

Draft Regional PCI/PMI lists – electricity, offshore, hydrogen and electrolysers, smart electricity grids, smart gas grids and cross-border carbon dioxide networks

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Electricity and offshore projects

1. Priority Corridor North-South electricity interconnections in Western Europe ('NSI West Electricity')

NSI West electricity transmission projects

PCI/PMI Candidate	Project name	Comments
PCI	Interconnection between Fontefria (ES) and Vila Nova de Famalicão (PT) (by Ponte de Lima) and the associated internal lines in ES and PT	
PCI	Interconnection between Gatica (ES) and Cubnezais (FR) [currently known as "Biscay Gulf"]	
PMI	Interconnection between Sicily (IT) and Tunisia node (TU) [currently known as "ELMED"]	
PCI	Interconnection between La Martyre (FR) and Great Island or Knockraha (IE) [currently known as "Celtic Interconnector"]	
PCI	Internal line in Germany from Emden-East to Osterath to increase capacity from Northern Germany to the Rhineland.	
PCI	Internal line in Germany between Brunsbüttel/Wilster to Großgartach/Grafenrheinfeld to increase capacity at Northern and Southern borders [currently known as "Suedlink"]	
PCI	Internal line between Osterath and Philippsburg (DE) to increase capacity at Western borders [currently known as "Ultranet"]	
PCI	Interconnection between Aragón region (ES) and Marsillon (FR) [currently known as "Pyrenean crossing 2"]	
PCI	Interconnection between Navarra (ES) and Landes (FR) [currently known as "Pyrenean crossing 1"]	
PCI	Interconnection between Lonny (FR) and Gramme (BE)	
PCI	Internal lines at the Belgian north border between Zandvliet and Lillo-Liefkenshoek (BE), and between Liefkenshoek and Mercator, including a substation in Lillo (BE) [currently known as "BRABO II + III"]	
PCI	Interconnection between mainland Italy - Corsica (FR) and Sardinia (IT) [currently known as "SACOI 3"]	
PCI	Internal lines in Germany between Heide/West to Polsum and from Wilhelmshaven to Uentrop to increase capacity from Northern Germany to the Ruhr-Area	
PMI	Interconnection between Belgium and the UK [currently known as "Cronos"]	
PMI	Interconnection between Germany and the UK [currently known as "Tarchon"]	

NSI West electricity storage projects

PCI/PMI Candidate	Project name	Comments
PCI	Kaunertal Storage Extension Project (AT)	
PCI	Purifying-Pumped Hydroelectric Energy Storage NAVALEO (ES)	
PCI	Silvermines Hydroelectric Power Station (IE)	
PCI	Pumped Hydroelectric Energy Storage Riedl (DE)	
PCI	Reversible Hydraulic Power Plant Los Guajares (ES)	
PCI	Green Hydrogen Hub Compressed Air Storage (DK)	
PCI	Pumped Hydroelectric Energy Storage WSK PULS (DE)	
PCI	Reversible Hydroelectric Power Pump AGUAYO II (ES)	
PCI	<i>Compressed Air Storage Zuidwending (NL)</i>	<i>NL expressed reservation on this project due to geological issues in the Groningen area.</i>
PCI	<i>Purifying-Pumped Hydroelectric Energy storage CUA (ES)</i>	<i>ES expressed reservation on this project due to rejection of the project's grid connection.</i>
PCI	<i>Purifying-Pumped Hydroelectric Energy Storage BUSEIRO (ES)</i>	<i>ES expressed reservation on this project due to non-compliance with the criteria necessary to start the permitting process.</i>

2. Priority Corridor North-South electricity interconnections in Central Eastern and South Eastern Europe ('NSI East Electricity')

