ZeniΘ
Κορυφαία ενέργεια.

European Commission
Directorate General for Energy
Unit C3 - Internal Energy Market
1049 Brussels
Belgium

Brussels
06/09/2021

Subject: Response of ZeniΘ – Eni Gas e Luce's subsidiary, to European Commission's consultation on the Greek Market Reform Plan.

Dear Sir/ Madam,

Following the European Commission's call for a public consultation on the Greek Market Reform Plan (here after the Plan), ZeniΘ – Eni Gas e Luce's subsidiary welcomes the opportunity to provide comments and opinions, concerning the Market Reform Plan's assessment and proposed measures. Further, we welcome the opportunity to provide comments directly to DG ENER regarding the Plan's conclusion of the need for a Capacity Renumeration Mechanism and for a Strategic Reserve Mechanism.

Further below we provide our comments and our remarks. Our letter is structured as following:

1. Section I. Comments regarding the Wholesale and Retail Markets assessment and proposed measures (Chapters 4 & 5 of the Plan).
2. Section II. Comments regarding the Financial analysis of the wholesale market-Generators Revenues (Chapter 6 of the Plan).
3. Section III. Comments regarding the conclusion of Market failure justifying a capacity remuneration mechanism (Chapter 7 of the Plan).
4. Conclusions-Proposals

1. Section I. Comments regarding the Wholesale and Retail Markets assessment and proposed measures

<u>Retail Market</u>

Regarding the overview of the Retail market and the proposed measures for the improvement of competition, our position is that overall, the Plan's review and analysis of the retail market overpasses certain remaining structural issues. These are associated mainly with the regulatory framework that strengthens the Incumbent's (PPC) dominant position and with the lack of wholesale risk management tools for Suppliers. Those asymmetries and structural effects have an adverse impact on retail market competition.

Suppliers lack at the moment, any wholesale market risk management tool given the very low liquidity of the Forward market. The phasing out of lignite plants along with the introduction of RES-PPAs are not sufficient and not relevant to counter balance the above mentioned issues and further enhance retail market competition.

Therefore, the Plan does not acknowledge certain asymmetries present in the market, failing to identify PPC's advantageous position as a vertically integrated Supplier with two third market share in retail market able to exploit costs scale advantages that cannot be filled by other non-vertically integrated Suppliers. On the contrary, the Plan states that there is no scope to implement an energy release program or any regulatory measures to increase retail market effective competition.

Overall, regarding the retail market section, we believe that the Plan should identify and propose appropriate regulatory measures so as to tackle the above mentioned asymmetries and improve competition in the retail market.

Wholesale Market

Balancing Market

The Plan mentions a predetermined date, December 2021, for the removal of the restrictions on the possibility of submitting negative bid prices by the balancing service providers. The removal of the restrictions is scheduled while none of the required actions that have been announced in terms of increasing competition in the Balancing Market has been implemented yet (e.g. activation of traders' participation in the intra-day market, activation of cumulative RES representation bodies and demand response in the balancing market). Further, the elimination of certain distortions that exist in the operation of the Balancing Market (eg simultaneous activation of positive and negative balancing energy) has not been achieved yet.

In general, in the Plan little reference is made to the distorted way in which the mechanism of the Greek Balancing Market operates today regarding the simultaneous activation of large quantities of upward and downward Balancing Energy (disproportionally higher in absolute terms compared to the real imbalance needs of the system), without creating any benefit for the System. Unfortunately, no measures have been taken to date to reduce or even mitigate this problem, although this issue has been widely discussed in the past with market participants and the Regulatory Authority (RAE). Instead, it is (rightly) proposed to divide the energy into two distinct parts (energy for balancing purposes and energy for off-balancing purposes), but this measure alone will only lead to a negligible reduction of the final cost of Uplift Accounts for Suppliers, and therefore for final Consumers.

Also, regarding the other possible measure that is proposed and could alleviate the aforementioned problem, ie the distinction (in a separate procedure) of the supply of reserves, no specific implementation schedule is presented, but postponed for future consideration, without commitment to its implementation. Additionally, the argument of the Plan that this measure could reduce liquidity in the Day-Ahead Market (since some reserve quantities will have already been committed at the time of the DAM execution) is debatable, since, even in the current regime the Producers consider their desired availability for the

reserve market (cleared within the Integrated Scheduling Process) when bidding in the Day-Ahead Market in advance. Also, committing a priori (prior to the DAM) to provide reserves is an established international market practice. Alternatively, the adoption of a reliability option scheme, like the Italian capacity market, would be a solution to this issue as contracted capacity is required to be fully offered on the DAM and then, if not selected in the DAM, can be offered on subsequent markets.

A possible release of the negative Balancing Energy bid prices in December 2021, without any substantial Balancing Market reform measures such as those mentioned above, carries a very high risk for Suppliers. Particularly at a time when the purely energy costs of wholesale markets have already risen to a decade high.

We propose the Plan to institute the necessary reforms in the above-mentioned directions in the first year, then after a sufficient period of market operation with the necessary changes implemented, an evaluation period should run so as to evaluate their effectiveness and, finally, on the basis of assessment of the success of the measures, to decide whether or not to remove the regulatory constraints reasonably imposed in order to contain the extremely high costs observed during the first period of operation of the balancing market.

In case a CRM is implemented after all, then we propose a conditional and gradual phase out of the regulatory constraints. The phase out should be linked with both the implementation of a potential well designed and market based CRM, along with an evaluation of the functioning of the Balancing Market and the success of the Plan's proposed measures.

2. Section II. Comments regarding the Financial analysis of the wholesale market

In this Chapter the financial analysis of the wholesale market, for the first six months of operation of the Target Model (Nov 2020 – Apr 2021) is conducted. For this analysis we would like to state the following:

The Forward Market is omitted in the analysis because presently lacks liquidity, as stated. However, this might change in the future, given the fact that the proposed anti-trust PPC lignite remedies are to be likely through the Henex Forward Market. Therefore, the Forward Market might gain liquidity and be another source of revenues for the generators, in the near future.

The Plan recognizes considerable high revenues for power generators from the Balancing Market for the six month period. It offers two main reasons for this. First, the significant discrepancies between the DAM and the ISP generation schedules and secondly, the considerable need for re-dispatching due to the limitations in the operation of the high voltage circuit in Peloponnese and other (e.g. over-voltages) system constraints. The Plan states that it is logical to expect the impact of these reasons is likely to decrease soon.

The reasons offered for that, are the full operation of the high voltage circuit foreseeable for the near future, will remove the network limitations. Also, balancing resources, such as storage and demand response, will diminish scarcity and mitigate the market power of those generators that submit highly-priced bids in the balancing market. Therefore, the Plan

concludes that is logical to expect a significant reduction of generators' revenues from the balancing energy part of the Balancing Market. Further, the Plan states that the high prices observed in Greece for balancing energy will reduce and align to EU averages.

Even more, the revenues from the Balancing Market are described as "uncertain". Due to the prediction that the balancing pre-emptive bidding behavior in the energy-only market will considerably decrease the generation scheduling differences from the unit commitment. In contrast, the removal of network congestions will further decrease re-dispatching. Additionally, the effect of the application of the shortage pricing function is considered to negligible, as it will be offset by the declining volume and the scarcity trend.

We are not sure if we share the Plan's confidence on the above conclusions. We consider them rather optimistic that need further justification and analysis. The increase of the total compensation of the thermal power units as balancing service providers, from the beginning of the operation of the new market (November 2020) until August 2021, remains at levels higher than 9 €/MWh (from 3-4 €/MWh under the previous regime of the Mandatory pool). The increased profitability of thermal production in recent months is certified by the published financial statements for the year 2020 and the first quarter of 2021 of the business groups active in the production of electricity. Further comments about the balancing market assumptions we have provided in Section I of our Letter.

According to the Plan, the revenues from the DAM and IDM have not been sufficient to allow a recovery of variable and fixed operation and maintenance costs of the thermal Plant generators. It is stated in the Plan, that the difference between revenues and operating costs, as estimated for the six-month period from November 2020 to April 2021, has been positive for gas Plants. The margin has been 24% above the sum of fuel and fixed operation and maintenance costs. It is only when the annual-equivalent capital costs are added, that the margins remaining turn negative.

According to the Plan, the revenue data are official, but the cost data are approximative and unofficial, based on experts' information and estimation. Hence, there is room for arguments and debate in the assumptions made for the cost data.

In view of the above, the finding presented in the Plan that the operation of the gas plants was totally unprofitable during the first half of the market under the provisions of the Target Model, is debatable. Reviewing the financial figures presented in Table 12 (p. 59) of the Plan, can be concluded that the operation of these units was particularly profitable in terms of operating result, presenting a gross result of 187m. euros (excluding only variable fuel costs) and 147m. euros, including fixed operating costs (maintenance, etc.).

According to the Plan these Plants remain unprofitable because they do not recover the cost of the initial capital investment (and therefore from the € 187 million gross 6-month operating profit, they result in a loss of approximately € 28 million, deducting a required investment cost of € 176 million on a 6-month basis (ie approximately € 350 million per year). Therefore, the argument used in the Plan to support the need to subsidize thermal production units, does not concern the existence of operating losses from their participation in the market but the non-recovery of a theoretical investment cost, the amount of which, in our opinion is not substantiated enough.

In particular, the Weighted Average Cost of Capital (WACC) of the investment in the construction and operation of a thermal power Plant, which is taken into account at the level

of 7.5%, is not accompanied by relevant analysis and sufficient justification. Furthermore, most investments in existing Plants built and commercially operated from 2010 to 2012 (4 private units), as well as older Plants built in the 2000s, are now considered fully depreciated, through market revenues and the subsidy temporary capacity renumeration mechanisms used in the past, or in the process of completing the amortization of their investment costs. These Plants have been depreciated and/or fully repaid their lending and therefore have a much lower fixed annual costs (only administrative/management costs). Even the partially repaid units, which are expected to repay their loans in full in the coming years, will also have, immediately after the repayment of their loans, low annual fixed costs and therefore a probable increased net profitability.

To sum up, in our opinion, the methodology for calculating the fixed costs of thermal Plants needs a significant overhaul, so as to provide further analysis and sufficient justification for these relevant estimated costs.

3. Section III. Comments regarding the conclusion of Market failure justifying a capacity remuneration mechanism

As per the EU Energy Acquis, Energy markets should be able to respond to the capacity adequacy needs of the system if they are well designed, liquid and well-integrated and interconnected. Regulation 2019/943 however allows capacity mechanism – as a further tool to ensure system adequacy - setting a procedure for their evaluation and identifying their main design principles. We are not a priori against capacity renumeration mechanisms, as we acknowledge that markets may not always be sufficient to provide long-term investment signals for capacity adequacy. If so is the case, proven by relative capacity adequacy assessments, then CRMs might be the solution to the problem.

Our general position is that capacity remuneration mechanisms (CRMs), should be implemented only if needed, must be market based and should be designed so as to avoid any impact on the operation of the markets and on the free and fair competition. In this perspective, centralized mechanism appear to be of least impact. Such mechanisms must surely include a claw back clause, and be available to all flexibility resources, such as storage facilities and demand response. Further, CRMs should also allow the actual participation of cross-border resources.

In this Chapter of the Plan, the need of CRM it is presented as an indisputable conclusion, while no such certainty emerges from the accompanying analysis. In particular, an attempt is made to substantiate the necessity of establishing such a mechanism on the basis of two main arguments:

1. Existence of a question of adequacy of power in the Hellenic Transmission System in the coming years.
2. Non-recovery of investment costs of thermal producers from their participation in the electricity markets.

Regarding the first argument, we must state that this is not yet confirmed by the Transmission System Operator, IPTO. The updated Power Adequacy Study, which is the only document to verify such a need, has not been published yet. On the other hand, even the assumptions considered in the Plan are particularly conservative, such as the case for the inclusion in the

coming years of only one single new thermal power plant currently under construction, while there have been official announcements and production licenses for investments in thermal units from various business groups with a total installed capacity of more than 4000 MW.

For these new power plants it is stated that there is not sufficient confidence for their commission. However, we believe a more robust Power Adequacy Study should take into account a number of scenarios for all relevant parameters and not rely on the most conservative version of them. Regarding the second argument we have elaborated extensively on Section II of our Letter.

As far as the Strategic Reserve Mechanism, it is not adequately supported in this Chapter, that the lignite fired power plants are needed in a must run status in order to provide adequacy to the System. Such an assumption, to our belief, needs further analysis and justification. Therefore, before any proposal for a mechanism of this kind, an additional study is required in order to establish its necessity and its true added value in terms of adequacy and Security of Supply to the System.

4. Conclusions-Proposals

Our position is that the need for remedial (asymmetric) regulation measures should be evaluated giving due attention to the above-mentioned structural characteristics of the retail market, including the persistent and exceptionally high levels of concentration, the complete lack of wholesale risk management (hedging) products and the Incumbent's (PPC) dominant position.

In our opinion, considering the Greek electricity market's structural issues, appropriate regulatory measures should be examined, and implemented with immediate effect, taking into consideration the EU best practices for this matter. Indicatively, the Italian example could be examined, where in order to reduce ENEL's dominant position in the retail market, customer auctions were implemented for market share above 50%. The regulatory measures must address asymmetries between energy Suppliers and enhance current and prospective levels of competition.

Such measures should also aim to limit existing structural disparities between energy suppliers with respect to their wholesale risk management capabilities, by substantially increasing liquidity in the forward market. As long as the market for appropriate risk management (hedging) products remains shallow or non-existent, the development of effective competition in the retail market, exemplified through the provision of superior, innovative and more competitive products (e.g. in terms of their price, characteristics, etc.), will be inhibited.

Regarding the CRM, although the need of it is far from established in the Plan, it should be carefully designed and properly consulted with all the interested stakeholders. Should it be finally implemented, this must be in a way that cannot cause any competitive advantage to vertical integrated Suppliers compared to the non-vertical integrated Suppliers, nor any room for possible cross subsidies. To this end, any such charge (either CRM or Strategic Reserve) must be applied universally as a pass-through distinctive charge by all Suppliers. Another alternative could be that the CRM charges be internalized as a component of the power Transmission tariffs. In any case, special care must be given in informing effectively the consumers about the nature, the need and the utility of such charges.

Additionally, as mentioned above, any possible capacity renumeration mechanism should be available to all sources that are able to contribute to adequacy concern, conventional gas power plants which meet sustainability conditions set by EU, renewables, demand response and power storage facilities included.

Finally, if a CRM is after all implemented even though it is not clearly justified in the Plan, could be designed in a way so as to limit the cost to final customer due to spikes in power prices. This is the case of reliability options schemes that have been already adopted in UK, Italy. Also for this reason, it's very important that, in case a CRM is to be implemented, its framework to be properly and sufficiently consulted, involving all the interested stakeholders.

We remain to the Commission's disposal to further discuss and elaborate the Market Reform Plan and also cooperate within the context of enhancing competition in the Greek energy market.

