

Institute for Energy Economics
and Financial Analysis

Unlocking Indonesia's Renewable Energy Investment Potential

Challenges and opportunities for
accelerating renewable energy investment

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Overview



Investment in renewable energy in Indonesia has stagnated for the past seven years. In 2023, it attracted a mere US\$1.5 billion, lagging far behind its Southeast Asian neighbors.

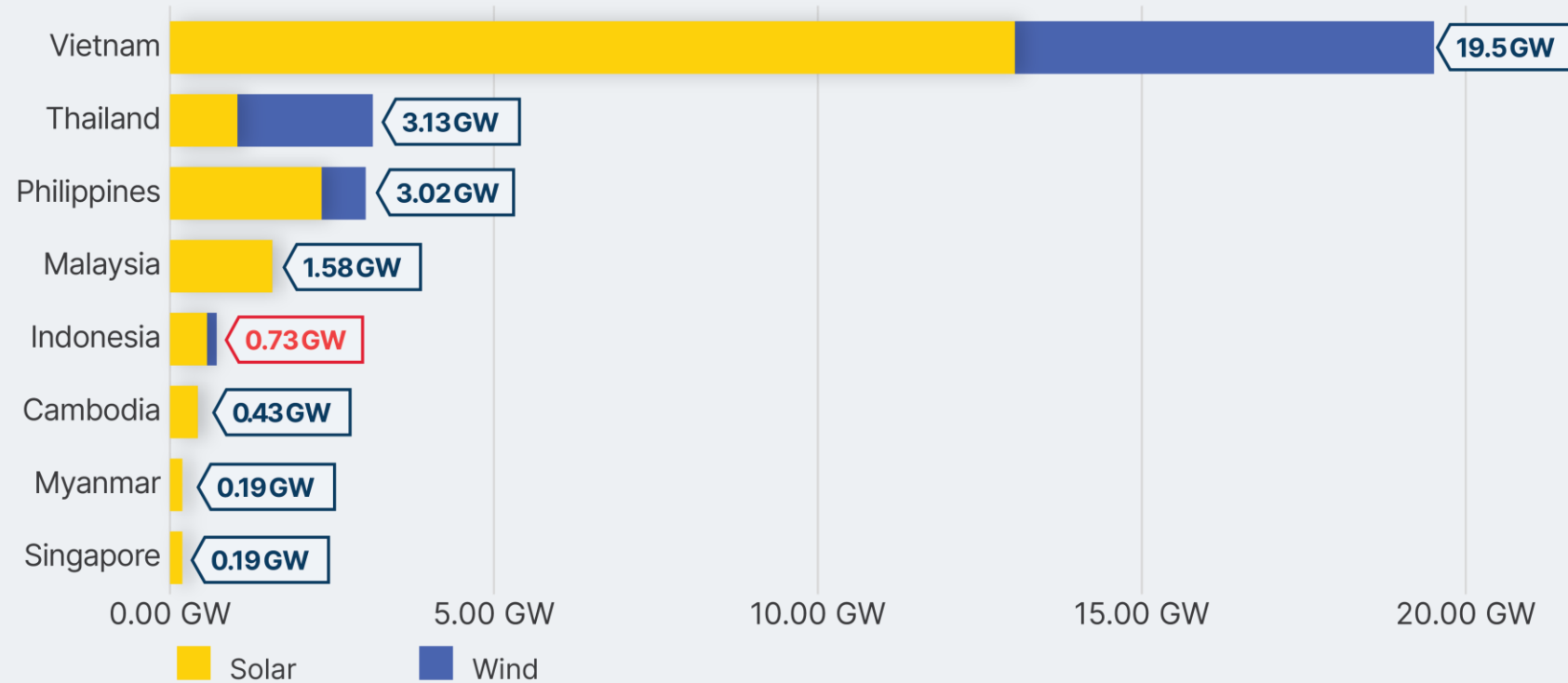


Indonesia needs to attract US\$146 billion in near-term renewable energy investment to meet the country's 2030 climate target.



Current policies and onerous contractual requirements towards solar and wind power raise costs and **discourage private investment.**

