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COMMISSION DELEGATED REGULATION (EU) No .../..

of 14.10.2013

**amending Regulation (EU) No 347/2013 of the European Parliament and of the Council
on guidelines for trans-European energy infrastructure as regards the Union list of
projects of common interest**

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE DELEGATED ACT

Objective and legal basis of the proposed action

This delegated Regulation identifies the projects to be part of the first Union list of projects of common interest (PCIs), which are needed to implement the trans-European networks and to live up to the challenges of a competitive, sustainable and secure energy system.

It will be an Annex to Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure¹, in accordance with Article 3(4) of Regulation (EU) No 347/2013, which empowers the Commission to adopt, every two years, a delegated act which establishes the Union list of PCIs. This Union list must be based on the regional lists of PCIs, which are adopted by the decision-making bodies of the Regional Groups established for the purpose of this Regulation.

General context of this delegated Regulation

Significant investments are urgently needed to modernise and expand Europe's energy networks to achieve the Union's energy and climate policy objectives in terms of competitiveness, sustainability and security of supply. Interconnected smart electricity grids are necessary to foster market integration, to integrate the increasing amounts of electricity generated from renewable sources, and to maintain the system's security at the same time. A secure gas supply calls for an interconnected, diversified and more flexible pipeline system, and land-locked countries in Central-Eastern Europe are in need of diversified oil supplies.

To this aim, Regulation (EU) No 347/2013 sets out a new framework under which energy infrastructure is planned and implemented, for the period up to 2020 and beyond

Regulation (EU) No 347/2013 establishes nine strategic geographic infrastructure priority corridors in the domains of electricity, gas and oil, and three Union-wide infrastructure priority areas for electricity highways, smart grids and carbon dioxide transportation networks, and introduces a transparent and inclusive process to identify concrete projects of common interest (PCIs), which are needed to implement the priority corridors. This process is based on regional cooperation, involving all relevant parties in the field of energy, who deliver their knowledge and expertise with regard to the technical feasibility and market conditions, both from a national and a European perspective. Stakeholders include transmission system operators (TSOs) and other project promoters, ministries, national regulatory authorities (NRAs), the European Network of Transmission System Operators in gas and electricity (ENTSO-E and ENTSOG), the Agency for the Cooperation of Energy Regulators (ACER), the Commission, and observers such as the Energy Community.

PCIs in the field of electricity highways and CO₂ networks have not yet been identified as projects are not sufficiently mature at this stage. These priorities are of longer-term horizon and will hence be subject to later PCI identification rounds.²

In smart grids, only two projects were identified which fulfil the criteria of Regulation (EU) No 347/2013 in that both distribution and transmission components are addressed. Those projects addressing the distribution and metering dimension only are covered by other Union legislation (eTEN, Horizon 2020), hence these projects are not included in this PCI list.

¹ OJ L, 25.4.2013, p.39.

² Work on electricity highways has been initiated in the context of an FP7-funded project "e-Highway2050" led by ENTSO-E, which will feed into the upcoming PCI identification processes.

Once the PCIs are identified, their implementation will be facilitated by

- Streamlined and efficient permit granting procedures, whilst respecting the requirements of Union law, in particular broad public participation and early integration of environmental concerns;
- Improved regulatory treatment by allocating costs in function of the net benefits as well as appropriate investment incentives.

Where appropriate and subject to further assessment, Union financial support under the Connecting Europe Facility in the form of grants for studies and innovative financial instruments, as well as grants for works for a subset of projects may be granted. While Regulation (EU) No 347/2013 establishes the criteria for the eligibility of projects, financial assistance is provided by the Regulation establishing the Connecting Europe Facility with a budget of EUR 5.1 bn for energy in the period 2014-2020.³

2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

Process towards the adoption of the first Union list of PCIs

The process to establish the first Union list of PCIs started in March 2012. Due to the legislative obligation to establish the first list by 30 September 2013 as set out in Article 3(4) of Regulation (EU) No 347/2013, on time for the new Multiannual Financial Framework 2014-2020, it was necessary to speed up the first PCI identification process. Therefore, the first meetings of the regional groups were convened while Regulation (EU) No 347/2013 was still under inter-institutional negotiation. On the basis of agreed Terms of Reference, the Regional groups adapted their work in accordance with the (minor) modifications of the relevant parts of Regulation (EU) No 347/2013, and succeeded in adopting the final regional lists by July 2013.

The first process to establish the final regional lists of PCIs took place as follows:

- (a) **Project promoters to submit PCI candidates:** The Ten Year Network Development Plans (TYNDPs) developed by ENTSO-E and ENTSOG in accordance with Regulation (EC) 714/2009 and Regulation (EC) 715/2009, which mostly contain projects of TSOs, were used as one basis for the collection of candidate PCIs.

However, due to the fact that the TYNDPs were not yet suited to be the sole basis (as envisaged for the subsequent rounds according to Annex III 2(4) of Regulation (EU) No 347/2013), a request for information, mainly addressed to non-TSO project promoters, was published on the Commission website in May 2012 with the aim to obtain further PCI candidates.

All project promoters submitted via questionnaires the relevant project information, which was needed to prove the projects' contribution to the fulfilment of the criteria of Regulation (EU) No 347/2013.

- (b) **NRAs to check criteria and cross-border relevance:** The NRAs of each Member State, coordinated by ACER, then cross-checked the fulfilment of the criteria as well as the cross-border relevance of each of the projects and submitted their findings to the Regional Groups.
- (c) **Regional Groups to assess individual projects:** The Regional Groups, assisted by consultants, carried out the individual project assessments. The projects were scored

³ The total budget for CEF-Energy of EUR 5.1 billion is given in 2011 prices.

and ranked according to the projects' contribution to the fulfilment of the criteria in line with Annex III point 2 (11) and Annex IV of Regulation (EU) No 347/2013. For electricity, this was mainly based on the cost-benefit analysis (CBA) included in the TYNDP, complemented by some further analysis of non-TYNDP projects by ENTSO-E. For gas, this was done by the Regional Groups according to an agreed methodology. Following this quantitative assessment, a further qualitative evaluation was done, looking into the urgency of the projects, the Member States affected, territorial cohesion etc. as required by Article 4(4) of Regulation (EU) No 347/2013.