European Commission
Directorate General for Energy
Unit C3 - Internal Energy Market
1049 Brussels
Belgium

Ref. No: HAES 21021
Athens, 06.09.2021

Subject: Hellenic Association of Energy Suppliers' (HAES) response to European Commission's call for a public consultation on the Greek Market Reform Plan

Dear Sir/ Madam,

Following the European Commission's call for a public consultation on the Greek Market Reform Plan, please find below the comments and opinions of the Hellenic Association of Energy Suppliers (HAES), concerning exclusively the Market Reform Plan's assessment and proposed measures with respect to the retail market only.

The comments and opinions of HAES, as expressed in this letter, only concern topics on which HAES members are in agreement, and do not in any case convey or imply any opinions of our Association with regard to the wholesale market, and the Market Reform Plan's assessment concerning the need for associated measures. HAES members hold alternate views regarding the aforementioned proposed measures as well as other topics covered in the proposed Market Reform Plan and, as a result, such views will be expressed individually by HAES members.

Structural characteristics of the retail market

Our Association's view is that overall, the Market Reform Plan's review and analysis of the retail market overlooks a range of structural issues, which are associated with the incumbent's dominant position and continue to have an adverse impact on retail market competition. Indicatively, based solely on the diminishing competitive advantage of PPC with respect to lignite[1], the Market Reform Plan concludes that there is no scope to continue the energy release program or other asymmetric regulation measures to diminish retail market concentration. In this respect, the Market Reform Plan disregards completely the market's apparent and persistent asymmetries, which have been repeatedly documented by national and EU authorities and are at the core of an on-going investigation by the European Commission (EC)[2]. Our Association believes that these fundamental

[1] Market Reform Plan (section 4.4): "*Nowadays, lignite-based generation is more expensive than other resources due to carbon prices, and lignite plants will be shortly phase-out. As a result, PPC has already today lost the competitive advantage related to lignite. Therefore, there is no scope to continue the energy release program or other asymmetric regulation measures to diminish retail market concentration".*

[2] In reference to case AT.40278, the EC notes: *"PPC is the largest supplier of retail and wholesale electricity in Greece. PPC is majority owned by the Greek State. It controls all lignite and hydro as well as some of the natural gas and renewable power generation plants. It is also active in the supply of energy to retail and business consumers where it still has more*

structural characteristics should be fully reflected in the Market Reform Plan and due attention should be dedicated to the identification of appropriate regulatory measures or market reforms with the aim to address the dominant position of the incumbent player and enhance competition in the retail market.

In the framework of the Third Economic Adjustment Programme, the Greek Government had made the commitment, through Law 4336/2015, to take specific remedial regulatory measures, aimed at addressing the dominant position of the incumbent player in the retail as well as in the wholesale markets.[3] For this purpose, a NOME-type mechanism for auctioning of electricity derivative products with physical delivery by PPC was established in 2015, aimed explicitly at enhancing competition in the retail electricity market and reducing PPC's share in the interconnected system below 50% by 2019.[4] The auction mechanism provided access not only to lignite production of PPC but to a combination of lignite and hydroelectric production, through the application of a "Virtual Power Plant" scheme. The auction mechanism was terminated in 2019, in anticipation of the Target Model's implementation and the launching of an organized derivatives market through the Hellenic Energy Exchange (HEnEx) in 2020.

Despite the fact that concentration in the retail market has to some extent dropped since 2015, the Herfindahl-Hirschman Index (HHI) of concentration in terms of consumption in the retail market for Low Voltage (LV) and Medium Voltage (MV) customers, according to RAE's latest Annual Report[5], stood at 4,171 for the Interconnected System and at 5,565 for the Non-Interconnected System in 2020. **RAE concludes that the value of both indices far exceeds the upper limit for a competitive market, which stands at 2,000 according to guidance from the European Commission**.[6] In terms of connections, PPC still holds a market share of 78% among LV and MV customers and remains the sole supplier in the High Voltage (HV) market segment.

Importantly, the dominant player's positioning has not been achieved by way of efficient competition but has rather been the result of PPC's legacy as the vertically integrated monopoly. Competitive forces in Greece's retail electricity market remain weak to date, as evidenced by the fact that there is no correlation between the energy (competitive) segment of supply tariffs and wholesale market prices.[7] Furthermore, the limited number of active energy suppliers in Greece's retail market which remains one of the smallest in the European Union (per number of

than two-thirds market share. The Commission is concerned that PPC may have restricted competition in the Greek wholesale electricity markets with its bidding behaviour. In particular, ***in light of PPC's position both at wholesale and retail levels, it may have adopted predatory bidding strategies hindering the ability of PPC rivals to compete in the wholesale and related electricity markets****".*

[3] Law 4336/2015 (paragraph 4.3, section Γ' of Art. 3): *"In September 2015, the authorities* ***will discuss with the European Commission the design of the NOME system of auctions, with the objective of lowering by 25% the retail and wholesale market shares of PPC, and to bring them below 50% by 2020*** *(…)".*

[4] Law 4389/2016 (Art.135): *«1. A mechanism is established for the sale of electricity by Public Electricity Company SA (hereinafter "PPC SA") to Eligible Electricity Suppliers as per Art. 136, based on auctions of electricity derivative products with physical delivery, through the Day-Ahead Schedule (DAS) and with a regulated starting price.* ***The purpose of the mechanism is to redistribute to alternative suppliers, the retail electricity market share held by PPC SA in the interconnected system in August 2015, so that it reaches a level below 50% by 2019****".*

[5] https://www.rae.gr/wp-content/uploads/2021/04/Πεπραγμένα_2020_final.pdf

[6] Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/3).

[7] As per ACER's 2019 Market Monitoring Report (section 2.3.1), the correlation coefficient between the energy (competitive) segment of supply tariffs and wholesale market prices during the last decade (2008-2019) in Greece was estimated to be zero (in a scale of zero to one). The corresponding median value for EU-27 was 0.5 while in markets such as Portugal, Poland, Italy and Lithuania, the correlation coefficient exceeds 0.7.

connections)[8], as well continued ownership of the Distribution System Operator (DSO) by PPC[9], strongly indicate the existence of entry barriers and point to the conclusion that Greece's retail market cannot be characterized as contestable.

As a critical consequence of the Greek electricity market's structural characteristics, particularly the exceptionally high levels of concentration in the retail market (resembling conditions of monopsony) as well the fact that PPC remains the largest producer of electricity and the only one with a diversified portfolio, the Greek wholesale market suffers from poor liquidity and a complete lack of risk management (hedging) products. Due to this situation, the dominant player, who should have been the primary provider of liquidity in the market for derivative products (market maker), is in a highly advantageous position compared to other energy suppliers, since it is still able manage risks by internalizing them, taking advantage of its size and diversified production portfolio, in contrast to its competitors who lack this capacity.

In light of the well-documented structural characteristics of the Greek retail electricity market, our Association's view is diametrically opposed to the Market Reform Plan's firm conclusion that there is no scope to continue NOME-type auctions or other asymmetric regulation measures to diminish retail market concentration. Our Association believes that this conclusion is based on an analysis that overlooks a range of structural issues which are associated with the incumbent's dominant position and continue to affect adversely competition in the retail market. In any case, we would like to note that, contrary to the Market Reform Plan's underlying assumption, NOME-type auctions were regulatory measures aimed at remedying the incumbent's overall dominant position in the retail market, and not exclusively its competitive advantage in relation to lignite production.

Our Association believes that the need for remedial (asymmetric) regulation measures should be evaluated giving due attention to the above-mentioned structural characteristics of the retail market, including the persistent and exceptionally high levels of concentration, complete lack of risk management (hedging) products, the incumbent's dominant position stemming from its historic role as a vertically integrated monopoly as well as associated evidence regarding competition and market entry barriers.

Retail market outlook

The Market Reform Plan's assessment with respect to prospective competition in the retail electricity market rests almost exclusively on the argument that the diminishing competitiveness of lignite plants and their eventual withdrawal, combined with the introduction of RES-PPAs, will be powerful enough drivers to achieve low market concentration in the coming years. A key element of this development, according to the Market Reform Plan, is that PPC's share in the supply of high voltage customers will decrease drastically in short to medium term. The critical assumption on which the Market Reform Plan's assessment rests, is that *"(…) the emerging possibility of forming portfolios with RES to supply customers bilaterally evenly spreads across the competitors, and PPC cannot dominate this future market"*. Based on this assumption, the Market Reform Plan reaches

[8] As per ACER's 2019 Market Monitoring Report, the number of active energy suppliers per 1 mil. connections is 2.5 in Greece, 5 in Portugal and the Netherlands, 8 in Poland, 15 in the Czech Republic and 25 in Latvia.

[9] ACER Market Monitoring Report (section 4.1.1, paragraph 121): *"(…) the presence/ non-presence of incumbent suppliers owned by local distribution system operators (DSOs) provides an indication of the existence/ non-existence of entry barriers."*

the conclusion that *"(…) the formation of dominant generation and supply portfolios are not possible anymore"*.

Indeed, the expected restructuring of the power generation mix will be a powerful driver, that could potentially lead to enhanced competition in the retail market. However, the Market Reform Plan focuses almost exclusively on the impact of RES-PPAs in the HV market, disregarding conditions in the LV market, which accounts for approx. 61% of consumption and 99% of connections in the interconnected system. Moreover, the Market Reform Plan's conclusion critically rests on the erroneous assumption that market participants (suppliers) will compete on an equal footing in the market for RES-PPA contracts. Considering the asymmetries between retail market participants, stemming from the incumbent's legacy as the state-owned and former vertically integrated monopoly, it can hardly be argued that this will be the case. The incumbent is clearly in an advantageous position compared to competitors to attract and manage a very large number of RES-PPAs under favourable terms, due to its ability to internalize the risks associated with the management of various consumption and balancing profiles. The incumbent's capacity to internalize these risks stems from the size of its customer base (approx. ten times larger than that of the next biggest supplier) as well as the size and diversity of its generation portfolio.

Moreover, the incumbent's creditworthiness benefits from the company's access to various sources of income, its ownership status, and the perception that "it is too big to fail", all stemming from its dominant position and legacy as the former vertically integrated monopoly. The incumbent's sources of income include the regulated and thus stable dividends from the DSO and the distribution network assets. In case the divestment of a 49% stake in the DSO and the distribution network assets is completed, PPC will also benefit from a significant amount of extraordinary proceeds. Additional income is expected from PPC's planned investments in the development of a fiber optics network that would take advantage of existing and future distribution network infrastructure. Due to its ownership status, the incumbent also benefits from stable income as the supplier of the General Government (e.g. schools, municipal lighting, etc.) as well as from advance payments with respect to this activity, based on a special arrangement with the Greek Government. The above-mentioned instances are just indicative of the incumbent's advantageous positioning with regard to RES-PPAs and are by no means an exhaustive account of the benefits associated with its dominant position and legacy as the former vertically integrated monopoly.

Additionally, our Association is skeptical of the Market Reform Plan's assessment that, the remedies to be implemented in the framework of the European Commission case AT.38700 will contribute substantially towards enhancing competition and reducing concentration in the electricity retail market. Based on the proposal of European Commission regarding the intended measure, PPC will be required to offer a specific volume of electricity in the forward market on a quarterly basis, which in total will not exceed 5% of total electricity consumption during the measure's implementation, from Q4 2020 until Q4 2023 at the latest. Additionally, it is expected that due to the Hellenic Republic's plan for decommissioning of lignite plants, each year the absolute volume of lignite-based generation of PPC will decline, and so will the volumes that will be offered under the remedial measure. Therefore, although the measure is indeed a positive development, as it might increase liquidity in the forward market under some conditions, it can hardly be expected that it will have a lasting impact on competition and concentration in the retail market, considering its limited duration and scope, specifically the small and progressively declining volume of electricity to be offered by PPC.

Finally, our Association considers that the introduction of the new Market Monitoring and

Surveillance Mechanism (MMSM) is crucial and will be a very positive development. The MMSM should allow the implementation of ex-ante regulatory measures through algorithmic identification of anti-competitive conduct and automatic application of mitigation measures, as well the development of procedures for the ex-post imposition of fines and administrative sanctions in case of abusive behavior. Importantly, through the MMSM, RAE should not only identify and mitigate anti-competitive conduct but also diagnose and evaluate failures of the market associated with its structural characteristics. The MMSM should enable the assessment of potentially anti-competitive behavior across the entire supply chain, including Target Model markets, interconnection capacity markets and in particular retail markets. The mechanism should examine the underlying cost elements of the supply tariffs per voltage level as well as how these are reflected in the suppliers' financial statements, without of course inhibiting commercial policies of suppliers.

Our Association's main proposals

Considering the Greek electricity market's structural characteristics as well as the conditions under which the market for RES-PPAs is expected to develop in the following years, our Association believes that appropriate regulatory measures should be examined, and implemented with immediate effect, in order to address asymmetries between energy suppliers and enhance current and prospective levels of competition.

Such measures should inter alia aim to limit existing structural disparities between energy suppliers with respect to their risk management capabilities, by substantially increasing liquidity in the forward market. As long as the market for appropriate risk management (hedging) products remains shallow or non-existent, the development of effective competition in the retail market, exemplified through the provision of superior and more competitive products (e.g. in terms of their price, characteristics, etc.), will be inhibited.

Additionally, it is important to take appropriate measures in order to ensure that PPC's stable or extraordinary proceeds, associated with its ownership of the DSO and of the distribution network assets, do not confer an undue financial advantage to the incumbent with respect to its activities in the retail market (e.g. ability to sustain exceptionally high levels of bad debt from its customers, capacity to finance various promotional activities and marketing channels).

Moreover, the incumbent's relationship with the Government should be maintained at an arm's length, in terms of procurement processes and contractual conditions for the purchase of electricity by the General Government, as well in terms of the Government's stance with respect to asymmetric State Aid schemes intended for the benefit of specific market participants (e.g. strategic reserve mechanism).

Importantly, structural asymmetries between energy suppliers, affecting their respective creditworthiness and thus their positioning with respect to RES-PPAs, should be addressed through appropriate remedial measures. Structural disparities in the creditworthiness of energy suppliers, associated with the incumbent's legacy as the vertically integrated monopoly, confer a noticeable advantage to PPC in terms of its capacity to form a dominant RES-PPA portfolio and secure access to low levelized cost of energy, thus sustaining exceptionally high levels of concentration in the retail market. For this purpose, our Association considers that a measure of state guarantees, similar to the one foreseen by the Market Reform Plan for the energy-intensive industries, will be required in order to remedy such structural disparities in the creditworthiness of energy suppliers and ensure that energy suppliers are able to compete on an equal footing in the market for RES-PPAs, thus

catalyzing the reduction of concentration in the retail market. In light of the expected restructuring of the power generation mix, our Association believes that a remedial measure of this type is necessary, in order to ensure that the possibility of forming RES-PPA portfolios evenly spreads across the competitors, thus preventing the formation of dominant generation portfolios and facilitating the enhancement of competition in the retail market.