NSI East electricity transmission projects

PCI/PMI candidate	Project name	Comments
PCI	Internal line within Czechia, between Prestice, Kocin and Mirovka [currently known as "CZ Southwest-east corridor"]	
PCI	Internal line in Germany between Wolmirstedt and Isar [currently known as "SuedOstLink"]	
PCI	Interconnector between Pleinting (DE) - St.Peter (AT)	
PCI	Internal line within Czechia between Vernerov, Vitkov and Prestice [currently known as "CZ Northwest-South corridor"]	
PCI	Interconnector between Würmlach (AT) - Somplago (IT)	
PMI	Interconnector between Greece, Cyprus and Israel [currently known as "EuroAsia Interconnector"]	
PCI	Interconnector between Hungary and Romania	
PCI	Internal line within Austria between St. Peter and Tauern	
PCI	Interconnector between Isar/Altheim/Ottenhofen (DE) - St.Peter (AT)	
PCI	Interconnector between Otrokovice (CZ) - Ladce (SK)	
PCI	Interconnector between Lienz (AT) - Veneto region (IT)	
PCI	Internal line within Austria between Westtirol (AT) - Zell/Ziller (AT)	
PMI	Interconnector between Subotica (SRB) and Sándorfalva (HU)	
PMI	<i>Interconnector between Ukraine and Poland</i>	<i>Poland expressed reservation on this project due to concerns on the cost-benefit assessment and regulatory concerns.</i>
PMI	<i>Interconnector between Greece and Egypt [currently known as "GREGY Interconnector"]</i>	<i>Initial cost-benefit ratio not sufficient; Greece expressed its support for the project; security of supply/grid stability benefits to be reassessed.</i>

NSI East electricity storage projects

PCI/PMI candidate	Project name	Comments
PCI	Hydro-pumped storage in Amfilochia (EL)	
PCI	Ptolemaida Battery Energy Storage System (EL)	
PCI	Modernisation of Pumped Hydroelectric Energy Storage in Čierny Váh (SK) [currently known as “SE Integrator”]	

3. Priority Corridor Baltic Energy Market Interconnection Plan in electricity ('BEMIP Electricity')

BEMIP electricity transmission projects

PCI/PMI candidate	Project name	Comments
PCI	3 rd AC interconnection between Finland and Sweden North [currently known as “Aurora line”]	
PCI	Internal line between Stanisławów and Ostrołęka (PL)	
PCI	Integration and synchronisation of the Baltic States' electricity system with the European networks	
PCI	Interconnection between Finland and Estonia [currently known as “Estlink 3”]	
PCI	4 th AC interconnection between Finland and Sweden North [currently known “as Aurora line 2”]	
<i>PCI</i>	<i>Interconnection between Latvia and Sweden via Gotland [currently known as “LaSGo Link”]</i>	<i>SE expressed reservation on this project due to on-going assessments.</i>

BEMIP electricity storage projects

PCI/PMI candidate	Project name	Comments
PCI	Hydro-pump storage in Estonia	

4. Priority Corridor Northern Seas offshore grid ('NSOG')

NSOG electricity transmission projects

PCI/PMI candidate	Project name	Comments
PMI	Multi-purpose interconnector between Modular Offshore Grid 2 (BE) and Leisten (UK) [currently known as "Nautilus"]	
PMI	Multi-purpose HVDC interconnection between Great Britain and the Netherlands [currently known as "LionLink"]	
PCI	One or more hubs in the North Sea with interconnectors to bordering North Sea countries (Denmark, the Netherlands and Germany) [currently known as "North Sea Wind Power Hub"]	
PCI	Offshore hybrid interconnector between Belgium and Danish Energy Island (DK) [currently known as "Triton Link"]	
PCI	High voltage offshore substation and connection to Menuel (FR) [currently known as "Offshore Wind connection Centre Manche 1"]	
PCI	High voltage offshore substation and connection to Tourbe (FR) [currently known as "Offshore Wind connection Centre Manche 2"]	
PCI	<i>High voltage offshore substation and connection to onshore substation along the Shannon Estuary (IE) [currently known as "Sea Socket"]</i>	<i>IE expressed reservation on this project due to ongoing discussion on the national approach to offshore infrastructure assets.</i>

5. Priority Corridor Baltic Energy Market Interconnection Plan offshore grids ('BEMIP offshore')

BEMIP offshore electricity transmission projects

PCI/PMI candidate	Project name	Comments
PCI	Latvia and Estonia Hybrid Offshore interconnector	
PCI	Bornholm Energy Island (BEI) Hybrid Offshore interconnector between Denmark and Germany	

6. Priority Corridor South and West offshore grids ('SW offshore')

SW offshore electricity transmission projects

PCI/PMI candidate	Project name	Comments
PCI	Offshore Wind Connection Occitanie (FR)	
PCI	Offshore Wind Connection PACA (FR)	

7. Priority Corridor South and East offshore grids ('SE offshore')

No PCI/PMI candidate has been submitted.

