



NGCP

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January 16, 2014
BRD-BSDRM-RRA-2014-016

HON. ZENAIDA G. CRUZ-DUCUT
Chairperson
Energy Regulatory Commission
Pacific Center Bldg., San Miguel Avenue
Ortigas Center, Pasig City

THRU: **ATTY. FRANCIS SATURNINO C. JUAN**
Executive Director
Energy Regulatory Commission

SUBJECT: **NGCP's Comments on AECOM's Report/Study entitled, "Advice
Pertaining to ERC Resolution No. 16 and the Role of Hybrid Generation"**

Dear Hon. Chairperson Ducut:

We wish to submit the attached NGCP's comments on the Report/Study prepared by AECOM, the technical consultants of the Philippine Independent Power Producers Association, Inc. (PIPPA), in relation to ERC Case No. 2012-006 RM, entitled "*In the Matter of the Petition for the Amendment of ERC Resolution No. 16 or the Resolution Adopting Amended Rules on the Definition and Boundaries of Connection Assets for Customers of Transmission Providers*".

Thank you and we look forward to the Honorable Commission's consideration of this submission.

Truly yours,

MA. CYNTHIA Y. MANRIQUE
Head, Revenue and Regulatory Affairs and
Regulatory Compliance Officer

Cf: **MR. ROLANDO T. BACANI**, TransCo, President and CEO



**NGCP's Comments on AECOM's Report/Study entitled,
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AECOM'S ARGUMENT AND PROPOSAL	NGCP'S COMMENT AND COUNTER PROPOSAL
<p>Paragraph 4 of the Executive Summary states,</p> <p><i>"NGCP has made submissions which have at their heart that NGCP's ownership of the Switchyards is required in the interests of maintaining adequate power system reliability."</i></p>	<p>It appears that AECOM has not considered NGCP's main arguments on the Petition filed by the Philippine Independent Power Producers Association (PIPPA) before the Honorable Commission for the amendment of ERC Resolution No. 16, Series of 2011, entitled, <i>"Resolution Adopting Amended Rules on the Definition and Boundaries of Connection Assets for Customers of Transmission Providers"</i>.</p> <p>To reiterate, NGCP's disagreement on the proposal of PIPPA to modify the Diagram 4 of Annex C of ERC's Resolution No. 16, Series of 2011, is anchored on the fact that said Diagram is consistent with the provisions set forth by the Republic Act 9136 – Electric Power Industry Reform Act of 2001 (EPIRA) and its Implementing Rules and Regulations (IRR).</p> <p>Section 9 (f) of the EPIRA states,</p> <p><i>"A generation company may develop and own or operate dedicated point-to-point limited transmission facilities that are consistent with the TDP: Provided, That such facilities are required only for the purpose of connecting to the transmission system, and are used solely by the generating facility, subject to prior authorization by the ERC: Provided, further, That in the event that such assets are required for competitive purposes, ownership of the same shall be transferred to TransCo at a fair market price: Provided, finally, That in the case of disagreement on the fair market price, the ERC shall determine the fair market value of the asset."</i>¹</p> <p>Section 5, Rule 5 of the IRR states,</p> <p><i>"(a) Subject to prior authorization from ERC, TransCo or its Buyer or Concessionaire may allow a Generation Company to develop, own and/or operate dedicated point-to-point limited transmission facilities: Provided, That:</i></p> <p style="padding-left: 40px;"><i>(i) Such dedicated point-to-point limited transmission facilities are required only for the purpose of connecting to the Grid which will be used solely by the Generation Facility, and are not used to serve</i></p>