(d) **Consultation of stakeholders:** According to Annex III.5 of Regulation (EU) No 347/2013, each Group has to consult the relevant stakeholders, including producers, distribution system operators, suppliers, consumers, and organisations for environmental protection. In order to obtain views of those stakeholders, the following consultations were carried out:

- Public consultation from July until October 2012;
- Consultation of electricity stakeholders at the Florence Forum of May 2013;
- Consultation of gas stakeholders at the Gas Coordination Group in June 2013;
- Consultation of environmental stakeholders in June 2013.

In summary, no major comments from an energy policy perspective were received, due to the fact that the most relevant parties in the energy field were part of the PCI identification process mentioned above. Most stakeholders consulted expressed their general support, some highlighted the need to remain competitive and optimise the overall investment framework.

Some concerns were raised by environmental stakeholders on certain environmental impacts of specific projects. However, it was explained that the inclusion of these projects in the Union list is subject to their continued compliance with Union law, in particular Union environmental legislation, as also indicated under Point 3 below.

If a project included in the PCI list turns out not to be in compliance with the EU acquis it should be removed from the Union list of PCIs.

(e) **Decision-making bodies of the Regional Groups to agree on draft regional PCI lists:** Following the assessment of the individual projects, the draft regional lists were agreed upon during meeting of the decision-making bodies at technical level, consisting of representatives of the Commission and Member States, held on 13 July 2013, subject to some open questions to be addressed by the relevant parties before the adoption of the Union list.

(f) **ACER to give opinion on draft regional PCI lists:** The draft regional PCI lists were submitted to ACER, which issued its opinion on 17 July 2013. While pointing out some lessons learnt for the future with regard to the process and methodology in the first identification round, ACER appreciated the work done and recommended that the draft regional lists merit adoption as the first Union list of PCIs.

(g) **Decision-making bodies of the Regional Groups to agree on final regional lists:** The final regional PCI lists were adopted by the decision-making bodies on 24 July 2013, subject to reservations on some individual projects which need to demonstrate their compliance with Union and national legislation before their inclusion in the Union list.

- (h) **Commission to adopt Union list:** Based on the final regional lists, the Commission has the power to adopt the Union list of PCIs per this delegated act. Due to on-going discussions on the designation of Natura 2000 sites by the date of adoption of the Union list, one project has not been included therein.

In numbers, about 430 projects (270 in electricity, 150 in gas, 6 in oil and 4 in smart grids) have been submitted by TSOs and other project promoters.

The regional groups have then assessed their eligibility, i.e. whether projects meet the general criteria established by Regulation (EU) No 347/2013. By discarding those projects that did not meet the general criteria, the regional groups reduced the number of projects to about 250 (150 in electricity, 100 in gas, 6 in oil and 2 in smart grids). These projects were scored and ranked according to their contribution to the fulfilment of the specific criteria of Regulation (EU) No 347/2013, taking also into account opinions of the NRAs. In electricity, most eligible projects remained on the lists (some were withdrawn by promoters or opposed by Member States), whereas in gas, due to the relatively high number of projects, the regional groups had to select those projects which contribute most to the fulfilment of the specific criteria. In oil and smart grids, all eligible projects remained.

Finally, the final regional lists agreed by the decision-making bodies on 24 July contained **69** clusters of 136 PCIs in electricity, **55** clusters of 104 PCIs in gas, 6 oil and 2 smart grid PCIs. From the projects included in the final regional lists, one project was not included in the Union list for the reasons mentioned above.

3. LEGAL ELEMENTS OF THE DELEGATED ACT

Summary of the proposed action

This delegated Regulation identifies the first set of PCIs which are deemed necessary to implement the priority corridors identified in the TEN-E Regulation, and which are eligible to benefit from its provisions regarding accelerated permit granting procedures, improved regulatory treatment, and, subject to further assessment, Union financial assistance.

It is to be recalled that all projects included in this delegated Regulation have to comply with Union legislation, including with regard to the unbundling provisions as set out in Directive 2009/72/EC⁴ and Directive 2009/73/EC⁵.

⁴ OJ L 211, 14.8.2009, p.55.

⁵ OJ L 211, 14.8.2009, p.94.

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009⁶, and in particular Article 3(4) thereof,

Whereas:

- (1) Regulation (EU) No 347/2013 sets out a new framework for infrastructure planning and project implementation for the period up to 2020 and beyond. It identifies nine strategic geographic infrastructure priority corridors in the domains of electricity, gas and oil, and three Union-wide infrastructure priority areas for electricity highways, smart grids and carbon dioxide transportation networks, and establishes a transparent and inclusive process to identify concrete projects of common interest (PCIs). Projects labelled as PCIs will benefit from accelerated and streamlined permit granting procedures, better regulatory treatment and – where appropriate – financial support under the Connecting Europe Facility (CEF).
- (2) Pursuant to Article 3 (4) of Regulation (EU) No 347/2013, the Commission is to be empowered to adopt delegated acts to establish the Union list of PCIs (Union list) on the basis of the regional lists adopted by the decision-making bodies of the Regional Groups as established under that Regulation.
- (3) Project proposals submitted for inclusion in the first Union list of PCIs were assessed by the Regional Groups established under the Regulation and composed of representatives of the Member States, national regulatory authorities, transmission system operators (TSOs), as well as the Commission, the Agency for the Cooperation of Energy Regulators (the Agency) and the European Network of Transmission System Operators for Electricity and Gas (ENTSO-E and ENTSOG).
- (4) In the context of the work of the Regional Groups, organisations representing relevant stakeholders, including producers, distribution system operators, suppliers, consumers, and organisations for environmental protection, were consulted.
- (5) The draft regional lists were agreed upon during a meeting at technical level, comprising representatives of the Commission and of the relevant Member States, on 13 July 2013. Following an opinion by the Agency on the draft regional lists submitted on 17 July 2013, the final regional lists were adopted by the decision-making bodies of the Regional Groups on 24 July 2013. All of the proposed projects obtained the

⁶ OJ L 115, 25.4.2013, p. 39.

approval of the Member States to which territory they relate, in accordance with Article 172 of the TFEU and with Article 3(3)(a) of Regulation (EU) No 347/2013 .