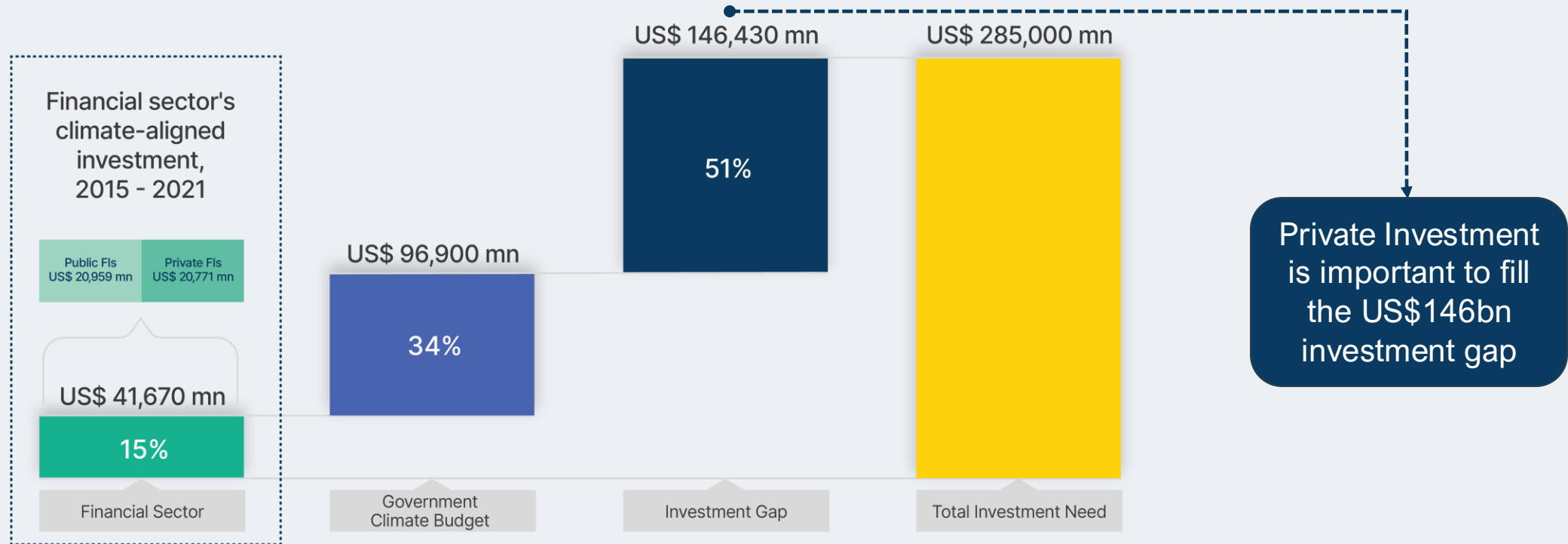
Sluggish Renewable Energy Development



In 2023, Indonesia only attracted around US\$1.5bn in investments, translating to a mere 574MW of additional renewable energy capacity.

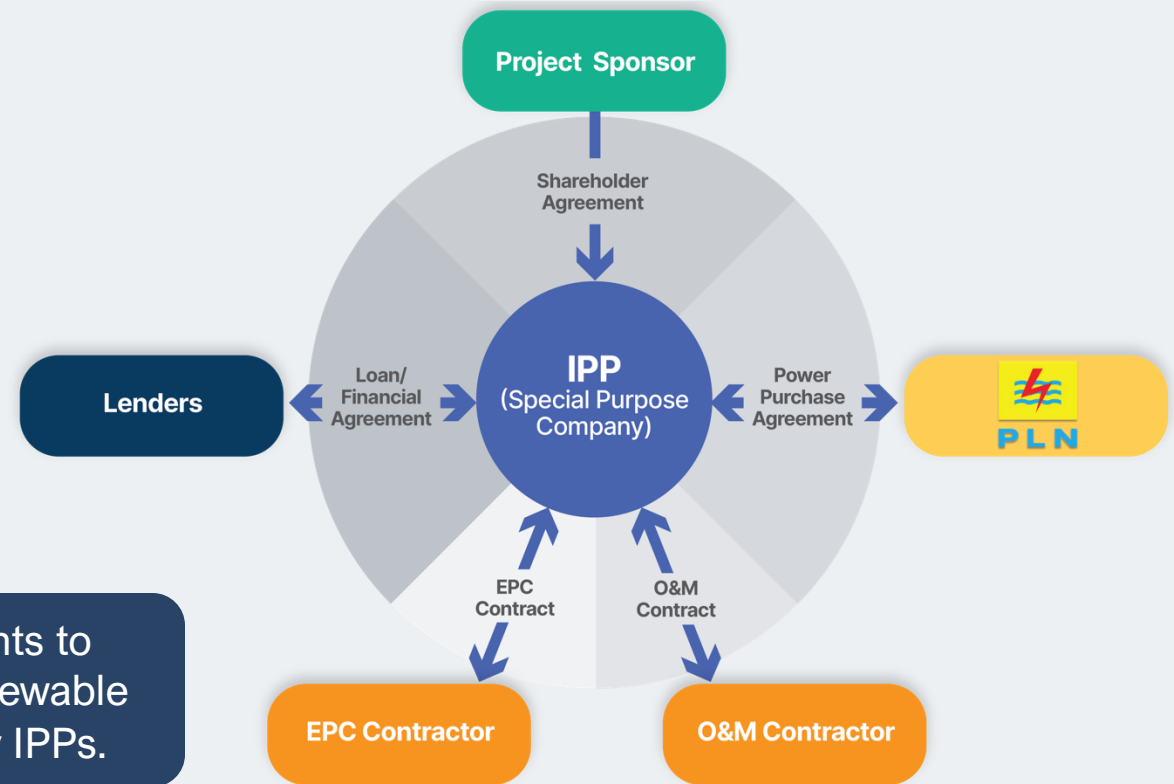
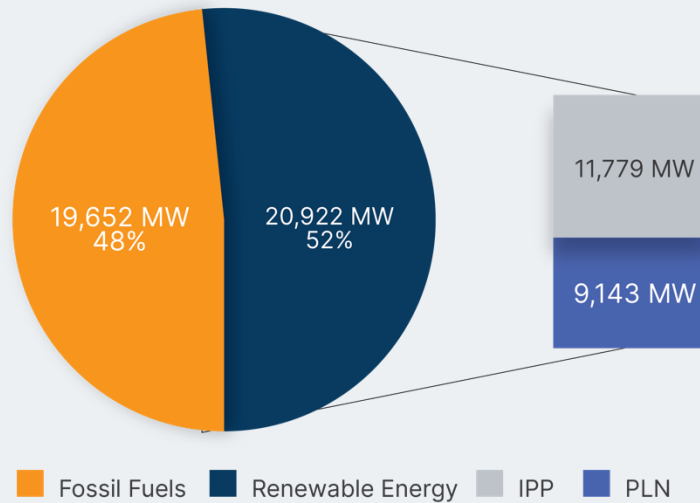
Source: Global Energy Monitor. *A Race to the Top: Southeast Asia 2024*. January 2024; IEEFA

