January 2012

Description of alternative measures to be adopted by the Hellenic Republic for the further liberalisation of the Greek wholesale electricity generation market, including lignite-fired generation

1. The Hellenic Republic is evaluating various measures for the further liberalisation of the Greek wholesale electricity generation market, including lignite-fired generation, as alternatives to the measures set out in the Commission's August 2009 Decision([1]). The aim is to increase competition in the Greek wholesale electricity market through environmentally-sustainable power generation to the benefit of the consumer and achieve the 20-20-20 objective.

2. On that basis, 1640 MW of the present lignite-fired electricity generating net capacity of the Public Power Corporation S.A. ("PPC") would come under the control of third parties (i.e., entities not affiliated with PPC), using a capacity release program comprised of a combination of measures.

3. The alternative measures have been developed to be consistent with the Hellenic Republic's plan concerning the decommissioning of some of PPC's existing lignite fired power generation plants (Annex I), and its preference to grant third parties access to electricity generated from lignite extracted from the deposits that are currently available for exploitation, in line with the Hellenic Republic's broader environmental and energy policies so as to achieve the 20-20-20 objective. Within this framework one mine not currently exploited (in the Vevi area) is in the process of being offered for exploitation by a party independent of PPC.

4. The alternative measures consist of transactions falling into two categories:

   (i) Sale of four plants. The plants owned by PPC and named "Meliti" (the existing plant), "Megalopoli 3", "Amynteo 1" and "Amynteo 2" will be sold to third parties. Total net capacity of these plants today is 1090 MW.

   (ii) Swap Drawing Rights. Swap Drawing Right Agreements will be offered to third parties. These will be of plant-specific nature and will concern the plants named "Kardia1" and "Kardia2". Total net capacity offered through these contracts is today 550 MW, and duration of the contracts is up to the planned decommissioning dates of the plants concerned as defined in Annex I.

A description of these alternative measures follows.

---

[1] Commission Decision of 4 August 2009 establishing the specific measures to correct the anti-competitive effects of the infringement identified in the Commission Decision of 5 March 2008 on the granting or maintaining in force by the Hellenic Republic of rights in favour of the Public Power Corporation S.A. for extraction of lignite.

Sale of plants

5. The following plants will be offered for sale to third parties:

   (i) "Meliti" (the existing plant), present net capacity 289 MW.

   (ii) "Megalopoli 3", present net capacity 255 MW.

   (iii) "Amynteo 1", present net capacity 273 MW.

   (iv) "Amynteo 2", present net capacity 273 MW.

Location and characteristics of the plants are presented in Annex II.

6. The sale of these plants will be carried out in one or more lots through the establishment of one or more (up to three) Société(s) Anonyme(s) that will own the plant(s). This Société Anonyme will be the "Divestment Business" and it will be sold to one or more Buyers through open tender procedure as a going concern to a purchaser on terms of sale approved by the Commission.

7. In order to maintain the structural effect of the sale, PPC shall, for a period of 10 years after the transaction date, not acquire direct or indirect influence over the whole or part of the Divestment Business, unless the Commission has previously found that the structure of the market has changed to such an extent that such an acquisition is allowable.

8. (a) The Divestment Businesses include:

   (i) all tangible and intangible assets, which contribute to the current operation or are necessary to ensure the viability and competitiveness of the Divestment Business;

   (ii) all licences, permits and authorisations issued by any governmental organisation for the benefit of the Divestment Business;

   (iii) all contracts, leases and commitments of the Divestment Business; all supplier, customer, credit, personnel and other records of the Divestment Business;

   (iv) all supply and input contracts for the Divestment Business (including but not limited to lignite supply, limestone supply and grid connection capacity); such contracts will provide the Divestment Business with sufficient volume of lignite to allow it to operate at full capacity up to the planned decommissioning date of the plant.

   (v) all rights and allocations necessary for the operation of the Divestment Business including, but not limited to EU allowances for CO_2

emissions, pollution caps (SOX, NOX etc.), water off-take and waste water disposal rights, water and energy byproduct disposal; and

(vi) all plant personnel, including, for the avoidance of doubt, all personnel necessary to maintain the viability and competitiveness of the plant ("Key Personnel").

(b) Until the completion of the sale, PPC shall preserve the economic viability, marketability and competitiveness of the Divestment Business, in accordance with good business practice, and shall minimise as far as possible any risk of loss of competitive potential of the Divestment Business. In particular PPC undertakes:

(i) not to carry out any act upon its own authority that might have a significant adverse impact on the value, management or competitiveness of the Divestment Business or that might alter the nature and scope of activity, or the industrial or commercial strategy or the investment policy of the Divestment Business;

(ii) to make available sufficient resources for the development of the Divestment Business, on the basis and continuation of the existing business plans;

(iii) to take all reasonable steps, including appropriate incentive schemes (based on industry practice), to encourage all Key Personnel to remain with the Divestment Business.

