

# ACER

## Consolidated report on the progress of electricity and gas Projects of Common Interest

June 2023

PLEASE CONTACT <u>ELE-PCI-MONITORING@ACER.EUROPA.EU</u> AND/OR <u>GASPCIMONITOR@ACER.EUROPA.EU</u> REGARDING THIS DOCUMENT FOR ANY COMMENTS OR QUESTIONS YOU MIGHT HAVE.

> Trg Republike 3 1000 Ljubljana Slovenia

# Content

Executive summary				
1.	Introduction7			.7
2.	General information on PCIs7			.7
3.	Data submission9			.9
4.	4. Results of ACER's Monitoring			10
	4.1	Technical modifications1		
	4.2	Inclusion in the network development plans		
	4.3	4.3 PCI Status and Progress		12
		4.3.1	Evolution of the status and works	12
		4.3.2	Delays and rescheduling	14
		4.3.3	Reasons for delays and rescheduling	18
		4.3.4	Expected duration of implementation	19
	4.4	Cost developments21		
	4.5	5 Regulatory treatment2		23
Annex 1: Electricity PCIs			25	
Ann	Annex 2: Gas PCIs			

## Executive summary

- (1) Projects of Common Interest ('PCIs') are key cross-border energy infrastructure projects to enhance the links between the energy system of EU Member States that help the EU to pursue its energy and climate objectives. The current, i.e. the fifth, PCI list adopted in 2021 includes 72 electricity and 20 gas PCIs<sup>1</sup>. More than half of the electricity PCIs are internal transmission projects.
- (2) This Report provides a review of the progress (or the lack thereof) of the implementation of electricity and gas PCIs on the fifth list achieved between 1 February 2022 and 31 January 2023. It also provides findings covering a longer time horizon (e.g. since the project's first inclusion in the PCI list). The Report does not analyse in detail the possibilities to speed-up the implementation, as for that, a more robust data collection and more detailed analysis would be required. The main findings and observations about the PCIs' progress are summarised below.

## PCIs' implementation status and progress

- (3) ACER finds that almost 80% of the current PCIs are already in permitting or in a more advanced stage (i.e. under construction or commissioned), while slightly above 20% are less advanced and they are 'planned' but not yet in permitting or 'under consideration'<sup>2</sup>. These figures, compared to the results from the previous monitoring activity, indicate an overall advancement of the PCIs. The shares of projects with the same advancement status are mostly similar for electricity and gas PCIs except for the share of projects 'in permitting' (50% of electricity and 40% of gas PCIs) and 'under consideration' (8% of electricity and 20% of gas PCIs).
- (4) ACER observes that three electricity and two gas PCIs are already commissioned or completed. One electricity and both gas PCIs were commissioned during the current reporting period. Furthermore, in the recent reporting period, ten electricity and three gas PCIs advanced their status. On the other hand, ACER has identified that six electricity<sup>3</sup> and two gas<sup>4</sup> PCIs have not advanced their status over an eight-year period. Some of them are in the permitting phase but the others are even less advanced.
- (5) No activities were reported to have been carried out during the reporting period for two electricity PCIs<sup>5</sup>. One of these projects was cancelled<sup>6</sup>, the other still reports no works or activities performed for the fourth year in a row.
- (6) ACER reports that almost 70% of PCIs progressed their implementation according to the schedule or are ahead of it. The remaining PCIs were either rescheduled (8%) by the project promoters or experienced delays (24%) due to external reasons.
- (7) More than 70% of the electricity and all gas PCI are expected to be commissioned within the next five years and around 90% of electricity PCIs by the end of 2030. Approximately 10% of electricity PCIs are expected to be commissioned only after 2030. Taking into account previous trends, the actual shares of commissioned PCIs are likely to be lower than projected, because often the completion dates are shifted to a later date.

## Reasons for delayed implementation and rescheduling

(8) Similarly as in the previous ACER PCI monitoring reports, approximately 30% of electricity and 20% of gas PCIs were delayed in comparison to the previous year's implementation plan. The reasons

<sup>&</sup>lt;sup>1</sup> OJ L 109, 8. 4. 2022, p.14

<sup>&</sup>lt;sup>2</sup> In ACER's view, the status of the least developed element of a PCI is representative for the overall status of the project. For this purpose, the information on the status is rather conservative.

<sup>&</sup>lt;sup>3</sup> PCIs 2.16.1, 3.22.4, 2.14, 2.18, 3.11.3 and 3.11.4

<sup>&</sup>lt;sup>4</sup> PCIs 6.20.3 and 7.3.1

<sup>&</sup>lt;sup>5</sup> PCIs 2.16.1 and 4.8.7

<sup>&</sup>lt;sup>6</sup> PCI 4.8.7

for the delays vary among the projects, with the most frequently reported reason being permit granting.

(9) ACER also identifies that 4% of electricity and 20% of gas PCIs are rescheduled. The share of rescheduled electricity PCIs is lower than reported in the previous years (13% in 2022, 8% in 2021, 5% in 2020), while the share of rescheduled gas PCIs also decreased compared to the past (35% in 2022, 25% in 2021). Various reasons for rescheduling were reported by project promoters, e.g. uncertainties related to the demand and supply side, lack of interest from the market, reprioritisation of the project or consideration of the remaining activities, changes due to complementarity with other delayed infrastructure, and changes in the overall planning input data.

## Costs of the PCIs

- (10) The investment costs of all PCIs on the fifth list increased by almost 10% in comparison to the previous reporting period and amount to 81.2 billion EUR. Almost 80% applies to electricity and around 20% to gas PCIs. Changes in the expected investment costs compared to the previous year were reported for over 60% of PCIs and the main reason for the change are increased prices of materials, technical equipment and labour. For these projects, the costs increased in average by 130 million EUR (137 million EUR for electricity and 108 million EUR for gas PCIs).
- (11) ACER notes that 7.7 billion EUR has already been spent on the current PCIs, representing slightly less than 10% of the expected overall investment costs.

## Exemptions, incentives and cross-border cost allocation

- (12) ACER observes that investment requests, including requests for cross-border cost allocation (CBCA) have been widely used by the project promoters. They have been submitted for over 40% of the gas and electricity transmission PCIs in both sectors. For two gas PCIs, the investment request was submitted during the reporting period<sup>7,8</sup>.
- (13) No request for project-specific risk-related incentives has been submitted for any project on the fifth PCI list, while exemptions have been requested only for two gas PCIs<sup>9</sup>.

### Consistency of network development plans

- (14) ACER finds that 80% of the PCIs are currently included (or present as 'under consideration' projects) in the relevant national development plans ('NDPs'), meaning that all investments pertaining to those PCIs are included in the NDP of all the hosting Member States. The remaining 20% are either not included in the NDP of one or more of the hosting Member States or not all investments pertaining to the PCI are included therein. Reasons for such non-inclusion vary: it could be because projects falling under that category (e.g. storage) are generally not included in the NDP, since these projects are not TSO investments while only TSO investments are included in the NDPs, or due to insufficient advancement or as is the case for some gas PCIs, no NDP exists in the concerned country.
- (15) ACER recalls its invitation to the relevant authorities and TSOs to ensure that PCIs become an integral part of the relevant NDPs, as appropriate, and recalls its previous recommendation that scope of NDPs should allow the inclusion of third party projects. In this regard, project promoters should provide the necessary information to the TSO(s) in charge of developing the relevant NDP(s)

<sup>&</sup>lt;sup>7</sup> PCIs 6.20.4 and 6.20.7

<sup>&</sup>lt;sup>8</sup> For PCIs 6.26.1, 7.3.1 and 7.3.3, ACER has been informed that the project promoter intends to submit an investment request.

<sup>&</sup>lt;sup>9</sup> PCIs 6.8.1 and 7.3.3

as well as to the relevant NRA(s). NDPs should include information on the PCIs which are in a phase of 'under consideration' and clearly flag them as such.