Investment Needed to Achieve 2030 Climate Target



Source: Climate Policy Initiative. *Landscape of Climate-Aligned Investment in Indonesia's Financial Sector*. Page 8. December 2023.

The Critical Role of Independent Power Producers (IPP)



According to RUPTL 2021 – 2030, Indonesia wants to achieve an additional capacity of 20.9GW from renewable energy; 56% of which was expected to be built by IPPs.

Source: RUPTL 2021 – 2030, PLN



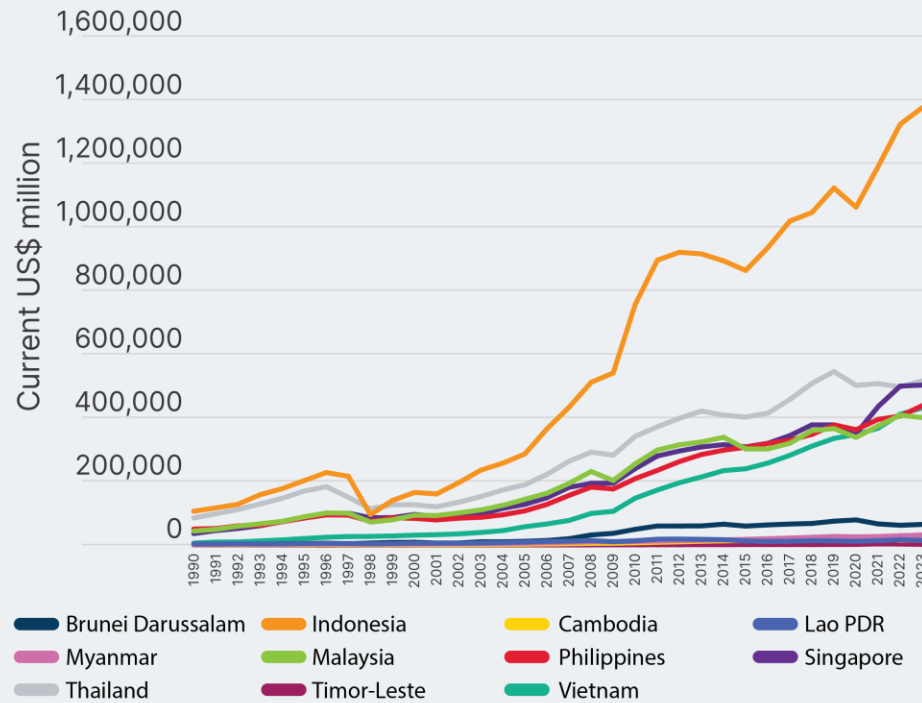
Is Indonesia an attractive
country for renewable
energy investors?

Yes!