9. The tender process for the sale(s) will be completed within a year from the date of the revised Commission Decision, and the completion of the sale(s) will be completed within 15 months from the date of the revised Commission Decision.

<u>Swap of Drawing Rights Agreements</u>

10. In addition to the above, the Hellenic Republic intends to ensure the release of PPC capacity through Swap Drawing Rights Agreements ("DRAs"), relating to specific lignite-fired generation plants namely "Kardia 1" and "Kardia 2". Both these plants have a present net capacity of 275 MW. This capacity is made available within the interconnected system and not at the borders.

11. The Hellenic Republic will ensure that, at the latest by the completion of the tender process for the DRAs, rules for the electricity generation market will allow the Buyers effective use of the DRAs in the Greek wholesale market and bidding of the corresponding capacity in that market. For the avoidance of doubt, if the compulsory pool is replaced with another mechanism for the wholesale sale of electricity during the life of the DRAs, the Hellenic Republic will ensure that the Buyers will be allowed to participate in their own right in such alternative market mechanism. The DRAs will be allocated through open competitive tendering process. The tender process for the DRAs will be completed within 9 months from the date of the revised Commission Decision, and the

completion of the sale(s) will be completed within 10 months from the date of the revised Commission Decision.

12. The Term Sheet in Annex III sets forth in greater detail the terms and conditions of the Greek leg of the swap contract. The Term Sheet, in particular, clarifies that the variable cost of generating electricity to be paid by the buyer when it draws electricity includes CO2 emission costs. This Term Sheet is not the contractual document to be signed by Buyers, who will contract DRAs supplemented by any additional agreements required. However, for the avoidance of doubt, the rights conferred on the buyer pursuant to any definitive DRA shall be no less favourable than those set out in the Term Sheet.

13. The Hellenic Republic will ensure that the duration of the DRAs will end on the respective planned decommissioning dates of the plants concerned as defined in Annex I.

14. Fall-back measures: In case one or both of the DRAs intended by the Hellenic Republic have not been concluded by PPC, or are not likely to be concluded in time for implementation by the date they are due, the Hellenic Republic will implement the following alternative measures: Sale of the plant corresponding to the DRA that will have not been sold, or is not expected to be sold. Such sale will happen in a manner similar to the sale transactions described above in paragraphs 5 to 9, and the tender process will be completed within 12 months from the date of the revised Commission Decision. In such case the completion of the sale will happen within 15 months from the date of the revised Commission Decision.

<u>Capacity to be built in the future</u>

15. The Greek State will ensure that, if new lignite-fired plants are commissioned in the Greek interconnected market within 10 years from the revised Commission Decision date, PPC shall continue to retain a share of the total lignite-fired power generation net capacity installed in Greece which shall not exceed 60%.

<u>Approval of buyers</u>

16. Buyers of the Divestment Businesses and buyers of the DRAs must be approved by the Commission. In order to be approved, a buyer must:

(i) be independent of and unconnected to PPC;

(ii) have the financial resources, proven expertise and incentive to maintain the capacity made available as a viable and active competitive force in the market; and

(iii) neither be likely to create, in the light of the information available to the Commission, prima facie competition concerns nor give rise to a risk that the implementation of this framework will be delayed, and must, in particular, reasonably be expected to obtain all necessary approvals from the relevant regulatory authorities to be eligible to use the rights awarded through the tender process.

17. (a) Buyers of the DRAs may transfer their rights and obligations pursuant to their DRAs to any third party. The Hellenic Republic may require that the buyer obtain all necessary approvals from the relevant regulatory authorities to be eligible to use the rights.

(b) PPC shall not acquire the DRAs and shall not directly or indirectly exert influence over any company holding the DRAs for a period of 10 years from the date they are entered into and until the end of their duration.

Monitoring Provisions

18. The procedures of sales of the Divestment Businesses and of the DRAs will be conducted in a transparent manner. A Monitoring Trustee will closely monitor it, and, inter alia, prepare and submit compliance reports every six months to the European Commission pertaining to the progress of the capacity release program. The Hellenic Republic will appoint a Monitoring Trustee with the Commission's approval. The Monitoring Trustee shall be independent of the Parties, possess the necessary qualifications to carry out its mandate, and shall neither have nor become exposed to a conflict of interest. The Monitoring Trustee shall be remunerated in a way that does not impede the independent and effective fulfilment of its mandate.

