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

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**Mobilized Capital Investment**
Notable projects developed with V-LEEP support

- **SOAI MAI GROUP**: 104MWp
- **HA DO GROUP**: 48MWp
- **GREEN DESERT**: 8.8MW
- **BAMBOO CAPITAL**: 41MWp
- **HBRE WIND POWER**: 40MW
- **PACIFICO ENERGY**: 40MWp
- **NEW ENERGY INVESTMENT**: 30MWp

**Total Generation Capacity**
- **312 MW**
- **200 MW**
- **100 MW**
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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

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.**

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.
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

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

**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

**Fashion Industry Charter for Climate Action**
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.

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

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**RE-100 Commitments**

195 global companies endorse RE100 across worldwide operations. **38 member companies** have operations in Vietnam.
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But how can you prove 100% consumption?
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

**What is DPPA?**

**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

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*Deloitte Consulting*
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

V-LEEP Synthetic DPPA Mechanism Model

1. Consumer and GENCO enter into a CfD
2. GENCO sells power to EVN @ spot market price
3. VWEM sells power to PC @ spot market price
4. PC sells to Consumer @ spot price + DPPA charge
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:**
1. GENCO credited with one REC for every 1 MWh of electricity it produces.
2. Certifying agency gives each REC a unique identification number to make sure it doesn't get double-counted.
3. RE fed into the electrical grid and the accompanying REC is sold on the open market.
4. 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](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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