2020-03-02
Last modified: 2020-03-26
Reference date: 2020-03-26
Submitted: 2020-03-26

Data source: TYNDP/PCI
Website: http://www.cares-pci.uk/

Description: Compressed air energy storage near Middlewich [known as ‘CARES’]

Project relations

no relations specified

Project membership in collections

Project is referred to in the following collections:

- **PCI 2017**
- **PCI 2019**
- **TYNDP 2018**

Fundings

Type	Description	Planned/actual date of request	Expected amount (€)	Expected/actual date of decision	Actual amount (€)	% of total investment cost
Equity		2019-03-04	500000	2019-11-29	500000	0.01
CEF grants for studies		2020-05-27	9300000	2020-10-30		1.50
Equity		2020-05-27	10000000	2020-10-30		1.60
CEF grants for works		2021-05-26	28000000	2021-10-29		4.50

Equity		2021-05-26	30000000	2021-10-29		4.80
CEF grants for works		2022-05-25	150000000	2022-10-28		24.00
Other	Debt	2022-05-25	260000000	2022-10-28		41.70
Equity		2022-05-25	136700000	2022-10-28		21.90

Regulatory treatment

Exemption requested:	Not applicable
CBCA requested:	Not applicable
Project-specific risk-based incentives requested:	Not applicable
Other incentives requested:	Not applicable

Intergovernmental agreements

no agreements specified

Monitoring questions & answers

PCI monitoring 2020

1. Use of the single reporting service provided by ACER:

- I confirm that I would like to use the single reporting service, and I agree that ACER shall transmit my report in full without any alterations to the national Competent Authorities which signed the MoU with ACER.

2. Please provide the link to the PCI website according to Art. 9(7) of Regulation (EU) No 347/2013:

- www.cares-pci.uk

3. Please choose which of the following statements are true regarding the NDP (National Development Plan) inclusion of the PCI in the hosting Member States:

- The PCI is neither included nor present in one or more of the relevant NDPs

4. Please list in which Member State(s) the project is neither included nor present in the NDP.:

- UK because the NDP does not refer to non-network projects, and storage is considered non-network.

5. Please provide the reasons for non-inclusion in the relevant NDP(s):

- The project is a non-TSO project, and non-TSO projects are normally not included in the relevant NDP(s)

6. Do you intend to apply for financial support from the Connecting Europe Facility until 31 January 2021?:

- Yes, for studies only.

7. Do you intend to apply for financial support from the Connecting Europe Facility between 1 February 2021 and 31 January 2022?:

- Yes, for studies and for works.

8. Do you intend to apply until 31 January 2021 for any funding programmes other than CEF at European, regional or national level for any part or section of the PCI?:

- The promoter(s) have not decided yet

9. Please describe any change or update in the technical characteristics of the project as of 31 January 2020 compared to the data as of 31 January 2019. In case there is no such change or update, please fill in N/A.:

- N/A

10. Description of works and activities performed between 1 February 2019 and 31 January 2020::

- STUDY: technical feasibility
- STUDY: socio-economic feasibility
- Negotiations with landowners and land acquisition

11. Further specification / brief description of the works performed between 1 February 2019 and 31 January 2020:

- Development and technical validation of revised thermal subsystem design which is simultaneously a simplification, cost reduction, risk reduction and efficiency improvement. Validation of revenues and gross margins with third-party experts. Start of negotiation for caverns /land. Identification and initial validation of alternative caverns/land nearby. Detailed discussions with equipment suppliers including provision of an EPC wrap. Technical simplification / commoditisation of thermal storage, which increases efficiency as well as reducing both cost and complexity.