ANNEX I

Decommissioning Plan

PPC lignite fired generation Plants

Decommissioning Plan

December 2011

Unit	Net capacity (MW)	Commissioning date	Old decomm. date	New 20-20-20 decomm. date	New decomm date **no investment**	Comments
AGIOS DIMITRIOS 1	274,0 *	1984	2028	2020	2020	Limited to 32000 running hours 2016-23 due to IPPC constraints (Stack 1: units 1 & 2; stack 2: units 3 & 4)
AGIOS DIMITRIOS 2	274,0 *	1984	2029	2020	2020	
AGIOS DIMITRIOS 3	283,0 *	1985	2030	2020	2020	
AGIOS DIMITRIOS 4	283,0 *	1986	2031	2020	2020	
AGIOS DIMITRIOS 5	342,0	1997	2045	post 2040	2040	Subject to desulph. Invest.
AMYNTAIO 1	273,0 *	1987	2031	2020	2020	Limited to 17500 running hours 2016-23 (single stack)
AMYNTAIO 2	273,0 *	1987	2032	2020	2020	
MELITI	289,0	2003	2048	post 2040	post 2040	
KARDIA 1	275,0 *	1975	2019	2019	2019	Limited to 17500 running hours 2016-23 (4 separate stacks)
KARDIA 2	275,0 *	1975	2020	2020	2020	
KARDIA 3	280,0 *	1980	2025	2020	2020	
KARDIA 4	280,0 *	1981	2026	2020	2020	
PTOLEMAIDA 1	64,0	1959	2013	2010	2010	
PTOLEMAIDA 2	116,0	1962	2013	2012	2012	
PTOLEMAIDA 3	116,0	1965	2013	2014	2014	
PTOLEMAIDA 4	274,0	1973	2017	2015	2015	
LIPTOL 1	30,0	1959	2013	2012	2012	
LIPTOL 2	8,0	1965	2013	2012	2012	
MEGALOPOLI 1	113,0	Kept in reserve for security of supply	2010	2010	2010	
MEGALOPOLI 2	113,0		2010	2010	2010	
MEGALOPOLI 3	255,0	1975	2018	2025	2025	Closure because of lignite resource depletion
MEGALOPOLI 4	256,0	1991	2028	post 2030	2025	

ANNEX II

Characteristics of plants

	UNIT			
	MELITI	AMYNTEO 1	AMYNTEO 2	MEGALOPOLI 3
GROSS CAPACITY (MW) 2010	330	300	300	300
NET CAPACITY (MW) 2010	289	273	273	255
BOILER MANUFACTURER	ALSTOM	STEIN-INDUSTRIE	STEIN-INDUSTRIE	VKW
TURBINE MANUFACTURER	USSR (LMZ)	USSR (LMZ)	USSR (LMZ)	KWU
FIRST YEAR OF OPERATION	2003	1987	1987	1975
BASIC FUEL (2010)	LIGNITE	LIGNITE	LIGNITE	LIGNITE
LIGNITE CALORIFIC VALUE (Kcal/Kg)	1750- 2100	1200 -1300	1200 -1300	960 -1060
$EFOR_D$ (%)	10,4	9,5	12,9	19,0
NET THERMAL EFFICIENCY (2010)	31,88	32,01	32,5	27,91
DESULFURIZATION	YES	NO	NO	YES
DESULF. FIRST YEAR OF OPERATION	2003	-	-	2009
DISTRICT HEATING (MW_{th})	NO	25		20

	KARDIA 1	KARDIA 2
GROSS CAPACITY (MW) 2010	300	300
NET CAPACITY (MW) 2010	275	275
BOILER MANUFACTURER	STEIN-INDUSTRIE	STEIN-INDUSTRIE
TURBINE MANUFACTURER	ALSTOM	ALSTOM
FIRST YEAR OF OPERATION	1975	1975
BASIC FUEL (2010)	LIGNITE	LIGNITE
LIGNITE CALORIFIC VALUE (Kcal/Kg)	1280 -1360	1280 -1360
$EFOR_D$ (%)	13,3	9,2
NET THERMAL EFFICIENCY (2010)	30,24	31,68
DESULFURIZATION	NO	NO
DESULF. FIRST YEAR OF OPERATION	-	-
DISTRICT HEATING (MW_{th})	-	

Meliti **http://maps.google.com/?ll=40.811146,21.601267&spn=0.019002,0.038581&t=h&z=15&vpsrc=6**

Megalopoli 3 **http://maps.google.com/?ll=37.417567,22.108988&spn=0.004985,0.009645&t=h&z=17&vpsrc=6**

Amynteo 1 & 2 **http://maps.google.com/?ll=40.619816,21.683836&spn=0.019056,0.038581&t=h&z=15&vpsrc=6**

ANNEX III

Term Sheet