(16) ACER notes that occasionally the coordination between NDPs is not complete: there are two electricity interconnections that have been approved as a planned project in one relevant NDP, while they are still under consideration in the other NDP<sup>10</sup>. ACER is of the view that the actual implementation of projects strongly relies on the NDPs. Projects already planned in one of the hosting countries, but still 'under consideration' in the other raises doubts about the feasibility or the consistency of the implementation of the concerned project.

## Transparency

(17) In ACER's view, for transparency reasons, the publication of fundamental project information on PCIs in ACER's consolidated report on PCI monitoring (including commissioning date, capacity increase, project status and project cost) should not be considered confidential.

## Enhanced scrutiny of individual projects

- (18) ACER identified during its monitoring activity that a number of delayed or rescheduled projects appears to be facing issues which have already been significantly hindering their progress and advancement for several years. ACER is of the view that such projects require more attention and in-depth analysis by the Regional Groups. Depending on the outcome of the assessment, targeted actions may be needed by the relevant parties (e.g. the TSOs, energy regulators, Member States, competent authorities or European Commission) to facilitate the implementation of those projects which are clearly able to respond to a priority at European level. For this reason, ACER recommends to the Regional Groups to carry out additional scrutiny (including the requirement of justification of the lack of progress and/or reassessment of the respective need, costs and benefits, where applicable) of the following projects:
  - a) Projects not having carried out any works or activities for multiple years<sup>11</sup> or projects for which the promoters repeatedly failed to achieve progress from the 'under consideration' status or 'planned, but not yet in permitting' to a more advanced status since their inclusion in the first PCI list (in 2013):
    - i. PCI 2.16.1: 'Internal line between Pedralva and Obrado (PT), formerly designated Pedralva and Alfena (PT)'<sup>12</sup>;
    - ii. PCI 3.22.4: 'Internal line between Arad and Timisoara/Sacalaz (RO)',
    - iii. PCI 6.20.3: 'South Kavala UGS facility and regulation station (GR)',
    - iv. PCI 7.3.1.: 'EastMed Pipeline with metering and regulating station at Megalopoli (CY, GR)'.
  - b) Project having been rescheduled by the promoters and postponed their commissioning date by at least 2 years compared to the planning at their application for the latest PCI list<sup>13</sup>:
    - i. PCI 1.21: 'Green Hydrogen Hub Compressed Air Storage (DK)';
- (19) With regards to the technical modifications reported under section 4.1 of this Report, ACER notes that substantial technical changes may affect the costs and/or benefits of the PCIs. In this regard, ACER recommends to the Regional Groups to make sure that, in case these PCIs reapply for

<sup>&</sup>lt;sup>10</sup> PCIs 2.27.1 and 2.27.2

<sup>&</sup>lt;sup>11</sup> PCIs 2.16.1 and 4.8.7 (PCI 4.8.7 was reported cancelled).

<sup>&</sup>lt;sup>12</sup> The project has been included in the PCI list since 2013, without any significant progress reported.

<sup>&</sup>lt;sup>13</sup> For the PCIs which submitted a monitoring report in 2021, the expected commissioning date as of 31 January 2021 has been considered and for the 'new' PCIs, the information available in the ENTSO-E TYNDP 2020 was used.

inclusion in the next PCI list, the respective applications reflect the new technical characteristics of the projects. If this were not the case, while the technical change would affect the cost and/or benefits of the PCI, the Regional Groups shall request to update the respective CBAs used for the selection of the PCIs, accordingly.

## 1. Introduction

- (20) Article 5(3) of Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure ('TEN-E Regulation') tasks the European Union Agency for the Cooperation of Energy Regulators ('ACER') to monitor and evaluate the progress achieved in implementing electricity and gas projects of common interest ('PCIs').
- (21) According to Article 5(4) of the TEN-E Regulation, project promoters of electricity or gas PCIs must submit an annual report to ACER by 31 March each year, including information on the project's progress achieved, potential delays compared to the implementation plan together with the corresponding reasons and, where relevant, a revised plan aiming to overcome the delays.
- (22) ACER's monitoring is carried out annually based on the annual reports submitted by the project promoters and additional inputs received from the national regulatory authorities ('NRAs').
- (23) This Report highlights the results of ACER's ninth annual monitoring of the progress in the implementation of PCIs<sup>14</sup>. The report provides ACER's general findings on the gas and electricity PCIs included in the fifth Union list of PCIs<sup>15</sup> ('the fifth PCI list') and on their progress during the reporting period from 1 February 2022 until 31 January 2023. The report also provides some findings covering a longer time horizon (e.g. where applicable, since their inclusion in the first PCI list).
- (24) Detailed information regarding each of the reviewed PCI is available in Annex 1 to this Report for electricity PCIs and in Annex 2 to this Report for gas PCIs<sup>16</sup>.

## 2. General information on PCIs

(25) The fifth PCI list adopted in 2021 and currently in effect includes 72 electricity and 20 gas projects. Electricity transmission and storage PCIs are located in priority corridors Northern Seas Offshore Grid ('NSOG'), North-South Electricity Interconnections in Western Europe ('NSI West Electricity'), North-South Electricity Interconnections in Central Eastern and South Europe ('NSI East Electricity'), Baltic Energy Market Interconnection Plan ('BEMIP Electricity') and gas PCIs are located in priority corridors North-South Gas Interconnections in Western Europe ('NSI West Gas'), North-South Gas Interconnections in Central Eastern and South Eastern Europe ('NSI East Gas'), Southern Gas Corridor ('SGC') and Baltic Energy Market Interconnection Plan in Gas ('BEMIP Gas').

## Electricity

- (26) Vast majority of the electricity PCIs are transmission projects with about one third of interconnection projects (21) and about two thirds of internal projects (38). Additionally, there are 8 electricity storage and 5 smart grid projects.
- (27) The geographical distribution of the electricity transmission and storage PCIs is presented in Figure 1. Most PCIs are located in the BEMIP (36%), NSI West (32%) and NSI East (28%) corridors. Only two projects are located in the NSOG corridor (4%). As already pointed out, almost half of the projects which entered the PCI list for the first time are located in the NSI West corridor (while in the remaining electricity priority corridors, only one new PCI was added to each), potentially pointing

<sup>&</sup>lt;sup>14</sup> ACER findings on the progress of PCIs in the previous years and the related recommendations are available at <u>https://www.acer.europa.eu/gas/infrastructure/ten-e/pci-monitoring</u>

<sup>&</sup>lt;sup>15</sup> Commission Delegated Regulation (EU) 2022/564 of 19 November 2021 amending Regulation (EU) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest. OJ L 109, 8.4.2022, p. 14.

<sup>&</sup>lt;sup>16</sup> Annexes are accessible via the following links: <u>Annex 1</u>, <u>Annex 2</u>

to the relative increase of importance of this corridor, likely in connection to the planned vast amount of offshore RES developments in the North Sea.

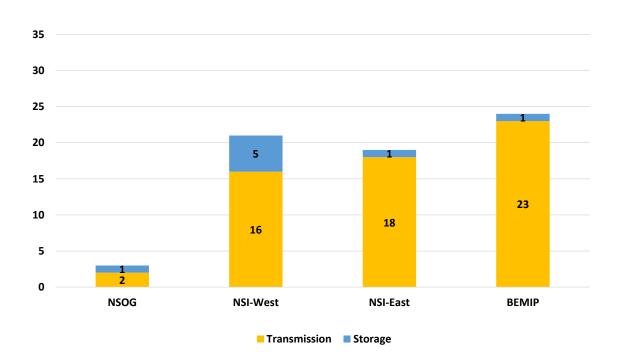


Figure 1: Number of electricity PCIs per priority corridor

### Gas

- (28) The gas PCIs consist of 13 transmission pipelines, 5 underground gas storage ('UGS') projects and 2 liquefied natural gas ('LNG') terminals.
- (29) The geographical distribution of the electricity transmission and storage PCIs is presented in Figure 2. More than half (55%) gas PCIs are located in the NSI East corridor (including 4 out of the 5 UGS projects), while 20% is located in BEMIP and another 20% in SGC corridor. One gas PCI is located in NSI West corridor.
- (30) As ACER already noted in its 2022 PCI Monitoring report, the geographic distribution of gas PCI may be a response to the greater need for market integration and improvement of the gas supply's security in the NSI East corridor (and, to a lesser extent, in SGC and BEMIP) compared to the NSI West Corridor<sup>17</sup>.