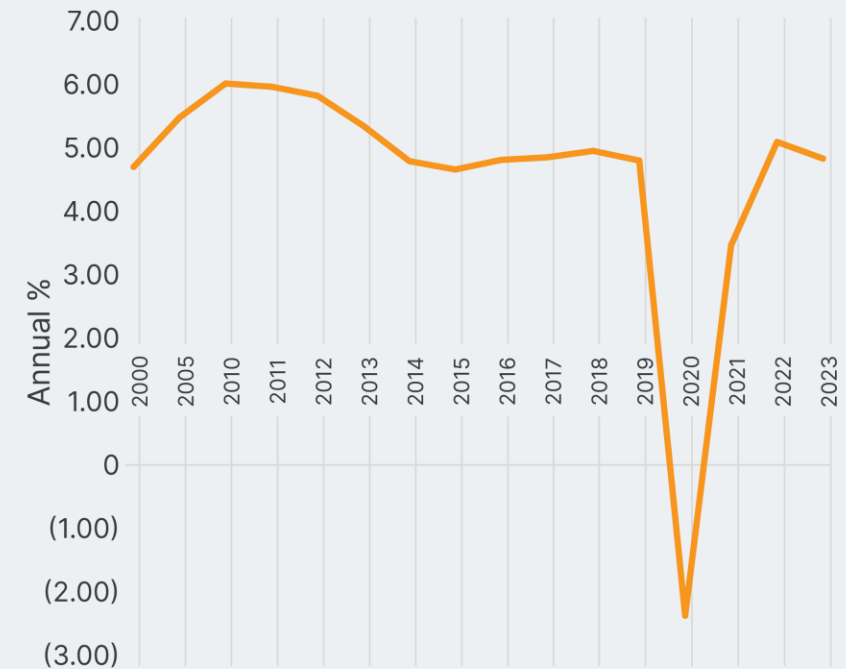
Potential for Economic Growth

Indonesia shows strong economic fundamentals with a 5% annual growth rate, stable inflation (2.8% in 2023) and exchange rates

Gross Domestic Product (GDP) - Southeast Asia

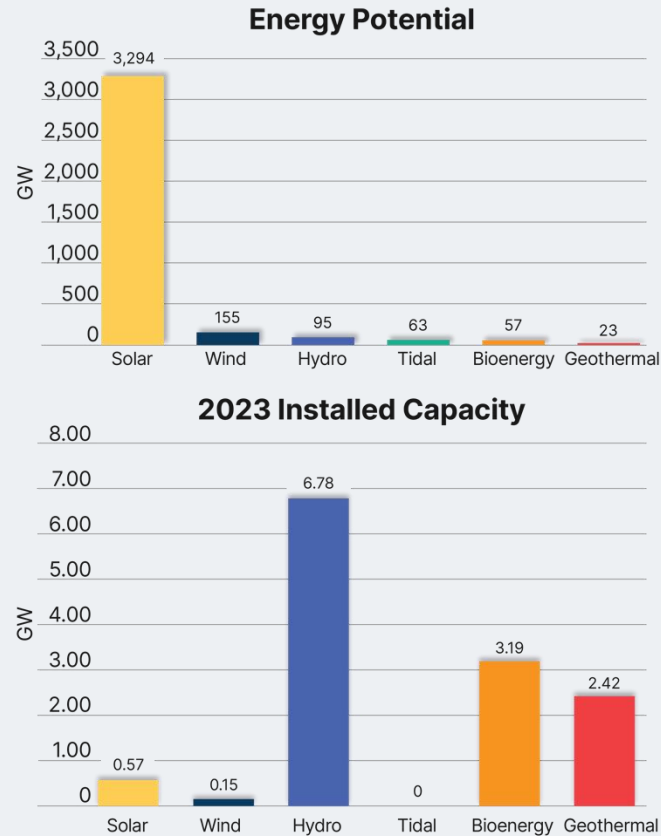


GDP Growth - Indonesia

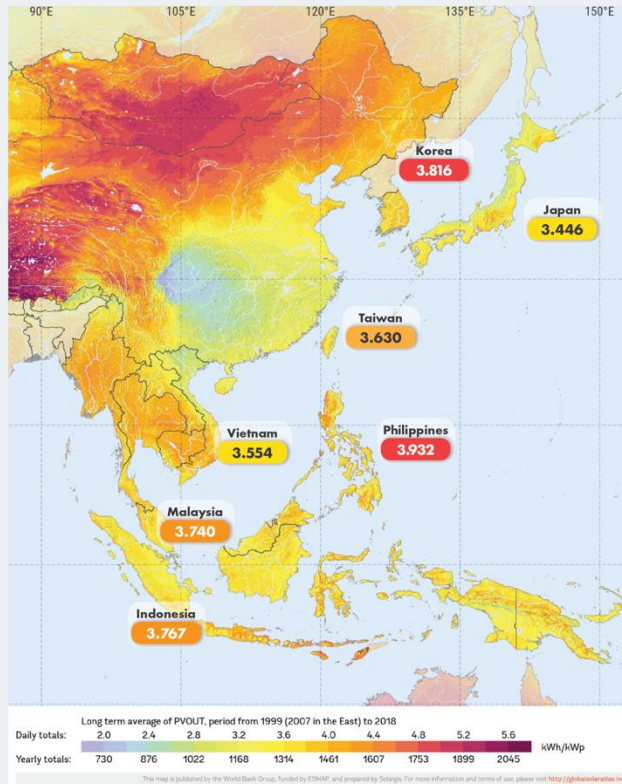


Source: World Bank. [GDP Indonesia](#).