8. Priority Corridor Atlantic offshore grids

Atlantic offshore electricity transmission projects

PCI/PMI candidate	Project name	Comments

PCI	Offshore Wind Connection South Brittany (FR)	
PCI	Offshore Wind Connection South Atlantic (FR)	

Hydrogen and electrolyser projects¹

9. Hydrogen interconnections in Western Europe (HI West)

HI WEST Hydrogen transmission projects

PCI/PMI candidate	Project name	Comments
PCI	<u>Corridor Portugal – Spain – France - Germany</u> <ul style="list-style-type: none"> – Internal infrastructure in Portugal – Interconnection Portugal – Spain – Internal infrastructure in Spain except Guitiriz - Zamora H2 Pipeline – Interconnection Spain -France (currently known as BarMar) – Internal infrastructure in France connecting to Germany (currently known as HyFen) except Section Saint Martin de Crau – Cruzy – Internal infrastructure in Germany connecting to France (currently known as H2Hercules South) 	
PCI	<u>France-Germany cross-border hydrogen valleys:</u> <ul style="list-style-type: none"> – Interconnection France-Germany (currently known as RHYn) except section Freiburg – Offenbach – Interconnection France-Germany (currently known as Mosahyc) 	
PCI	Internal infrastructure in Belgium (currently known as Belgian Hydrogen Backbone)	
PCI	Internal infrastructure in the Netherlands (currently known as National Hydrogen Backbone) except Limburg area and its connection to the North-South backbone in the East of the Netherlands	
PCI	Internal infrastructure in France at the border to Belgium (currently known as Franco-Belgian H2 corridor)	
PCI	German offshore pipeline (currently known as AquaDuctus)	
PCI	Interconnection Denmark – Germany (currently known as West DK hydrogen system; HyperLink III)	

¹ Relevant for ACER's opinion if considered as falling under the competence of national regulatory authorities.

PMI	Offshore pipeline Norway-Germany (currently known as CHE Pipeline)	
PCI	Interconnection Austria-Germany (currently known as H2 WAG and Penta West; HyPipe Bavaria)	
PCI	<p><i>Belgium - Germany interconnection:</i></p> <ul style="list-style-type: none"> - <i>Antwerp-Eynatten pipeline (part of the Belgian Hydrogen Backbone)</i> - <i>Internal infrastructure in Germany (currently known as H2ercules West)</i> 	<i>The interconnection did not show sustainability benefits. Belgium and Germany expressed their support for the project and requested its reassessment.</i>
PCI	<p><i>Interconnections National Hydrogen Backbone (NL) – Germany:</i></p> <ul style="list-style-type: none"> - <i>Connection from the North-South backbone in East to Oude (Netherlands) - H2ercules North (Germany)</i> - <i>Connection from the North-South backbone in East to Vlieghuis (Netherlands) - Vlieghuis-Ochtrup (Germany)</i> - <i>Connection from the North-South backbone in East to Zevenaar/Elten (Netherlands) - H2ercules North-West (Germany)</i> <p><i>Cross-border pipeline from Netherlands to Germany (currently known as Delta Rhine Corridor H2)</i></p>	<i>The Delta Rhine Corridor H2 showed a negative cost-benefit assessment. Germany and Netherlands are further reflecting on which out of the 4 interconnections are to be prioritised.</i>

HI WEST reception facilities

PCI/PMI candidate	Project Name	Comments
PCI	Ammonia reception facility Antwerp (Fluxys) (Belgium)	
PCI	Ammonia reception facility Amplifhy Antwerp (Belgium)	
PCI	Zeebrugge New Molecules development ammonia reception facility (Belgium)	
PCI	Ammonia reception facility Dunkerque (France)	
PCI	Rotterdam LH2 reception facility, except the ship (Netherlands)	
PCI	Ammonia reception facility Amplifhy Rotterdam (Netherlands)	
PCI	Ammonia reception facility ACE Rotterdam (Netherlands)	
PCI	Ammonia reception facility terminal Brunsbüttel (Germany)	
PCI	Ammonia reception facility Wilhelmshaven (BP) (Germany)	