Finally, our Association considers that, potential remedies to be implemented in the framework of European Commission anti-trust investigations (e.g. cases AT.38700 and AT.40278), should be appropriately coordinated with the Market Reform Plan's assessment and recommendations, taking due account of the market's current as well prospective characteristics, most noticeably persistent structural disparities between energy suppliers as well as the advent of RES-PPAs and the diminishing volume of lignite-based generation. Specifically, we consider that any remedies associated with European Commission investigations should be forward-looking and should be devised in conjunction with measures stemming from the Market Reform Plan, in order to ensure compatibility between respective schemes and facilitate stability regarding the regulatory framework.

Concluding remarks

The Greek retail market has well documented and persistent structural characteristics affecting current as well as prospective conditions of competition, that cannot be overlooked. Our Association strongly believes that the Market Reform Plan should include a thorough review of these structural characteristics and that due attention should be given to the assessment of appropriate regulatory measures or reforms, aimed at addressing asymmetries between energy suppliers in order to enhance retail market competition, including inter alia with respect to the development of RES-PPAs.

We remain available for any clarification or further cooperation.

[redacted]

ESEPIE
HELLENIC ASSOCIATION OF
ELECTRICITY TRADING & SUPPLY COMPANIES

DG Energy

Unit C3 – Internal Energy Market

Athens, 6th September 2021

Subject: Consultation on Greek electricity market reform plan

Dear Madams/Sirs,

We welcome the Commission's public consultation on Greece's proposed Market Reform Plan (MRP) and share our views and observations below.

The Hellenic Association of Energy Trading & Supply Companies (ESEPIE) represents trading and supply companies active in the Greek electricity market, with significant footprint in the wider European market.

Our vision is to operate in well-functioning markets across the EU and in this sense, we are fully aligned with EU's objective for well-designed markets, free of regulatory distortions and sufficiently connected to the EU electricity network. Unfortunately, these objectives have not yet been met in the Greek market and will likely not be met by the proposed MFP.

We have identified a set of issues that are not adequately addressed by the proposed plan in the following areas:

- Participation of trading companies in the Day-Ahead and Intraday Markets
- Balancing Market inefficiencies
- Participation of distributed generation, energy storage, and demand-side response in the Balancing Market
- Market Monitoring and Surveillance Mechanism

In our view, the resolution of those issues will have a material impact on the functioning of the electricity market, and thus should be addressed before a Capacity Remuneration Mechanism is implemented in Greece. Subsequently, we share our views with regard to the proposed Capacity Remuneration Mechanism.

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Participation of trading companies in the Day-Ahead and Intraday Markets

Currently, the Greek power market design - in contradiction to the EU legal framework - discriminates against trading companies as it denies them the possibility to:

a) Conclude a Bilateral Physical Transaction with another BRP (Producer, Supplier, or RES Aggregator) internally on Hellenic Power Grid, contrary to the practices in most EU power markets;

b) Participate in the Intraday Market, again contrary to common practices.

We have repeatedly expressed our disagreement to Greek authorities in relation to this issue, and we are disappointed that they are not adequately addressed in the MRP.

As far as (a) is concerned, it is characteristic that Greek authorities do not seem to consider it an issue, as it is not addressed at all within the proposed plan.

The arbitrary exclusion of a market participant group from a specific and crucial market segment, for which we have never received any reasonable explanation, seems that will continue to exist under the new regime.

Regarding (b), it is again inconceivable to us that Traders are still being denied access to a market which is designed to allow market participants to modify their position and make necessary changes in their Physical deliveries in order reduce any exposure on imbalance costs (MRP 5.4.1).

Despite assurances by the Greek authorities that this was a transitory issue which would soon be resolved, and despite our continuous effort to demonstrate that simple and easy to implement solutions can be found in neighboring market practices (e.g. Italy), the plan proposal (MRP 5.4.3.2) calls for a lengthy process with no clear deadline, allowing Traders to access the Intraday Market only through the use of Intraday cross-border capacities with non-EU countries.

The proposed process is a complicated one, requiring coordination and agreement between the Auction Offices and neighboring Operators. It is unlikely that any meaningful progress has been made in this direction, hence the lack of any clear timetable in the MRP. Needless to state once again that these actions should have been completed before the Go-live of November 2020, as mentioned in the "Spot Trading Rulebook" published by the Greek Energy Exchange.

Moreover, the restriction of linking Traders' Intraday participation only to non-EU Intraday Cross-border capacities will create further market distortions even if the proposed plan is implemented, depriving the market of much needed liquidity and the Greek System of much needed flexibility.

The introduction of Complementary Regional Intraday Auctions (CRIDAs) in the following weeks will create a new paradox, as the exclusion of Greek trading companies from it means that the required flexibility in the Greek system will be only provided by Traders from the Counterparty Region (Italian at start & Bulgarian later on XBID) but not from Greek Traders. In many cases this could be the same company with a license in a neighboring country.

To further exhibit the problematic existing and proposed design, if MRP's Section 5.5.6 is accurate, after the coupling with North Macedonia in 2023 and Albania in 2024 is completed, Greek Trading Participants will be effectively unable to operate in the Greek market.

We strongly believe that the above issues are a clear regulatory distortion which deprives the Greek and the wider SEE market of much needed liquidity, discriminates against a specific group of market participants, and poses a major hurdle in the true opening of the Greek Power Market. Therefore, we consider that the participation of Traders in all wholesale power markets is a prerequisite before any other measures are implemented.

Balancing Market inefficiencies

The problematic design and operation of the Balancing Market became evident right from the beginning of its operation in November 2020.

As confirmed in paragraph 5.5.2 of the text under consultation, the balancing energy costs are significantly higher compared to the previous market design. In chapter 6, it is stated that the balancing energy, had a significant turnover of 25,1% of the sum of wholesale markets during the first six months of new markets function, while balancing energy market prices in Greece in the first six months of target model operation were significantly higher than the prices in the rest of the EU.

Moreover, in public consultations called by RAE regarding this issue in December 2020, it was proven both by documents published by RAE and by participants opinions that balancing energy costs were unexpected and much higher than the anticipated costs corresponding to energy volumes activated for balancing needs. In January 2021, RAE introduced a set of interventions to manage the situation.

The increase in balancing costs was mainly a result of excessive redispatch costs due to network constraints, suboptimal management of system by IPTO and high level of market concentration observed in the Greek market, reflected on high mark-ups from a limited number of Balancing Service Providers (BSPs). To date, no process has been established to address these issues and effectively compensate suppliers for those excessive costs.

As long as the major re-dispatching issues due to the limitations in the operation of the high voltage circuit in Peloponnese and other system constraints are not solved, given the market power of BSPs, we believe that the criterion of a well-designed market cannot be met. Therefore, RAE should take the necessary steps to mitigate phenomena as those described above and safeguard smooth function of the wholesale market and competition.

Participation of distributed generation, energy storage, and demand-side response in the Balancing Market

Currently, no distributed resources (e.g. dispersed renewable generation, such as biogas and biomass, back-up generation, energy storage or demand-side response, etc.) participate in the Balancing Market, making Greece the only EU power market balanced exclusively by transmission-connected assets. The potential of these resources remains untapped, including with respect to security of supply.

IPTO has not taken all the necessary steps in terms of upgrading its processes and systems to enable participation from distributed resources and aggregated portfolios, meaning that these resources are unable to access the Balancing Market and contribute to security of supply. Moreover, it is unclear what are the gaps in the regulatory framework mentioned in the Market Reform Plan with regard to dispatchable RES & high-efficiency CHPs that still need to be addressed for these resources to access the Balancing Market.

We also note that a large share of Renewable Energy Resources (RES) is protected from imbalance costs through generous imbalance tolerance levels that they currently enjoy. For the efficient operation of the market, we consider it essential that all market participants face the same obligations towards balance responsibility, in line with the provisions of the Balancing Guideline and the Clean Energy Package.

Finally, we note that the timeline proposed in the MRP relating to participation of Demand-side Response (A3), as well as of Dispatchable RES and RES portfolios (A5) in the Wholesale and Balancing Markets should be enhanced to include concrete steps setting out what are the remaining issues that need to be addressed and how market participants will be involved.

Lack of a Market Monitoring and Surveillance Mechanism

The implementation of a Market Monitoring and Surveillance Mechanism was a prerequisite for the beginning of the new market in November 2020. Our Association had repeatedly requested its creation calling, together with EFET, for it to become operational before the start of the new market In November 2020. The establishment of a robust Market Monitoring Mechanism had also been publicly announced by the RAE, but its implementation has still not been completed.

The significance of such a mechanism in a nascent market is hard to overstate, as it would have instilled confidence, would have led to faster reaction times, and could have provided clarity to all parties involved as to what can and cannot be tolerated. Among others, this would have helped avoiding excessive balancing costs. Its absence, especially during a time when major transformations are coupled with record price swings, adds to the systemic risk, and should be swiftly addressed.

We also make the following observations regarding the proposals in the MRP for a Strategic Reserve and a Capacity Remuneration Mechanisms:

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Capacity Remuneration Mechanism

ESEPIE would welcome a clear, transparent and stable framework to ensure security supply, limiting the scope for regulatory uncertainty as a result of continued piecemeal interventions and transitory solutions.

We would like to highlight the following requirements for the implementation of any mechanism:

1) EU criteria for a well-functioning market are met;
2) their necessity is well documented;
3) the need they are meant to cover is specific and accurately measured;
4) allocation of capacity payments is based on a competitive process and
5) all available technologies, including demand-side response, storage and distributed generation, can participate on a level playing field.

Regarding point (1), we have explicitly presented our reservations in the previous paragraphs. We consider it critical that all major existing distortions and hurdles are lifted before such mechanisms are put in place.

Regarding (2) we believe that the analysis presented in MRP 3.2.2 understates the potential of new CCGT investments in Greece. For example, the analysis does not seem to consider a new 870MW CCGT power plant which is expected to come to operation by early 2024, as well as a number of other investments in large CCGTs which are currently under consideration.

Furthermore, while we don't have adequate information to comment on the security of supply concerns expressed in the MRP, we query certain aspects in relation to the 'missing money' analysis presented. For example, CAPEX assumptions (table 12 of the MRP) for Gas Units seem overstated, leading to negative P&L results. More broadly, we have limited visibility of the power plants that were considered in the calculations of the MRP, and therefore, consider that a validation of the information presented would be beneficial.

We remain at your disposal for a more detailed presentation of our positions.

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DG ENER consultation on Greek market reform plan

■

EFET response – 06 September 2021

The European Federation of Energy Traders (EFET)[1] welcomes the opportunity to provide comments to DG ENER consultation on the Greek Implementation Plan for the requirements set in article 20 of Regulation 2019/943 on the Internal Electricity Market (IEM).

Executive summary

We recall our core belief: capacity remuneration mechanisms (CRMs), where implemented, should be designed so as to limit their impact on the energy-only market as much as possible, have a sunset clause, take account of all capacities, be market based, respect the principles of technological neutrality and keep the long-term objective of European harmonization.

With regard to the assessment of the state of the electricity market in Greece and the reform plan of the authorities, much remains to be done to bring the Greek electricity market on par with other European markets and the EU target model. The Greek electricity market has suffered from isolation for too long, and the implementation of successive Energy Packages has been slow. As a result, the conditions for liquid and competitive markets unhindered by unnecessary technical or regulatory requirements has not materialised yet.

Hence, we make a number of recommendations below as to how the functioning of the market could be improved.

I. Capacity remuneration mechanism

Establishing or maintaining a CRM should not come to the detriment of the design and efficiency of energy markets. Energy markets can respond to the adequacy needs of the system if they are well designed, free of undue regulatory distortions and well-integrated with other European electricity markets. However, we also acknowledge they may not always be sufficient to provide long-term investment signals for capacity adequacy and that, if proven so by regional or European capacity adequacy assessments, CRMs may be a response to this problem.

The principle of primacy of energy markets over CRMs, now enshrined in Article 20(3) of Regulation 2019/943, aims to ensure that energy markets allow for optimal dispatch but are also in a position to contribute to security of supply, while CRMs are designed only to complement energy markets. Both the dimensioning of CRMs, their design and cross-border contributions to these CRMs should take account of the design of energy markets in the relevant bidding zones.

Where CRMs are established or maintained, the implementation of Regulation 2019/943 and related methodologies – on the European resource adequacy assessment, on cross-border participation to CRMs, and for the calculation of the value of lost load, the cost of new entry,

[1] The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. We build trust in power and gas markets across Europe, so that they may underpin a sustainable and secure energy supply and enable the transition to a carbon neutral economy. EFET currently represents more than 100 energy trading companies, active in over 27 European countries. For more information: www.efet.org

and the reliability standard – should ensure compatibility of the different schemes and, where relevant and feasible, harmonisation.

In particular, we encourage the Ministry to respect the following core principles when designing the Greek CRM:

i. Adequacy assessment

Any decision to implement or maintain any form of CRM to reward the availability of capacity should be taken only after a thorough capacity adequacy assessment performed at regional or EU level, in compliance with Art. 21 of the Regulation (EU) 2019/943.

Whilst we appreciated IPTO's public consultation on assumptions of the new national resource adequacy assessment[2], we encourage the Ministry to have a detailed timeline for the publication of the capacity adequacy report, including a quantitative analysis of capacity adequacy in the country.

ii. Cross-border participation in the Greek capacity market

Participation of foreign market participants must be guaranteed in order to comply with Article 26.1 of Regulation (EU) 2019/943:

> *"Capacity mechanisms other than strategic reserves and where technically feasible, strategic reserves shall be open to direct cross-border participation of capacity providers located in another Member State, subject to the conditions laid down in this Article."*

Cross-border participation should be explicitly allowed and we insist on two fundamental principles, namely:

- Effective direct participation of foreign asset owners/operators – generation, demand response, storage – in CRMs, with appropriate incentives and/or obligations on transmission system operators (TSOs), where this effective participation depends on them;
- Equal treatment of foreign and domestic capacities contributing to a CRM, with attention to the specific rights and obligations of capacity providers in the CRM and, where relevant, related to energy market functioning.

We are confident that the Ministry will remove any barrier obstructing cross-border electricity market transactions and incorporate cross-border participation from the inception of the CRM, as mentioned in the timeline: *"Capacity remuneration mechanism with reliability options and promotion of flexibility with broad participation of generation, demand response, storage and interconnections (tentatively from end 2023 onwards)"*.

iii. Technological neutrality

CRMs must not create unnecessary distortions in the market and capacity providers should be selected through transparent, non-discriminatory and competitive processes, regardless of their location.

[2] See IPTO public consultation on assumptions of the new national resource adequacy assessment

We appreciate that *"the market reform plan intends to fully integrate demand response and storage in all the stages of the wholesale markets, including in the balancing"* to be fully eligible in the CRM[3]. The wording of the reform plan is, however, rather non-committal (*"intends*").

We urge the Ministry to guarantee effective, not just theoretical, technological neutrality of all capacities (all generation sources, demand side response and storage, including across the borders), and without discrimination between new and existing facilities.

II. Wholesale electricity market

Interconnections

We appreciate that Greece achieved an interconnection level of 13.9% in 2020, meeting the 10% target as provided for in Regulation (EU) 2018/1999. However, what is important in our view is not the capacity of lines in the air or under the seabed, but rather how much of this capacity is made available to the market. This is supported by the rule requiring TSOs to make at least 70% of transmission capacity available to the market on all critical lines in the network, as per article 16(8) of Regulation 2019/943.