<sup>&</sup>lt;sup>17</sup> 2022 ACER PCI Monitoring report, p. 10

#### ACER REPORT ON THE PROGRESS OF ELECTRICITY AND GAS PROJECTS OF COMMON INTEREST

14 12 10 4 8 1 6 4 1 1 6 2 3 3 0 **NSI East NSI West** SGC BEMIP Transmission LNG UGS

#### Figure 2: Number of gas PCIs per priority corridor

## 3. Data submission

- (31) For the 2023 ACER PCI monitoring activity, project promoters submitted annual reports on the progress of their projects for all electricity PCIs except one<sup>18</sup> and for all gas PCIs on the fifth PCI list. The reports were submitted via ACER's electricity and gas information support system AEGIS. Project promoters were requested to review and provide updated information for electricity projects via SWITCH application and for gas projects via VALVE application. For certain information categories, the templates were pre-filled with data provided in the previous infrastructure monitoring activities.
- (32) ACER carried out an assessment of the completeness and consistency of the received information and consulted the relevant NRAs as regards the quality and completeness of the received project data. Furthermore, ACER requested several clarification questions from the project promoters regarding the missing, incomplete or inconsistent data. Due to the specific features of the two sectors and the varying data availability, the information type of electricity and gas projects may occasionally differ in this Report.
- (33) ACER notes and welcomes that the consistency of project information further improved in comparison to the previous PCI monitoring activity. As pointed out in the past<sup>19</sup>, this may be a sign of a more robust PCI candidates and greater engagement by the project promoters supported by the experience gained during previous years.
- (34) With respect to the confidentiality claims submitted by some project promoters, ACER reiterates its view<sup>20</sup> that in order to increase transparency, fundamental information on the PCIs (including commissioning date, capacity increase, project status and project cost) should be publicly available for each PCI.

<sup>&</sup>lt;sup>18</sup> The annual report of PCI 4.4.2. '*Internal line between Ekhyddan and Nybro/Hemsjö (SE)*' was not submitted to ACER.

<sup>&</sup>lt;sup>19</sup> 2022 ACER PCI Monitoring report, p. 11

<sup>&</sup>lt;sup>20</sup> ACER's Opinion No 13/2019, p. 59.

(35) Detailed information about each of the reviewed PCI is available in Annex I for electricity and Annex II for gas PCIs<sup>21</sup>.

## 4. Results of ACER's Monitoring

## 4.1 Technical modifications

- (36) Project promoters reported that technical modification had been made to the projects during the reporting period for twelve electricity and three gas PCIs. The technical modifications and the concerned PCIs are described below.
- (37) ACER notes that substantial technical changes may affect the costs and/or benefits of the PCIs. In this regard, to ensure an accurate evaluation of the projects, ACER recommends to the Regional Groups to make sure that, in case these PCIs reapply for inclusion in the next PCI list, the respective applications reflect the new technical characteristics of the projects. If this were not the case, while the technical change would affect the cost and/or benefits of the PCI, the Regional Groups shall request to update the respective CBAs used for the selection of the PCIs, accordingly.

## Electricity

- (38) The following technical modifications were indicated by the electricity PCI promoters:
  - change of project scope (for five PCIs)<sup>22</sup>,
  - smaller or more substantial amendments of the route length (for six PCIs)<sup>23</sup>,
  - concretisation of substations (for one PCI)<sup>24</sup>,
  - concretisation of voltage and nominal power (for one PCI)<sup>25</sup>.

## Gas

- (39) The gas PCI promoters reported the following technical modifications:
  - conduct of studies to upgrade the design of the pipeline to allow the transportation of pure hydrogen and blends of renewable gases (for one PCI)<sup>26</sup>,
  - installation of additional compressor units (for one PCI)<sup>27</sup>,

<sup>&</sup>lt;sup>21</sup> Links: <u>Annex I</u>, <u>Annex II</u>

<sup>&</sup>lt;sup>22</sup> PCI 1.19: Instead of one 12 GW hub, the project now consists of three hubs with interconnectors between the hubs; PCI 2.18: following the request by the European Commission, the PCI-relevant part of the project is now focused on the pumped hydro power module, meaning the some part of the initial PCI project (substations Prutz 2, Imst 2 and Extension Haming) will not be part of the submission for the next PCI list, although their implementation will be carried out; PCI 2.32: replacement of the grounding wire due to asset aging and an optical grounding wire for communication purposes; PCI 3.1.1: exclusion of investment Pirach-Tann from the St. Peter-Isar project; PCI 10.10: addition of specific investments of a new project partner (the Bulgarian TSO) planned for the following years <sup>23</sup> PCIs 3.10.1, 2.14, 2.7: small adjustments; PCI 4.8.8: amendment of the route in line with detailed technical design; PCI 2.32: increase of the total route length from 100 km to 110 km, PCI 2.33: decrease of the total route length from 250 km to 233 km due to an update of the landing point in Italy following public consultation. <sup>24</sup> PCI 3.1.4: Westtirol and Zell am Ziller

<sup>&</sup>lt;sup>25</sup> PCI 3.28: 380 kV and 4500 MVA

<sup>&</sup>lt;sup>26</sup> PCI 5.19: upgrade of the design of the pipeline in order to allow the transportation of pure hydrogen and blends of renewable gases (including an update of the front-end engineering design and financial engineering studies)
<sup>27</sup> PCI 6.8.1

decision to develop the engineering permit only for the first 40 km of the original project (for one PCI)<sup>28</sup>.

## 4.2 Inclusion in the network development plans

- (40) The vast majority of the PCIs (74 out of 92) are included or being present as an 'under consideration' investment in the relevant latest NDPs, meaning that all investments pertaining to those PCIs are included in the NDP of all hosting Member States. The remaining 19 PCIs are either not included in the NDP of one or more of the hosting Member States or not all investments pertaining to a PCI are included therein, either because projects falling under an infrastructure category (e.g. storage), which are generally not included in the NDP, because the projects are not TSO investments and only TSO investments are included in the NDP), due to an insufficient advancement or as it is the case for some gas PCIs, no NDP exists in the concerned country. These PCIs and the reasons for non-inclusion are provided below (separately for electricity and gas).
- (41) ACER reiterates its invitation extended to the relevant authorities and TSOs to ensure that PCIs become an integral part of the relevant NDPs<sup>29</sup>, as appropriate, and its recommendation<sup>30</sup> that the scope of NDPs should allow the inclusion of third-party projects. Project promoters should provide the necessary information to the TSO(s) in charge of developing the relevant NDP(s) as well as to the relevant NRA(s). Moreover, NDPs should include information on studies related to projects and on projects 'under consideration', and clearly flag them as such.
- (42) Further, ACER notes that two PCIs (both an electricity transmission interconnection) have already been approved as a planned project only in one of the NDPs, while they are still under consideration in the other NDP<sup>31</sup>.
- (43) ACER is of the view that the actual implementation of the transmission PCIs strongly relies on them being included in the relevant NDPs. If a PCI is already a planned project in one of the relevant NDPs, while it is still 'under consideration' in another, the inconsistency raises doubts about the feasibility and the consistent implementation of the concerned project.

