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Carving Out Coal in the Philippines

Stranded Coal Plant Assets and the Energy Transition

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A new, groundbreaking report by Institute for Energy Economics and Financial Analysis with the Institute for Climate and Sustainable Cities shows **existing and future coal plants in the country are a losing gamble for Filipinos:**

- All proposed and committed coal plants are projected to become stranded assets. Many currently in operation are already in various stages of stranding.
- Retail competition is leveling the playing field for affordable power.
- Liquefied natural gas (LNG) is encroaching into baseload supply.
- Renewable energy (RE) has become cheaper and more reliable. In many areas, RE has become the least-cost option.

The people should not end up paying for stranded costs. Policymakers must protect the people from the growing financial risks faced by coal, including health and environmental risks.

The first step: Automatically include carve-out clauses in all fossil fuel projects, as Meralco wisely inserted in its Atimonan coal plant project proposal.

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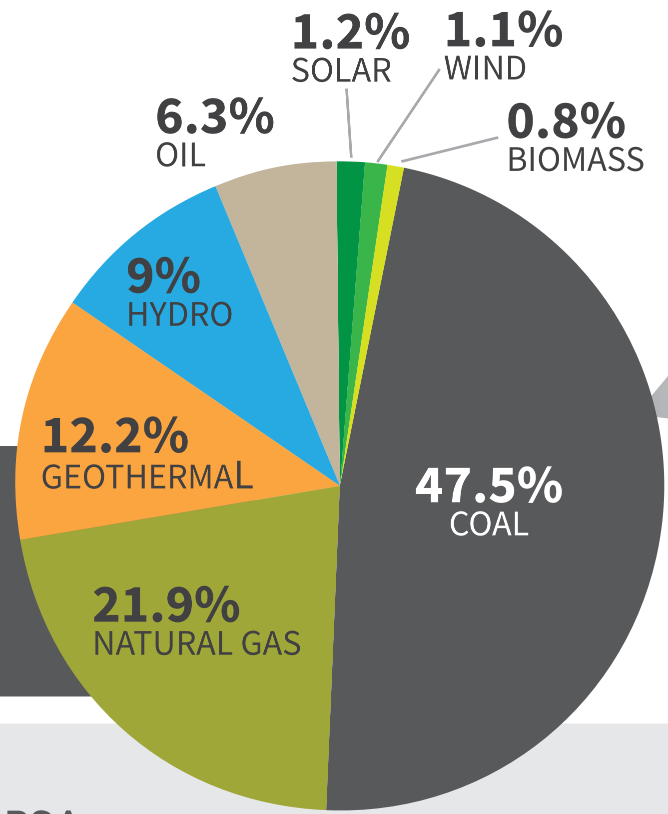
Coal Risk Checklist

- Rising coal import prices
- Coal and carbon taxes
- Retail Competition and Open Access
- Overbuild of coal amidst global trend of coal divestments, plant cancellations
- Environmental regulations (Clean Air Act and Clean Water Act)

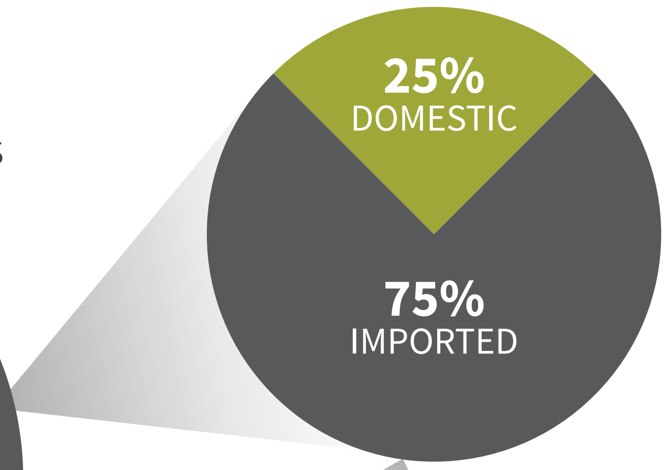
20 YEARS

Philippine PPAs on coal-fired power plants typically go for 20 years, qualifying them clearly as looming **stranded assets.**