¹ Section 9 of RA 9136



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	<p><i>End-users or Suppliers directly;</i></p> <p><i>(ii) The facilities are included and consistent with the TDP as certified by TransCo or its Buyer or Concessionaire; and</i></p> <p><i>(iii) Any other documents that may be required by the ERC.</i></p> <p><i>(b) In the event that such assets are required for competitive purposes, ownership of the same shall be transferred to the TransCo at a fair market price. In case of disagreement on the fair market price, the ERC shall determine the fair market value of such asset, either directly or through such dispute resolution mechanism as ERC may specify.”²</i></p> <p>Clearly, the ERC’s Resolution No. 16, Series of 2011 did not reclassify the Genco Switchyard and other related facilities into transmission assets. <u>These assets are already defined in the EPIRA and its IRR to be dedicated point-to-point limited transmission facilities. By the EPIRA alone, these assets are transmission facilities.</u></p> <p>Moreover, ERC’s Resolution No. 25, Series of 2006, has already established that dedicated point to point limited transmission facilities include both Equipment³ and transmission lines, to wit,</p> <p><i>“For a New Generation Plant, the boundaries of the TCA are defined in the same manner as for Load (refer to 4.0 above), and also include those Equipment and transmission lines which the generation plant requires for connection from the Connection at its generation site to the Grid and which it is willing to fund as a contributed asset to TransCo (which retains ownership and responsibilities for operation and maintenance) because TransCo is unable or unwilling to invest in those Connection Assets at that time.</i></p> <p><i>Any new Generating Plant can choose to install and own its Transmission Facilities (including lines) up to the Connection Point to the Grid offered for connection by TransCo. Such Connection Point to the Grid must be offered by TransCo, but excluding connection to such Sub-transmission Systems as are connected to that System and are owned and operated by TransCo.”</i></p>

² Section 5, Rule 5 of the IRR

³ All apparatus, machines, conductors, etc. used as part of, or in connection with, an electrical installation (attachment 1, Definition of Terms of Annex A of Resolution No. 25, Series of 2006)

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	<p>Furthermore, it is worth to emphasize that once an end-user, a supplier, or a generator is connected to such dedicated point-to-point limited transmission facilities, the ownership of the said facilities must be turned over to the transmission provider at a fair market price as the asset is required for competition and open access.</p> <p>"Competitive purpose" includes the ability of a Distribution Utility (DU), including contestable customers within its franchise area, to procure and compete with generators/Retail Electricity Supplier (RES) to offer electricity at the lowest possible prices. This would not be possible if the connection of the DU to the grid will be via a generator-owned asset because such owner can deny access, directly or indirectly, between competing generators/RES and the DU via the assets under the ownership and control of said generator. Moreover, if and when the said generator is under maintenance or forced outage, the DU and its consumers would have no alternative source of supply if generator connection to the grid is likewise unavailable.</p> <p>The alleged "savings" of the DUs from the non-payment of power delivery charges due to its direct connection to the asset of a Generator can easily be wiped out by uncompetitive pricing of said Generator. In fact, this is proscribed by law. What the law allows is for a DU to get reliable and secure supply as well as free access to competitive electricity market (for competing generators, RES, DUs as well as contestable customers within a DU's franchise area) by paying power delivery charges. It is important to ensure all stakeholders that their connection to the grid is assured by a provider/s who is/are mandated by law to provide open access to its/their facilities.</p> <p>It is worth mentioning that Sec 45 (c) of the EPIRA explicitly states,</p> <p><i>"For the first five (5) years from the establishment of the wholesale electricity spot market, no distribution utility shall source more than ninety percent (90%) of its total demand from bilateral power supply contracts.</i></p> <p align="center">x xx</p> <p><i>The ERC shall, within one (1) year from the effectivity of this Act, promulgate rules and regulations to ensure and promote competition, encourage market development and customer choice and discourage/penalize abuse of market power, cartelization and any anti-competitive or discriminatory behaviour, in order to further the intent of</i></p>