## Electricity

- (44) Out of 59 transmission PCIs, there are two projects<sup>32</sup> which are neither included as a 'planned' project nor present as an 'under consideration project' in the relevant NDPs<sup>33</sup>. The status of both projects<sup>34</sup> is 'under consideration'. For the first, the reason for the non-inclusion in the NDP has not been specified this year, but in 2021, when its promoter explained that the project's expected commissioning date was beyond the time span of the relevant NDP. The latter project has not been included in the NDP due to its insufficient advancement.
- (45) Three PCIs<sup>35</sup> out of eight storage PCIs are fully included in the relevant NDPs and the remaining five are not or are included only as a network connection project by the TSOs and/or considered within the NDP studies. The reason for their non-inclusion lies in the fact that the relevant NDP does not include storage projects or the promoter is not a TSO and non-TSO projects are not included in the NDPs.

<sup>&</sup>lt;sup>28</sup> PCI 7.3.4

<sup>&</sup>lt;sup>29</sup> 2022 ACER PCI Monitoring report, p. 12

<sup>&</sup>lt;sup>30</sup> ACER's Opinion No 4/2023, p.18.

<sup>&</sup>lt;sup>31</sup> PCIs 2.27.1, 2.27.2

<sup>&</sup>lt;sup>32</sup> PCIs 1.19 and 4.11

<sup>&</sup>lt;sup>33</sup> The figure does not include PCI 3.22.1 which has been delisted from the NDP following the end of construction of the project.

<sup>&</sup>lt;sup>34</sup> PCIs 1.19 and 4.11

<sup>&</sup>lt;sup>35</sup> PCIs 2.29, 2.30 and 3.24

(46) The five smart grid PCIs are either not<sup>36</sup> or only partially<sup>37</sup> included in the relevant NDPs, because promoters of the investments (or some of them) are not TSOs and the investments of non-TSO promoters are normally not included.

## Gas

(47) Vast majority of gas PCIs (i.e. 14 out of 20) are fully included in the latest NDPs. Five PCIs<sup>38</sup> are only partially included, mainly because their promoters (or some of them) are not TSOs and the investments of non-TSO promoters are normally not included<sup>39</sup>. One project promoter explained that two investments of the project are not included in the NDP, because the decision on their implementation had been put on hold<sup>40</sup>. One gas PCI is not included in the NDP, because there is currently no gas NDP in the country<sup>41</sup>.

## 4.3 PCI Status and Progress

## 4.3.1 Evolution of the status and works

- (48) ACER differentiates the following project status categories: under consideration, planned but not yet in permitting, permitting, under construction, commissioned and cancelled<sup>42</sup>. For the purpose of this report, the status of the project is defined by the status of the least advanced section or element of the project<sup>43</sup>.
- (49) ACER notes that almost 80% of the current PCIs are already in permitting or in a more advanced stage, while slightly more than 20% are less advanced (i.e. planned, but not yet in permitting or still under consideration). In its previous PCI monitoring activity, ACER reported slightly less than 70% PCIs being at least in permitting phase, which shows an overall advancement of the PCIs. At the same time, ACER observes that one PCI got cancelled<sup>44</sup>.
- (50) Figure 3 and Figure 4 present advancement status of the electricity and gas PCIs. ACER notes that there are similar shares of more and less advanced PCIs in electricity and gas sectors<sup>45</sup>. However, the share of 'under consideration' projects (without planning approval) is higher for gas PCIs (i.e. 8% of electricity and 20% of gas PCIs).
- (51) The categories of activities reported by the project promoters as having been carried out during the reporting period are listed for each project in the Annexes of this report. ACER notes that no activities have been carried out during the reporting period for two projects<sup>46</sup>, both being electricity

<sup>&</sup>lt;sup>36</sup> PCIs 10.4 and 10.11

<sup>&</sup>lt;sup>37</sup> PCIs 10.7, 10.10 and 10.12

<sup>&</sup>lt;sup>38</sup> PCIs 6.8.1, 6.20.3, 6.27, 7.3.1 and 7.3.3

<sup>&</sup>lt;sup>39</sup> PCIs 7.3.1, 6.8.1, 7.3.3 and 6.20.3

<sup>40</sup> PCI 6.27

<sup>&</sup>lt;sup>41</sup> PCI 7.5 (the promoter explained the investment is included in the Cypriot National Energy and Climate Plan for the years 2021 to 2030)

<sup>&</sup>lt;sup>42</sup> Projects under consideration are in the phase of planning studies and consideration for inclusion in the NDPs, regional plans, and the EU TYNDPs. Projects which are planned, but not yet in permitting are those projects which have been included in the NDP(s) and have completed the phase of initial studies (e.g. completed pre-feasibility or feasibility study), but have not applied for permits yet. Projects in permitting are designated as such from the moment when the project promoter(s) apply for the first permit regarding the implementation of the project and the application is admitted as a valid one.

<sup>&</sup>lt;sup>43</sup> ACER considers that the status of the least developed element of a given PCI is representative for the overall status of the project. The information about the status of the projects is therefore rather conservative, as some of the investment items included in a given PCI may be at a more advanced implementation stage than other investment items belonging to the same project.

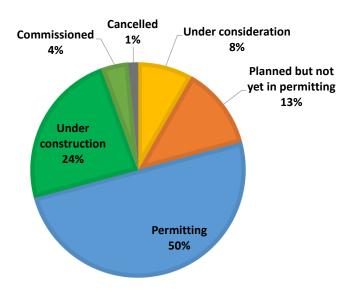
<sup>&</sup>lt;sup>44</sup> PCI 4.8.7 has been removed from the Baltic synchronisation project. The investments changed their scope (instead of 330 kV line Paide-Sindi, 330 kV lines Paide-Sopi and Sopi-Sindi are considered to be constructed following eruption of a new substation Sopi) and have been moved under project EstLink 3.

<sup>&</sup>lt;sup>45</sup> About 80% of the electricity and 70% of the gas PCIs are at least in permitting stage or more advanced, while about 20% and 30% of them are planned, but not yet in permitting or still under consideration, respectively.
<sup>46</sup> PCIs 2.16.1 and 4.8.7

PCIs<sup>47</sup>. For these two projects, no works or activities were reported to be performed for the fourth year in a row. One of these projects is rescheduled to a later date and the need for the project is under reassessment<sup>48</sup>, while for the other, its project promoter reported the project to be cancelled<sup>49</sup>.

### Electricity

- (52) Three electricity PCIs on the fifth PCI list are commissioned or completed. One of them got commissioned during the period of reporting, in March 2023<sup>50</sup>, while from the other two, one got commissioned in 2020<sup>51</sup> and the other<sup>52</sup> was constructed in 2018 (while its expected commercial operation will start after the completion of the corresponding substation expected by 2025). The benefits of the latter two projects to have been kept on the fifth PCI list is unclear.
- (53) Out of the remaining PCIs, ten progressed their status compared to last year by either starting the permit granting for each section and element (three PCIs<sup>53</sup>), completing permit granting and entering the construction phase (five PCIs<sup>54</sup>) or having completed the phase of initial studies and receiving their planning approvals (two PCIs<sup>55</sup>).





(54) Comparison of the most recently reported project status and the status reported in 2015 reveals that over an eight year period, two electricity PCIs<sup>56</sup> did not advance their status from 'planned, but

<sup>53</sup> PCIs 2.9, 4.8.22 and 4.8.3

55 PCIs 1.21 and 10.10

<sup>&</sup>lt;sup>47</sup> ACER requested project promoters to list and describe what kind of work or other activities they carried out with regard to their PCIs between 1 February 2022 and 31 January 2023. For more information regarding the activities carried out, please refer to the Annex 1 for electricity PCIs and Annex 2 for gas PCIs to this Report. The statistics certainly account only for the non-yet commissioned or completed PCIs.

<sup>48</sup> PCI 2.16.1

<sup>&</sup>lt;sup>49</sup> PCI 4.8.7 has been removed from the Baltic synchronisation project. The investments changed their scope (instead of 330 kV line Paide-Sindi, 330 kV lines Paide-Sopi and Sopi-Sindi are considered to be constructed following eruption of a new substation Sopi) and have been moved under project EstLink 3.

