WEBINAR
Unlocking Coal Power Purchase Agreements
Unearthing the opportunities, challenges, and success factors
October 31st, 2023
Agenda

Welcome & Agenda Overview / RMI

The importance of the coal PPA transition / RMI

Chile towards a successful coal-to-clean PPA transition / Shearman & Sterling

Panel discussion / APLSI – Bank of America – Shearman & Sterling – Colombia MoE

Audience Q&A

Closing remarks / PPCA
RMI would like to thank Bloomberg Philanthropies for funding the long-term coal contracts workstream, and for making this webinar possible.

An international think to-do tank focused on transforming the global energy system to secure a clean, prosperous, zero-carbon future for all.

The world’s leading coalition of national and subnational governments, businesses, and organizations working to accelerate the transition from unabated coal power generation to clean energy, while supporting a just transition for workers and communities.
1. Why does the coal PPA transition matter?
The transition from fossil to clean power is **gaining momentum**, spurred by political commitments and clean energy investments.

Rapid **growth** in political commitments to phase out coal and net-zero pledges.

Source: IEA, *Coal in Net Zero Transitions*
Long-term **Power Purchase Agreements** (PPAs) have played—and will continue to play—a key role in **mobilizing investment** for clean energy.

PPAs provide stable cash flows to investors to de-risk investments

- De-risking power sector investment is crucial to meeting demand growth in developing economies

De-risking has enabled both scaling and massive cost reductions in the cost of clean energy generation.
However, long-term PPAs for coal-fired power also represent a barrier to the coal-to-clean transition. These contracts can:

- **Lock in costs** – renewables are the cheapest form of new electricity in most geographies today; these contracts prevent realizing the savings from that ever-cheaper power.

- **Lock in emissions** – if left unchecked, the existing coal fleet would consume two-thirds of the 1.5°C budget, and coal PPAs represent about half of this challenge.

- **Discourage grid flexibility** – due to their structure, grid operators are strongly incentivized to run these plants as much as possible, even with difficult supply and demand dynamics.

Coal PPAs must be addressed, but in a way that **does not undermine the integrity of PPAs** as a tool to de-risk investment.
How can we address them? In July, RMI released a report analyzing the financial feasibility and policy implications for three transition pathways for coal plants under a PPA.

**Grid Priority**

### Simple retirement

A coal plant is **retired and permanently decommissioned**. Other available **resources in the grid replace** the services needed.

### Retirement and Replacement

While a coal plant is **retired and decommissioned**, a portfolio of **clean resources is deployed** and brought to service.

### Repurposing

Coal PPAs are **modified** to operate the coal plant as a backup asset **instead of a baseload one**.

**Financial mechanisms** + **Policy reforms**
Engie negotiated an extension of their original PPAs with coal mining consumers. In exchange committed to retire coal plants early and replaced PPA supply commitments with clean assets.

PPA renegotiations allowed early retirement of the last coal plant in NJ

ACE with Chambers & Logan CFPPs agreed on terminating 470 MW 30 months ahead of the original date.

ACE customers had an estimated benefit of over $30M in energy bill savings.

Coal-to-clean PPA renegotiations in Chile

Engie negotiated an extension of their original PPAs with coal mining consumers. In exchange committed to retire coal plants early and replaced PPA supply commitments with clean assets.

Bihar to exit 854MW coal PPA with NTPC

The Ministry of Power allowed termination of PPAs older than 25 years. BSPHCL (offtaker) realized that procuring new renewables would be cheaper than continuing with the coal PPA.

Cirebon-1 to retire 3 years ahead of schedule

The deal is part of the Indonesian JETP, a $20B financing package aimed at catalyzing Indonesia’s coal-to-clean transition.

Good news: the coal PPA transition is already underway in many markets worldwide…
2. Chile towards a successful coal-to-clean PPA transition
CHILE’S GOALS TO TERMINATE COAL DEPENDENCY

- Comply with commitments under the Paris Agreement
- Mitigate vulnerability to external factors, such as droughts and fossil fuel prices
- Mitigate social and economic adverse impact of pollution (e.g., suspension of schools located in critical areas)
Achieving carbon neutrality

- **Increase renewable power generation**
  - Amendments to the PPAs bidding process (time blocks instead of 24 hours commitments, longer tenors, longer deadlines to achieve COD, etc.)
  - PMGD stabilized tariff regime
  - Exemption from payment of transmission fees
  - ENRC policies, e.g., mandatory quotas for generation based in renewable non-conventional energy
  - Introduction of taxes to CO2 emissions

- **Progressive disconnection of coal-fired power plants**
  - 2018: Voluntary agreement between the Chilean government and the largest coal power generating companies not to develop new coal-fired power plants
  - 2019: Voluntary agreement between the Chilean government and the largest coal power generating companies to phase out their operating coal-fired power plants (8 towards 2025, and the remaining towards 2040)
...but not without challenges

- Delays in the development of new projects
- Modernization of the electric system / reliability of the grid
- Deployment of new technologies (e.g., storage systems)
Renegotiation / early termination of coal PPAs and results of decarbonization commitments

- Renegotiation / early termination of coal PPAs
  - AES Andes – Termination of Coal PPA with BHP
  - Colbun – Staggered replacement of coal PPA with Codelco
  - Engie – As of 2022, 75% of Engie's PPAs with clients were decarbonized
  - Enel – All coal-fired units disconnected, including Bocamina II (350 MW), which was programmed for retirement in 2040.

- Results of decarbonization commitments
  - 8 coal-fired power plants disconnected between 2019-2023
  - 7 coal-fired power plants to be disconnected towards 2025
  - 5 coal-fired power plants to be converted towards 2025
  - All remaining units (8) to be disconnected before 2040
3. Panel Discussion
PANEL

Unearthing challenges and opportunities to transition Coal PPAs

Moderated by

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Manager
Global Coal Transition Initiative
RMI

Arthur Simatupang
President Commissioner
PT Toba Bara Energi
Chairman at APLSI

Alan Levy
Managing Director
Global Sustainable Finance
Bank of America

Augusto Ruiloba
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Project Development & Finance
Shearman & Sterling LLP

Felipe Alberto Corral
Advisor
Policies / Colombia
Ministry of M&E

During the panel, please drop your questions in the chat for the following Q&A section
Q&A

Arthur Simatupang – PT Toba Bara Energi and APLSI

Alan Levy – Bank of America

Augusto Ruioba – Shearman & Sterling LLP

Felipe Corral – Colombian Ministry of Mines and Energy
Closing Remarks – Julia Skorupska

- Coal use must fall rapidly and substantially over the next decade if the world is to limit climate change in line with the aims of the Paris Agreement’s 1.5°C trajectory.

- Coal PPAs have been extensively utilized in expanding power markets globally. They are not necessarily a barrier, and there are opportunities for careful customization to support an accelerated coal phase-out.

- A combination of the right policies and innovative financing is necessary for success. It requires many willing partners to come to the table.

- We need action now. Countries can demonstrate ambition and bring the relevant stakeholders into the discussion to ensure PPA renegotiation provides for a just transition.
Thank you

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