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	<p><i>this Act and protect the public interest. x xx"</i></p> <p><u>Again, once an end-user, a supplier, or a generator is connected to such dedicated point-to-point limited transmission facilities, the ownership of the said facilities must be turned over to the transmission provider at a fair market price as the asset is required for competition and open access.</u></p> <p>Lastly, a Generation Company is only allowed to generate power as clearly contained in its Certificate of Compliance (COC) issued by the ERC. This clearly states that the Generation Company is not mandated by the law to transmit and distribute power to the end-users. The Generation Company does not have a franchise to act as a transmission provider as well as a distribution utility. As set forth by RA 9511 (i.e. "Franchise Law"), NGCP is the sole transmission provider.</p>
<p>Paragraph 5 of the Executive Summary provides that AECOM is of the opinion that there is no technical basis for the transfer of the generator's switchyard to NGCP under a notice of the requirement to improve system reliability and it seems unlikely that such a proposal would be approved by the regulators in other jurisdictions.</p>	<p>NGCP believes that under a scenario wherein generator's switchyard performing transmission function is still owned by the generators, there will be an overlapping function of equipment where the cause and the responsibility of failure that affects the grid and other party's system cannot be clearly established. For example, the absence of DC and AC supply, that are provided by another party for shared system and which supplies the secondary and primary equipment will render the whole fault clearance system useless even if the high voltage equipment are in satisfactory working condition. This condition also exist if any of the components of the shared system, whether it be secondary device (such as protection relays), or the primary equipment(such as the power circuit breaker) is also defective which will result to a fault in the system not being cleared promptly that may develop to an even worst major grid disturbance.</p> <p>Thus, NGCP is of the position that the ownership and the operation of the generator's switchyard be transferred to transmission provider.</p>



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<p>Paragraph 6 of the Executive Summary provides that AECOM has recommended institutional arrangements being the least-cost solution should there be a need to improve the system reliability.</p>	<p>An institutional arrangement such as a Memorandum of Agreement (MOA) will not capture the peculiarities in the switchyards operation. Thus, as a permanent solution, NGCP is of the position that the ownership and the operation of the generator's switchyard be transferred to NGCP.</p>
<p>Paragraph 8 of the Executive Summary states, <i>"It should also be noted in this regard that denying the right of generators to operate in a hybrid fashion has the unintended effect of bypassing local communities who would thus be denied access to what is perhaps a rightful share of the benefit of an industry that has been placed in their midst. Not only does this seem unjust and a needless sacrifice of local community engagement, but experience has shown many times that lack of attention to providing a fair share of benefits to local communities creates barriers to project development, which are extremely difficult to solve by other means."</i></p>	<p>NGCP believes that this paragraph is the same with PIPPA's previously submitted argument, i.e., <i>"The Published Diagram discourages the construction of new generation facilities with large generating capacities, to the detriment of the public"</i>.</p> <p>NGCP wishes to reiterate its position that it is not appropriate for a generation company to promote its power plant by ensuring an energy supply to local governments without having them to pay Power Delivery Services Charges.</p> <p>Firstly, NGCP would like to emphasize that, under Section 8 (d), Rule 11 of EPIRA IRR entitled, "Anti-Competitive Behavior and other Unfair Trade Practices" states,</p> <p style="padding-left: 40px;"><i>"Electric Power Industry Participants shall not use a position of market power to condition the sale of one product or service on the purchase of another product or service. No Distribution Utility shall make access to its Distribution System contingent upon the purchase of generation, metering, billing or other services."</i></p> <p>Secondly, the delivery/transmission of power is not a business of the generation company, and thus, using the allegedly "free Power Delivery Services Charges" is not appropriate.</p> <p>Thirdly, given the fact that the Transmission charges, inclusive of Ancillary Services Charge, is only around ten percent (10%) of the overall electricity cost, then, the impact of which to the consumers' electricity rates is very minimal compared to the cheapest generation rate that is available in the Grid and in the WESM.</p>
<p>Paragraph 9 of the Executive Summary provides that AECOM is certain on the</p>	<p>NGCP believes that this paragraph is the same as with PIPPA's and VECO's previously submitted arguments, i.e.,</p>



