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Measuring
Compliance with
Corporate
Commitments to
Purchase
Renewable Energy

Energy Evaluation Asia Pacific
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Brief Introduction to USAID Vietnam Low Emission Energy Program (V-LEEP)

V-LEEP supports the Government of Vietnam to create a robust enabling environment for clean energy investment.



Component 1: Low Emissions Strategy Development for Energy Sector

- Strengthening clean energy planning, strategies, and policies
- PDP-8



Component 2: Enhance Capacity and Improve the Enabling Environment for Renewable Energy Development

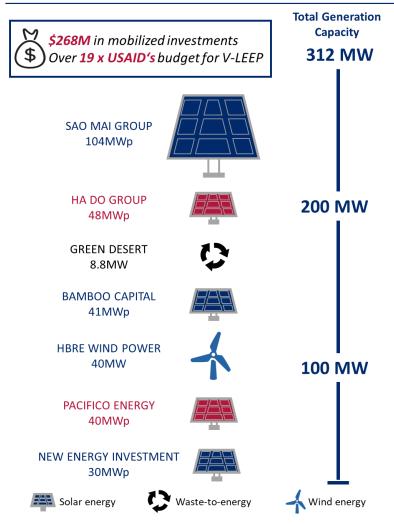
- Improve the enabling environment for RE and to catalyze its rapid large-scale deployment
- Direct Power Purchase Agreement Pilot



Component 3: Increase Energy Efficiency Adoption and Compliance

- Increase EE adoption in Vietnam's industry
- Enforcement and compliance with recently issued Minimum Energy Performance Standards

MOBILIZED CAPITAL INVESTMENT | Notable projects developed with V-LEEP support



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Agenda

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Global firms have strong and growing commitments to sustainability

There is now an accepted understanding that governments are no longer the only responsible agents in building sustainable societies – the private sector also has a major role to play.



Sustainable Development Goals (SDGs) established in September 2015

- Universal blueprint and approach to the sustainable development agenda
- Explicitly call on businesses to play their part

Paris Climate Agreement

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

Due to increasing environmental threats, there is a *critical need to accelerate efforts to reduce* greenhouse gas emissions







Through initiatives such as RE100, Carbon Disclosure Project (CDP), and Science Based Targets, global businesses have promised to support the generation and consumption of renewable energy.

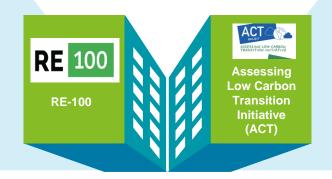
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There are many initiatives that help the public and private sectors promote the procurement of renewable energy (RE)

RE100

- Global collaborative initiative designed to increase corporate demand for RE
- Sets criteria for corporate leadership on RE
- Participants can claim compliance with RE100 either through self-generated or purchased electricity
- 195 companies with cumulative annual revenues over **US\$2.75 trillion**
- Over 30 Global Fortune 500 Companies





ACT

- Impact tracking initiative that estimates, rates and classifies progress in transitioning to a low-carbon economy
- Forecasts future trends based on recent data with sector-specific methodologies.
- 24 Companies participated in the first stage for the ACT initiative (2016 –2017) in the auto manufacturing, electric utilities, and retail sectors



The Charter

- Agreement of companies in the fashion and broader textile sectors
- Target of 30% GHG emission reductions by 2030, and net-zero emissions by 2050
- Commitment to analyze and set a decarbonization pathway for the fashion industry drawing on methodologies from SBTi
- 67 signatories and 27 supporting organizations













SBTi

- Joint initiative to make science-based target setting a standard business practice
- GHG emissions reduction targets adopted by companies are considered "sciencebased" if they align with Climate Science (temperature increase below 2 degrees C)
- 647 companies













Approximately 40 multinational companies in Vietnam have signed onto RE-100

RE-100 requires a public commitment to a company's entire operations, including subsidiaries and supply chains.



195 global companies endorse RE100 across worldwide operations. 38 member companies have operations in Vietnam

RE-100 Requirements



Influential multinational global company with large power footprint



Public commitment for entire operations to be run by 100% RE by 2050

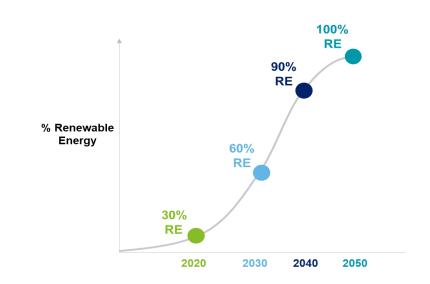


Achieve 100% RE by purchasing RE or selfgeneration



Annual Reporting of RE Strategy and Progress done via the RE100 reporting spreadsheet or CDP questionnaire

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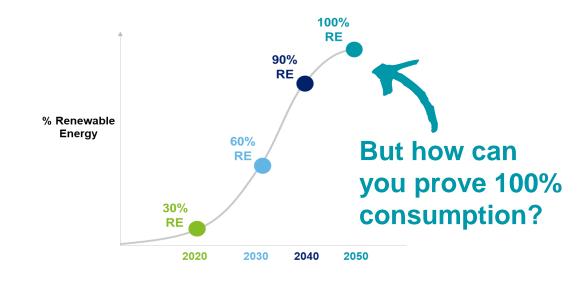