<sup>&</sup>lt;sup>50</sup> PCI 4.8.20

<sup>&</sup>lt;sup>51</sup> PCI 3.11.2

<sup>&</sup>lt;sup>52</sup> PCI 3.22.1

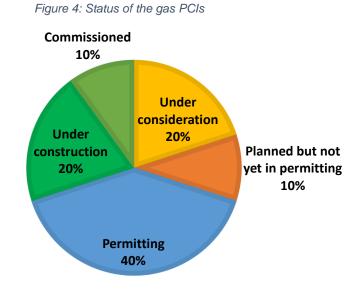
<sup>&</sup>lt;sup>54</sup> PCIs 3.11.1, 1.6, 3. 24, 4.10.2 and 4.8.21

<sup>56</sup> PCIs 2.16.1 and 3.22.4

not yet in permitting', meaning that at least one section or element has not yet entered permit granting. There are also four PCIs<sup>57</sup> that remain in the permitting phase<sup>58</sup>.

## Gas

(55) Two gas projects on the fifth PCI list are completed and got commissioned during the reporting period, one in June 2022<sup>59</sup> and the other in September 2022<sup>60</sup>. Out of the remaining gas PCIs, three more advanced their status, two<sup>61</sup> by entering the permitting phase and one<sup>62</sup> by having completed the phase of initial studies and progressing to the 'planned but not yet in permitting' phase.



(56) ACER notes there are two gas PCIs that show no advancement over the past eight years period<sup>63</sup>. Both projects are still 'under consideration'.

### 4.3.2 Delays and rescheduling

- (57) ACER recalls the importance of differentiation between delayed and rescheduled projects when evaluating their progress. A delayed investment is still needed at the expected date, but cannot be delivered on time due to various external factors like permitting, environmental, legislative reasons, etc., while a rescheduled investment is voluntarily postponed by a promoter due to changes of an external driver (e.g. lower demand, less urgent need for the investment due to updated planning data, or assigning priority to other solutions).
- (58) The annual progress of the electricity and gas PCIs is shown in Figure 5 and Figure 8. ACER notes that, similar to previous years, the share of delayed projects is slightly higher in electricity than in gas (27% and 20% respectively), while the share of rescheduled PCIs remains significantly lower in electricity (4% vs. 20%).
- (59) ACER notes that about half of the PCIs are expected to be commissioned within three years, almost 80% within the next five years and above 90% by the end of 2030. In ACER's view, based on the

<sup>&</sup>lt;sup>57</sup> PCIs 2.14, 2.18, 3.11.3 and 3.11.4

<sup>&</sup>lt;sup>58</sup> There are actually eight PCIs 'in permitting' status since 2015, but the other projects reported to have started or even completed construction works for at least some sections or elements of the project.

<sup>59</sup> PCI 6.8.2

<sup>&</sup>lt;sup>60</sup> PCI 8.3.2

<sup>61</sup> PCIs 6.8.1 and 7.3.3

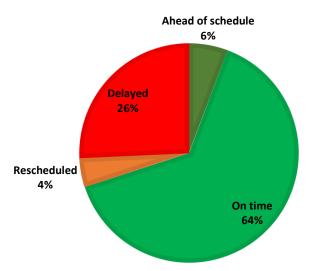
<sup>62</sup> PCI 7.3.4

<sup>63</sup> PCIs 6.20.3 and 7.3.1

previous trends (i.e. commissioning dates shifting to a later date for a significant number of the PCIs each year), the numbers of the actually commissioned PCIs is likely to be lower.

### Electricity

- (60) ACER finds that about 70% of the electricity PCIs is reported as 'on time' or 'ahead of schedule'. Their share significantly increased in comparison to the share observed in 2022 (56%).
- (61) 26% of electricity PCIs (18 projects) are delayed and this share remains within the same range as in previous years (i.e. 30% in 2022, 29% in 2021 and 27% in 2020). Among these, seven<sup>64</sup> are already delayed for the second time in a row, which may deserve an even closer attention by the respective authorities.
- (62) The share of rescheduled projects further decreased compared to the previous years, i.e. from 13% in 2022 to 4% in 2023. Its low share had already been considered before as a sign of a rather robust PCI list. However, ACER reiterates that there is one PCI<sup>65</sup> which has been on the PCI list since 2013, but has already been rescheduled multiple times, overall by almost 10 years.
- (63) 14 out of the 18 delayed electricity PCIs are transmission projects, while two are storage and additional two are smart grid projects. Moreover, eight out of the 14 delayed transmission PCIs are internal projects and six are interconnections. ACER notes that around 20% of internal transmission and 29% of interconnection projects are delayed. In comparison to the results observed in 2022, the share of delayed internal transmission projects decreased by approximately 10% and of interconnections increased by 9%. However, combining these findings with those of the past PCI monitoring activities does not confirm that interconnection projects are more exposed to delays than internal projects.





- (64) Figure 6 illustrates the annual progress of electricity PCIs per priority corridor. ACER finds the highest shares of delayed PCIs are, similarly as observed during the 2022 PCI monitoring, situated in NSI West and NSI East corridor. In each, one third of PCIs is delayed.
- (65) ACER notes that the number of rescheduled electricity PCIs significantly decreased in comparison to the 2022 PCI monitoring, i.e. from nine to three<sup>66</sup>. One of them is a transmission project<sup>67</sup> and

<sup>&</sup>lt;sup>64</sup> PCIs 4.6, 2.17, 2.30, 2.16.3, 3.11.4, 3.10.2 and 3.10.1

<sup>65</sup> PCI 2.16.1

<sup>&</sup>lt;sup>66</sup> PCIs 1.21, 2.33 and 10.10

<sup>67</sup> PCI 2.33

located in the NSI West priority corridor, the other is a storage project<sup>68</sup> and located in NSOG and the third<sup>69</sup> rescheduled PCI is a smart grid project.

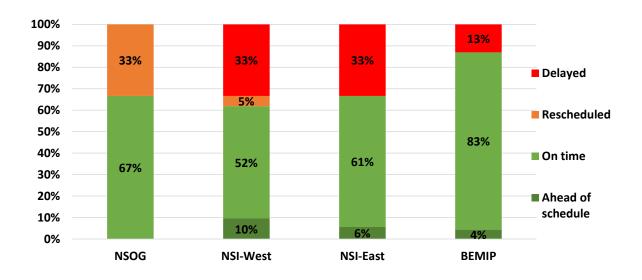
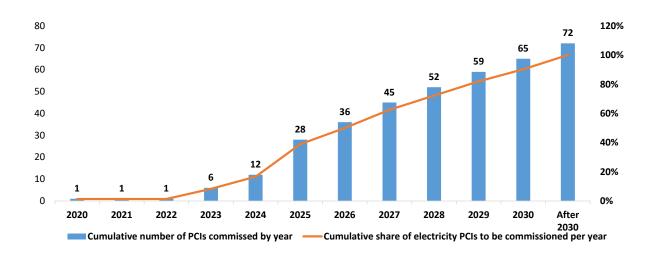


Figure 6: Annual progress of electricity PCIs per priority corridor

- (66) Promoters of the delayed electricity PCIs reported delays from two months up to 2.3 years, leading to an average of one year, while for the three rescheduled PCIs, the commissioning date had been postponed by minimum half a year and maximum 2 years.
- (67) As presented in Figure 7 and similar as reported in the previous year<sup>70</sup>, more than 70% of the electricity PCIs are expected to be commissioned within the next five years and about 90% by the end of 2030. There is also a non-negligible share of PCIs, i.e. 10%, that will be commissioned only after 2030.