We note that even if the Greek interconnection capacities and the available net transfer capacities are not likely to obstruct market-based flows, and the physical congestions are limited, the interconnection lines suffer frequent outages period where no daily auctions are performed. For instance, the NTC between Greece and Italy is often set to zero (0) and the Joint Auction Office (JAO) curtails the long-term capacities already allocated according to the Auction Rules provisions[4].

Given that as of 1st of January 2021, IPTO S.A. is still not able to comply with the binding target set in Article 16(8) of the Regulation 2019/943 without potential risk of operational security for the Greek grid for the year 2021, IPTO has requested a derogation for the year 2021 per Article 16(9) of the Regulation 2019/943. The submitted document justified the request based on the absence of consideration of flows of third countries in the capacity calculation and the margin available for cross zonal trade, the insufficient potential for remedial actions to guarantee the 70% capacity criterion and insufficient IT tools for capacity calculation process embedding the 70% threshold, in line with the Regulation (EU) 2019/943.

ACER reports decently satisfactory levels of capacity availability in the second half of 2020, where, with the inclusion of 3rd countries, IPTO reached the minimum 70% target in 87% of market time units, with the remaining 13% mainly due to periods when the BG-GR interconnector was out of operation. As a consequence, we urge the Greek authorities to remedy the reliability problems on the BG-GR interconnector and **ensure full compliance with the minimum 70% target by the 2025 legal deadline**.

[3] See Chapter 3.1.2 Capacity additions and retirements (page 12)

[4] See Terna communication on capacity availability at Greece-Italy interconnection (August 10th 2021)

Licensing regime

Considering the development of the European Energy markets, we urge the abolishment of power and gas trading license requirements in Greece. The existence and necessity of licensing requirements has been claimed to be justified by a number of objectives, including verification of technical and financial capability of a company and monitoring and enforcement.

However, licenses are not necessary to achieve these objectives and licensing requirements are generally disproportionate and not fit-for-purpose, as financial fitness and technical capability is tested continuously through TSO agreements and mutual partner credit risk evaluations, while NRA powers permit monitoring and enforcement (e.g. via REMIT) – as is the case in numerous European Union countries where licenses are not required.

The trading license requirements creates unnecessary bureaucracy, it may prevent new market entries and market participants consider it as an administrative entry barrier that hinders the development of the market and liquidity. EFET has highlighted on numerous occasions that licensing procedures in the region as one of the major barriers for accessing the market and the development of competition.

Forward market

Liquidity remains poor in the Greek forward market, both for OTC forward trades and the futures market operated by HENEX. The level of liquidity is a key indicator of the health of a market. Regulatory stability is crucial for the confidence of market participants to operate in the market to hedge their positions and we agree with the fact that *"there is no reason for the State to intervene to increase liquidity*[5]*"*.

Therefore, we consider that any kind of regulatory intervention that would affect the efficiency of price formation in the market should be avoided: we would rather recommend that all the measures aiming to foster liquidity and competition on the Greek forward market remain voluntary (no obligations for the demand side to buy, nor obligations for generators to sell).

Please find below our comments on the measures proposed in the Greek market reform to promote the Greek forward market:

i. Cap on bilateral contracts with physical delivery

We understand that this restriction applies to bilateral contracts with physical delivery (nominations) only and not to "**financially-settled contracts**" (CfDs, futures, and options are unrestricted), instead of *"forward contracts"* as stated in the document[6].

ii. Enhancement and extension of platforms

Integration with Trayport of HENEX IT systems could facilitate trading for all market participants, including the possibility to bid.

[5] See Chapter 5.2.3 Measures to consider for the forward market (page 37)

[6] See Chapter 5.3.3.1 The cap on bilateral contracts with physical delivery (page 39)

iii. Additional financial products for hedging purposes

We encourage IPTO to provide information of the availability of long-term transmission rights (LTTRs) on the different borders and on the capacity calculation methodology, as the report does not provide enough details.

iv. Antri-trust remedy

EFET supports EU-wide legislation including REMIT and MAD/MAR. Any additional rule should not create an extra burden on the market.

v. Organised (non-mandatory) wholesale trading platform for private RES-PPAs

We understand that the Ministry intends to establish a legal framework to create an organized non-mandatory wholesale market platform to facilitate the development of a market for bilateral private RES-PPA contracts.

We believe that the PPA Platform could in principle be a functional tool for few of the projects and encourage the development of the PPAs market in Greece as long as its design responds to actual market needs.

PPAs are already an existing form of contract between two counterparts for the purchase of the electricity production. We acknowledge their vast potential in facilitating the market-based development of further RES capacity. Therefore, we agree with the proposal to make the participation to the PPA platform voluntary.

Further information is welcome to understand the proposed mechanism and its impacts on the free negotiations, including details on the standard contracts and the possibility to participate for non-operational assets.

We highlight that EFET is very active in promoting the uptake of PPAs: we have developed an **EFET standard for Corporate Power Purchase Agreement (CPPA)**[7] available for free to all market participants.

As for the already existing EFET Master Agreement, which stipulates the conditions of purchase/sale of bilaterally negotiated power and gas contracts, the CPPA standard provides legal certainty and ensures smooth operational processes.

Day Ahead market

EFET congratulates the involved TSOs, NRAs and NEMOs for the successful integration of the Greek bidding zone in the Single Day-Ahead Coupling (Multi Regional Coupling) in December 2020. The extension of SDAC to Greece represented a milestone in pooling liquidity of Central and Eastern European electricity markets with those of Western European markets.

Regarding Greek DA market, the new model still constitutes a **semi-compulsory mandatory pool**. In order to overcome this barrier, the following shortcomings must be solved:

- Allow market participants to transfer positions from forward to DA to ID

[7] See EFET Power Purchase Agreement under “Standardisation” section

- Allow joint scheduling of cross-border transactions (both imports and exports)
- Introduce of portfolio-based bidding (see point iii below)

Moreover, we understand that **non-asset owners are excluded from the Greek electricity market**. Non-discriminatory market access must be ensured to all market participants (both asset owners and non-asset owners), regardless of their location.

We encourage HENEX to establish a clear timeline for addressing all the shortcoming of the current market model and we included below our comments on the measure proposed in the document under consultation:

i. Cap on bilateral contracts with physical delivery

We support a relaxation of the temporary regulatory restrictions regarding the bilateral contracts, as envisaged in the document under consultation. However, under certain circumstances, the cancellation of any exchange trading obligations could enable vertically integrated companies to exercise market power and impact electricity prices, ultimately throwing away the entire progress made in terms of establishing a market for electricity in Greek over the past years.

We welcome the examination of pros and cons for the cap removal and its *"possible adverse effects on retail market competition and the survival of small retailers".* Finally, we encourage HEnEx to include this information in the new study expected by end 2021 along with the new threshold (X% and A%) proposals[8].

ii. Introduction of complex bidding orders

EFET appreciates that the current Greek regulation allows Hybrid Orders, Block Orders, Linked Block Orders and Exclusive Group of Block Orders.

As a general remark, we believe that Hybrid Orders and Block Orders are absolutely necessary products. Moreover, Linked orders and Exclusive Orders are crucial in day-ahead as they allow market participants to reflect the constraints of their physical assets or contracts, and thereby the optimisation of portfolios.

We welcome the objective to introduce *"complex products"* in SDAC. We also believe that their inclusion can proceed unless proven it has a damping effect on the algorithm performance, taking account of the planned extension of the algorithm calculation time.

Whether RAE decides to allow complex forms of bids in the DAM, those products must be aligned with other complex products already accommodated by Euphemia in other countries. Moreover, before introducing any new products, discussions with market participants (to assess their needs) and power exchanges active in other bidding zones (to assess the ability of Euphemia to handle new products) are needed.

iii. Introduction of portfolio-based bidding

The opportunity to submit bids/offers on a portfolio basis **('portfolio bidding') is a precondition for the development of efficient day-ahead and intraday power trading**. Furthermore, it allows for a more efficient optimisation of production and demand portfolios

[8] See Chapter 5.3.3.1 The cap on bilateral contracts with physical delivery (page 39)

and is a necessary precondition for improving liquidity in the spot market. EFET calls for the introduction of this market model everywhere where unit bidding is still mandatory or portfolio use restrictions are in place.

Hence we endorse the intention of RAE and the Operators to launch a study about the introduction of portfolio-based bidding in the DAM and IDM, replacing unit-specific bidding. However, we urge RAE to **specify a timeline for the study and the implementation of portfolio bidding**.

The current market model in Greece continues to mandate market participants to bid separately for each unit in the intraday market or imposes portfolio optimisation restrictions, while market participants in most other bidding zones can optimise their portfolio without linking bids to specific units and can net freely positions prior to trading. The *"unit bidding"* model either prevents market participants from deviating from schedules linked to individual transactions or requires them to trade on the market every variation of schedules, rather than simply allowing the reallocation of production or demand within the same portfolio.

With a specific focus on intraday market, a unit-based bidding would be highly unfeasible in a dynamic and continuous trading environment for the following reasons:

- It would not allow quick, reactive trading as it would require the immediate declaration of the production or consumption unit in question;
- It would be extremely complex and cumbersome for market participants, as it would prevent the simultaneous management on an aggregate basis of the production or consumption of several units in a portfolio;
- It would not allow a flexible bidding strategy;
- It would not attract liquidity and could even deter agents to participate in the continuous trading;

Portfolio bidding also allows market participants to establish a more flexible bidding strategy as, for instance, it grants producers the flexibility to nominate the quantities bought/sold in the intraday market in any of their units. A market participant allowed to trade on portfolio would then allocate the total amounts purchased or sold to the individual units of its portfolio only later in the nomination or 'scheduling' to the TSO: in other words, via the nomination process, a market participant transitions from the commercial to the physical phase, by committing its resources and making the physical execution of contracts traded on the market.

iv. Demand Side Response participation

The goal of ensuring that those consumers who wish to participate directly in the market can do so is one we support. Clearly an active demand side would be hugely beneficial to bringing down the costs of energy for all consumers. Where regulatory or legislative barriers to the participation of consumers – directly or through intermediation – to electricity markets or balancing mechanisms exist, they should be removed in accordance with Directive 2019/944.

The primary driver for market participation of demand response is the electricity price. Consumers who may want to engage in and value the flexibility of their demand on the market will only be incentivised to do so if they see a financial benefit to it. Therefore, we consider it vital that **impediments to the free formation of prices on electricity markets should be removed immediately**.

v. EFET comments on HENEX monopoly

HENEX has been designated as monopoly NEMO in Greece for DA. As EFET, we believe in the principle of fair competition between NEMOs, as laid out in the Capacity Allocation and Congestion Management Guideline (CACM GL).

Intraday market

XBID go-live in Greece will contribute to further integrate the Greek electricity market and its borders in the Single Intraday Coupling (SIDC), increase the overall efficiency of trading close to real time and facilitate cross-border trading. EFET is committed to the development of continuous cross-border intraday trading via the XBID platform and we welcome the planned expansion of this project to the Greek peninsula.

However, it is crucial that the go-live in March 2022 takes place without significant market impediment: **unrestricted access must be granted to all types of market participants** in order to improve intraday market liquidity and ensure coherence of XBID go-live in Greece with the European target model without further delays.

i. Participation of traders

Non-asset owners have long been excluded from the Greek intraday market. This is a major impediment to proper market functioning and equal treatment of participants in the market.

We understand that participation of traders in the intra-day market (intra-day capacity auctions in non-EU borders with Greece) is targeted for 2022. We urge IPTO to **guarantee that all market participants, including traders, can be active in the intraday market no later than the SIDC 4th wave go-live**, planned for March 2022.

ii. Regional coupling of intra-day trading and Local Intraday Auctions (LIDAs)

With the go-live of XBID (the platform for continuous cross-border intraday trading) and the gradual extension of Single Intraday Coupling (SIDC), European intraday markets have become increasingly connected, efficient, and liquid. At the same time, the introduction of auctions (regional or pan-European, as a means of implementing capacity pricing) has posed a challenge for the coherence of the intraday market model.

The current design has not allowed for the participation of traders in the Local Intraday Auction (LIDAs) in non-coupled mode or the Greek intraday market. Therefore, regarding the GR-IT and GR-BG bidding zone borders, cross-border capacity is not offered to market participants for trading after DAM. The latter will be resolved with the coupling of the Greek IDM with the Italian one (CRIDAs) and with the pan-European Intraday Continuous Market (XBID).

EFET has long advocated that continuous cross-border intraday trading allows for better and faster trading opportunities compared to auctions. It is perfectly suited to deliver an almost real-time price signal and allows market participants to optimise continuously the dispatch of their production and consumption units close to real time, as market and physical conditions evolve.

It is worth noting that the last hour before delivery is the most vital for market participants and is where most trades on continuous ID markets take place[9].

We have further recommendations, besides the one highlighted in the consultation document:

- Removing barriers to ID liquidity growth.
- Developing cross-border products with a 15-minute granularity and harmonising the imbalance settlement period to 15 minutes across Europe.
- Ensuring the effective harmonisation of cross-zonal intraday gate opening time (ID CZ GOT) and opening of shared order books at 15:00 (CET).
- Setting cross-zonal intraday gate closure time (ID CZ GCT) to 15 min before the start of the relevant market time unit and ideally, even closer to delivery.
- Implementing clear, transparent and harmonised capacity calculation and recalculation methodologies and frequency.
- Ensuring that the technical price limit in ID includes an adjustment mechanism to reflect Value of Lost Load (VoLL).

iii. Participation of demand side response (DSR) and storage in ID trading

Non-discriminatory access to the ID market (including demand side response) should be guaranteed as of XBID go-live in Greece. DSR should be able to participate in ID trading like any other technology. DSR providers can bid into the ID markets and fit their bids and offers to the existing SIDC products.

Therefore, we disagree with the statement *"The integration of DSR introduces specific technical requirements and practical issues with respect to the connection and interrelation of the two different markets that need to be assessed and clarified by the market operators to enable DSR participation in ID[10]."*

As such, there is nothing that could technically prevent DSR providers to form bid with standard bids in the ID market.

Balancing market

i. Price limitations

In accordance with Article 3 of Regulation (EU) 2019/943 (the 'Electricity Regulation'), Member States, national regulatory authorities (NRAs), transmission system operators (TSOs), distribution system operators (DSOs), market operators and delegated operators must ensure that electricity market rules encourage free formation of prices and avoid actions which prevent the formation of prices on the basis of demand and supply.

EFET wholeheartedly welcomed the new provision of the recast Electricity Regulation advocating free price formation. Indeed, only undistorted prices give an accurate signal for bidding and dispatch decisions on the one hand and can serve as a sound basis for investment and divestment decisions on the other hand. With an increasing share of intermittent power

[9] See EFET position paper "Towards an efficient intraday market design" (May 2020)

[10] See Chapter 5.4.3.3 Participation of demand response in intra-day trading (page 43)

generation in the European energy mix, precise price signals are needed more than ever to ensure the reactivity of market participants' bidding and dispatch decisions to rapidly changing demand and supply conditions, including balancing mechanisms.