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RE-100 Commitments



Direct Power Purchase Agreements (DPPA) offer a way for corporates to meet their RE commitments

DPPAs are bilateral agreements between electricity generators and power consumers for the delivery of power and the hedging of power prices

Benefits



Power Consumers

- Meet sustainability commitments
- Hedge against energy price increases
- Lower upfront capital requirements
- Ensure long-term price certainty



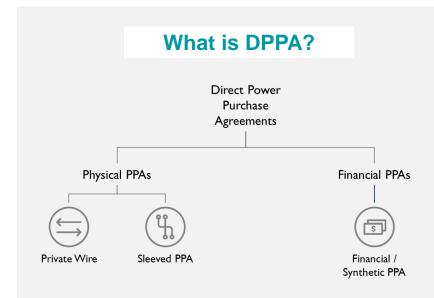
Power Sellers

- Access additional credit-worthy offtakers
- Lock in long-term offtake arrangements
- Improve project bankability
- Reduce operational risk (via associated DPPA policies)



Government of Vietnam

- Attract foreign direct investment
- Enable direct RE procurement by large energy consumers
- Support Vietnam's renewable energy development targets
- Reduce fiscal liability of long-term RE purchase agreements
- Demonstrate RE policy leadership



Physical PPAs

Contracts that define the direct purchase of power by a designated consumer.

Two types:

- Private Wire DPPA
- Sleeved DPPA

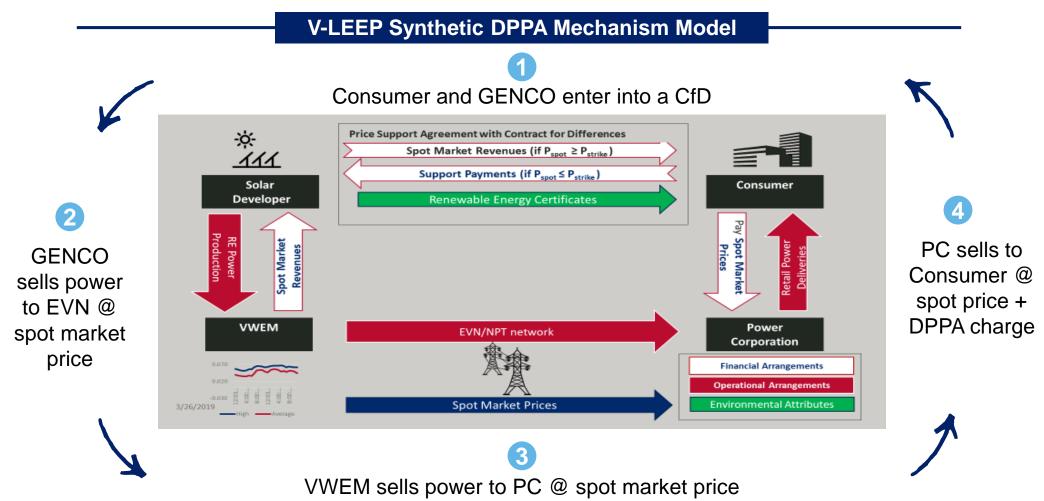
Financial PPAs

Financial contracts that allow the Generator and Consumer to derive value from the direct sale of power to the Vietnam power market:

Synthetic DPPA

Over 25 companies in Vietnam, with a total investment of US\$1.6B and employing 710,000 people, have requested that Vietnam allow the use of DPPA agreements

This corporate voice spurred the Prime Minister to direct the Ministry of Industry and Trade's Electricity and Regulatory Authority of Vietnam to develop a new DPPA mechanism.



Definitions:

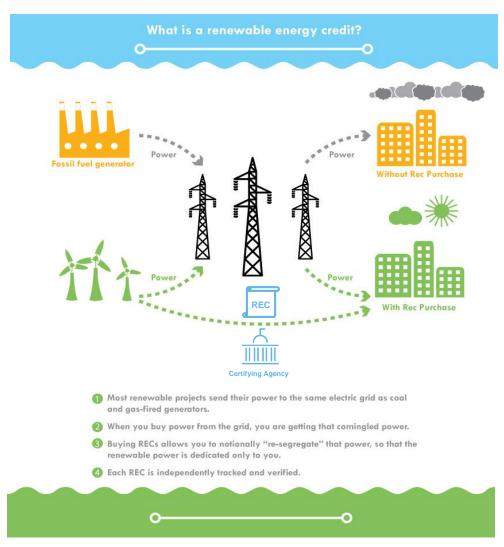
CfD = Contract for Differences
GENCO = Generation Company

EVN = Vietnam Electricity
PC = Power Corporation

VWEM = Vietnam Whole Electricity Market

Renewable Energy Certificates (RECs) represent the **environmental attributes** of RE power, enabling corporates to prove compliance with their RE commitments

The certificates can be sold, traded, or bartered and the owner of the REC can claim to have purchased renewable energy.