12. Is there any difference in the expected total Investment Costs as of 31 January 2020 compared to the expected total Investment Costs as of 31 January 2019. :

- No

13. Is the actual or expected commissioning date of the project as of 31 January 2020 later than the expected commissioning date as of 31 January 2019?:

- Yes

14. Please indicate whether your PCI is delayed or rescheduled. (In case both are applicable, please choose the most important effect):

- Delayed

15. Please select the main reason for delay (the one that caused the longest delay in case of multiple reasons):

- Delays due to financing reasons

16. Further specification / brief description of the main reason for the delay:

- The application for a CEF grant for the Study was rejected, mainly because storage is necessarily within one country and even though the comments stated that we had addressed and resolved every single issue in the previous rejection. This negates the purpose of CEF funding for storage and calls into question the assessment process. As a result, the match funding was not released by private-sector investors, and negotiations on the land/caverns stalled.

17. Additional reasons for delay (if any)::

Not answered!

18. Brief description of any additional reasons for delay:

Not answered!

19. Please describe the measures which were taken (or which are foreseen) to solve the delay.:

- Awaiting a new CEF funding window to make a further application. Seeking private-sector funding for the entire sum. We will apply for national funding if and when a suitable funding stream becomes available. Discussing funding projects outside the EU, which may mean that the company has to leave the continent and ends up benefitting other countries.

20. In case there are any inconsistencies regarding the project's status / progress across the hosting countries, please briefly describe it here. If you wish to add any additional information regarding the status / progress of the PCI please provide it here::

- N/A

21. If you wish to add any other note or claim with regard to the information / data provided in this questionnaire, please provide it here::

Not answered!

Data variations from the previous snapshot

Item	Field	Current Value	Previous Value
Equity fundings sum of	Expected amount	1.772E8	500000.0
Equity fundings sum of	% of total investment cost	28.31	2.6

Status & implementation plan

Current status: Planned but not yet in permitting

Implementation stage	Planned/actual start	Planned/actual end
Consideration	12/2017	12/2020
Planning approval	01/2021	10/2023
Public consultation	01/2021	06/2022

Permit granting: pre-application procedure	10/2020	12/2020
Permit granting: statutory procedure	01/2021	09/2022
Environmental Impact assessment	08/2020	06/2021
Construction	01/2024	12/2026
Commissioning	-	01/2027

INVESTMENT ITEM 1

General investment item metadata

ACER investment ID: AE-IIT-0032

Name: CARES (UK)

Description: Transmission grid-scale energy storage innovative adiabatic Compressed Air Energy Storage (CAES). Our installations of 500MW, 6-21GWh with zero or low emissions, operate at 68-70% round trip efficiency, at a cost of £350m (€420m), and a levelised cost less than half that of gas-fired peaking plants, and use existing, off-the-shelf equipment.

Project references:

PCI 2017 - 1.12.3
PCI 2019 - 1.12.3
TYNDP 2018 - 1022

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Promoters

Name	Role
Storelectric Ltd	Promoter

Total costs

Incurred investment costs (till 31st December of last year)(mln €): 1.000

Additional contracted investment cost (till 31st December of last year) (mln €): 0.000

Initial investment costs (Inception CAPEX) (mln €): 570.000

Later investment costs (Sustaining CAPEX) (mln €): 0.000

Upward variation of the total investment cost (%): 30

Downward variation of the total investment cost (%):	30
Variation explanation:	Project is in consideration stage and cost estimates are rather uncertain
Variation explanation description:	
Annual operating expenditure (OPEX) (mln €/year):	14.500
Annual power purchase cost (mln €):	

Status & implementation plan

Current status: Planned but not yet in permitting

Implementation stage	Planned/actual start	Planned/actual end
Commissioning	-	01/2027

Technical & country specific data

Investment category:	Compressed air storage
Voltage (kV):	
Investment Type:	New investment
Nominal power (MW for DC / MVA for AC):	
Internal/interconnection:	Internal

National parts of the investment

false

Country	Substation 1	Substation 2	Status	Commissioning Date	Location 1	Location 2
United Kingdom (GB)			Planned but not yet in permitting	01/2027	Sandbach CW11 3QP, UK (53°845 N -2°2625W)	