Vast Untapped Renewable Energy Potential



Solar Intensity Map and Production Potential



- ▶ Indonesia, ranked third in the region for solar potential, has only added 574MW solar capacity from **3,294GW of solar potential** (0.017% of total potential).
- ▶ Indonesia has also only developed 154MW of wind power from **155GW of wind power potential** (0.001% of total potential).

Indonesia's untapped renewable energy potential offers a promising landscape for investors

Source: National Energy Council (DEN); MEMR; IEEFA.

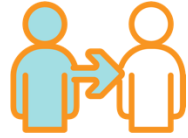


Indonesia needs to reevaluate its planning, procurement, and investment processes

Challenges and Barriers in Renewable Energy Investment



Mandatory partner
and 51% majority
shareholders' scheme



Restrictions on
the transfer of
ownership rights



Deliver-or-pay
scheme



Renewable
energy tariffs



Local content
requirements



Carbon credit
incentives

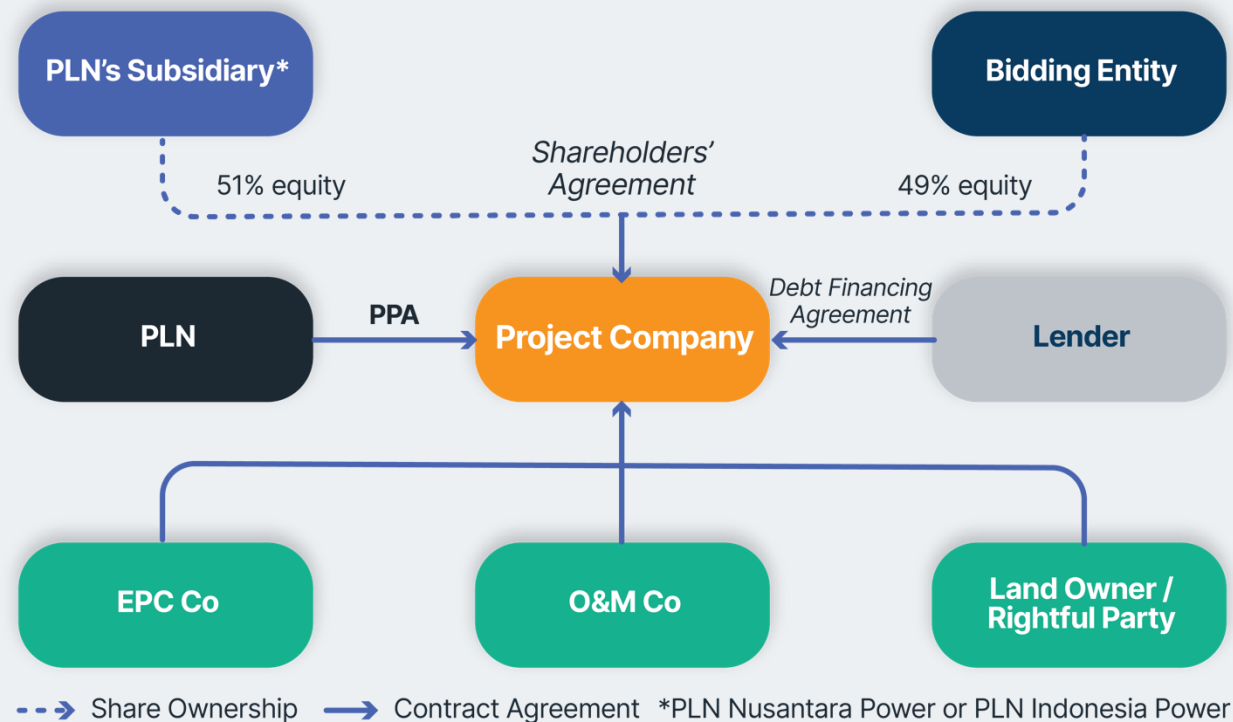


Renewable
energy
procurement
procedures

Mandatory Partner and 51% Majority Shareholders' Scheme

PLN's subsidiary appointed as a mandatory partner and 51% owner of the project company

PR No. 14 of 2017



PLN has applied the same structure with a lower ownership percentage (**up to 35% equity**) for projects under the **direct selection procurement mechanism**.