- (6) The Union list of PCIs is based on the final regional lists. One project had to be removed from the list due to on-going discussions on the designation of Natura 2000 sites.
- (7) The projects on this first Union list of PCIs were assessed against, and found to meet, the criteria for projects of common interest set out in Article 4 of Regulation (EU) No 347/2013.
- (8) Cross-regional consistency was ensured, taking into account the opinion of the Agency submitted on 17 July 2013.
- (9) The PCIs are listed according to the order of the priority corridors set out in Annex I of Regulation (EU) No 347/2013. The list does not contain any ranking of projects.
- (10) PCIs are either listed as stand-alone PCIs or as part of a cluster of several PCIs. Some PCIs have been clustered because of their interdependent, potentially competing or competing nature.⁷ All PCIs are subject to the same rights and obligations established by Regulation (EU) No 347/2013.
- (11) The Union list contains PCIs in different stages of their development. Some are still in the early phases, i.e., the pre-feasibility, feasibility or assessment phases. In those cases, studies are still needed to demonstrate that the projects are technically and economically viable, and that they are compliant with Union legislation, and with Union environmental legislation in particular. In this context, potential impacts on the environment should be adequately identified, assessed and avoided or mitigated.
- (12) The inclusion of projects in the Union list of PCIs, in particular of those still in the early phases, is without prejudice to the outcome of relevant environmental assessment and permitting procedures. Projects not in compliance with Union legislation should be removed from the Union list of PCIs. The implementation of the PCIs, including their compliance with EU legislation, should be monitored at national level and pursuant to Article 5 of Regulation (EU) No 347/2013.
- (13) Pursuant to Article 3(4) of Regulation (EU) No 347/2013, the Union list is to take the form of an annex to that Regulation.
- (14) Regulation (EU) No 347/2013 should therefore be amended accordingly,

HAS ADOPTED THIS REGULATION:

Article 1

An Annex VII is added to Regulation (EU) No 347/2013 in accordance with the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

⁷ As explained in Annex.

Done at Brussels, 14.10.2013

*For the Commission
The President
José Manuel BARROSO*

ANNEX

The following annex is added to Regulation (EU) No 347/2013:

"Annex VII

UNION LIST OF PROJECTS OF COMMON INTEREST ('UNION LIST'), referred to in Article 3(4)

A. The Commission applied the following principles when establishing the Union list:

1. Clusters of PCIs

Some PCIs form part of a cluster because of their interdependent, potentially competing or competing nature. The following principles were applied for the clustering of PCIs:

- A **cluster of interdependent PCIs** is defined as a "Cluster X including the following PCIs". Clusters of interdependent projects have been formed to identify those projects which are all needed to address the same bottleneck across country borders and which provide synergies if realised together. In this case, all projects have to be implemented to realise the Union-wide benefits.
- A **cluster of potentially competing PCIs** is defined as a "Cluster X including one or more of the following PCIs". Clusters of potentially competing projects reflect uncertainty around the extent of the bottleneck across country borders. In this case, not all of the PCIs contained in the clusters have to be implemented. It is left to the market whether all, several or one of the projects go ahead, subject to the necessary planning, permitting and regulatory approvals. The need for the projects shall be reassessed in the subsequent PCI identification process, including with regard to the capacity needs.
- A **cluster of competing PCIs** is defined as a "Cluster X including one of the following PCIs". Clusters of competing projects address the same bottleneck across country borders. However, the extent of the bottleneck is more certain than in the second case above and it is therefore clear that only one of the PCIs has to be implemented. It is left to the market which one of the projects goes ahead, subject to the necessary planning, permitting and regulatory approvals. Where necessary, the need for the projects shall be reassessed in the subsequent PCI identification process.

All PCIs are subject to the same rights and obligations established by Regulation (EU) No 347/2013.

2. Treatment of substations, back-to-back stations and compressor stations

Substations and back-to-back stations in electricity and compressor stations in gas are considered as part of the PCIs and are not mentioned explicitly, if they are geographically located on the transmission line. If they are placed in a different location, they are explicitly mentioned. These items are subject to the rights and obligations of Regulation (EU) No 347/2013.

