

***“How ADB’s Energy Transition Mechanism Deals with the Incentive Puzzle:
Decarbonizing the Grids in Indonesia and the Philippines”***

***by
James Guild***

**Reviewed by
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Roleva Energy**

**ADBi Workshop
on
Energy Transition from Coal to Low-Carbon Future**

20-22 February 2023

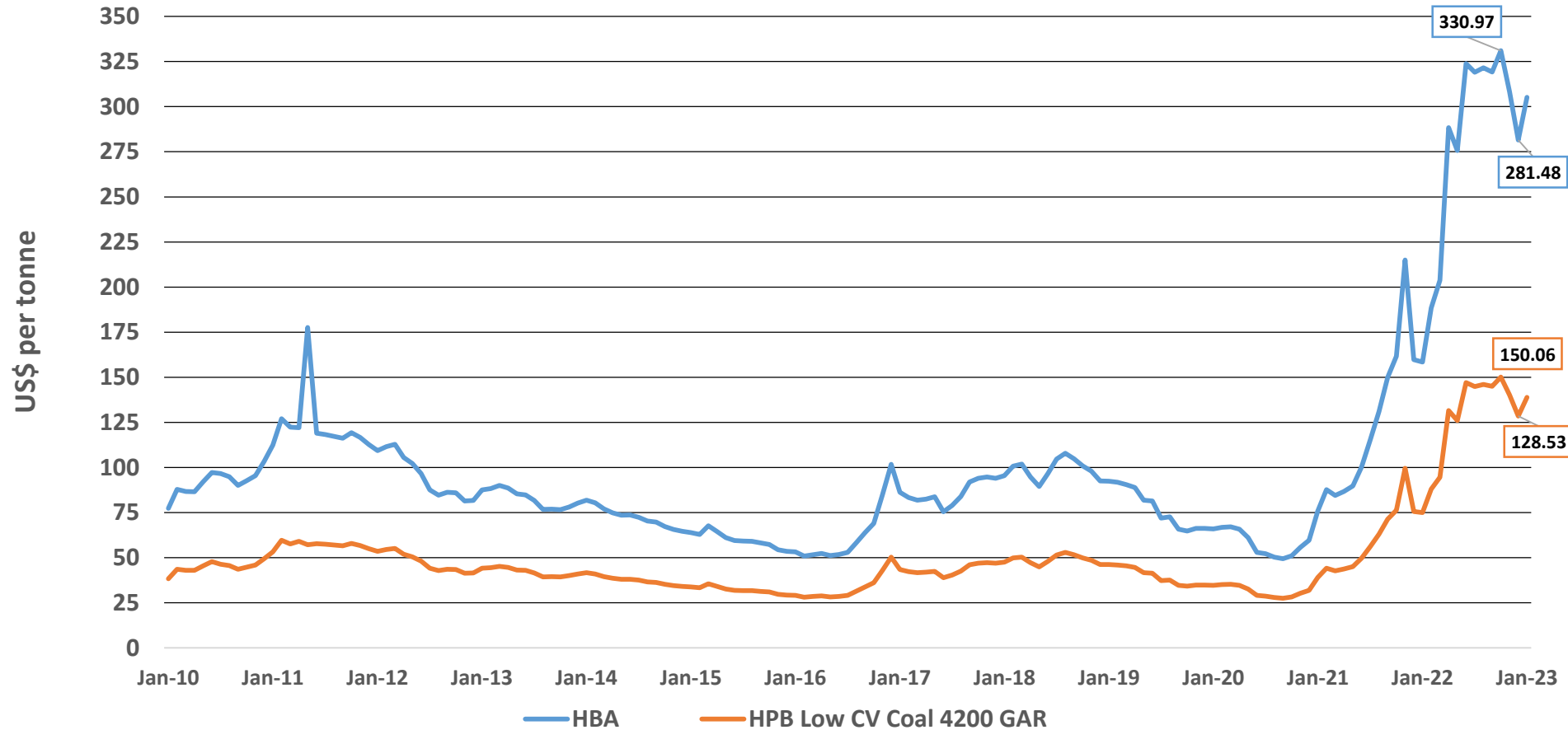
General Observations

- The Guild Paper discusses policy approaches best suited for implementing ADB's Energy Transition Mechanism (ETM) in Indonesia and the Philippines with a focus on market structures, political and economic context as factors that will determine the effectiveness of different policy options.
- It makes an important contribution to the ongoing debate on how to achieve a “just transition” from coal to renewables by cautioning us to not set policy approaches, such as feed-in-tariffs or carbon prices, without first considering the structure of the power industry and the political and economic context of the country where ETM will be implemented..
- I fully agree with his sentiment. My suggestions for revisions to the paper are related to level of detail concerning market, political, economic and technical issues that need to be addressed before finalizing the design of the ETM and implementing it at scale in any country.
- Three overlay points to keep in mind along with my specific suggestions:
 - Solar and wind are not base load replacements.
 - Indonesia's coal quality has been in decline since 2010, from (i) 5000 kcal/kg, gar and 26% TM to (ii) 4200 kcal/kg, gar and 38% TM.
 - In Oct 2022, the price of Indonesia's low CV coal reached an all-time high of \$150/tonne, an unprecedented and unsustainable price level that may lead to “forced plant retirements” if the coal price stays at that level throughout 2023.