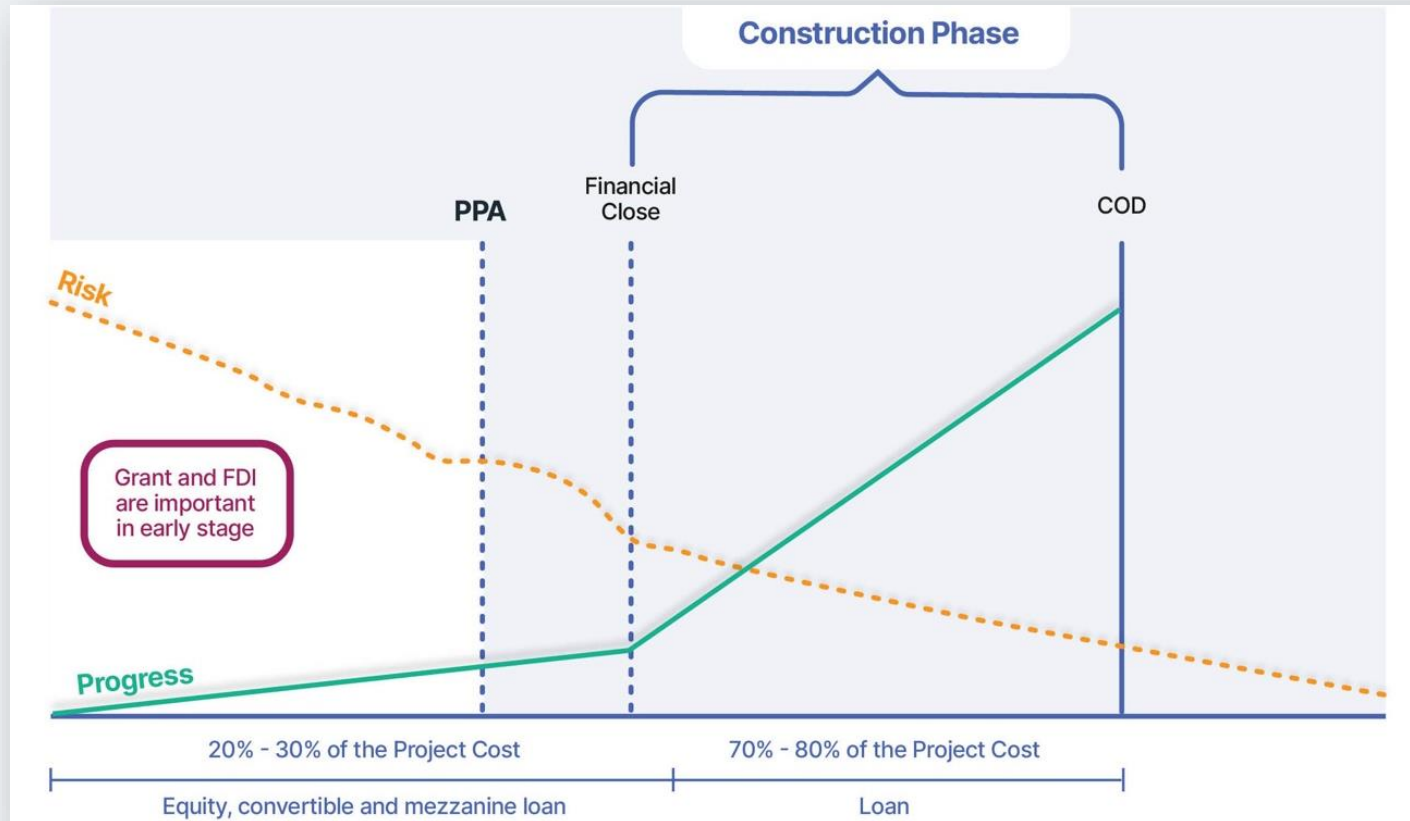
This scheme raises risks and negatively impacts equity returns for investors.

It also has impact for GOI and PLN:

- ▶ PLN would have to accept the project's **financing risk**.
- ▶ PLN would have to **raise cash equity** for the investment or provide some other value-in-kind contribution instead of cash.
- ▶ **Conflict of interest** between PLN's role as project owner and off-taker

Restrictions on the Transfer of Ownership Rights

GOI has restricted the transfer of project ownership rights before the commercial operation date (COD)