B. Union list of projects of common interest

1. Priority corridor Northern Seas offshore grid ('NSOG')

No.	Definition
1.1	Cluster Belgium – United Kingdom between Zeebrugge and Canterbury [currently known as the NEMO project] including the following PCIs: 1.1.1 Interconnection between Zeebrugge (BE) and the vicinity of Richborough (UK) 1.1.2 Internal line between the vicinity of Richborough and Canterbury (UK) 1.1.3 Internal line between Dungeness to Sellindge and Sellindge to Canterbury (UK)
1.2	PCI Belgium – two grid-ready offshore hubs connected to the onshore substation Zeebrugge (BE) with anticipatory investments enabling future interconnections with France and/or UK
1.3	Cluster Denmark - Germany between Endrup and Brunsbüttel including the following PCIs: 1.3.1 Interconnection between Endrup (DK) and Niebüll (DE) 1.3.2 Internal line between Brunsbüttel and Niebüll (DE)
1.4	Cluster Denmark - Germany between Kassø and Dollern including the following PCIs: 1.4.1 Interconnection between Kassø (DK) and Audorf (DE) 1.4.2 Internal line between Audorf and Hamburg/Nord (DE) 1.4.3 Internal line between Hamburg/Nord and Dollern (DE)
1.5	PCI Denmark - Netherlands interconnection between Endrup (DK) and Eemshaven (NL)
1.6	PCI France – Ireland interconnection between La Martyre (FR) and Great Island or Knockraha (IE)
1.7	Cluster France-United Kingdom interconnections, including one or more of the following PCIs: 1.7.1 France – United Kingdom interconnection between Cotentin (FR) and the vicinity of Exeter (UK) [currently known as FAB project] 1.7.2 France - United Kingdom interconnection between Tourbe (FR) and Chilling (UK) [currently known as the IFA2 project] 1.7.3 France - United Kingdom interconnection between Coquelles (FR) and Folkestone (UK) [currently known as the ElecLink project]
1.8	PCI Germany - Norway interconnection between Wilster (DE) and Tonstad (NO) [currently known as the NORD.LINK project]
1.9	Cluster connecting generation from renewable energy sources in Ireland to United Kingdom, including one or more of the following PCIs: 1.9.1 Ireland – United Kingdom interconnection between Co. Offaly (IE), Pembroke and Pentir (UK) 1.9.2 Ireland – United Kingdom interconnection between Coolkeeragh - Coleraine hubs (IE) and Hunterston station, Islay, Argyll and Location C Offshore Wind Farms (UK) 1.9.3 Ireland – United Kingdom interconnection between the Northern hub, Dublin and Codling Bank (IE) and Trawsfynydd and Pembroke (UK) 1.9.4 Ireland – United Kingdom interconnection between the Irish midlands and Pembroke (UK) 1.9.5 Ireland – United Kingdom interconnection between the Irish midlands and Alverdiscott, Devon (UK) 1.9.6 Ireland – United Kingdom interconnection between the Irish coast and Pembroke (UK)
1.10	PCI Norway – United Kingdom interconnection
1.11	Cluster of electricity storage projects in Ireland and associated connections to United Kingdom, including one or more of the following PCIs: 1.11.1 Hydro-pumped storage in North West Ireland 1.11.2 Ireland – United Kingdom interconnection between North West Ireland (IE) and Midlands (UK) 1.11.3 Hydro-pumped (seawater) storage in Ireland – Glinsk 1.11.4 Ireland – United Kingdom interconnection between Glinsk, Mayo (IE) and Connah's Quay, Deeside (UK)

1.12	PCI compressed air energy storage in United Kingdom - Larne
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2. Priority corridor North-South electricity interconnections in Western Europe ('NSI West Electricity')

2.1	PCI Austria internal line between Westtirol and Zell-Ziller (AT) to increase capacity at the AT/DE border
2.2	Cluster Belgium - Germany between Lixhe and Oberzier [currently known as the ALEGrO project] including the following PCIs: 2.2.1 Interconnection between Lixhe (BE) and Oberzier (DE) 2.2.2 Internal line between Lixhe and Herderen (BE) 2.2.3 New substation in Zutendaal (BE)
2.3	Cluster Belgium - Luxembourg capacity increase at the BE/LU border including the following PCIs: 2.3.1 Coordinated installation and operation of a phase-shift transformer in Schifflange (LU) 2.3.2 Interconnection between Aubange (BE) and Bascharage/Schifflange (LU)
2.4	PCI France - Italy interconnection between Codrongianos (IT), Lucciana (Corsica, FR) and Suvereto (IT) [currently known as the SA.CO.I. 3 project]
2.5	Cluster France - Italy between Grande Ile and Piosasco, including the following PCIs: 2.5.1 Interconnection between Grande Ile (FR) and Piosasco (IT) [currently known as Savoie-Piemont project] 2.5.2 Internal line between Trino and Lacchiarella (IT)
2.6	PCI Spain internal line between Santa Llogaia and Bescanó (ES) to increase capacity of the interconnection between Bescanó (ES) and Baixas (FR)
2.7	PCI France - Spain interconnection between Aquitaine (FR) and the Basque country (ES)
2.8	PCI Coordinated installation and operation of a phase-shift transformer in Arkale (ES) to increase capacity of the interconnection between Argia (FR) and Arkale (ES)
2.9	PCI Germany internal line between Osterath and Philippsburg (DE) to increase capacity at Western borders
2.10	PCI Germany internal line between Brunsbüttel-Großgartach and Wilster-Grafenrheinfeld (DE) to increase capacity at Northern and Southern borders
2.11	Cluster Germany – Austria - Switzerland capacity increase in Lake Constance area including the following PCIs: 2.11.1 Interconnection between border area (DE), Meiningen (AT) and Rüthi (CH) 2.11.2 Internal line in the region of point Rommelsbach to Herbertingen, Herbertingen to Tiengen, point Wullenstetten to point Niederwangen (DE) and the border area DE-AT
2.12	PCI Germany – Netherlands interconnection between Niederrhein (DE) and Doetinchem (NL)
2.13	Cluster Ireland – United Kingdom (Northern Ireland) interconnections, including one or more of the following PCIs: 2.13.1 Ireland – United Kingdom interconnection between Woodland (IE) and Turleenan (UK – Northern Ireland) 2.13.2 Ireland – United Kingdom Interconnection between Srananagh (IE) and Turleenan (UK – Northern Ireland)
2.14	PCI Italy – Switzerland interconnection between Thusis/Sils (CH) and Verderio Inferiore (IT)
2.15	Cluster Italy – Switzerland capacity increase at IT/CH border including the following PCIs: 2.15.1 Interconnection between Airolo (CH) and Baggio (IT) 2.15.2 Upgrade of Magenta substation (IT) 2.15.3 Internal line between Pavia and Piacenza (IT) 2.15.4 Internal line between Tirano and Verderio (IT)
2.16	Cluster Portugal capacity increase at PT/ES border including the following PCIs: 2.16.1 Internal line between Pedralva and Alfena (PT) 2.16.2 Internal line between Pedralva and Vila Fria B (PT)

	2.16.3 Internal line between Frades B, Ribeira de Pena and Feira (PT)
2.17	PCI Portugal - Spain interconnection between Vila Fria - Vila do Conde – Recarei (PT) and Beariz - Fontefría (ES)
2.18	PCI capacity increase of hydro-pumped storage in Austria - Kaunertal, Tyrol
2.19	PCI hydro-pumped storage in Austria - Obervermuntwerk II, Vorarlberg province
2.20	PCI capacity increase of hydro-pumped storage in Austria - Limberg III, Salzburg
2.21	PCI hydro-pumped storage in Germany - Riedl