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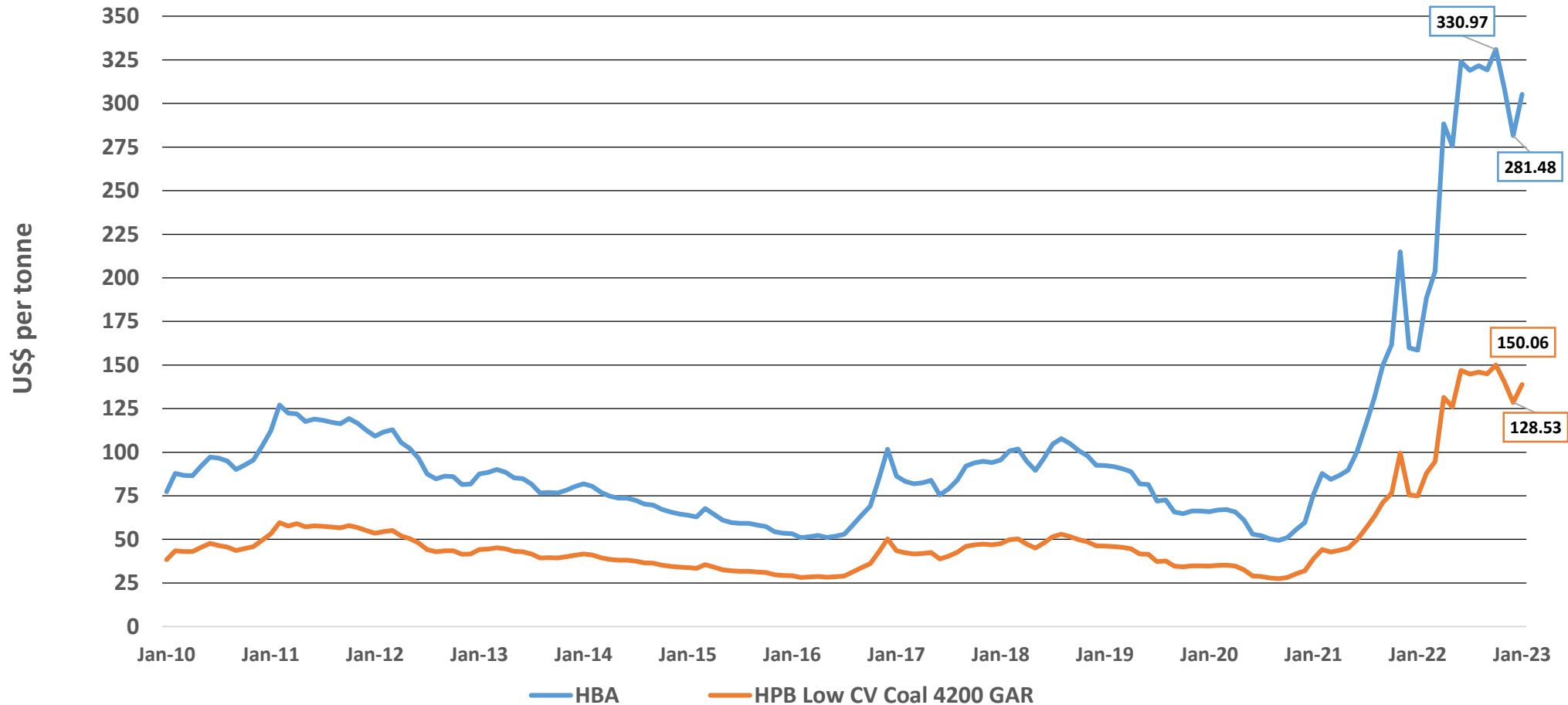
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The 2022 price of thermal coal in Asia was very high compared to previous years. Paper should consider the implications of the current prices continuing for the next 1-2 years vs. reverting to their historic mean.



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Indonesia – topics suggested for consideration when revising your paper

Importance of Indonesia's CFPP and coal mining industries to local communities

- The coal mining industry is the largest or 2nd largest employer on Kalimantan and Sumatra and CFPP plants located in remote areas also tend to be the largest employer.
- CFPPs and the coal-mining industry sustain the existence of many small businesses.
- They are also major sources of revenue for the GOI.
- The coal mining industry also sustains the following downstream industries:
 - coal trucking and barging
 - on-land coal load ports and offshore loading facilities
 - stevedoring, truck and barge repair service industries.