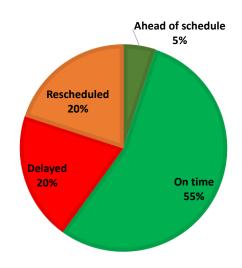
<sup>68</sup> PCI 1.21

<sup>69</sup> PCI 10.10

<sup>70 2022</sup> ACER PCI Monitoring report, p. 17

### Gas

- (68) Annual progress of gas PCIs is presented in Figure 8. ACER observes that the share of projects 'ahead of schedule' or 'on time' increased in comparison to the previous reporting period, i.e. from 45% to 60%<sup>71</sup>.
- (69) ACER notes that the submitted reports may cover multiple individual investment items that could be at different stages of progress. ACER evaluated them and considered the overall progress of the relevant PCI<sup>72</sup> for its statistics.
- (70) ACER finds that the share of delayed<sup>73</sup> gas PCIs remained the same as in the previous reporting period, while the share of rescheduled<sup>74</sup> gas PCIs decreased. ACER notes that the delayed PCIs are often delayed at least for the second time in a row already, which may deserve a closer attention by the respective authorities.
- (71) Two delayed PCIs are transmission pipelines and two are UGS projects. This means that 15% of transmission projects and 40% of UGS projects are delayed. As ACER already noted in the past<sup>75</sup>, UGS projects appear to have a longer duration of development and their implementation seems to be more demanding form the technical point of view.
- (72) Out of the four rescheduled PCIs, two are transmission pipeline projects, one is an UGS project and one an LNG project.





<sup>&</sup>lt;sup>71</sup> In the 2022 PCI Monitoring, 45% of gas PCIs were 'on time' and none was 'ahead of schedule'.

<sup>&</sup>lt;sup>72</sup> Different progresses were reported for PCIs 6.20.3 (delayed/rescheduled), 6.24.4 (delayed/on time), 6.8.1 (on time/rescheduled) and 7.3.1 (on time/rescheduled). In this report:

<sup>-</sup> PCI 6.20.3 is considered delayed, because for the delayed investment item, its project promoter explained the reason for the delay lies in the delayed tendering process, while for the rescheduled investment item, the project promoter explained that the rescheduling is due to complementarity with the other investment items. The expected commissioning dates of both investments are the same.

<sup>-</sup> PCI 6.24.4 is considered 'on time', because the expected commissioning date of the investment item reported as delayed remains before the expected commissioning date of the investment item reported as on time.

<sup>-</sup> PCI 6.8.1 is considered 'rescheduled', because the expected commissioning date of the investment item reported as rescheduled is after the expected commissioning date of the investment item reported as 'on time'.

PCI 7.3.1 is considered 'on time', because the expected commissioning date of the investment item reported as rescheduled remains before the expected commissioning date of the investment item reported as 'on time'.

<sup>&</sup>lt;sup>73</sup> PCIs 6.20.3, 6.20.4, 6.8.3 and 8.3.1

<sup>&</sup>lt;sup>74</sup> PCIs 6.20.7, 6.26.1, 6.8.1 and 7.5

<sup>75 2022</sup> ACER PCI Monitoring report, p. 18

(73) Figure 9 presents annual progress of gas PCIs per priority corridor. ACER notes that three out of four rescheduled and three out of four delayed PCIs are located in NSI East corridor. The remaining delayed PCI is part of the BEMIP and the remaining rescheduled gas PCI belongs to SGC corridor.

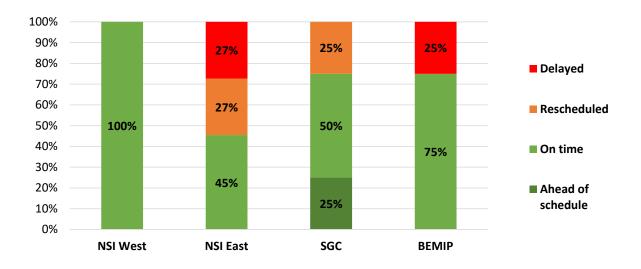


Figure 9: Annual progress of the gas PCIs per priority corridor

- (74) The duration of the delays reported by the project promoters varies from three months up to one year, while the projects are rescheduled for minimum one month and maximum year and a half.
- (75) Figure 10 presents the cumulative number and share of the commissioned gas PCIs per year. ACER notes that according to the project promoters' expectations, almost half of the PCIs will have been commissioned by 2025. Furthermore, all gas PCIs are expected to be commissioned by 2028.

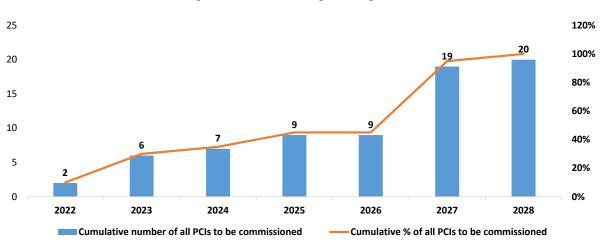


Figure 10: Commissioning date of gas PCIs

## 4.3.3 Reasons for delays and rescheduling

(76) The most frequently mentioned main reasons for delays are related to permit granting, while the reasons for rescheduling remain more diverse across the two sectors, as described below.

#### Electricity

(77) Similar to previous years, the most frequently reported reason for delays of electricity PCIs is permit granting which accounts for about one third of all delayed PCIs. About 20% are delayed due to tendering or auctioning procedures, while around 10% of the reported delays is due to lawsuits and court proceedings. Finally, an additional 10% is due to delays in construction works. Project promoters also reported delays because of insolvency of the constructor, or longer delivery of the technical equipment and due to prolonged preparation of the documentation.

- (78) Project promoters of the rescheduled electricity PCIs reported that rescheduling was the result of a detailed program alignment of key components with particular reference to permitting, procurement and construction timelines and of changes in the estimated investment costs and in the overall planning data input impacting the needs.
- (79) Approximately 40% of all project promoters reported difficulties encountered by their projects and in several instances they faced multiple types of difficulties. Most of them were affected by the permit granting and many require additional action by the Competent Authorities. Other difficulties reported are mainly related to the environmental impact assessment, delayed administrative procedures, tight supply market, costs and/or procurement.

## Gas

- (80) Project promoters reported their projects are delayed for reasons mainly related to permit granting, financing or tendering process, because of environmental issues or due to interdependency with other infrastructure investments' delays.
- (81) Promoters of rescheduled PCIs explained that their projects were rescheduled because of the uncertainties related to the demand and supply side, re-prioritization of the project's implementation against other investments of the project promoter, changes due to complementarity with other rescheduled or delayed infrastructure, consideration of the remaining activities, changes of the estimated costs and of the input data impacting project benefits or due to lack of interest from the market.
- (82) The project promoters for almost half of the gas PCIs reported that they have faced various difficulties during the reporting period, most of them being related to the permit granting process. PCIs also encountered difficulties related to environmental impact assessment, appeals and court proceedings, due to unforeseen or unexpected events beyond the control of the project promoter and the competent authority. Project promoters also reported difficulties due to increased costs of material and difficulties related to uncertainty on the development of the market.

## 4.3.4 Expected duration of implementation

(83) For the purpose of this report, the duration of the PCIs' implementation is considered from planning approval by the NRA, the competent Ministry or by another national competent authority as provisioned in the national law of each country.

## Electricity

- (84) The average (actual or expected) duration of the electricity transmission PCIs' implementation i.e. from the planning approval until the commissioning of the project<sup>76</sup> is 10 years. The shift of commissioning dates due to recent delays and rescheduling did not change the overall average figure, which was already marked in previous year, also slightly due to the fact that the impact was offset by some projects which advanced faster than previously expected. Slightly more than half of the transmission PCIs have a lower and slightly less than half a longer implementation period than the average, ranging from about two to 20 years.
- (85) The average (actual or expected) duration of the permit granting process for transmission PCIs which applied for the first permit after 16 November 2013<sup>77</sup> is 3.5 years<sup>78</sup> (which is slightly higher than the duration as registered last year, i.e. 3.3 years, mainly due to the reported difficulties in

<sup>&</sup>lt;sup>76</sup> The data was available for 45 transmission PCIs.

<sup>&</sup>lt;sup>77</sup> According to Regulation (EU) No 347/2013, for these projects Chapter III of the Regulation (Articles 7-10) regarding permit granting and public participation applies and provides a legally binding 3.5 years upper limit with a potential extension of maximum 9 months for the permit granting process.