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

3.1	Cluster Austria - Germany between St. Peter and Isar including the following PCIs: 3.1.1 Interconnection between St. Peter (AT) and Isar (DE) 3.1.2 Internal line between St. Peter and Tauern (AT) 3.1.3 Internal line between St. Peter and Ernsthofen (AT)
3.2	Cluster Austria - Italy between Lienz and Veneto region including the following PCIs: 3.2.1 Interconnection between Lienz (AT) and Veneto region (IT) 3.2.2 Internal line between Lienz and Obersielach (AT) 3.2.3 Internal line between Volpago and North Venezia (IT)
3.3	PCI Austria - Italy interconnection between Nauders (AT) and Milan region (IT)
3.4	PCI Austria – Italy interconnection between Wurlach (AT) and Somplago (IT)
3.5	Cluster Bosnia and Herzegovina - Croatia between Banja Luka and Lika including the following PCIs: 3.5.1 Interconnection between Banja Luka (BA) and Lika (HR) 3.5.2 Internal lines between Brinje, Lika, Velebit and Konjsko (HR)
3.6	Cluster Bulgaria capacity increase with Greece and Romania including the following PCIs: 3.6.1 Internal line between Vetren and Blagoevgrad (BG) 3.6.2 Internal line between Tsarevets and Plovdiv (BG)
3.7	Cluster Bulgaria - Greece between Maritsa East 1 and N. Santa including the following PCIs: 3.7.1 Interconnection between Maritsa East 1 (BG) and N. Santa (EL) 3.7.2 Internal line between Maritsa East 1 and Plovdiv (BG) 3.7.3 Internal line between Maritsa East 1 and Maritsa East 3 (BG) 3.7.4 Internal line between Maritsa East 1 and Burgas (BG)
3.8	Cluster Bulgaria – Romania capacity increase including the following PCIs: 3.8.1 Internal line between Dobrudja and Burgas (BG) 3.8.2 Internal line between Vidino and Svoboda (BG) 3.8.3 Internal line between Svoboda (BG) and the splitting point of the interconnection Varna (BG) - Stupina (RO) in BG 3.8.4 Internal line between Cernavoda and Stalpu (RO) 3.8.5 Internal line between Gutinas and Smardan (RO) 3.8.6 Internal line between Gadalina and Suceava (RO)
3.9	Cluster Croatia – Hungary - Slovenia between Žerjavenec /Heviz and Cirkovce including the following PCIs: 3.9.1 Interconnection between Žerjavenec (HR)/Heviz (HU) and Cirkovce (SI) 3.9.2 Internal line between Divača and Beričevo (SI) 3.9.3 Internal line between Beričevo and Podlog (SI) 3.9.4 Internal line between Podlog and Cirkovce (SI)
3.10	Cluster Israel - Cyprus – Greece between Hadera and Attica region [currently known as the Euro Asia Interconnector] including the following PCIs: 3.10.1 Interconnection between Hadera (IL) and Vasilikos (CY) 3.10.2 Interconnection between Vasilikos (CY) and Korakia, Crete (EL) 3.10.3 Internal line between Korakia, Crete and Attica region (EL)
3.11	Cluster Czech Republic internal lines to increase capacity at North-Western and Southern borders including the following PCIs:

	<p>3.11.1 Internal line between Vernerov and Vitkov (CZ)</p> <p>3.11.2 Internal line between Vitkov and Prestice (CZ)</p> <p>3.11.3 Internal line between Prestice and Kocin (CZ)</p> <p>3.11.4 Internal line between Kocin and Mirovka (CZ)</p> <p>3.11.5 Internal line between Mirovka and Cebin (CZ)</p>
3.12	PCI internal line in Germany between Lauchstädt and Meitingen to increase capacity at Eastern borders
3.13	PCI internal line in Germany between Halle/Saale and Schweinfurt to increase capacity in the North-South Corridor East
3.14	<p>Cluster Germany – Poland between Eisenhüttenstadt and Plewiska [currently known as the GerPol Power Bridge project] including the following PCIs:</p> <p>3.14.1 Interconnection between Eisenhüttenstadt (DE) and Plewiska (PL)</p> <p>3.14.2 Internal line between Krajnik and Baczyna (PL)</p> <p>3.14.3 Internal line between Mikułowa and Świebodzice (PL)</p>
3.15	<p>Cluster Germany – Poland between Vierraden and Krajnik including the following PCIs:</p> <p>3.15.1 Interconnection between Vierraden (DE) and Krajnik (PL)</p> <p>3.15.2 Coordinated installation and operation of phase shifting transformers on the interconnection lines between Krajnik (PL) – Vierraden (DE) and Mikulowa (PL) – Hagenwerder (DE)</p>
3.16	<p>Cluster Hungary - Slovakia between Gönyű and Gabčíkovo including the following PCIs:</p> <p>3.16.1 Interconnection between Gönyű (HU) and Gabčíkovo (SK)</p> <p>3.16.2 Internal line between Velký Ďur and Gabčíkovo (SK)</p> <p>3.16.3 Extension of Győr substation (HU)</p>
3.17	PCI Hungary - Slovakia interconnection between Sajóvánka (HU) and Rimavská Sobota (SK)
3.18	<p>Cluster Hungary - Slovakia between Kisvárda area and Velké Kapušany including the following PCIs:</p> <p>3.18.1 Interconnection between Kisvárda area (HU) and Velké Kapušany (SK)</p> <p>3.18.2 Internal line between Lemešany and Velké Kapušany (SK)</p>
3.19	<p>Cluster Italy - Montenegro between Villanova and Lastva including the following PCIs:</p> <p>3.19.1 Interconnection between Villanova (IT) and Lastva (ME)</p> <p>3.19.2 Internal line between Fano and Teramo (IT)</p> <p>3.19.3 Internal line between Foggia and Villanova (IT)</p>
3.20	<p>Cluster Italy – Slovenia between West Udine and Okroglo including the following PCIs:</p> <p>3.20.1 Interconnection between West Udine (IT) and Okroglo (SI)</p> <p>3.20.2 Internal line between West Udine and Redipuglia (IT)</p>
3.21	PCI Italy – Slovenia interconnection between Salgareda (IT) and Divača - Bericevo region (SI)
3.22	<p>Cluster Romania – Serbia between Resita and Pancevo including the following PCIs:</p> <p>3.22.1 Interconnection between Resita (RO) and Pancevo (RS)</p> <p>3.22.2 Internal line between Portile de Fier and Resita (RO)</p> <p>3.22.3 Internal line between Resita and Timisoara/Sacalaz (RO)</p> <p>3.22.4 Internal line between Arad and Timisoara/Sacalaz (RO)</p>
3.23	PCI hydro-pumped storage in Bulgaria - Yadenitsa
3.24	PCI hydro-pumped storage in Greece - Amfilochia
3.25	PCI battery storage systems in Central South Italy
3.26	PCI hydro-pumped storage in Poland - Mloty