We understand that IPTO has identified three periods to apply technical limits for the submission of the balancing energy offers:

- 1st period: from 1st November 2020 until the implementation of CRIDAS or XBID [± 4.240 EUR/MWh]
- 2nd period: once the implementation of CRIDAS or XBID is fulfilled (Q1 2022) until the participation in MARI or PICASSO platforms [± 9,999 EUR/MWh]
- 3rd period: once the participation in MARI or PICASSO platforms is fulfilled [± 99,999 EUR/MWh]

According to Art. 10 (1), sentences 1 and 2, of Regulation (EU) 2019/943, there is *"neither a maximum nor a minimum limit"* for electricity prices, including balancing energy. The development of balancing energy prices follows the principle of the free formation of prices, i.e. their level is determined by competition according to supply and demand.

Only technical price limits within the meaning of Art. 10 (1) sentence 2 Regulation (EU) 2019/943 are legally acceptable, if they are systemically necessary to enable the submission of electronic bids and processing of results (clearing), without limiting the formation of balancing energy prices in accordance with the aforementioned rules; there is no room for price limits based on other justifications.

Even though technical price limits are not defined by the EBGL, it can be assumed that technical price limits only refer to the *"mathematic maximum for the algorithm to function without having the purpose of limiting price formation"* (see ACER Decision 22/2020 of 5th August 2020[11] in a different context).

Therefore, the determination of a price limit that is not technical is against the European law. This is also in line with ACER's understanding. In Art. 3 (3) of ACER Decision No 01/2020 of 24 January 2020[12], ACER set a technical price limit of +/- 99,999 EUR/MWh for all balancing energy product bids. ACER emphasised correctly that the European Regulations do not allow for any restriction of price formation on the balancing energy markets.

The lack of a legal basis for the tree-stage proposal of the Greek authorities regarding a price cap on balancing energy is reason enough to reject it. We call on IPTO to modify its proposed timeline and to ensure the immediate and full application of Annex 1 of the ACER Decision No 01/2020 of 24 January 2020, setting a truly **technical price cap for balancing energy at ± 99,000 EUR/MWh as soon as possible.**

ii. Flagging for re-dispatching

We understand that *"the current market reform plan incorporates several measures towards eliminating excessive remuneration of balancing energy, including flagging of re-dispatching*

[11] See ACER Decision No 22/2020 on the market-based allocation process of cross-zonal capacity for the exchange of balancing capacity for the Nordic CCR

[12] See Annex 1 of ACER Decision on the methodology to determine prices for the balancing energy that results from the activation of balancing energy bids

and a distinct compensation of re-dispatched volumes to avoid influence of system constraints on market prices of balancing energy."

Balancing and re-dispatching energy in ISP will be separated, hence balancing energy bids used for re-dispatching will not set the balancing energy price. When developing the methodology to fully implement the flagging approach, we urge IPTO to ensure the non-contamination of the balancing energy price and imbalance price and segregation of balancing and re-dispatching accounts on the TSO side.

iii. Introduction of reserve procurement auctions in DA

As far as procurement of reserve capacity is concerned, we support the implementation as soon as possible of competitive processes such as tenders. We welcome the evolution of the procurement process for secondary reserve capacity from mandatory bidding at a regulated price to competitive tenders. Tendering of balancing capacity by the TSO should be technology neutral, in order to allow all capacities (generation, demand response and storage) to participate.

Information on the timeline on the introduction of reserve procurement auctions in DA is still missing, hence we encourage IPTO to include this information in the Table of Market Reform Actions.

iv. Implementation of self-scheduling

We support the implementation of self-scheduling along with the introduction of portfolio-based bids in DAM and IDM.

v. Participation of FSR, RES and storage

When formalising the legal and regulatory framework around FSR, RES and storage, we encourage the Greek authorities to keep in mind the following principles:

- Removing regulatory and technical impediments that prevent efficient price formation in the balancing and spot markets.
- Not picking winners - battery storage is just one form of flexible capacity among many others;
- All flexible capacities (batteries, other forms of storage, generation of all types and demand response) should compete on a level-playing field in the market and for ancillary services – same rights, same opportunities;
- Guaranteeing the unbundling requirements set in European legislation: TSOs and DSOs should not be allowed to own and/or operate storage assets, in the same manner as they are not allowed to own and/or operate power plants or portfolios of clients engaged in demand response;
- When needed, TSOs should procure flexibility services based on neutrally formulated needs in order to allow market participants to respond to these needs with the most economically efficient technology (including, possibly, battery storage).

Finally, balancing products proposed by the TSOs, including specific products at national level, should be designed to **exclude undue discrimination against any type of market participant**, including DSR operators.

vi. EFET comments on shortage pricing function

We argue that a shortage pricing function as “scarcity adder” to the balancing energy auction's balancing price BSPs and BRPs (both in energy and capacity prices) bounces with legal obstacles. Moreover, it is hardly compatible with the prevailing market design and would have discriminatory effects and potentially distort the good European market functioning and we look forward for a deeper analysis in the feasibility study to be prepared by Q1 2022.

Art. 44.1(b) EBGL states that the imbalance settlement price should reflect the “real time value of energy”. The real time value of energy naturally takes account of the risk of scarcity. Therefore, if properly set according to the EB GL principles, the imbalance settlement price mechanism should de facto provide an adequate price in situations of scarcity.

In addition, if implemented in a non-coordinated way, such additional components would lead to different imbalance price behaviour with similar imbalance volumes in the different control areas. Their use should be harmonised through the definition of an imbalance price methodology, instead of creating additional components as currently proposed.

[redacted]

6 September 2021

Consultation on Greek Market Reform Plan
Comments submitted on behalf of two companies
active in the retail supply of electricity and natural gas in Greece

1. Introduction

1. We are submitting this contribution the consultation on the Greek Market Reform Plan on behalf of two companies active in the retail supply of electricity and natural gas in Greece. For the purposes of this contribution, these companies wish to keep their identities confidential. To this end, we submit the non-confidential comments below on behalf of them ("the companies").

2. The companies welcome the initiative of the European Commission (the Commission) to consult stakeholders on the Greek market reform plan before issuing its opinion on the planned reforms. They support the Commission's objective to ensure well-functioning, interconnected and competitive electricity markets in Greece and other Member States. They also agree that any State aid should only address residual adequacy problems and be fully in line with the compatibility rules on capacity mechanisms and with Regulation (EC) No 2019/943.

3. As a preliminary point, they note that a draft of the reform plan was put into public consultation by the Greek Energy Regulator (RAE) on 16 July 2021 with only five days to provide comments.[1] A revised draft was then submitted to the Commission a week later with only minor alterations. In such a short timeframe, it is not practically possible for stakeholders to analyze such a lengthy plan and provide meaningful contributions. RAE rejected any request to prolong this unreasonably short period, contrary to what it had done in the past on similar requests for other consultations with a similarly short timeframe. The companies are fully aware that the Greek authorities wish to get the Commission's opinion on the reforms and its State aid approvals fast. However, the planned reforms and support schemes will shape the Greek Electricity market for years to come. The haste of the Greek authorities cannot mean that the procedural and substantive safeguards mandated by EU rules[2] are deprived of their value. This is so, especially given that several points of the planned reforms and support are controversial among stakeholders and raise significant issues, as it is explained below. Accordingly, we would expect the Greek authorities to be fully engaged and take into account the views of the stakeholders concerned, including through possible amendments of the planned reforms if required for the better functioning of the markets and for compliance with EU rules.

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1 See publication of the consultation at: https://www.rae.gr/2021/07/16/%ce%b4%ce%b7%ce%bc%cf%8c%cf%83%ce%b9%ce%b1-%ce%b4%ce%b9%ce%b1%ce%b2%ce%bf%cf%8d%ce%bb%ce%b5%cf%85%cf%83%ce%b7-%cf%84%ce%b7%cf%82-%cf%81%ce%b1%ce%b5-%ce%b5%cf%80%ce%af-%cf%84%ce%bf%cf%85-%cf%83%cf%87/.

2 See Article 20(5) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity, and the Commission's established practice of opening the proposed market reforms for a consultation before issuing its opinion.

[redacted]

2. Comments on the Greek Market Reform Plan

4. The planned reforms have been presented as a comprehensive long-term plan aimed at solving the persisting structural problems of the Greek electricity market, rationalizing its operation, addressing the issues caused by the recent entering into operation of the Target Model. However, the companies fear that the true objective of this plan is to establish State support mechanisms, such as the proposed Capacity Remuneration Mechanism, aimed mainly at indirect financing of conventional electricity producers in Greece, thus perpetuating the long-standing tradition of competition distortions through previous similar support schemes that have now expired. A further objective appears to be the lifting, already at the end of 2021, of the restrictions and limits on bids in the Greek balancing market that were rightfully established by RAE at the beginning of 2021 to address to its current oligopolistic structure.

5. The companies strongly dispute the need, appropriateness and proportionality of further State support mechanisms especially for the longer-term. They also highlight that such support would entrench the already significant market position of vertically integrated conventional electricity producers, which can and will use such proceeds to cross-subsidize their electricity supply activities at the expense of independent electricity suppliers. In this respect, more details are provided below.

6. The companies also wish to point out that the regulatory limitations adopted so far by RAE are only a minimum of what was needed and requested to solve the problems experienced with the recent operation of the Target Model. These measures were adopted to address both structural (system congestion) and technical (bidding algorithm) defects. More importantly, they were adopted to counter market abuses and "inappropriate strategies" resulting from a market power that is largely due to the insufficient competition especially in the Greek balancing market, as explained below. Accordingly, the companies note that such necessary limitations should not be viewed by the Commission as obstacles to the formation of market prices that need to be lifted, but instead precisely as a (minimum) effort from the regulator to remedy market abuses and balance the level playing field by simulating truly competitive conditions that do not currently exist in the market. Further information is presented below and a more detailed submission can be provided on all the relevant developments in the Greek balancing market since the recent operation of the Target Model.

7. To facilitate further the Commission's assessment, the companies present their comments in the sub-sections below, in line with the structure used by the Commission in its opinions on the reforms presented by other Member States.

2.1 General wholesale market conditions

8. The Market Reform Plan overall finds that the market operation in the DAM is successful (Section 5.3.2). It also notes that the 20% cap on bilateral contracts with physical delivery (which does not apply to forward contracts) "*allowed retailers with no vertical integration to survive and be competitive in the retail market*" (Section 5.3.3.1). Nevertheless, it considers the possibility of lifting such limitation (action F.1). The companies consider that any such lifting would be premature and would indeed have "*adverse effects on retail market competition and the survival of small retailers*".

[redacted]

9. In contrast, the Market Reform Plan finds that the IDM has very low liquidity (Section 5.4.2), which it suggests to increase through the introduction of additional participation in the market (i.e. traders, demand response, storage, etc.). The companies note that fast and increased market participation in the IDM has been a continuous request to the Greek authorities. The timeline envisaged for the various measures could be more ambitious. In particular, the participation of traders in the Intraday market (Section 5.4.3.2 and action A.7) only mentions "during 2022" as the target, when possibly a more precise timeline could be feasible for Greek and foreign authorities. In addition, the regulatory and technical changes needed for the participation of storage in the DAM and IDM are only envisaged for February and September 2022 respectively (action A.4). The coupling of the IDM (actions A.6 and A.8) are also to be realized by the end of 2022 (at various dates). The companies note that the increased participation and liquidity in the IDM sooner rather than later is essential for proper function of the Target Model and most notably to reduce the high volume and cost in the balancing market.[3]

10. More broadly, the companies take note of the proposals to be explored for: introduction of complex bidding orders (Section 5.3.3.2 and action F.2); introduction of portfolio-based bidding in DAM and IDM (Section 5.3.3.3 and action A.12). However, they note that any changes in the market design should mitigate instead of exacerbate the ability of vertically integrated generators exercising their market power to by-pass wholesale market competition.[4]

2.2 Balancing markets

11. The operation of the balancing market in the first months of the Target Model constitutes probably the most notable failure. The Market Reform Plan (Section 5.5.2 and Section 6) indeed finds that the costs and volumes in the balancing market are very high and that the balancing "*prices seen in Greece are significantly higher in the first six months of target model operation than balancing energy market prices in the rest of the EU.*" The main reason being the "*high magnitude of deviations between the real-time generation schedule and the one derived from the DAM*". System constraints, i.e. congestion in the Peloponnese and over - voltage in Northern Greece, are also mentioned as factors. However, the companies note that these issues were exacerbated to a critical level for balancing cost because of the market power and insufficient competitive constraints in the balancing market that integrated power generators enjoy.

12. The Market Reform Plan (Section 5.5.3.1) notes as much for justifying the cap that RAE rightfully imposed on downward changes in the balancing energy market, saying this was adopted "*After having observed **excessive remuneration** of balancing energy in the first two months after the first operation of the target model* [...]" and "*The causes considered for further investigation were related to scheduling needed to accommodate system constraints and probably to **over-priced bids as a result of market power related to the system constraints**. [...] The measure is provisional and has **effectively induced a certain reduction in total balancing energy costs***" (emphasis added). Section 3.3.5 also refers to this situation:

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[3] As noted in Section 5.5.2 "*The intra-day, lacking liquidity at present, has not been able to modify the generators' positions significantly to approach the real-time generation schedule*"

[4] As correctly pointed out in the Plan "*An essential pre-condition for the success of the measure is whether the ongoing changes in the fuel and asset mix reduces the possibilities of dominant market participants to by-pass the wholesale market competition, which cause a serious liquidity issue for small participants*".

"*RAE diagnosed that few power production plants situated in Peloponnese have **de facto a market power in the implied re-dispatching requirements**. Thus, the measure adopted by RAE has **a market power mitigation purpose, to avoid unjustified costs for consumers** ...*".

13. The companies wish to point out that during the public consultation ahead of the relevant decision RAE initially considered imposing also upper limits on bids for upward balancing energy and balancing capacity. Ultimately, RAE did not adopt such measures relying on what proved to be a temporary moratorium of lower balancing bids by generators. Although the relevant RAE decision stated RAE would re-evaluate imposition of upper limits for bids, it did not do so, despite the renewed increase of balancing prices and relevant requests from non-integrated suppliers and consumers. Accordingly, the companies are of the view that RAE has not made full use of the regulatory measures that are available under EU rules to remedy a lack of competition, prevent market abuses and achieve the EU objectives of a level playing field and efficient market functioning. [5]

14. Furthermore, they note the apparent inconsistency on the planned duration of this measure; will it last until the completion of the Peloponnese network (whenever complete), or instead it will be lifted with the operation of the flagging of re-dispatching?