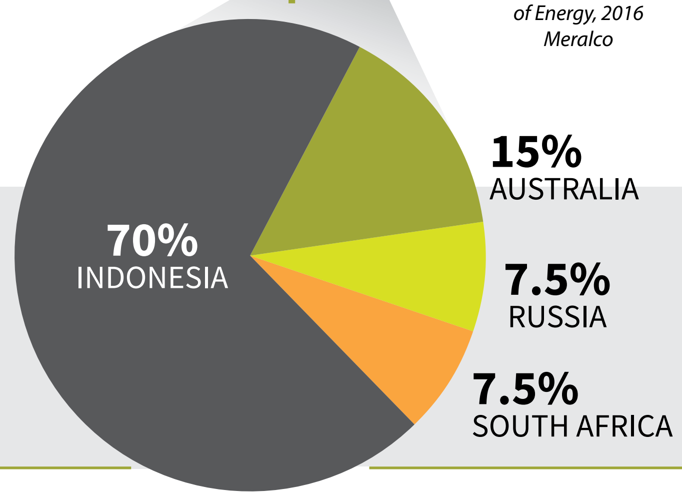
PH Power Generation by Source



PH Coal Sources

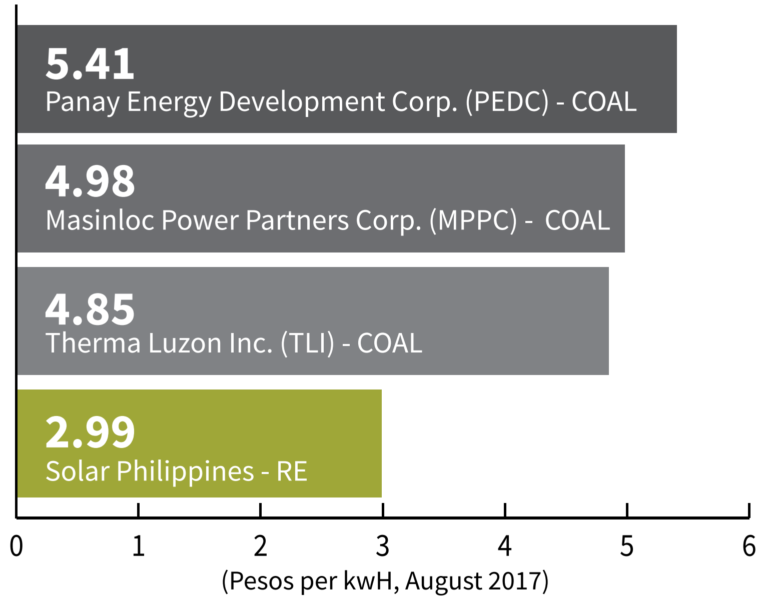


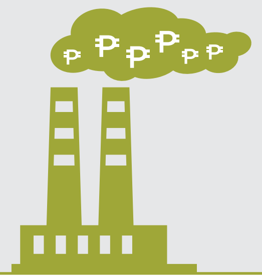
PH Coal Imports



Sources: Department of Energy, 2016 Meralco

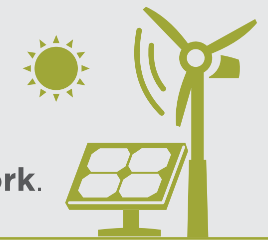
Coal vs. RE: Generation Cost of Selected Meralco Power Suppliers





Without a carve-out clause in PSAs, stranded costs will be shouldered by utilities (like Meralco) and their consumers.

Renewable energy generation is already **cost-competitive** for a rising slice of the overall load, **and its costs will continue to fall with the right regulatory framework**.