<sup>&</sup>lt;sup>78</sup> The data was available for 45 transmission PCIs.

permit granting). For 23 transmission PCIs, the permitting duration exceeds the 3.5 years permit granting time limit set by the TEN-E Regulation, in 13 instances<sup>79</sup> by more than nine months<sup>80</sup>. The overall duration of the permit granting process<sup>81</sup> for one interconnection PCI lasts more than 10 vears<sup>82</sup>.

- The average duration of construction of transmission electricity PCIs lasts 3.7 years, with the (86) minimum of one year and maximum of ten years<sup>83</sup>.
- The average implementation duration of transmission projects remains the shortest in the BEMIP (87) priority corridor (i.e. 7 years), while it varies between 11 and 14 years for the other priority corridors. However, ACER reminds that share of projects with high volumes, complex technical solutions and/or sensitive locations can differ across the priority corridors and between PCI lists. Further, the statistics account only for PCIs on the fifth PCI list, and they do not take into account the expected or actual duration of former PCIs as well as they do not consider the time a project entered the PCI list for the first time. Therefore, this statistic of its own is not conclusive.
- The average implementation duration of all storage projects is slightly less than ten years and for (88) individual storage projects significantly varies between three and thirteen years. The duration of permit granting for storage PCIs where it started after 16 November 2013<sup>84</sup> is around 4.5 years, with the values varying between 2.2 and 7.1 years.
- For smart grid projects, the average implementation duration is about five years (variation between (89) two and seven years) and the permit granting duration remains around 5.8 years (variation between 4.2 and 7.6 years)85.

### Gas

- Information about the expected or the actual durations of construction and permitting process was (90)provided by project promoters and in case of project groups, promoters provided data applicable to each part of the PCI.
- (91) Furthermore, based on the data provided by the project promoters, the average duration of the permitting process is about 3.7 years. The reported expected duration of the overall permit granting procedure exceeds the permitting duration foreseen in the TEN-E Regulation (3.5 years)<sup>86</sup> for approximately 45% cases. As most of the PCIs are located in the NSI East priority corridor, most of the projects for which the overall permit granting exceeds 3.5 years are also in this corridor.
- The average construction duration of gas projects lasts 3.2 years, with the minimum reported (92) duration of one and maximum 11 years<sup>87</sup>.
- Based on the findings regarding the duration of the permit granting process and of the construction (93) phase, ACER concludes that on average it takes more than 7 years to implement the gas PCIs. However, PCIs vary greatly in scope and complexity, as they may involve significantly different

<sup>&</sup>lt;sup>79</sup> PCIs 3.10.1, 3.10.2, 2.4, 3.11.1, 2.7, 3.11.4, 3.1.1, 3.12, 2.9, 2.10, 3.11.3, 4.8.10 and 4.8.13

<sup>&</sup>lt;sup>80</sup> In line with Article 10(2) of Regulation (EU) No 347/2013, where the competent authority considers that the permit granting process will not be completed before the set time limits, it may extend the 3.5 year time limit by a maximum of nine months.

<sup>&</sup>lt;sup>81</sup> The start date of the permit granting process is defined by the start of the permit granting for the first section or element, while the end of the permit granting is defined by the end of the permit granting for the last section or element, therefore it is possible that in individual countries the permit granting takes shorter than the indicated period.

<sup>.</sup> <sup>82</sup> PCI 3.1.1

<sup>&</sup>lt;sup>83</sup> The data was available for 56 electricity transmission PCIs.

<sup>&</sup>lt;sup>84</sup> The data was available for five storage PCIs regarding the implementation data and four regarding the permit

granting duration. <sup>85</sup> The data were available for five smart grid PCIs regarding the implementation data, and three regarding the permit granting duration.

<sup>86</sup> Idem.

<sup>&</sup>lt;sup>87</sup> The data was available for 17 gas PCIs.

investment items and subprojects, which results in longer or shorter durations of the implementation period.

## 4.4 Cost developments

- (94) The investment costs for all PCIs, as reported by the promoters, amount to 81.2 billion EUR, and electricity projects account for almost 80% of it. Project costs are actually even higher, since operation and other capital expenditure during the life cycle of projects also has to be considered. Changes in the expected investment costs compared to the previous year were reported for over 60% of PCIs and the main reason for the change are increased prices of materials, technical equipment and labour. For these projects, the costs increased in average by 130 million EUR (137 million EUR for electricity and 108 million EUR for gas PCIs).
- (95) In total, 7.7 billion EUR has already been spent (i.e. 'incurred') on the current PCIs, representing slightly less than 10% of the expected overall investment costs of the PCIs.

## Electricity

- (96) ACER requested the project promoters to provide the cost values expressed at current (2023) real values. The total initial investment costs (or inception CAPEX)<sup>88</sup> for the electricity PCIs are about 64.9 billion EUR, which is approximately 10% higher than last year (i.e. 59 billion EUR). Of this, about 58.7 billion EUR or 91% accounts for transmission projects, about 4.1 billion EUR or 6% for storage projects the remaining 2.1 billion EUR or 3% for smart grid projects. Uncertainties about the investment costs (upward and downward expected variations) were reported for more than the half of the PCIs. For most of them, the main reason for variation is procurement or construction costs uncertainties or the project is in consideration stage and cost estimates are rather uncertain. Sustaining CAPEX<sup>89</sup> values were provided for too few PCIs for ACER to be able to make any conclusion.
- (97) Figure 11 illustrates the share of investment costs per priority corridors. More than half investment costs belong to NSI West priority corridor (54%), followed by NSOG (21%), NSI East (18%) and BEMIP (7%). The shares of costs are practically the same as reported in 2022. As pointed out in the previous monitoring reports<sup>90</sup>, the apparent asymmetry between the share of PCIs across the priority corridors compared to their share of the investment costs is mainly due to the difference in the project categories and the resulting differences in the average project costs. While the share of PCIs is 4% for NSOG and 36% for BEMIP, the projects in NSOG are typically large scale interconnections, while in BEMIP most of them are internal transmission lines.

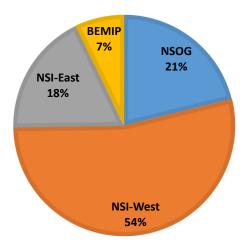
<sup>&</sup>lt;sup>88</sup> Initial investment costs include development costs (e.g. studies, rights of way, environmental planning, costs for permits), project management costs, material and assembly cost, including installation and commissioning; other construction costs, including temporary solutions, waste management and environmental costs, dismantling of existing assets.

<sup>&</sup>lt;sup>89</sup> Later investment costs include costs for replacement of devices within the project assessment period and dismantling costs at the end of the equipment lifecycle, where relevant. All costs falling outside the assessment period are not considered.

<sup>&</sup>lt;sup>90</sup> 2022 ACER PCI Monitoring report, p. 22

#### ACER REPORT ON THE PROGRESS OF ELECTRICITY AND GAS PROJECTS OF COMMON INTEREST

Figure 11: CAPEX of electricity PCIs per priority corridor



- (98) Changes in investment costs compared to the previous year were reported for 43 PCIs, including 37 transmission, four storage and two smart grid PCIs. For more than 80% of these projects the costs increased which is rather expected based on the recent price increase of raw materials and equipment. The other main reasons for changes in costs across the PCIs include changes in the project's technical characteristics as well as an increased accuracy in cost estimations.
- (99) About 4.8 billion EUR or 7% of the overall electricity PCIs' costs already incurred<sup>91</sup> until 31 December 2022 and about 4.7 billion EUR or 7% were additionally contracted<sup>92</sup>. The joint share of incurred or additionally contracted investment costs are 15% for transmission projects with the highest value in the NSI-East priority corridor and the lowest value in NSOG priority corridor<sup>93</sup>. The joint share of incurred or additionally contracted investment costs is 26% for smart grid projects and 2% for storage projects.
- (100) The annual operational expenditures<sup>94</sup> compared to the total inception CAPEX amounts to about 0.6% for transmission, about 1.5% for storage and 0.5% for smart grids.