Definition:

Renewable Energy Certificates (RECs) are tradable, non-tangible energy commodities that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource

Process:

- GENCO credited with one REC for every 1 MWh of electricity it produces
- Certifying agency gives each REC a unique identification number to make sure it doesn't get double-counted
- RE fed into the electrical grid and the accompanying REC is sold on the open market
- Retirement occurs when a REC is used by the owner. Once a REC is retired, it may not be sold, donated, or transferred to any other party. No party other than the owner may make claims associated with retired RECs

Source: https://www.terrapass.com/product/productres-recs

RE GENCOs and DPPA Consumers must register with a verified third-party registry to create, trade, and retire RECs

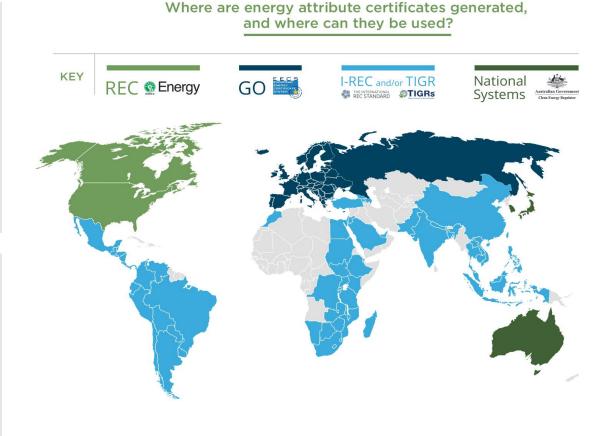
Vietnam's DPPA mechanism complies with leading international environmental attribute registration and tracking systems: I-RECS and TIGR.

International REC Standard (I-RECS)

- Robust, verified system for issuing, tracking and redeeming RECs
- Both a code for tracking systems as well as a tracking system in itself
- Compliant with: RE100, CDP, Greenhouse Gas Protocol, LEED
- Active in: 25+ countries, including Vietnam

Tradable Instrument for Global Renewables (TIGR)

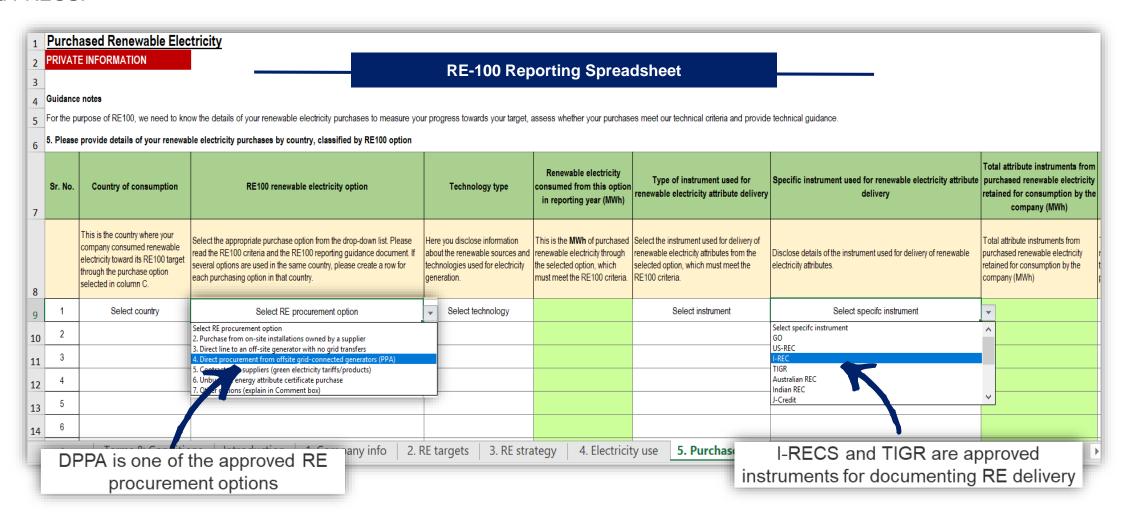
- Online standardized platform for generating, tracking, trading, and retiring RECs.
- Originally designed specifically for Asia.
- Compliant with: RE100, CDP, SBTi, Greenhouse Gas Protocol, Business Renewables Council, Renewable Energy Buyer's Alliance, Green-e Standard, We Mean Business Coalition
- Active in: 40+ countries, including Vietnam



Source: www.naturalcapitalpartners.com/solutions/solution/renewable-energy

Use of I-RECS and TIGR is directly transferable to fulfill RE-100 commitments

Documenting annual progress in the RE-100 Reporting Spreadsheet is simple, defensible, and robust with the use of DPPA, TIGR and I-RECS.



DPPA, TIGR, and I-RECS are certified mechanisms to prove compliance with RE-100 commitments.

Conclusion and Key Takeaways



Global firms have strong and growing commitments to sustainability



These companies are applying these commitments to their **supply chains**, especially in Vietnam



The strength of these commitments is so great that **national governments are revising their legal frameworks** to allow compliance and continue to attract foreign direct investment



Direct Power Purchase Agreements and the associated environmental attributes are one solution to enable companies to abide by their renewable energy commitments

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