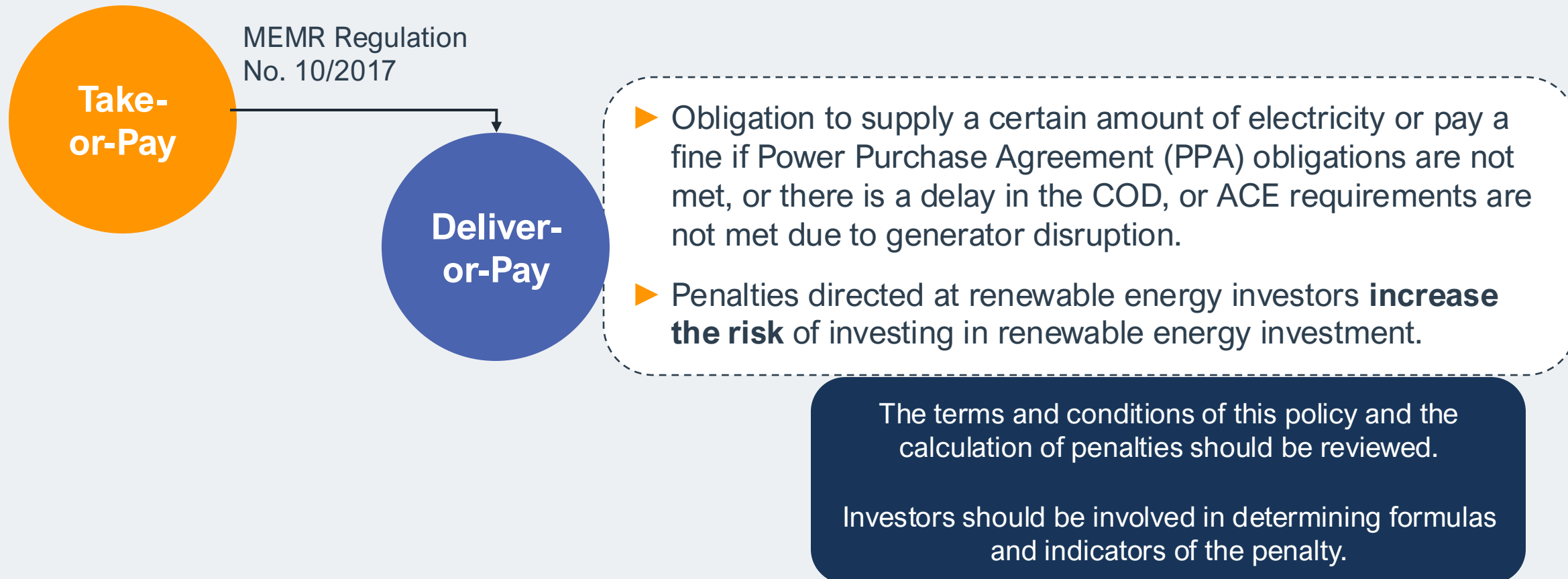
Transfer of project ownership is restricted before COD and GOI only allows the transfer to an affiliate where the sponsor owns more than 90% of shares.



This restriction limits the private sector's ability to obtain additional capital and technical expertise during project delivery.

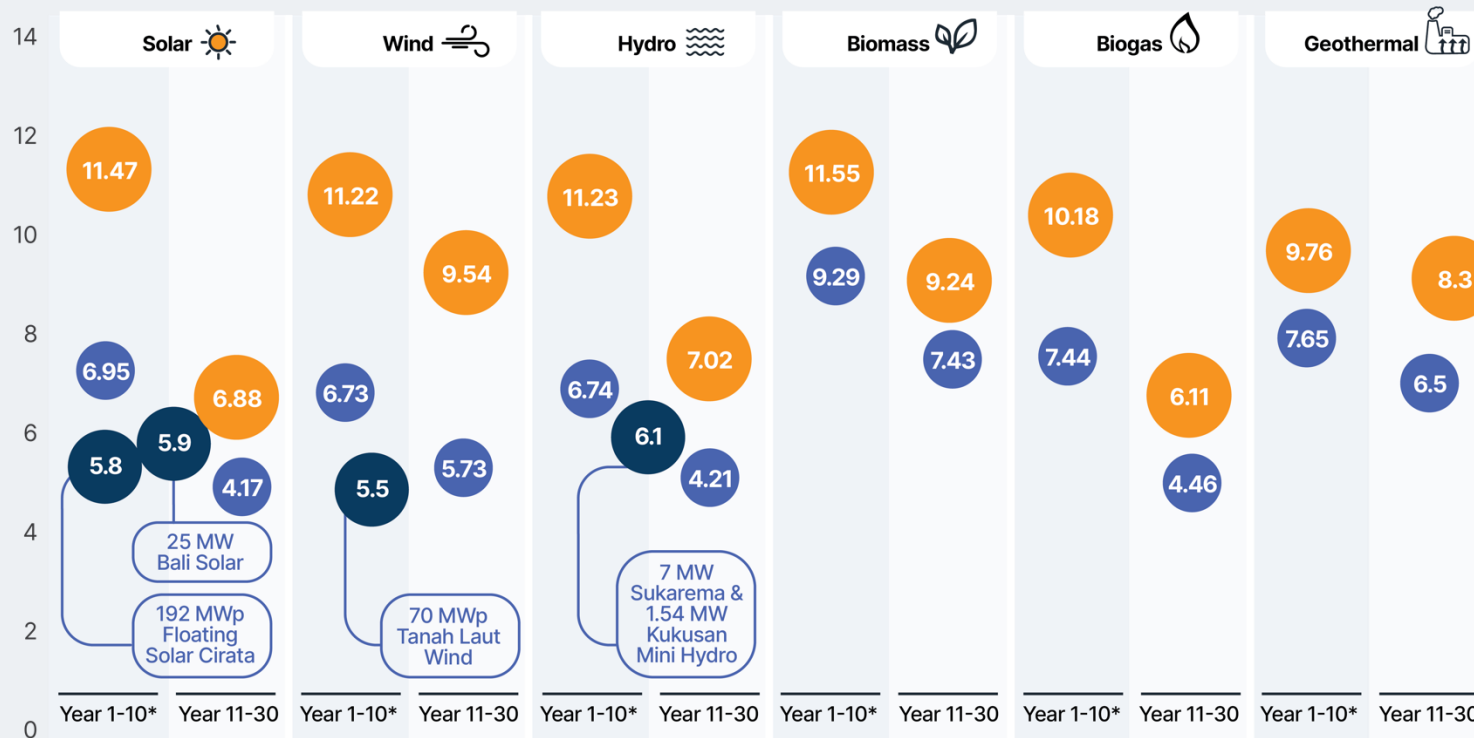
Deliver-or-pay Scheme

Deliver-or-pay scheme is considered less attractive than the take-or-pay commitment for fossil fuel plants