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Filipinos can and should pay lower electricity bills

- The Philippines pays among the highest electricity prices in Southeast Asia. It also has the lowest per capita GDP and kilowatt per hour consumption.
- This has been attributed to several factors, mainly: (1) imported fuel and subsidies; (2) surcharges on electricity; (3) archipelagic geography, leading to lack of scale economies in generation, transmission, and distribution; and (4) past government investment and regulatory errors, plus massive red tape.
- If regulators and lawmakers fail to consider the stranded costs of thermal plants, especially coal, electricity rates will rise further relative to those of competing countries.

The Philippines is heavily but needlessly dependent on imported coal

- The country needs to import 75% of its coal supply. Most of the coal sourced domestically is low-grade.
- Coal prices soared last year by 60%, showing how economies like the Philippines are at the mercy of price volatility and uncertainty. Price increases are automatically passed through to power consumers.
- Despite this, coal comprises 48% of the Philippines' energy mix.
- The country already has a total of 7,419 megawatts (MW) of coal-fired capacity. It has 10,423 MW of coal expansion in the pipeline, worth US$20.8 billion, all of which run the risk of being stranded assets – meaning they will not fully deliver on projected economic returns.
- Philippine Power Purchase Agreements (PPAs) on coal-fired power plants typically go for 20 years, qualifying them clearly as looming stranded assets.

The Philippines has 10,423 MW of coal expansion in the pipeline, worth US$20.8 billion, all of which run the risk of being **stranded assets** –meaning they will not fully deliver on projected economic returns.

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Meralco shows it is taking steps to protect consumers through Atimonan

- The proposed Atimonan Power Station, fully owned by Meralco, is one of the 3,351-MW, 20-year Power Supply Agreements (PSAs) which were submitted to the Energy Regulatory Commission for approval before the implementation of the Competitive Selection Process (CSP). These proposals have been described by the press as "midnight deals".
- The Atimonan PSA shows that Meralco has foresight: It is moving in the right direction with an improved "carve-out" clause.
- A carve-out clause exempts Meralco, as the distribution utility, from the consequences of reducing contracted capacity from the Atimonan coal plant. It protects ratepayers from inevitable stranded asset impacts and shifts the stranded costs to the independent power providers and their investors.
- Not all fossil fuel projects have carve-out clauses. Carve-out clauses should henceforth be standard practice in all PSAs.

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> "Thermal coal has reached its retirement age."
>
> -Goldman Sachs, 2015

International financial institutions have warned against coal investments

2014: Mark Carney, Bank of England governor and G20 Financial Stability Board chair, warned investors of the stranded-asset risk inherent in fossil fuel projects.

2015: The Norwegian Government Pension Fund sold off more than US$8 billion in coal assets, including Aboitiz Power. The NGPF is the world's second-largest sovereign wealth fund, with assets under management worth US$900 billion.

2015: Goldman Sachs declared "thermal coal has reached its retirement age".

2017: BlackRock, the world's largest investment group with US$5 trillion assets under management, said last May that "coal is dead".

A transition to gas and renewable energy is the winning path

- Slightly larger investments in renewable energy and LNG-fired capacity could be more cost-effective and are less risky for investors and consumers.
- The country holds a vast potential for solar, wind, and other sources of RE.
- Solar-powered electricity costs have fallen by 99% since 1976 and by 90% since 2009. The cost of wind-powered generation has fallen 50% since 2009.
- Electricity powered by imported diesel for small island grids has cost ratepayers and taxpayers over P62 billion in subsidies from 2003 to 2016.
- Replacing imported diesel generation with renewables, especially solar and wind, in small islands can eventually save Filipinos over P10 billion (US$200 million) per year.

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ABOUT IEEFA

The Institute for Energy Economics and Financial Analysis conducts research and analyses on financial and economic issues related to energy and the environment. Its mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

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ABOUT ICSC

The Institute for Climate and Sustainable Cities is a policy group in the Philippines promoting fair climate policy, sustainable energy and low-carbon development in vulnerable countries.

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