- in the relevant decision, RAE connected the prohibition on negative prices to the duration of the congestion issue in the Peloponnese. So does the Market Reform Plan in section 5.5.3.1 by saying that "*The removal of the price range limitation depends on the completion of the Peloponnese network, for which a deviation routing is underway*". The completion of the 400 kV backbone Peloponnese (action B.3) is indicated as "high priority" but without a specific timeline. Indeed, section 3.3.5 notes that such deviation will take "*approximately 20 months*" and, that "*both the provisional measure and the permanent flagging remedy addresses concerns about the **eventual abuse of market power** when system constraints occur. **Should there be extended delays in the commissioning of the Megalopolis-HETS transmission line of 400 kV, RAE will re-consider the timing of lifting this temporary measure**."* (emphasis added)

- On the contrary, section 3.3.5 puts the duration "*until the commissioning of the reinforcement line in Peloponnese and the flagging of re-dispatching*". Even more so, actions A.9 and F.4 connect the resumption of negative balancing energy offer to action A.1 "Distinction of Balancing Energy and Energy due to Re-dispatching" whose timeline is "1-Dec-2021 for flagging and 31-Mar-2022 for settlement"

15. The companies consider that - at the very least - the lifting of such measure could only be considered after the completion of the Peloponnese network and not sooner, as suggested in the Table of Market Reform Actions and timeline.

16. In fact, they consider that this measure should not be connected to either event. Any congestion problems should be permanently decoupled from setting balancing prices through *'flagging and tagging'* mechanisms, which is being developed by the Greek authorities (section 5.5.3.3). Rather, the necessity or duration of regulatory measures allowing the proper function of the Greek balancing market should be linked to the true causes, namely the lack of competition and the barriers to entry in the balancing market.

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[5] As noted, more details can be provided in a dedicated memorandum on the main recent developments and issues in the Greek balancing market.

[redacted]

17. This need to enhance competition and/or decrease the required volume and cost in the balancing market is addressed by planned measures that have a longer timeline that the go-live of flagging of re-dispatching or of the eventual completion of the 400 kV backbone, namely:

    a. Go-live of dispatchable RES and RES portfolios in balancing market envisaged for March 2022 (action A.5 also linked to IDM coupling action A.8);

    b. Go-live of demand response in balancing market which is envisaged for February 2022 only at "a first pilot stage"(action A.3 and section 5.5.4.3);

    c. Participation of Storage in the balancing market and adaptation of IT system envisaged for December 2022 (action A.4 and section 5.5.4.2);

    d. The aforementioned coupling of the IDM, intended for end of 2022;[6]

    e. Having already a period of successful operation and refining of the new Market Monitoring and Surveillance Mechanism which will start at the end of 2021 (sections 4.4 and 5.5.3.1 and action C.1)[7]

    as well as measures to be explored such as: the introduction of complex bidding orders (Section 5.3.3.2 and action F.2); introduction of portfolio-based bidding in DAM and IDM (Section 5.3.3.3 and action A.12); potential implementation of self-scheduling(Section 5.5.3.5 and action A.13); distinct portfolio-based reserves market establishment (action A.2).

18. Indeed, Section 6 of the Market Reform Plan correctly focuses on both solving the congestion issue AND implementing these reform to mitigate the market power of generators submitting balancing bids: "*The full operation of the high voltage circuit foreseeable for the near future will remove the network limitations. Also, balancing resources, such as storage and demand response, will diminish scarcity and mitigate the market power of those generators that submit highly-priced bids in the balancing market*."

19. Finally, the companies emphasize that while the Market Reform Plan (Section 5.5.2) identifies the main reason for the high balancing cost and volume as the "*high magnitude of deviations between the real-time generation schedule and the one derived from the DAM*", it does not mention the technical and regulatory solution that has been requested by many market participants in recent months. This magnitude of deviations is connected to simultaneous counter-activation of both upward and downward balancing energy. This leads to the inflation of balancing volumes and costs, when the actual net imbalance is much lower, without creating any benefit whatsoever for the system and society at large. The RAE decision of 14 January 2021 invited ADMIE to examine such necessary technical changes including a 'penalty mechanism' and RAE was also evaluating an external study on such a mechanism which would penalize any counter-activation per dispatch interval and any difference between the Market

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[6] Such dates are also taken as reference dates increasing limits of balancing offers under other actions (action F.5 linked with action A. 6; and action F.6 linked with action A.14).

[7] It is worth noting that relevant reference in section 5.5.3.1 recognizes the root cause of the high balancing prices in strategic bidding, which was only enabled due to the market power of generators. "*Implementing the new Market Monitoring and Surveillance Mechanism, probably towards the end of 2021, would, in principle, mitigate the risk of strategic bidding behavior in the wholesale markets and ease the removal of the current price restrictions with a lower risk over-pricing*."

[redacted]

Schedules and the ISP (or the Real-Time Balancing Market (RTBM)) schedule. Nevertheless, the TSO (ADMIE) and RAE have neither adjusted the TSO algorithms to avoid counter-activation nor introduced a 'penalty mechanism'.[8]

20. Accordingly, and as mentioned previously, the companies consider that the cap on downward changes in the balancing energy market was a regulatory measure - and in fact only the minimum of the measures that were considered and are necessary - to preserve competitive result on the balancing market and address abuse of market power. It should not be viewed as a limitation to market operation but instead as a facilitator for the market to operate competitively. On the contrary, inflated balancing revenues from anticompetitive rents distort the competition both at wholesale and at retail levels. They cannot be used or justified as substitute sources for a hypothetical "missing money" problem for thermal producers. Lifting this cap too soon risks the return of excessive balancing costs on top of already extremely high pan-european day ahead market prices, and especially in December 2021 when the winter demand and supply situation may lead to higher balancing volumes required. Thus, this regulatory intervention should not be lifted until all the aforementioned structural measures have achieved a better functioning balancing market in Greece.

2.3 Demand side response

21. As mentioned above, the increased participation of demand response especially in the IDM and balancing markets is essential for a better function of the markets and increased competition leading to reduction of costs. The timeline and the scope for such increased participation should be ambitious.

2.4 Retail markets

22. Section 4.2 of the Market Reform Plan presents the Greek retail electricity market as having sufficient competition. It also mentions that "[...]*As a result, PPC has already today lost the competitive advantage related to lignite. Therefore, there is no scope to continue the energy release program or other asymmetric regulation measures to diminish retail market concentration*", while at the same time also noting that "*independent suppliers hold 36% of the retail market, without the high voltage industry*" with the rest being captured by PPC.

23. The companies consider that such a percentage is not sufficient to consider that there is no issue of market concentration. Indeed, despite the fact that concentration in the retail market has to some extent dropped since 2015, market concertation remains remarkably high. The Herfindahl-Hirschman Index (HHI) of concentration in terms of consumption in the retail market for Low Voltage and Medium Voltage customers, stood at 4,171 for the Interconnected System and at 5,565 for the Non-Interconnected System in 2020 according to RAE's latest Annual Report[9]. Accordingly, **RAE concludes that the value of both indices far exceeds the upper limit for a competitive market, which stands at 2,000 according to guidance from the European Commission**. In terms of connections, PPC still holds a market share of 78% among Low Voltage and Medium Voltage customers and remains effectively the sole supplier in the High Voltage market segment. Despite similar findings in Table 7 of the Market Reform Plan,

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8 As noted, more details can be provided in a dedicated memorandum on the main recent developments and issues in the Greek balancing market.

9 See pages 92 and 100 of the report available at https://www.rae.gr/wp-content/uploads/2021/04/%CE%A0%CE%B5%CF%80%CF%81%CE%B1%CE%B3%CE%BC%CE%AD%CE%BD%CE%B1_2020_final.pdf

Section 4.2 does not draw the appropriate conclusions for the problematic situation regarding the degree of concertation in the retail market.

24. In addition, Section 4.2, like other sections as mentioned above, also highlights a risk that especially non-integrated retail suppliers face whose competitiveness "*is entirely dependent on the costs of the wholesale markets and the availability of energy (liquidity*)". Accordingly, the Market Reform Plan correctly points out that "[t]*herefore, the measures to envisage for assuring revenue streams in the wholesale markets need to consider possible adverse impacts on concentration in the retail market and the survival of small players without vertical integration*". The companies are also supportive of the introduction of the Market Monitoring and Surveillance Mechanism by end of 2021 (action C.1) which corresponds to their repeated requests to RAE.

25. They also note the intention of introducing an organized (non-mandatory) wholesale trading market for private RES-PPAs (Section 4.5). This market should be designed in such a way that it ensures competition for all market players involved. The companies reserve their opinions based on the particular eventual characteristics of such market. They also note the intention of the Greek authorities to complement this market with State support for energy-intensive users. As the "t*he exact configuration of the state-aid scheme is not fully established*", they cannot at this point express an opinion on the positive or negative effects of such State support on proper market function or the distortion of competition, nor can they opine on the compatibility of such State aid, given the lack of clarity of what would be the appropriate legal basis to assess it under the current or upcoming State aid rules and guidelines.

2.5 Interconnection and cross-border trade

26. The new interconnection with Bulgaria will be operational by end 2022, while many additional/upgraded interconnections (Italy, North Macedonia, Turkey, Albania) are at an early stage (see action B.1). Interconnections can induce competition especially in the wholesale markets and increase the available capacity in the Greek market, thus reducing any residual adequacy concerns.

2.6 Other measures

27. As indicated above, the companies are alarmed by the intention of the Greek authorities to revert to the tradition of similar previous support schemes that will mainly benefit thermal electricity producers. Action E.4 foresees a Strategic Reserve, tentatively envisaged for the period 2021-2023, which will entail auctions for lignite plants, gas-fired plants and interruptible load). Subsequently, action E.5 foresees a Capacity Remuneration Mechanism, tentatively from end 2023 onwards, with reliability options and promotion of flexibility with broad participation of generation, demand response, storage and interconnections.

28. The justification to adopt these support schemes seems to be attempted by invoking essentially two arguments:

    a. Existence of a capacity adequacy issue in the Hellenic Transmission System for electricity in the coming years; and

    b. Non-recovery of the investment costs of thermal producers from their participation in the electricity markets.

29. The companies strongly dispute both invoked arguments as set out below in more detail.

[redacted]

a) Capacity adequacy assessment

30. Section 3.2.1 refers to a study by ADMIE that identified a "*severe capacity adequacy gap*" from the retirement of the lignite plants which is assumed to happen already in 2021 until the operation of the new power plants. It thus identified the need for contracting a **strategic reserve** for at least 1850 MW for 2021, 1775 MW for 2022 and 675 MW for 2023. This study of ADMIE must be made publicly available to all market participants and put to public consultation, since the last Capacity Adequacy Study of ADMIE (December 2019) did not present any such conclusions.

31. Similarly, Sections 3.2.2 and 3.2.3 refer to the projections of daily demand and supply according to the Greek NCEP. They conclude that with the increase of RES in the generation mix, balancing resources will be strained and therefore a **capacity remuneration mechanism** is needed to provide revenue assurance to all flexibility providing resources and help maintain them in the market. However, this point appears contradictory, since in that case the already high remuneration of balancing services providers will be further increased as they will be called upon to provide these balancing services at more frequent intervals and potentially also higher volumes.

32. The companies note that no revised Capacity Adequacy Report has been published yet, nor is it part of this consultation. They would invite the Commission and the Greek authorities to consult on the final Capacity Adequacy Report, or otherwise make it available to interested parties for their comments, before assessing the validity of its findings. Such Capacity Adequacy Study must take into account the significant new capacity of photovoltaic (PV) installations that is expected to be installed until 2030 as per current production license volume granted by RAE (leading to a total PV capacity above 13,000 MW). It also must fully take into account the battery energy storage systems (BESS) that are expected to be installed by various investors until 2030 (probably leading to a BESS capacity at the range of 4,000 – 5,000 MW until 2030). The above figures can be easily justified by the increased interest of a multitude of investors in constructing and operating both PVs and hybrid stations (PVs plus BESS), and by the fact that the Levelized Cost of Energy (LCOE) of hybrid stations (PVs plus BESS) is currently lower than the respective LCOE of conventional gas plants. Additionally, in all scenarios of Title Transfer Facility possible future values are at the range of 15-30 €/MWh, and so the hybrid stations continue to have a lower LCOE as compared to conventional gas plants.

33. Furthermore, some of the assumptions that will be applied for the revised Capacity Adequacy Report are mentioned in the Market Reform Plan. Notably, Section 3.1.2 mentions that the only future major capacity additions to be taken into account are the 825MW gas plant of the the Mytilineos Group and the PPC 660MW plant Ptolemaida V, both under construction. On the contrary, the assumptions in that section dismiss "*four additional* [gas plant] *projects of a total capacity of 3280 MW are under consideration by independent power producers*". It views them as lacking "*sufficient confidence*" since "*there is no specific information about a final firm investment decision for these projects*." and declares that "[n]*one of them has, until now, have engaged in significant expenditures towards investment implementation*". The companies firmly believe that these assumptions are overly conservative and thus inappropriate to define the future capacity adequacy. First of all, the current pipeline consists of additional seven (and not just four) such projects under development (Motoroil-Terna Groups; Kopelouzos Group; Karatzis Group; Viohalco Group; Elpedison; PPC; Larisa Thermoilektriki) with a total installed capacity of 4623MW that have already received a production license by RAE, as per the publicly available registry in the Authority's website, many of which are close to an investment

[redacted]

decisions and have applied for licenses and permits, as Section 3.1.2 admits. In fact, one of these project received merger clearance from the Hellenic Competition Commission a few days ago.[10] Based on these facts, a realistic power adequacy study should consider the construction and operation of at least 3-4 of these new gas-fired units, if not more, in the coming years.

34. Similarly conservative assumptions are used for future consumption levels, RES penetration and participation of energy storage and demand-response technologies in the power market, the effects of upcoming new/upgraded international interconnections and the coupling of balancing markets. As a result, the study seems to reverse-engineer the facts and try to arrive to a finding that there is an adequacy concern, so as to be able to justify the need for the Capacity Remuneration Mechanism, rather than take into account all the necessary assumptions and data in an objective manner.

35. Accordingly, a realistic capacity adequacy assessment should take into account a multitude of scenarios for all relevant parameters and not simply rely on the most conservative assumptions available.

36. The companies will have further comments on the appropriateness of the updated capacity adequacy report once it is made public or at least available to interested parties. This will be crucial for the compatibility assessment in terms of necessity of the two envisaged State aid schemes.

b) Economic viability assessment

37. Section 3.2.1 referring to the need of a **strategic reserve** also notes that "*Under pure market conditions, i.e. without out-of-the-market support, the existing lignite power plants cannot provide any balancing or reserve in the intra-day market and the real-time system operation*" However, Section 6 (table 12) contains a detailed analysis of revenues that lignite plants currently achieve both in the IDM and in the balancing market, which should prove the contrary. The rationale for a strategic reserve can only lie in security of supply considerations and not in aiming to support the viability of lignite units; these units are led to early retirement exactly because they became unprofitable and inefficient, and in any case they would operate outside the market and be compensated through the strategic reserve "*strictly only for the minimum fixed maintenance and operation costs needed to maintain the units under retirement in a cold reserve regime*" (Section 7)

38. Section 6 contains a financial analysis on the revenues and cost of electricity generation, with the aim to identify a "missing money" problem that would justify a rather permanent **Capacity Remuneration Mechanism.** This analysis indicates that the revenues received from the wholesale markets are not sufficient to cover the entire costs of thermal producers. Since the lignite plants will not be eligible under the planned Capacity Remuneration Mechanism, it is worth focusing on the analysis regarding gas-fired plants.