4. Priority corridor Baltic Energy Market Interconnection Plan ('BEMIP Electricity')

4.1	PCI Denmark – Germany interconnection between Ishøj/Bjæverskov (DK) and Bentwisch/Güstrow (DE) via offshore windparks Kriegers Flak (DK) and Baltic 2 (DE) [currently known as Kriegers Flak Combined Grid Solution]
4.2	Cluster Estonia – Latvia between Kilingi-Nõmme and Riga [currently known as 3 rd interconnection] including the following PCIs: 4.2.1 Interconnection between Kilingi-Nõmme (EE) and Riga CHP2 substation (LV) 4.2.2 Internal line between Harku and Sindi (EE)
4.3	PCI Estonia / Latvia / Lithuania synchronous interconnection with the Continental European networks
4.4	Cluster Latvia - Sweden capacity increase [currently known as the NordBalt project] including the following PCIs: 4.4.1 Internal line between Ventspils, Tume and Imanta (LV) 4.4.2 Internal line between Ekhyddan and Nybro/Hemsjö (SE)
4.5	Cluster Lithuania – Poland between Alytus (LT) and Elk (PL) including the following PCIs: 4.5.1 LT part of interconnection between Alytus (LT) and LT/PL border 4.5.2 Internal line between Stanisławów and Olsztyn Mątki (PL) 4.5.3 Internal line between Kozienice and Siedlce Ujrzanów (PL) 4.5.4 Internal line between Płock and Olsztyn Mątki (PL)
4.6	PCI hydro-pumped storage in Estonia - Muuga
4.7	PCI capacity increase of hydro-pumped storage in Lithuania - Kruonis

5. Priority corridor North-South gas interconnections in Western Europe ('NSI West Gas')

Projects allowing bidirectional flows between Ireland and the United Kingdom

5.1	Cluster to allow bidirectional flows from Northern Ireland to Great Britain and Ireland and also from Ireland to United Kingdom including the following PCIs: 5.1.1 Physical reverse flow at Moffat interconnection point (Ireland/United Kingdom) 5.1.2 Upgrade of the SNIP (Scotland to Northern Ireland) pipeline to accommodate physical reverse flow between Ballylumford and Twynholm 5.1.3 Development of the Islandmagee Underground Gas Storage (UGS) facility at Larne (Northern Ireland)
5.2	PCI Twinning of Southwest Scotland onshore system between Cluden and Brighthouse Bay. (United Kingdom)
5.3	PCI Shannon LNG Terminal located between Tarbert and Ballylongford (Ireland)

Projects allowing bidirectional flows between Portugal, Spain France and Germany

5.4	PCI 3 rd interconnection point between Portugal and Spain
5.5	PCI Eastern Axis Spain-France - interconnection point between Iberian Peninsula and France at Le Perthus [currently known as Midcat]
5.6	PCI Reinforcement of the French network from South to North – Reverse flow from France to Germany at Obergailbach/Medelsheim Interconnection point (France)
5.7	PCI Reinforcement of the French network from South to North on the Bourgogne pipeline between Etrez and Voisines (France)
5.8	PCI Reinforcement of the French network from South to North on the east Lyonnais pipeline between Saint-Avit and Etrez (France)

Bidirectional flows between Italy, Switzerland, Germany and Belgium/France

5.9	PCI Reverse flow interconnection between Switzerland and France
5.10	PCI Reverse flow interconnection on TENP pipeline in Germany
5.11	PCI Reverse flow interconnection between Italy and Switzerland at Passo Gries interconnection point
5.12	PCI Reverse flow interconnection on TENP pipeline to Eynatten interconnection point (Germany)

Development of interconnections between the Netherlands, Belgium, France and Luxembourg

5.13	PCI New interconnection between Pitgam (France) and Maldegem (Belgium)
5.14	PCI Reinforcement of the French network from South to North on the Arc de Dierrey pipeline between Cuvilly, Dierrey and Voisines (France)
5.15	Cluster implementing gas compressor optimisation in the Netherlands including the following PCIs: 5.15.1 Emden (from Norway to Netherlands) 5.15.2 Winterswijk/Zevenaar (from the Netherlands to Germany) 5.15.3 Bocholtz (from the Netherlands to Germany) 5.15.4 's Gravenvoeren (from the Netherlands to Belgium) 5.15.5 Hilvarenbeek (from the Netherlands to Belgium)
5.16	PCI Extension of the Zeebrugge LNG terminal.
5.17	Cluster between Luxembourg, France and Belgium including one or more of the following PCIs: 5.17.1 Interconnection between France and Luxembourg. 5.17.2 Reinforcement of the interconnection between Belgium and Luxembourg

Other projects

5.18	PCI Reinforcement of the German network to reinforce interconnection capacities with Austria [currently known as Monaco pipeline phase I] (Haiming/Burghausen-Finsing)
5.19	PCI Connection of Malta to the European Gas network (gas pipeline with Italy at Gela and Floating LNG Storage and Re-gasification Unit (FSRU))
5.20	PCI Gas Pipeline connecting Algeria to Italy (Sardinia) and France (Corsica) [currently known as Galsi & Cyréné pipelines]