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<p>increase of transmission costs due to unchallengeable technical position of a single owner, who will have no opportunity or cause to optimize the way it provides its services.</p>	<p><i>"The Published Diagram is detrimental to the public interest as it will unnecessarily lead to an increase in electricity rates to be paid by End-users"</i> (PIPPA)</p> <p><i>"There is reduction in the customer's bill through lesser Power Delivery Service charge if power delivered by the IPP is delivered directly to the Connection Assets of a DU."</i> (VECO)</p> <p>NGCP wishes to emphasize its disagreement on the aforesaid arguments on the following grounds:</p> <ol style="list-style-type: none"> The provisionally approved rates in the Electric Power Purchase Agreement (EPPA) between VECO and CEDC under ERC Case No. 2009-075RC entitled, <i>"In the Matter of the Application for Approval of the Electric Power Purchase Agreement (EPPA) between Visayan Electric Company, Incorporated (VECO) and Cebu Energy Development Corporation (CEDC), with Prayer for Provisional Authority"</i>, are as follows: <table border="1" data-bbox="748 890 2107 1050"> <thead> <tr> <th>At 100% Load Factor, PhP/kWh</th> <th>At 95% Load Factor up to Less than 100% Load Factor, PhP/kWh</th> <th>At 90% Load Factor up to Less than 95% Load Factor, PhP/kWh</th> </tr> </thead> <tbody> <tr> <td align="center">5.2310</td> <td align="center">5.3782</td> <td align="center">5.5419</td> </tr> </tbody> </table> <p>On the other hand, the provisionally approved rate for the Power Sales Contract between KSPC and CEBECO II under ERC Case No. 2011-020RC entitled, <i>"In the Matter of the Application for the Approval of the Commissioning Power Sales Contract between Kepco-SPC and Cebu II Electric Cooperative, Inc. (CEBECO II), with Motion for the Issuance of Provisional Authority"</i>, PhP4.2511/kWh.</p> <p><u>Based on the aforementioned ERC Cases, KSPC's generation charge is much lower than that of the CEDC's.</u></p> <p><u>Conclusion: Had VECO exercise prudence in procuring energy, it would have contracted cheaper generation from the grid such as KSPC.</u></p>	At 100% Load Factor, PhP/kWh	At 95% Load Factor up to Less than 100% Load Factor, PhP/kWh	At 90% Load Factor up to Less than 95% Load Factor, PhP/kWh	5.2310	5.3782	5.5419
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	<p>2. Based on our simulation, even if KSPC's generation charge of PhP4.2511/kWh is subjected to demand-related transmission charge of approximately equal to PhP0.7306/kWh, it will still be lower than that of CEDC's generation charge.</p> <p style="margin-left: 40px;">KSPC's generation charge : 4.2511 Demand-related transmission charge : 0.7306 Equals : 4.9817</p> <p><u>Conclusion: Had VECO exercise prudence in procuring energy, it would have contracted cheaper generation from the grid such as KSPC, which is also a coal-fired power plant.</u></p> <p>NGCP would also like to reiterate its expression of dismay that an association representing 86.7% of the national installed generation capacity resorts to cross-subsidization, price or market manipulation, false or deceptive marketing, and unfair trade practices detrimental to the encouragement and protection of Contestable Market or the WESM. Such acts of PIPPA violate the EPIRA and its IRR.</p> <p>When a DU is directly connected to the switchyard where a grid connected generation plant is also connected, such DU also directly benefits from the grid. In an AC transmission system, all loads and generators operate at the same frequency. This means that the transmission provider puts in place systems and equipment to ensure quality, reliability, security for all grid connected generators and loads including that DU. If the generator that "directly" supplies to that DU conks out, the grid automatically provides electricity to that DU. Should that DU not pay PDS then? If that DU is not allowed to pay PDS as PIPPA says so, then who are paying on behalf of that DU. Certainly it's not the generator but the other grid connected loads – this is a form of cross-subsidy created by PIPPA. Bear in mind the cross-subsidies were already abolished by the ERC in compliance with the EPIRA long time ago and now being resurrected by PIPPA.</p> <p>PIPPA's claim that Diagram 4 Annex C will make electricity even more expensive is a false or deceptive marketing and unfair trade practice; again, these are clear violations of the EPIRA and its IRR. The PDS is only about 10% of the household cost of electricity. Any seemingly 10% savings can easily be achieved without "by-passing the grid". This can be done in several ways such as; increasing the efficiency of the generator, a 10% increase in efficiency</p>