PCI	Ammonia reception facility Wilhelmshaven (Uniper) (Germany)	
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HI WEST electrolyser projects

PCI candidate	Project Name	Comments
PCI	H2Sines.RDAM electrolyser (Portugal)	
PCI	Tarragona hydrogen network electrolyser (Spain)	
PCI	Bilbao large scale electrolyser (Spain)	
PCI	Cartagena large scale electrolyser (Spain)	
PCI	Valle andaluz del hidrógeno verde electrolyser (Spain)	
PCI	Asturias H2 valley electrolyser (Spain)	
PCI	CarlHYng electrolyser (France)	
PCI	Emil'Hy (France)	
PCI	HyGreen electrolyser (France)	
PCI	H2V Valenciennes electrolyser (France)	
PCI	H2Thionville electrolyser (France)	
PCI	Enecolyser electrolyser (Netherlands)	
PCI	H2-Fifty electrolyser (Netherlands)	
PCI	SeaH2Land electrolyser (Netherlands)	
PCI	GreenWilhelmshaven electrolyser (Germany)	
PCI	CHC Wilhelmshaven electrolyser (Germany)	
PCI	Jytske Banke electrolyser (Denmark)	

HI WEST Hydrogen storage projects

PCI/PMI candidate	Project Name	Comments
PCI	Danish Hydrogen Storage (Denmark)	
PCI	Hystock Opslag H2 storage (Netherlands)	
PCI	Salthy hydrogen storage Harsefeld (Germany)	
PCI	H2 Storage Gronau-Epe (Germany)	
PCI	Storage GeoH2 (France)	
PCI	H2 storage North-1 (Spain)	
PCI	H2 storage North-2 (Spain)	

10. Hydrogen interconnections in Central Eastern and South Eastern Europe (HI East)

HI EAST Hydrogen transmission projects

PCI/PMI candidate	Project Name	Comments
PCI	Hydrogen Corridor Italy-Austria-Germany: <ul style="list-style-type: none"> - Italian H2 Backbone except section Poggio Renatico to Gries Pass - H2 Readiness of the TAG pipeline system - H2 Backbone WAG + Penta West - HyPipe Bavaria – The Hydrogen Hub 	
PCI	Czech German Hydrogen Interconnection (Route from Baltic region): <ul style="list-style-type: none"> - FLOW East - Making Hydrogen Happen - Czech German Hydrogen Interconnector (CZ part) 	
PCI	Hydrogen Interconnection Bulgaria -Greece: <ul style="list-style-type: none"> - Dedicated H2 Pipeline in Greece except section Karperi to Komotini - H2 transmission system in Bulgaria 	
PCI/PMI	Generic Corridor between Ukraine, Slovakia, Czechia, Austria, and Germany	

11. Baltic Energy Market Interconnection Plan in hydrogen (BEMIP Hydrogen)

BEMIP Hydrogen transmission projects

PCI/PMI candidate	Project Name	Comments
PCI	Hydrogen interconnector between Sweden and Finland (known as Nordic Hydrogen Route – Bothnian Bay) except section Kiruna to Lulea (SE)	
PCI	<p>Hydrogen interconnector between Finland, Estonia, Latvia, Lithuania, Poland and Germany (known as Nordic-Baltic Hydrogen Corridor) except for:</p> <ul style="list-style-type: none"> - 4 internal sections of the FI pipeline Kyröskoski ; Imatra; Loviisa, through Kotka and Porvoo through Tolkinen (geographical references are approximate and solely given as indications) - Internal line in LT connecting to Klaipeda - One section of the DE pipeline from Magdeburg to Potsdam (geographical references are approximate and solely given as indications) 	
PCI	Interconnection between Sweden, Finland and Germany (known as the Baltic Sea Hydrogen Collector)	

Electricity, offshore, hydrogen and electrolyser projects that failed to prove positive benefit - cost ratio