6. Priority corridor North-South gas interconnections in Central Eastern and South Eastern Europe ('NSI East Gas')

Projects allowing bidirectional flows between Poland, Czech Republic, Slovakia and Hungary linking the LNG terminals in Poland and Croatia

6.1	Cluster Czech – Polish interconnection upgrade and related internal reinforcements in Western Poland, including the following PCIs: 6.1.1 Poland - Czech Republic Interconnection [currently known as Stork II] between Libhošť – Hať (CZ/PL) – Kędzierzyn (PL) 6.1.2 Lwowek-Odolanow pipeline 6.1.3 Odolanow compressor station 6.1.4 Czeszów-Wierzchowice pipeline 6.1.5 Czeszów-Kielczów pipeline 6.1.6 Zdieszowice-Wrocław pipeline 6.1.7 Zdieszowice-Kędzierzyn pipeline 6.1.8 Tworog-Tworzen pipeline 6.1.9 Tworóg-Kędzierzyn pipeline 6.1.10 Pogorska Wola-Tworzen pipeline 6.1.11 Strachocina – Pogórska Wola pipeline
6.2	Cluster Poland – Slovakia interconnection and related internal reinforcements in Eastern Poland, including the following PCIs: 6.2.1 Poland – Slovakia interconnection 6.2.2 Rembelszczyzna compressor station 6.2.3 Rembelszczyzna-Wola Karczewska pipeline 6.2.4 Wola Karczewska-Wronów pipeline 6.2.5 Wronów node 6.2.6 Rozwadów-Końskowola-Wronów pipeline 6.2.7 Jarosław-Rozwadów pipeline 6.2.8 Hermanowice-Jarosław pipeline 6.2.9 Hermanowice-Strachocina pipeline
6.3	PCI Slovakia – Hungary Gas Interconnection between Vel'ké Zlievce (SK) – Balassagyarmat border (SK/HU) - Vecsés (HU)
6.4	PCI Bidirectional Austrian – Czech interconnection (BACI) between Baumgarten (AT) – Reinthal (CZ/AT) – Brečlav (CZ)

Projects allowing gas to flow from Croatian LNG terminal to neighbouring countries

6.5	Cluster Krk LNG Regasification Vessel and evacuation pipelines towards Hungary, Slovenia and Italy, including the following PCIs: 6.5.1 LNG Regasification vessel in Krk (HR)
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	6.5.2 Gas pipeline Zlobin – Bosiljevo – Sisak – Kozarac – Slobodnica (HR) 6.5.3 LNG evacuation pipeline Omišalj – Zlobin (HR) – Rupa (HR) / Jelšane (SI) – Kalce (SI) or 6.5.4 Gas pipeline Omišalj (HR) – Casal Borsetti (IT)
6.6	PCI Interconnection Croatia – Slovenia (Bosiljevo – Karlovac – Lučko – Zabok – Rogatec (SI))
6.7	PCI Interconnection Slovenia – Italy (Gorizia (IT)/Šempeter (SI) – Vodice (SI))

Projects allowing gas flows from the Southern Gas Corridor and /or LNG terminals in Greece through Greece, Bulgaria, Romania, Serbia and further to Hungary as well as Ukraine, including reverse flow capability from south to north and integration of transit and transmission systems

6.8	Cluster Interconnection between Greece and Bulgaria and necessary reinforcements in Bulgaria, including the following PCIs: 6.8.1 Interconnection Greece – Bulgaria [currently known as IGB] between Komotini (EL) – Stara Zagora (BG) 6.8.2 Necessary rehabilitation, modernization and expansion of the Bulgarian transmission system
6.9	Cluster LNG terminal in Greece, including one of the following PCIs: 6.9.1 Independent Natural Gas System LNG Greece 6.9.2 Aegean LNG import terminal
6.10	PCI Gas Interconnection Bulgaria – Serbia [currently known as IBS]
6.11	PCI Permanent reverse flow at Greek – Bulgarian border between Kula (BG) – Sidirokastro (EL)
6.12	PCI Increase the transmission capacity of the existing pipeline from Bulgaria to Greece
6.13	Cluster Romania – Hungary – Austria transmission corridor, including the following PCIs: 6.13.1 Városföld-Ercsi– Győr pipeline + enlargement of Városföld Compressor station + modification of central odorization 6.13.2 Ercsi-Százhalombatta pipeline 6.13.3 Csanádpalota or Algyő compressor station
6.14	PCI Romanian – Hungarian reverse flow at Csanádpalota or Algyő (HU)
6.15	Cluster Integration of the transit and transmission system and implementation of reverse flow in Romania, including the following PCIs: 6.15.1 Integration of the Romanian transit and transmission system 6.15.2 Reverse flow at Isaccea

Projects allowing gas from the Southern gas corridor and/or LNG terminals reaching Italy to flow towards the north to Austria, Germany and Czech Republic (as well as towards the NSI West corridor)

6.16	PCI Tauerogasleitung (TGL) pipeline between Haiming (AT)/Überackern (DE) – Tarvisio (IT)
6.17	PCI Connection to Oberkappel (AT) from the southern branch of the Czech transmission system
6.18	PCI Adriatica pipeline (IT)
6.19	PCI Onshore LNG terminal in the Northern Adriatic (IT) ⁸

Projects allowing development of underground gas storage capacity in South-Eastern Europe

⁸ The precise location of the LNG terminal in the Northern Adriatic will be decided by Italy in agreement with Slovenia.