39. In sum, the analysis finds that the wholesale market revenues cover the fuel and fixed operation and maintenance costs of gas plants leaving a 24% margin. The revenues are not

[10] https://www.epant.gr/en/enimerosi/press-releases/item/1532-clearance-of-the-proposed-change-in-the-quality-of-control-from-sole-to-joint-by-motor-oil-renewable-energy-and-gek-terna-group-of-companies-of-thermoilektriki-komotinis.html

[redacted]

sufficient to also cover their the annual-equivalent capital costs estimated at a 7.5% weighted average cost of capital (WACC) (see Table 12) leading to a net loss of 3.1 €/MWh.

40. W+V and FAA disagree with this analysis of costs. First of all, there has been significant increase of the total compensation of the thermal power units in their capacity as balancing service providers, from the beginning of the operation of the Target Model until today, at a level exceeding 10€/MWh (from 3-4 €/MWh under the previous Mandatory Pool mechanism). This has created, on an annual basis, additional revenues of c. € 350 million in total for the business groups of thermal producers; i.e. approximately € 550 million, in contrast to a corresponding compensation of around € 200 million in previous years through the previous market operation model. The increased profitability of thermal production in recent months is clearly certified by the published financial statements for the year 2020 and the first half of 2021 of the business groups of thermal producers.

41. In view of the above, the finding presented in the financial analysis that the operation of gas-fired units was in total unprofitable during the first half of operation of the Target Model, is far from reality. The financial figures presented in Table 12, show that the opposite is true, namely that the operation of these units was particularly profitable in terms of operating result, showing a gross result of € 187 million (excluding only variable fuel costs) and a gross result of € 147 million, including fixed operating costs (maintenance, etc.). Despite this self-evident conclusion drawn from these figures, the study seeks to demonstrate instead that these production units are ultimately unprofitable, because they do not recover the cost of the initial capital investment and, therefore, from the € 187 million gross 6-month operating profit they end up with losses of approximately € 28 million, having deducted the alleged annuity of their investment cost of € 176 million on a 6-month basis (i.e. approximately € 350 million per year).

42. Second, as mentioned the results do not indicate the existence of operating losses from their participation in the markets, but instead the non-recovery of a theoretical, particularly high, annuity of capital investment cost. However, the amount assumed for such cost is not realistic for the following reasons:

    a. A WACC of 7.5%, for the construction and operation of a thermal power plant is particularly high since these investments are generally financed by bank lending at a rate of 70-80% with a maximum current borrowing cost of 2-4%. Therefore, based on the calculation equation of the WACC, it follows that the required return on equity assumed is in the range of 20-25%! It is obvious that the increased WACC taken into account in this analysis inflates excessively the total annual cost of gas units at the extreme high level of € 351 million per year (or 19,50 € / MWh (taking into account an average annual electricity production of 18TWh).

    b. It is widely known that most investments in existing gas units that were built and operated commercially from 2010 to 2012, as well as the older units built in the 2000s, are now either fully depreciated, through market revenues and the previous State support schemes, or are in the process of completing the amortizing of their investment costs. Therefore, it is not appropriate that a WACC of 7.5% is taken into account going forward for all natural gas units operating in Greece, when the units that have been depreciated and/or fully repaid their loan have a much lower fixed annual cost (i.e. only administrative/management costs). Even the partially depreciated units are expected to fully repay their loans within the next few years, and immediately thereafter only have annual fixed costs of around € 2-3 million per

year and thus increased net profitability. Therefore, for the purposes of an analysis of economic viability with regard to a planned support scheme starting from 2023 and lasting well into the mid-term future, it is not a reasonable assumption to consider that gas plants will bear their full fixed cost for each of the following years (as if they had to pay their borrowing costs forever), when in reality they will only bear on an annual basis as fixed costs only their administrative / management costs (a few million € per year, per unit of production).

43. Furthermore, the analysis aims at diminishing the importance of revenues achieved in the balancing market. On the one hand, it notes that gas-fired plants received 21% of their wholesale revenues from the balancing market and that "*during the first six months of the target model operation* [...t]*he balancing market prices have reflected bidding prices with high mark-ups above marginal costs, behaviors that correspond to the scarcity rents in the balancing market, as scarcity conditions occurred in the said period for the reasons explained*.[11] Yet, on the other hand, the analysis claims that such high balancing revenues were "*due to exceptional circumstances*" and will not easily repeat, implying that the planned reforms will likely reverse the underlying problem in the balancing market, whereas no such evidence currently exists.

44. As noted, the circumstances that gave rise to the problems in the balancing market will be addressed only after the full implementation of the required reforms envisaged and the additional measures indicated above both in the balancing market and the IDM, including broader participation of market actors (traders, RES, demand response, storage) international interconnections, as well as the indicated specific regulatory and technical changes. Accordingly, the timeline and immediate success of such reforms cannot be taken for granted to already discredit the -unfortunate- possibility that the gas-fired units may still continue to receive high balancing revenues.

45. Finally, the fact that important business groups in Greece have already approved an investment in natural gas-fired power production units for a long time and are close to starting their construction, without the existence of any such support mechanism for their fixed compensation, only shows that the investment assessment they have carried out demonstrates their expectations to recover the cost of their capital investment without requiring any guaranteed revenues from a similar mechanism.

46. In the view of the companies, the above points are far more compelling than economic advocacy such as the one set out in Section 7 of the Market Reform Plan. That Section essentially outlines economic considerations on why capacity mechanisms, in general, can be useful in Member States and goes on to even reach a virtually universally applicable and unqualified conclusion that "*capacity remuneration mechanisms need to be permanently part of the market design to support large scale deployment of renewables*".

47. In light of the above, the companies firmly believe that there is no actual "missing money" problem for gas generators that would justify the introduction of a capacity remuneration mechanism.

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[11] In contrast, speaking of the DAM the analysis states that "*the large majority of bids do not include mark-ups, due to intense competition*". Thus, read in reverse this implies that the high balancing prices were due to lack of intense competition and they were not only "scarcity rents" but also rents reflecting the insufficient level of competition in the balancing market.

[redacted]

3. Conclusion

48. In conclusion, the companies take positive note of some of the planned reforms that are long overdue like broader market participation, increased international interconnection and market monitoring and surveillance. In contrast, they are alarmed by and strongly opposed to reversing the -minimum- regulatory measures adopted to address distortions in the balancing market or to the introduction of State aid schemes without proven need to restore adequacy or economic viability, but which will instead support thermal (lignite and gas) generators and allow them to cross-subsidize their retail activities at the expense of non-integrated competitors. Finally, they will monitor and hopefully participate in the discussions for reforms that will be explored by the Greek authorities and looks forward to further contributions and interactions with the Commission services both with regard to issues of electricity regulation in the Greek market and the related State aid procedures.

* - * - * - * - *

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To: DG Energy, Unit C3 Internal Energy Market

Prot. Numb. 994/06.09.2021

Athens, 06.09.2021

Subject: Consultation on Greek market reform plan

Dear Madam and Sirs

Herewith, EDF Renewables Hellas Single Member S.A. wishes to submit its views, in the context of the Consultation on Greek Market Reform Plan.

EDF Renewables Hellas Single Member S.A. (hereafter "EDFR Hellas SA"), 100% subsidiary of EDF Renewables S.A., was founded in 2005 and is currently one of the dominant companies in Greek RES market. Through its subsidiaries, it develops and operates wind, photovoltaic and hybrid power stations. For 2020, the total capacity of the operating projects that the company manages rises to 276.5 MW. EDFR Hellas SA has a significant portfolio of RES and storage projects in mature development status. In addition the company has applied for new production licenses, the assessment of which is expected..

As you know, the first step required in justifying the need for a Capacity Remuneration Mechanism (CRM) is the identification of an adequacy problem. However, this is a necessary, but not sufficient step. Both the EEAG 2014 (par. 223) and the Regulation 2019/943 state that a CRM can only be introduced if:

- market or regulatory failures can be identified that would be expected to result in the market delivering less than adequate capacity; and
- that these market failures cannot otherwise be solved by market reforms i.e. CRMs should only be introduced on a temporary basis to solve the "residual" market failure.

Furthermore, the Regulation states that Member States should be required to adopt measures to eliminate any identified distortions and make a timeline for their implementation (Implementation Plan).

Taking into account the aforementioned as well as the submitted plan, EDFR Hellas SA believes that Greece has considered and addressed all the issues which are required according to Article 20

of the Regulation 2019/943. Specifically, the submitted Market Reform Plan for Greece includes all the necessary measures needed to eliminate any identified regulatory distortions or market failures. In addition, the timeline for market reforms is strictly defined.

Nevertheless, with this letter, our company would like to highlight the following controversial issue:

As analytically is described in the Greek Market Reform Plan (e.g. pg. 4, pg. 13, chapter 5), the Greek state intends to fully integrate storage in all the stages of the wholesale markets, including in the balancing. Accordingly, storage will also be fully eligible in the Capacity Remuneration Mechanism to be proposed. In fact, as explicitly mentioned on pages 53 and 54; "*In a stepwise manner and with a final deadline of mid-2022, the market reform will ensure that the following resources will participate in the balancing market: […], 3) Storage stations, hydro pumping, batteries (with or without functional integration with RES units) and other storage facilities to provide all types of reserves and Balancing Energy in both directions.*".

However, despite the above clear and firm timeframe for the participation of storage in the balancing market, the Greek government in July 2021, with the Law 4819 (OG A' 129/23.07.2021) suspended the environmental licensing procedure and the binding interconnection terms for already licensed storage units collocated with RES plants. The Law also suspended the approval of new and pending permit applications for such storage facilities. Both suspensions were applied immediately and they will be remain in force until 31 December 2021. It should be noted that from these suspensions are excluded the standalone Battery Energy Storage Systems (BESS) and Pump Hydro.

In the light of the above and given that:

- As mentioned, the proposed market reform plan makes sure to grant full market participation and balancing involvement and responsibility to storage facilities (with or without functional integration with RES units), like any other plant.
- The aforementioned legal provision puts storage facilities combining storage and renewable technologies, at a competitive disadvantage compared to other storage technologies such as standalone storage and pump hydro, which are allowed to proceed with their permitting process, securing grid access, and benefitting from a strong advance in the upcoming auction that is going to be financed under Recovery and Resilience Funds.

We believe that it is of utmost importance this recent institutional barrier to be removed, before the Commission issue its opinion regarding the proposed, by Greece, Implementation Plan.

We remain at your disposal for any further clarifications and thank you very much for your consideration.

Finally, we would like to state that we want our submission to remain confidential.

[redacted]

To:
European Commission
Directorate General for Energy
Unit C3 - Internal Energy Market
1049 Brussels, Belgium

Ref. No.: 628
Athens, 06.09.2021

SUBJECT: Consultation on Greek market reform plan

[redacted]

With this letter we submit the comments of our Association with regards to the consultation of the European Commission on the market reform plan of the Greek electricity market. The present consultation follows the one conducted by the Greek Regulator during July 2021. Unfortunately, the text of the present consultation suggests that the Greek authorities have not accepted any substantial comment submitted during the previous consultation.

The fundamental idea behind the market reform plan should be, according to the EU' Regulation 2019/943, to identify and provide a timetable for all necessary measures that will eliminate or at least will mitigate the well-known "missing money" problem. The proposed set of measures though is insufficient (in some cases even unfit) in terms of achieving this goal. On the contrary, the counter reform of the balancing market proposed by the Greek authorities is expected to worsen the problem and deteriorate the healthy competition between the market participants. In the light of the development of healthy competition, our Association would like to remind that the Public Power Corporation (PPC) today maintains its super-dominant position in the retail market - despite the obligation under Greece's Memorandum of Understanding with the European Commission (as incorporated into Law 4336/2015) to reduce its share both in the wholesale and retail market at a rate below 50%. According to the last available data, PPC still holds a 65% share in the retail market and represents more than 75% of the power meters (meaning 5.732.047 out of the 7.615.750). In fact, the prospects for a substantial change in this matter are not auspicious, considering (a) the government's expressed will to promote the public corporation into a national champion and (b) the recently announced commercial programs of the incumbent that allow the further foreclosure of the retail market.

Furthermore, as mentioned in the text submitted by the Greek authorities, the reason behind certain changes proposed in key design aspects (e.g. unit-based bidding, central dispatching & scheduling, FHR percentage) of the newly introduced power markets is -apparently- that the cost of the balancing market is considered, by the authorities, to be higher compared to the European average. For this very reason, our Association has submitted a study that examines the Irish

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market, which shares common features with the Greek market, and proves that the cost is, if not lower for the Greek market (due to the short comparison period), at least commensurate. Therefore, we strongly believe that changing the key features of the Greek market is pre-mature and will constitute a counter-productive reform that will result in market foreclosure instead of enhancing competition. Power mitigation measures and enhanced surveillance mechanisms are mandatory in the Greek electricity market and must be facilitated through its market design principles.

Besides, the main reason for the "missing money" issue in the electricity market is, historically, the suppression of wholesale market prices. This situation will be maintained as long as the dominant company has the clear status of a net buyer due to its larger share in retail sales than in generation – a circumstance that, if anything, is going to be exacerbated by the foreseen closure of the lignite-fired plants. The dominant company has thus an incentive to suppress prices in short-term energy markets (DAM & IDM) - while it continues enjoying exclusive and privileged access to resources such as large hydroelectric power plants. With regards to the hydroelectric power plants, it should be noted that no substantial supervisory control can currently be exercised by the Regulatory Authority as even the calculation and publication of the minimum variable cost has been abolished, while a methodology for calculating the actual available capacity on a daily basis has never been implemented. The conclusion that the dominant company will lose market power simply because the lignite operation - which the State so far seems to selectively strengthen through a strategic reserve mechanism hence delaying the operation of an available capacity market (CRM) - is no longer competitive, does not seem to hold, taking into consideration the evolution of lignite costs and PPC's retail share over the last couple of years. Similarly, the assumption stated in the plan that the implementation of the RES-PPA schemes in the future will drastically reduce PPC's share in retail market does not sound realistic since a) PPC is announced to be the biggest investor in RES and b) PPC will still have exclusive access to non-pumping hydro power plants. Last but not least the proposed remedy for the anti-trust case AT.38700 that is anticipated to be implemented in the following months is not expected to help competition and eliminate the market power of PPC.