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	<p>can easily be translated to 10% reduction of generation cost, and allowing cheaper generators to supply to that DU. Surely, this is an example of unfair trade practice and a violation of the EPIRA and its IRR. NGCP is appalled when PIPPA considers PDS as unnecessary when in fact they are not authorized to set the charges of the transmission sector nor they have the right to market their product in expense of the EPIRA created transmission sector. In the case of PECO, it has one of the highest electricity rates in the Philippines even though it "by-passes" the grid and remains a captive customer of PEDC, this runs counter to the argument of PIPPA that by not paying PDS a DU can avail of cheaper electricity rates. This is a clear example of false and deceptive marketing where it deprives PECO and all its contestable customers cheaper generation rates than that of PEDC and PPC. VECO also claims that they were able to reduce their electricity rates by connecting directly to CEDC and thus "by-passing" the PDS. Such claim is also an example of false and deceptive marketing as VECO fails to present the complete picture, a clear violation of the EPIRA and its IRR. Had VECO entered into a supply contract with a cheaper plant like KSPC, their consumers which includes NGCP should have been spared from high generation rates coming from CEDC and high volume transactions in the WESM during peak hours. VECO also violated the EPIRA through unfair trade practice when it constructed and operates transmission facilities from CEDC to its substation. Bear in mind that CEDC is way beyond the franchise area for VECO. Only NGCP has the franchise to operate maintain and expand the national transmission system.</p>
<p>Paragraph 18 of the Executive Summary provides that AECOM is encouraging the development of all kinds of Hybrid and embedded generation by whatever means, as long as these are sustainable and transparent to the competitive forces within the generation sector and are consistent with any government policies and projects.</p> <p>According to the Report, a Hybrid</p>	<p>NGCP is of the position that there is nothing in the Philippines defining the Hybrid Generator as it was defined in AECOM's report.</p> <p>Our research shows that a "hybrid system" is defined as follows:</p> <p><i>"Hybrid Power Systems combine two or more energy conversion devices, or two or more fuels for the same device, that when integrated, overcome limitations inherent in either. Hybrid systems can address limitations in terms of fuel flexibility, efficiency, reliability, emissions, and/or economics"</i> (Source: U.S. Department of Energy, www.netl.doe.gov/publications/proceedings/01/hybrids)</p> <p><i>"Hybrid systems consist of combining different types of energy production systems into a single power supply system. The most common type of hybrid system is combining a solar system with a wind generator; however, hybrid energy systems can integrate solar panels, diesel generator, batteries, and an inverter into the same</i></p>



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<p>generator is defined in the Philippine context as a power plant that is connected to transmission and at the same time directly connected to a distribution utility or other end user.</p>	<p><i>system." (Source:www.energymatters.com.au/renewable-energy)</i></p> <p><i>"Hybrid System; Electricity Generation System, based on the integration of various energy sources (such as photovoltaic, wind turbine, small hydro power or diesel generators)." (Source: ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE))</i></p> <p><i>"A hybrid power system can be defined as a combination of different but complementary energy generation system based on renewable energy or mixed renewable energy source" (Source: ZelalemGirma, "International Journal of Renewable Energy Research" Vol 3, No. 3, page 2, 2013)</i></p> <p>In principle, a Hybrid Generator is composed of two RE generators complementing its operation. (E.g. Wind and Solar Photovoltaic (PV); PV and Diesel Generators)</p> <p>Furthermore, under the Philippine Grid Code (PGC), Embedded Generating Plant is defined as "A <i>Generating Plant that is connected to a Distribution System or the Power System of any User and has no direct connection to the Grid.</i>" Therefore, any Generating Plant cannot claim to be both an Embedded Generating Plant and at the same time a plant that is directly connected to the Grid.</p>

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