6.20	Cluster increase storage capacity in South-East Europe, including one or more of the following PCIs: 6.20.1 Construction of new storage facility on the territory of Bulgaria 6.20.2 Chiren UGS expansion 6.20.3 South Kavala storage in Greece 6.20.4 Depomures storage in Romania
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Other projects

6.21	PCI Ionian Adriatic Pipeline (Fieri (AB) – Split (HR))
6.22	Cluster Azerbaijan–Georgia–Romania Interconnector project, including the following PCIs: 6.22.1 Gas pipeline Constanta (RO) – Arad – Csanádpalota (HU) [currently known as AGRI] 6.22.2 LNG terminal in Constanta (RO)
6.23	PCI Hungary – Slovenia interconnection (Nagykanizsa – Tornyiszentmiklós (HU) – Lendava (SI) – Kidričevo)

7. Priority corridor Southern Gas Corridor ('SGC')

7.1	Cluster of integrated, dedicated and scalable transport infrastructure and associated equipment for the transportation of a minimum of 10 bcm/a of new sources of gas from the Caspian Region, crossing Georgia and Turkey and ultimately reaching final EU markets through two possible routes: one crossing South-East Europe and reaching Austria, the other one reaching Italy through the Adriatic Sea, and including one or more of the following PCIs: 7.1.1 gas pipeline from the EU to Turkmenistan via Turkey, Georgia, Azerbaijan and the Caspian [currently known as the combination of the "Trans Anatolia Natural Gas Pipeline" (TANAP), the "Expansion of the South-Caucasus Pipeline" (SCP-(F)X) and the "Trans-Caspian Gas Pipeline" (TCP)] 7.1.2 Gas compression station at Kipi (EL) 7.1.3 Gas pipeline from Greece to Italy via Albania and the Adriatic Sea [currently known as the "Trans-Adriatic Pipeline" (TAP)] 7.1.4 Gas pipeline from Greece to Italy via the Adriatic Sea [currently known as the "Interconnector Turkey-Greece-Italy" (ITGI)] 7.1.5 Gas pipeline from Bulgaria to Austria via Romania and Hungary
7.2	PCI consisting of integrated, dedicated and scalable transport infrastructures and associated equipment for the transportation of a minimum of 8 bcm/a of new sources of gas from the Caspian Region (Azerbaijan and Turkmenistan) to Romania, including the following projects: 7.2.1 Sub-marine gas pipeline in the Caspian Sea from Turkmenistan to Azerbaijan [currently known as the "Trans-Caspian Gas Pipeline" (TCP)] 7.2.2 Upgrade of the pipeline between Azerbaijan and Turkey via Georgia [currently known as the "Expansion of the South-Caucasus Pipeline" (SCP-(F)X)] 7.2.3 Sub-marine pipeline linking Georgia with Romania [currently known as "White Stream"]
7.3	Cluster of gas infrastructures and associated equipment for the transportation of new sources of gas from the offshore fields in the East Mediterranean including one or more of the following PCIs: 7.3.1 Pipeline from offshore Cyprus to Greece mainland via Crete 7.3.2 LNG storage located in Cyprus [currently known as the "Mediterranean Gas Storage"]
7.4	Cluster of interconnections with Turkey, including the following PCIs: 7.4.1 Gas compression station at Kipi (EL) with a minimum capacity of 3bcm/a

	7.4.2 Interconnector between Turkey and Bulgaria with a minimum capacity of 3 bcm/a [currently known as "ITB"]
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8. Priority corridor Baltic Energy Market Interconnection Plan in gas ('BEMIP Gas')

8.1	Cluster LNG supply in the Eastern Baltic Sea Region, including the following PCIs: 8.1.1 Interconnector between Estonia and Finland "Balticconnector", and 8.1.2. One of the following LNG terminals: 8.1.2.1 Finnulf LNG 8.1.2.2 Paldiski LNG 8.1.2.3 Tallinn LNG 8.1.2.4 Latvian LNG
8.2	Cluster infrastructure upgrade in the Eastern Baltic Sea region, including the following PCIs: 8.2.1 Enhancement of Latvia-Lithuania interconnection 8.2.2 Enhancement of Estonia-Latvia interconnection 8.2.3 Capacity enhancement of Klaipeda-Kiemenai pipeline in Lithuania 8.2.4 Modernization and expansion of Incukalns Underground Gas Storage
8.3	PCI Poland–Denmark interconnection "Baltic Pipe"
8.4	PCI Capacity expansion on DK-DE border
8.5	PCI Poland-Lithuania interconnection [currently known as "GIPL"]
8.6	PCI Gothenburg LNG terminal in Sweden
8.7	PCI Capacity extension of Swinoujscie LNG terminal in Poland
8.8	PCI Upgrade of entry points Lwówek and Włocławek of Yamal-Europe pipeline in Poland

9. Priority corridor Oil Supply Connections in Central Eastern Europe (OSC)

9.1.	PCI Adamowo-Brody pipeline: pipeline connecting the JSC Uktransnafta's Handling Site in Brody (Ukraine) and Adamowo Tank Farm (Poland)
9.2.	PCI Bratislava-Schwechat-Pipeline: pipeline linking Schwechat (Austria) and Bratislava (Slovak Republic)
9.3.	PCI JANAF-Adria pipelines: reconstruction, upgrading, maintenance and capacity increase of the existing JANAF and Adria pipelines linking the Croatian Omisalj seaport to the Southern Družba (Croatia, Hungary, Slovak Republic)
9.4.	PCI Litvinov (Czech Republic)-Spergau (Germany) pipeline: the extension project of the Družba crude oil pipeline to the refinery TRM Spergau
9.5.	Cluster Pomeranian pipeline (Poland), including the following PCIs: 9.5.1. Construction of Oil Terminal in Gdańsk 9.5.2. Expansion of the Pomeranian Pipeline: loopings and second line on the Pomeranian pipeline linking Plebanka Tank Farm (near Płock) and Gdańsk Handling Terminal
9.6.	PCI TAL Plus: capacity expansion of the TAL Pipeline between Trieste (Italy) and Ingolstadt (Germany)

10. Priority thematic area Smart Grids Deployment

10.1	North Atlantic Green Zone Project (Ireland, UK / Northern Ireland): Lower wind curtailment by implementing communication infrastructure, enhance grid control and establishing (cross-border) protocols for Demand Side Management
10.2	Green-Me (France, Italy): Enhance RES integration by implementing automation, control and monitoring systems in HV and HV/MV substations, advanced communicating with the

	renewable generators and storage in primary substations
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