PCI/PMI candidate	Project name	
PMI	<i>Electricity Interconnection between Woodland (IE) and Turleenan (UK) [currently known as "North-South interconnector"]</i>	<i>Cost-benefit ratio not sufficient</i>
PMI	<i>Interconnection between Ireland and UK [currently known as "MaresConnect"]</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Electricity Storage Online Grid Controller PSKW-Rio Trier (DE)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Electricity Interconnector between Hradec (CZ) – Röhrsdorf (DE)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Electricity Internal line within Austria between Lienz (AT) - Obersielach (AT)</i>	<i>Cost-benefit ratio not sufficient</i>
PMI	<i>Electricity Interconnector between Suceava (RO) – Balti (MD)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Electricity storage ELSEA – European Large Scale Energy Accumulation, Slovakia</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen GreenRoot electrolyser (Germany)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen H2era electrolyser (Netherlands)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen [H2ercules] Electrolyser Site Voerde (Germany)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen [H2ercules] Electrolyser Site Lingen (Germany)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen [H2ercules] Electrolyser Site Weisweiler (Germany)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen [H2ercules] Electrolyser Site Wilhelmshaven (Germany)</i>	<i>Cost-benefit ratio not sufficient</i>
PCI	<i>Hydrogen [H2ercules] Electrolyser Site Brunsbüttel (Germany)</i>	<i>Cost-benefit ratio not sufficient</i>

Priority Thematic Areas

12. Priority Thematic Area Smart electricity grids deployment ('Smart electricity grids')

PCI/PMI candidate	Project Name	Comments
PCI	ACON (CZ, SK) - Again COnnected Networks to foster the integration of the Czech and Slovak electricity markets by improving efficiency of distribution networks	
PCI	CARMEN (BG, RO) to establish regional phasor data exchange, enhance TSO-DSO cooperation and improve grid stability, security and flexibility	
PCI	Danube InGrid (HU, SK) to efficiently integrate the behaviour and actions of all market users connected to the electricity networks in Hungary and Slovakia, except for paperless workflow management, voicebot, chatbot, workforce management automation, joint auctions SK-UA and assets for tourism cave.	
PCI	Gabreta Smart Grids (CZ, DE) to increase grid hosting capacity, enable remote monitoring and control of MV grids and improve grid observability and network planning	
PCI	GreenSwitch (AT, HR, SI) to increase hosting capacity for distributed renewable sources and efficient integration of new loads, improving observability of the distribution network and increasing cross-border capacity	

13. Priority Thematic Area Smart gas grids deployment ('Smart gas grids')

No projects have been found eligible for CBA assessment.

14. Priority Thematic Area of Cross-border carbon dioxide network ('CO2')

PCI/PMI candidate	Project name	Comments
PCI	CO2 TransPorts (NL, BE)	
PMI	Northern Lights European CO2 Transport EcoSystem (BE, FR, NL, DE, SE, NO, UK) [currently known as "N-LITES"]	
PCI	Aramis Cross Border CO2 Transport and Storage project (NL, BE) [currently known as "Aramis"]	
PCI	Delta Rhine CO2 Corridor (NL, DE)	
PCI	EU2NSEA - EU to North Sea (DE, BE, FR, LV, SE, NO, CH)	
PMI	Nautilus CO2 (FR, DE, NO) [currently known partially as "D'Artagnan"]	
PCI	Project Bifrost (DK, DE, PL)	
PCI	Project Norne (DK, BE)	
PCI	CCS Baltic Consortium (LT, LV)	
PCI	ECO2CEE (PL, LT) [currently known as "Poland-EU CCS Interconnector"]	
PCI	GT CCS Croatia (HR, HU)	
PCI	CALLISTO (CARbon Liquefaction, transportation and STorage) Mediterranean CO2 Network (IT, FR)	
PCI	<i>Prinos CO2 project (EL, IT, HR)</i>	<i>The suitability of the storage location – potential enhanced oil recovery - will be reassessed over the summer by the relevant EL authorities.</i>
PCI	<i>PYCASSO - PYreanean CO2 Abatement through Sustainable Sequestration Operations (FR, ES)</i>	<i>Spain expressed reservation on this project.</i>

For information to ACER: Projects that maintain their status of project of common interest (Article 24 derogation)

Project Name	Comments
Connection of Malta to the European gas network – pipeline interconnection with Italy at Gela	

<p>Pipeline from the East Mediterranean gas reserves to Greece mainland via Cyprus and Crete [currently known as “EastMed Pipeline”], with metering and regulating station at Megalopoli</p>	
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