Next, we would like to focus on six very important issues related to the proposals for structural changes in the existing market:

1. Reference is made across various parts of the plan to the market **participation at the portfolio level and not per unit** as is currently the case. We consider it goes without saying that the decision for a unit-based market has been taken, implemented, and operated - as mentioned in the introductory part of our letter – based on a multi-year preparation and time-consuming process, through multiple consultations and active dialogue with all market participants as well as a dry-run period. The reasons for choosing central-dispatch with a unit-based approach instead of self-dispatch with a portfolio-based approach were, in a nutshell, related to the security of the system, the long experience of the TSO in central planning and the avoidance of abusive practices in view

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of the position of the dominant market player, taking into account -among other things- its exclusive access to hydroelectric production and its massive share in the retail market. Apart from PPC's exclusive and privileged access to large hydro capacity and the targeted support measures notified to the Commission for the financial backing of its uneconomical lignite-fired fleet (e.g. strategic reserves, closure of uncompetitive mines etc), PPC's pivotal position in the retail markets is also constantly boosted through questionable market interventions by the State. Indicatively, as publicly acknowledged by the Ministry at the time, in September 2019 an indirect, yet fully documented, transfer of 200m€ from the RES account to PPC took place, which was to a large extent financed by RES producers. Moreover, as indicated in our Association's monthly reports to the Regulator over the past 5 years, a consistent tolerance can be observed by all monitoring authorities towards market distortive/manipulative practices by the incumbent in the wholesale market(s) (e.g systematic dispatching of lignite-fired plants, while maintaining DAM prices below even marginal costs of those plants). Said issues unfortunately fail to appear to be dealt with in the submitted reform plan. As the dominant company continues to enjoy an increased (!) market share, the reasons that led to the above strategic design choice have not vanished and any discussion on switching to portfolio-based bidding can only but include a plan of divestiture of hydroelectric production to competitors of the incumbent as well as specific measures (e.g. setting a floor price to the commercial programs allowed to be offered to consumers that do not prevent the competition to grow) to reduce the share of the dominant undertaking in the retail market. We believe that the relevant measures described in the current plan are not sufficient. Therefore, we consider that the potential of such a radical structural change in the market design - before the share of the dominant company is significantly reduced in both the wholesale and retail market (especially at the level of LV customers) - contradicts the objectives of the market opening and ask for any relevant reference to be removed from the plan. We find such a reference, within a market with such limited operating time that runs smoothly and is in line with the European design since other countries have adopted this model (e.g. Italy, Ireland), as hasty and disorienting.

2. Another very important issue is that of **redispatching.** The Greek Regulator has recently put in public consultation a proposal for the distinction between balancing energy and energy due to re-dispatching to further define the methodology for the implementation of this distinction that is followed with a change in the remuneration of the energy provided based on the purpose. The suggested market reform aims to lower down the cost of the balancing energy market and neglects the distortions it introduces in the market. This is why our Association strongly disagrees with the proposed measure (as stated in our letter to the Regulator dated 30.08.2021). Moreover, we believe that the proposed measure misinterprets two important regulatory principles. The first one refers to the energy labeled/ flagged as re-dispatching. The second one refers to the priority provided in satisfying balancing instead of system constraints.

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More specifically, ADMIE refers to the Decision 16 of ACER on the methodology for classifying the activation purposes of balancing energy bids. Under the scope of this Decision, two activation purposes for balancing energy bids are defined: balancing and system constraints, considering that these are all the possible activation purposes as required by Article 29(3)(a) of the EB Regulation. Moreover -following the discussion with TSOs and regulatory authorities during the consultation of this methodology- ACER decided to distinguish between the different actions to deal with system constraints and defined the following action's types: **redispatching**, **countertrading**, **other remedial actions**.

Thus, it is clear that redispatching is just one of the possible actions to deal with system constraints. Hence, only the balancing energy bids for redispatching should be flagged and shall not set the balancing energy price.

3. ADMIE's proposal is based on an "extension" of the current ISP model, in which offers selected by the ISP algorithm are labeled ex-post on the basis of the purpose of each activation (balancing vs. redispatch), and priced differently according to their purpose. We believe that while pricing differently different services could in general result in a robust and efficient market design (as there are examples in Europe), the one proposed by ADMIE would bring to adverse consequences, as discussed below.

A distinguishing feature of the ISP model currently implemented in Greece is that generators offer in the market the 'performances' of their units; the System Operator, via the ISP selection algorithm, instructs the generators to 'do something' (compatibly with each one's technical constraints) and not to provide a standardized service. Under an alternative approach, generators are required to offer 'services' (such as reserve capacity), possibly delivered by combining the performances of different units. Technical constraints, in this alternative approach, are a concern of the supplier of the service, and not addressed by the selection algorithm.

In the ISP approach, then, the generator offers a price for the performance of his unit, and the pricing rule implemented in the ISP has the role to compensate the generator based on the (marginal) value that it has to the system. This means, among the other things, that the pricing rule must make the generator neutral between selling energy (say, in the form on an Inc/Dec and providing headroom/foot-room capacity, ready to produce in case the SO needs it. ADMIE's proposed pricing rule may not meet this requirement, as it prices differently according to the reason an action was instructed for.

This might have the following adverse consequences:

- generators selected to deliver the same performance, with the same value to the system, might end up being paid differently;

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- the optimal bidding strategy for generators would entail conjecturing the purpose for which their offers are likely to be accepted, and thus depart form the usual 'incremental cost' benchmark; this might result in offers that are ex-post inefficient, in case the guess of the generator's turns out to be incorrect; in addition the inefficient set of units might end up being selected by the ISP algorithm to keep the system secure and balanced.

Note, incidentally, that a design that requires that generators predict the market outcome in order to identify their expected-profit maximising offer strategy, places, other things equal, more risk on generators. For this reason, it is unlikely that implementing such design will reduce the expected cost of the procurement of ancillary services for the system operator[1].

We remark that in the alternative model, these potential inefficiencies are mitigated by the possibility for the generators to offer different prices for different services. The problem with ADMIE's proposal is that such flexibility is absent in the ISP model.

Overall, such a system:

- Would create uncertainty for investors and generators;
- Might distort the (rational) bidding behaviour in the energy and in the ISP (balancing) markets;
- Might result in less than efficient compensation for certain entities.

Therefore, any reduction of the balancing cost should not be pursued via an **ex-post** labelling system as the one proposed by RAE and ADMIE but must be the result of a market based procedure.

Regarding priority of balancing over redispatching, we believe that a plausible methodology should select 'redispatching' activations before balancing activations (and not vice versa as it seems to be the choice of ADMIE). It is intuitively appealing that 'redispatching' activations performed to resolve system constraints are performed in the context of a balanced system; should the system be found out-of-balance after the system constraints are solved, balancing activations will be selected. In the context of market designs where separate market phases are instituted to resolve system constraints (e.g., Spain), these usually take place **before** the market phases where balancing services are procured. ADMIE refers to the design of the MARI and PICASSO platforms to support the fact that redispatching activations should be selected 'after' balancing offers. With this respect, it is true that the design of MARI and PICASSO provides that TSOs may refrain from submitting in the platforms selected offers needed for local reasons (i.e., in the spirit of ADMIE's proposal, for 'redispatching' purposes), starting from the most expensive ones. However, the reason for such design choice is not related to the fact that redispatching

[1] *This may not hold in case of congestions, unless a locational pricing rule is implemented in the ISP market.*

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activations should in general be associated to more expensive offers than balancing offers. Rather, the design is aimed at removing the incentive for TSOs to submit only the higher-price offers on the MARI and PICASSO platforms – something that would clearly be detrimental to the market integration process. Hence, the interpretation of ADMIE is misleading.

The introduction of **separate tenders to meet the required reserve needs at the day-ahead level** is considered to be an extensive structural change in the market design that presupposes sufficient dialogue with the market participants before it is put in any public consultation. Our assessment is that the reserves market has been functioning smoothly so far, accurately reflecting the value of these services in the Greek electricity market. Given the volume of planned changes that the plan describes in total, we do not consider the change of a smooth market as timely.

4. A very significant reform, which is not touched upon within the plan, is the reduction of PPC's share in the retail market so that the gap from the corresponding percentage in the production side and imports becomes smaller. Only through such structural reform will the impact, of the net buyer position that PPC holds in the wholesale market, be reduced. The specific position in the market forms an irresistible incentive for PPC to suppress prices in the wholesale market(s), which in turn hinders new investments in RES, storage and thermal production units with low CO2 emissions. The plan states that PPC's share in the retail market will be reduced since its share in the production side will decrease: but it's not a question of absolute figures but of the relevant market position. A decrease in PPC's generation market share (through the eventual decommissioning of lignite fired capacity) would have to be preceded by a steep drop in its retail share creating a "healthier" market environment. There is hardly any indication that an "automated" process such as the one described in the reform plan might take place in the future (it never has thus far). Therefore, the final reform plan should include specific measures – including an analysis for 2023, 2025, 2028 and 2030 - to reduce not just PPC's (absolute) share in retail but also the difference between its shares in production / imports and retail. At the same time, our Association considers that the measures proposed in the context of Case AT.38700 of the European Commission will have very little effect on the opening of the retail market, while we remain in doubt as to whether they will contribute to increasing the liquidity of the electricity futures market that HENEX is operating.

5. The draft plan states that the State intends to establish an organized non-mandatory wholesale market for bilateral private RES-PPA contracts. Taking into consideration that mature RES technologies (solar and onshore wind) have reached market parity (at least in terms of LCOE), we fail to see the reasoning and added-value behind this proposed market intervention, whereas we believe that -if implemented- it would be counter-productive as far as the liquidity of the (existing) forward market is concerned, particularly considering the key role of RES in the coming years. RES should be encouraged to participate in the newly created markets, be it through PPAs or through

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direct marketing of their output in the wholesale markets, rather than forming a stand-alone/dedicated trading platform which would produce separate market signals, possibly impacting those of the existing electricity markets. On point 4.5.2 of the proposed market reform plan, the HAIPP does not -in principal- object to introducing measures supporting the competitiveness of the energy-intensive industry as long as they do not distort electricity markets and addressing, in a targeted manner, the documented decarbonization challenges faced by those industries and the economy in general.

6. The draft plan describes some actions regarding the reinforcement of the transmission system. However, it does not touch upon the most critical and difficult infrastructure issue in the Greek electricity market. That is, both the transmission and distribution networks are not fit to connect and integrate the vast amount of RES capacity and energy foreseen by the Greek NCEP. Moreover, the current situation regarding the network's ability to absorb RES energy has not been properly assessed. For this reason, HAIPP has repeatedly asked the Greek authorities to impose an obligation on ADMIE and DEDDIE to deliver every two years a common study that will depict the current networks' situation (regarding RES integration potential) and the actions needed towards 2030.

In addition to the above, we have the following remarks, in which we quote the chapter, the page and the excerpt from the announced implementation plan:

i. **2 / Pages 3 - 11.**

While several measures are presented with relatively complete time schedules, the Milestones for some of them are incomplete. Indicatively, we mention that an important mechanism, such as the "scarcity pricing mechanism", does not refer to any date as a milestone. However, the design of a shortage price function for balancing is necessary in accordance with the provisions of the European Regulation 2019/943.

ii. **3.1.2 / Page 12:** «*A new lignite plant of 660MW (Ptolemaida V) owned by PPC is under construction, expected to start operation testing in the second half of 2022 and probably start commercial operation in 2023.*»

Considering the previous test periods of the new PPC units, the amount of time set as a test period for the new Ptolemaida V unit is deemed as too short. At the same time there is no reference in the text to the expected extended transition period from one operating fuel to another, where the unit will not be in operation.

iii. **3.2.1 / Page 15**: «*Thus, the existing lignite plants are systematically outside the merit order and outside the plant scheduling. Furthermore, due to their inherent technological characteristics (warm-up time above 12 hours), there is no way for IPTO to activate them during the intra-day timeframe markets to provide balancing and reserves. If IPTO could*

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call upon them beforehand and irrespectively of the day-ahead merit order, lignite plants could contribute to reserves. However, this is not possible under the current market rules.»

Given that during the hours that a lignite plant that participates in a Strategic Reserve mechanism will be put into operation, the values of the Balancing and the Reserves energy will automatically be set to their maximum allowed price (VOLL), the way and the timing of the relevant dispatch orders to the inflexible lignite plants will need to be examined to ensure that there is no market distortion.

At this point we wish to reiterate the firm position of our Association in favor of the immediate notification of the capacity remuneration mechanism (CRM) in Greece. It goes without saying that the large penetration of RES in the Greek energy system during the current decade can only be achieved if flexible gas units, energy storage units and demand side response are available to respond to the stochastic RES production by offering firm/controllable capacity and ensuring the country's security of supply. On the contrary, RES in combination with lignite plants, that cannot adapt to the stochastic nature and rapid variability of non- dispatchable RES production, is equivalent to a recipe for failure and a system with significantly increased balancing costs.

Considering that lignite plants will remain in the market until the end of 2023 (with the exception of Ptolemaida V), we deem as appropriate for the Greek government to focus on the promotion of the new market-wide CRM, which, after all, is the mechanism needed to safeguard lignite units' withdrawal as scheduled, i.e. by end of 2023, without -in fact- prohibiting their participation either (in line with the EMR).

In any case, if the government proceeds with a NCEP update in order to provide for the withdrawal of specific lignite plants from the market already within 2021, a parameter that is considered as a prerequisite for notifying a strategic reserve scheme for the specific units, then this option should be reflected in the IPTO resource adequacy assessment. It is imperative to ensure that the notification process of the new CRM mechanism which is called to play a catalytic role in the future security of supply of our country, is not endangered and / or delayed by any means.

iv. **3.3.1 / Page 21 / Figure 5**

To better illustrate the huge needs and requirements in flexible dispatchable units due to the "duck shape" effect, creating a sample of several days with the highest Net Load in the left graph of Figure 5 is suggested, instead of the average for the whole year. It will contribute further to the development of the correct argument stated in the text.

v. **6 / Page 64:** «*The hydropower plants have received revenues of 88.3 €/MWh produced and incurred costs estimated at 80.6 €/MWh produced*».

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The above cost estimate of the existing hydropower plants is deemed as high - as it refers almost exclusively to the annualized capital cost - and requires justification. In addition, a number of shortcomings have been observed since the entry into operation of the new market(s), related to the production of electricity from hydropower plants (HPPs). We briefly mention that:

a) the minimum variable cost of HPPs is not calculated and is not published on a daily basis, nor is the detailed calculation file containing important information, as was the case in the previous market structure.

b) there is still no method for calculating the actual available capacity of the HPPs due to the reservoirs' natural constraint

c) the weekly nomination of mandatory production by HPP is not published although it is provided under the new regulatory framework also being in contrast to what happened in the previous market structure.

The above lack of information constitutes a significant distortion and lack of transparency of the market that hinders the participation of the other market Participants, except for the public company which is the sole owner of large HPPs.

In conclusion, HAIPP wishes to emphasize that the issues referred to in points 1, 2 and 3 of our letter constitute structural changes that have not been discussed and processed by all market participants and that are presented in a fragmented manner. Therefore, their inclusion in such an important document as the consulted "Market Reform plan for Greece" is expected to lead to significant delays and to jeopardize the timetable for the adoption and implementation of capacity remuneration mechanisms. But such delays could not be accepted because the country is in an urgent need to proceed with the lignite phase-out and the very high penetration of RES, while ensuring price stability for consumers, a process that can be achieved through **the appropriate and timely implementation of capacity mechanisms.**

[redacted]

[redacted]

[redacted]

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