4 Renewable Energy Tariffs

The new ceiling tariff is considered too low and the competitive method under the direct selection process leads to even lower, unattractive tariffs



*Without location factor consideration

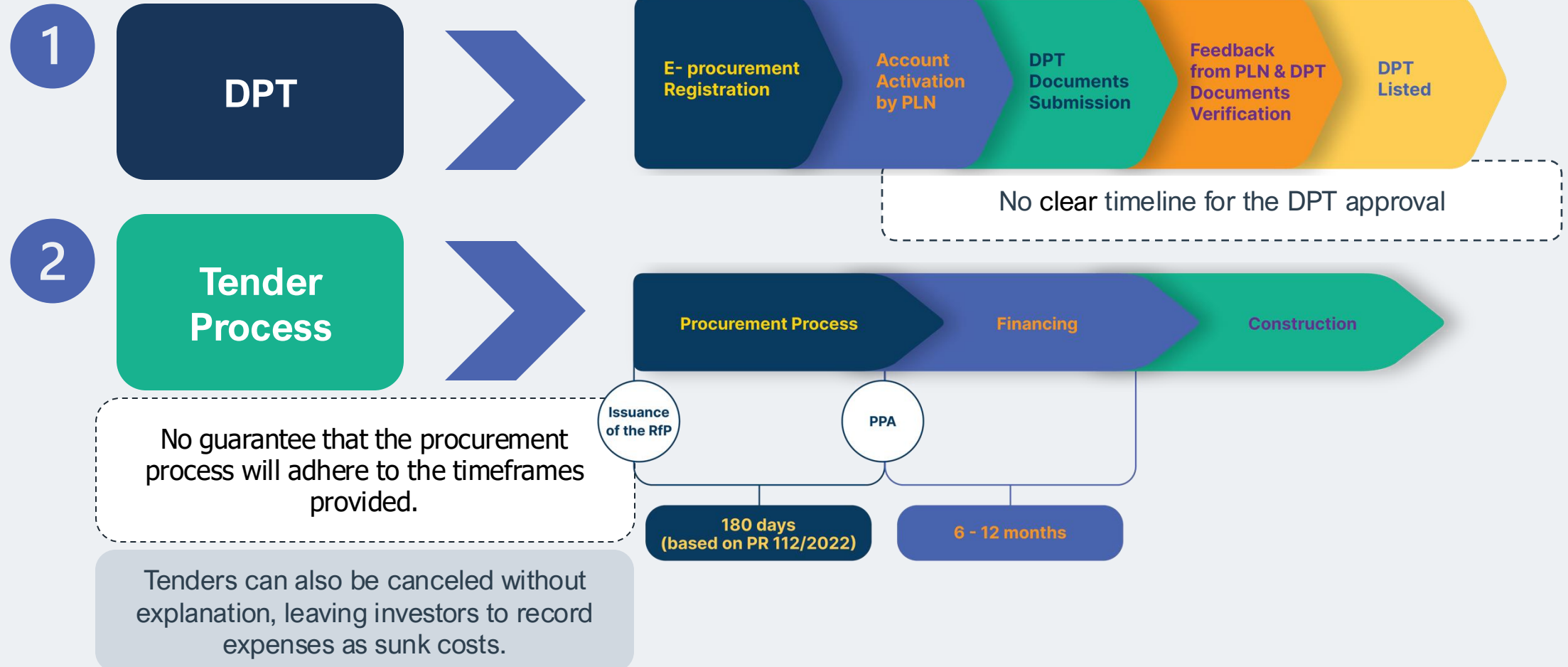
● Highest Tariff based on PR 112/2022 ● Lowest Tariff based on PR 112/2022 ● Recent PPA Tariff (flat during concession period)

Under PR 112/2022 GOI introduced a new ceiling tariff, staggered over two periods, with a higher ceiling tariff for the first period (years 1 – 10) and lower for the second period (years 11 – 30).

Renewable energy project procurement through direct selection or direct appointment results in even lower tariff, making it **difficult for investors to achieve profit targets.**

Renewable Energy Procurement Procedures

There is a lack of transparency in PLN's procurement of renewable energy projects





Transparent and well-defined procedures in renewable energy procurement, supported by **commercially balanced contractual terms and conditions**, will provide assurance and certainty for potential investors.



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THANK YOU

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