Future drafts should (i) include quantitative data on these factors and (ii) suggest ETM policies that will mitigate the impacts of retiring CFPPs and/or closing coal mines.

PLN takes orders from the GOI, not the other way around

- PLN is an important power sector player but it is subordinate to ESDM (Ministry of Energy & Mines).
- It depends on GOI subsidies for its continued existence and must accept ESDM/GOI decisions on power sector policies and direction.
- PLN does play a spoiler role by limiting an expanded role for private companies in the power sector.
- But the GOI/ESDM will make decisions against PLN's narrow interests if it can see the fiscal and employment benefits of making such decisions.
- PLN and Indonesia's coal industry are in a never ending battle on the price of coal supplied to PLN power plants.

The next paper draft should reflect a more informed understanding of PLN's institutional power relative to ESDM, MOF, and GOI in general.

Indonesia – Additional suggestions for future paper drafts

Project Document Review	Summary of topics to be addressed in revised paper
<ul style="list-style-type: none"> • PLN uses a standard PPA but revised version over time. The CSAs and CTAs apply commercial and legal terms consistent with the commercial and legal terms of the PPAs. • DMO does not obligate IPPs or PLN to enter into multi-year CSAs unless either the IPP or PLN choose to enter into one. • Consult w/legal experts on Indonesia’s coal and power industries to gain an understanding of commercial and legal terms related to CFPP retirement. • Main questions to pose to these legal experts: <ul style="list-style-type: none"> ○ By what operating year, can an IPP terminate its PPA without payment of a termination fee? ○ What other provisions of the PPAs, CSAs, CTAs and other commercial contracts will affect the cost of contract termination? ○ What are the regulatory requirements for returning a CFPP site to the government? 	<ul style="list-style-type: none"> • What will be the impacts of a 20% reduction in coal production on: <ul style="list-style-type: none"> ○ GOI revenues ○ employment and businesses reliant on coal mining and power industries ○ industry supplied social services? • What are the financial costs to GOI if it chooses to require retirement of CFPPs before their PPAs expire? • What are the cost-effective replacement technologies and energy sources we can rely on for replacement base-load power? • What policies should be adopted to mitigate the ETM’s potential adverse impacts on workers and businesses dependent on the coal and CFPP industries for their livelihoods?

Observations on Philippines

- The ERC, which approves PPAs between IPPs and distribution utilities (DUs), is the key decision making body. The DOE also plays an important role as the energy sector's policy maker and, in particular, supports (or not) RE incentives such as FIT.
- The ERC, in the recent past, has been criticized for being indecisive. It has been blamed for the lack of progress in implementing RE projects in the Philippines. The DOE, until recently, was not willing to allow a significant FIT.
- The past impediments to progress may now be less problematic with recent appointments to ERC and DOE under the new government.
- My understanding is that the GOP can order the retirement of CFPPs once their bilateral PPAs expire. However, there is a need to consult with a legal expert on EPIRA and WESM Rules and gain a better understand of the powers of the market operator (MO)and the ERC to do so.
- If power sector regulatory framework does not allow the MO or the ERC to require the retirement of CFPPs based on operating age, the DOE should issue a regulation consistent with EPIRA that states no CFPP beyond the age of 30 years will be allowed to operate, except as an emergency back-up plant on the Luzon and other grids.
- Philippines has the highest retail electricity rates in Asia.
- These points should be researched in more detail and reflected in any revised draft

Conclusions on James Guild Paper

- Well-written with good summary statistics to back up key points.
- However, future drafts should (i) present a more critical understanding of the political, economic, and market issues facing the Filipino and Indonesian CFPP industries and the Indonesian coal-mining industry and (ii) suggest ETM designs that address these issues before any attempt to implement the ETM at scale.
- A revised paper should address the legitimate concerns of the following stakeholders:
 - Indonesian and Filipino businesses and workers who will be adversely impacted by the retirement of Indonesian coal mines and Indonesian and Filipino CFPPs
 - the GOI and GOP, who will be most concerned by the political fallout resulting from expected (i) increases in unemployment and business bankruptcies and (ii) lost tax and non-tax revenues
 - electricity customers in both countries.
- Designing an ETM structure that is efficient, equitable, timely and administratively feasible:
 - Except in rare instances, avoid “buying-out” CFPP owners, who agree to retire their plants “early”. Buy-outs are unnecessary, will be prohibitively expensive, and will create a time consuming, overly complex buyer-seller dynamic that will bog down the retirement process
 - Best to set a fixed retirement date for all CFPPs based on the number of years from COD
 - Paper needs to identify true base load replacements for CFPPs
 - Solar and wind are not base load technologies. Relying on Li-ion batteries for daily storage is too expensive.