#### Gas

- (101) The total CAPEX reported for the gas PCIs is about 16.3 billion EUR, which means CAPEX increased by almost 10% in comparison to the data provided during the previous year's PCI monitoring activity. Similar as for the electricity PCIs, the increase was rather expected, considering the recent price increase of raw materials and equipment. The largest share of CAPEX, i.e. 85%, corresponds to transmission projects, 9% to LNG projects and 6% to UGS projects.
- (102) Share of gas PCIs per priority corridors is presented in Figure 12. Most of investment costs, almost 60%, remain expected to occur in the SGC priority corridor, which is a result of this corridor hosting the lengthiest transmission pipelines and therefore the most demanding PCIs in terms of investment cost. One quarter of costs belong to NSI East corridor and approximately 13% in BEMIP corridor, while the lowest share of 3% is expected to occur in NSI West corridor.

<sup>&</sup>lt;sup>91</sup> Incurred investment cost include all costs allocated with the project, for which an invoice (or other accounting document which proves the recognition of the cost) has been issued for the purchase of materials or services.
<sup>92</sup> Additional contracted investment cost include all costs to which promoters have committed to (e.g. tender and

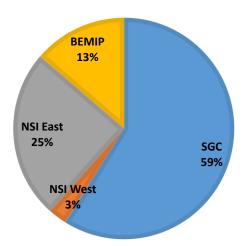
consequent contracts are signed), excluding the incurred investment cost.

<sup>&</sup>lt;sup>93</sup> The share of incurred or additionally contracted investment costs compared to the total investment costs for transmission PCIs is the following per priority corridor: 1% in NSOG, 16% in NSI West, 35% in NSI East and 8% in BEMIP corridor.

<sup>&</sup>lt;sup>94</sup> Annual operating expenditures include annual maintenance costs and annual operation costs. The value of annual operating expenditures should not take into account system losses or the cost of purchasing energy for storage investments.

#### ACER REPORT ON THE PROGRESS OF ELECTRICITY AND GAS PROJECTS OF COMMON INTEREST

Figure 12: CAPEX of gas PCIs per priority corridor



- (103) Changes of the total investment costs compared to last year's reporting were indicated for 13 or approximately two thirds of gas PCIs. In all instances, the costs increased. The increases are ranging from 0.3 million EUR to 535 million EUR. Similarly as in the past, promoters reported the cost changed mainly due to an increased prices of technical equipment and labour, interruptions of supply chain, accuracy of cost estimation and due to changes in the project's technical characteristics.
- (104) About 2.9 billion EUR of costs already incurred until 31 January 2022 for the gas PCIs, representing 18% of the total gas PCI investment costs.

## 4.5 Regulatory treatment

- (105) Between 1 February 2022 and 31 January 2023, investment requests (including requests for CBCA), were submitted for two gas PCIs and for no electricity PCIs. No exemption or project-specific risk-based regulatory incentive has been requested by the promoters of PCIs during this period.
- (106) The above findings confirm ACER's earlier observation that project-specific risk-related incentives pursuant to Article 13 of Regulation (EU) No 347/2013 are hardly used by project promoters<sup>95</sup>. On the other hand, obtaining a decision on an investment request, including a request for CBCA pursuant to Article 12 of Regulation (EU) No 347/2013, is used significantly more frequently (for more than 40% of gas and electricity transmission PCIs), although the number of such submissions has also reduced over recent years.
- (107) Additional information on investment requests and CBCA decisions can be found in the ACER report on CBCA decisions<sup>96</sup> and in the latest update of the list of CBCA decisions<sup>97</sup>.

## Electricity

(108) Until 31 January 2023, the project promoters submitted investment requests for 24 electricity projects<sup>98</sup> on the fifth PCI list. Out of these PCIs, 19<sup>99</sup> are located in the BEMIP priority corridor and

<sup>&</sup>lt;sup>95</sup> 2022 ACER PCI Monitoring report, p. 25

<sup>&</sup>lt;sup>96</sup><u>https://acer.europa.eu/Official\_documents/Acts\_of\_the\_Agency/Publication/2020-09\_4th-ACER-CBCA-report.pdf</u>

<sup>&</sup>lt;sup>97</sup>https://acer.europa.eu/Official\_documents/Acts\_of\_the\_Agency/Documents/2021116-

Overview%20of%20CBCA%20decisions.pdf

<sup>&</sup>lt;sup>98</sup> This statistics includes all investment requests of which ACER has been notified, including incomplete and/or rejected requests.

<sup>&</sup>lt;sup>99</sup> PCIs 4.10.1, 4.10.2 and 17 PCIs within PCI cluster 4.8

the vast majority of them serves the purpose of the Baltic synchronisation with continental Europe. The remaining PCIs for which an investment request was submitted are located in the NSI West (three PCIs)<sup>100</sup>, the NSOG (one PCI)<sup>101</sup> and NSI East (one PCI)<sup>102</sup> priority corridors.

(109) No project promoter of the current electricity PCIs applied for exemption from third party access or other relevant rules of the regulated regime or for any project specific risk-based regulatory incentives.

Gas

- (110) Investment request in total have so far been submitted for ten gas PCIs on the fifth list. Out of these, three are located in the BEMIP<sup>103</sup>, one in NSI West<sup>104</sup>, one in SGC<sup>105</sup> and five in the NSI East<sup>106</sup> priority corridor. Two investment request were submitted during the reporting period<sup>107,108</sup>. Both are located in the NSI East priority corridor and already received a CBCA decision from the competent NRAs.
- (111) By 31 January 2023, project promoters had in total requested exemptions for two PCIs<sup>109</sup> on the fifth PCI list, one located in NSI East and one in SGC priority corridor. Both were granted an exemption. None of these two requests were submitted during the reporting period.
- (112) None of the project promoters of PCIs on the fifth list has applied for any project-specific risk-based regulatory incentive.

<sup>109</sup> PCIs 6.8.1 and 7.3.3

<sup>&</sup>lt;sup>100</sup> PCIs 2.33, 2.7 and 2.16.3

<sup>&</sup>lt;sup>101</sup> PCI 1.6

<sup>&</sup>lt;sup>102</sup> PCI 3.10.2

<sup>&</sup>lt;sup>103</sup> PCIs 8.3, 8.2.1 and 8.2.4

<sup>&</sup>lt;sup>104</sup> PCI 5.19

<sup>105</sup> PCI 7.3.1 and 7.5

<sup>&</sup>lt;sup>106</sup> PCIs 6.8.2, 6.8.3, 6.20.4, 6.20.2 and 6.20.7

<sup>&</sup>lt;sup>107</sup> PCIs 6.20.4 (for this PCI, a CBCA decision was made in 2020 and in 2022, the investment request was resubmitted and a new decision was issued) and 6.20.7

<sup>&</sup>lt;sup>108</sup> For PCIs 6.26.1, 7.3.1 and 7.3.3, ACER has been informed that the project promoter intends to submit an investment request.

## Annex 1: Electricity PCIs

See separate pdf file distributed together with this Report, which contains a non-confidential version of some project specific information on electricity PCIs.<sup>110</sup> Link to <u>Annex 1</u>.

<sup>&</sup>lt;sup>110</sup> ACER will treat the confidentiality claims submitted by project promoters applying, by analogy, Article 27 of Decision No 19-2019 of the Administrative Board, laying down the rules of procedure of the Agency, available <u>here</u>.

## Annex 2: Gas PCIs

See separate pdf file distributed together with this Report, which contains a non-confidential version of some project specific information on gas PCIs.<sup>111</sup> Link to <u>Annex 2</u>.

<sup>&</sup>lt;sup>111</sup> ACER will treat the confidentiality claims submitted by project promoters applying, by analogy, Article 27 of Decision No 19-2019 of the Administrative Board, laying down the rules of procedure of ACER, available <u>here</u>.