2017 Outlook for Vietnam Renewable Energy
Latest Regulatory and Market Developments
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Power generation

Vietnam energy mix

- Large-scale hydropower plants
- Coal-fired power plants
- Gas-fired power plants
- Renewables
Key challenges in the power sector

- long-term security of power generation supplies
- high emissions and high energy imports
- increasing dependency on coal imports
- key policy challenges:
  - achieving sufficient generation capacity to meet future energy demands
  - mobilizing major debt and equity investments in power
  - reducing energy and carbon intensity and promoting energy efficiency
  - reducing reliance on coal and promoting renewable energy
Renewables regulatory framework

- Revised PDP7
- Vietnam’s Renewable Energy Development Strategy (REDS)
- PM approval of National Green Growth Strategy
Revised PDP7

• high growth power demand anticipated in Revised PDP7
• substantial potential for renewable energy resources, particularly solar PV, wind, biomass and small hydropower
• stronger emphasis placed on RE development for power generation
• incremental increase in the proportion of electricity produced from RE resources
• targeted electricity production from RE
  ✓ 7% by 2020
  ✓ over 10% by 2030
Revised PDP7

• electricity production from solar energy
  ✓ 0.5% by 2020
  ✓ 1.6% by 2025
  ✓ 3.3% by 2030

• electricity production from wind energy
  ✓ 0.8% by 2020
  ✓ 1.0% by 2025
  ✓ 2.1% by 2030
Revised PDP7

• electricity production from biomass energy and power co-generation at sugar plants
  ✓ 1.0% by 2020
  ✓ 1.2% by 2025
  ✓ 2.1% by 2030

• electricity production from hydropower (including large-scale projects)
  ✓ 29.5% by 2020
  ✓ 20.5% by 2025
  ✓ 15.5% by 2030
Solar energy

• favourable solar irradiation in Vietnam
• international cost prices are steadily reducing
• currently modest solar installations
• projected installed capacity
  ✓ 850MW by 2020, 4,000MW by 2025, 12,000MW by 2030
• recent market developments on solar farms
  ✓ Fujiwara Binh Dinh solar and wind power project (a 64MW solar power plant COD in Q1 2019 and a 36MW wind power plant COD in Q1 2020)
  ✓ Thanh Hoa 1 (160MW developed by BS Heidelberg Solar)
  ✓ JinkoSolar plans 40MW solar project in Hau Giang
Wind energy

• good potential of large-scale wind energy
• 65 projects registered to generate more than 5,700MW
• currently 190MW wind installations
• wind farms in operation
  ✓ Bac Lieu (99.2MW offshore, developed by Cong Ly)
  ✓ Tuy Phong (30MW, developed by REVN) in Binh Thuan
  ✓ Phu Lac (24MW, developed by TBW) in Binh Thuan
  ✓ Phu Quy (6MW, developed by PV Power RE) in Binh Thuan
  ✓ Huong Linh 2 (30MW, developed by Tan Hoan Cau) in Quang Tri
Wind energy

• projected installed capacity
  ✓ 800MW by 2020 (unlikely to achieve), 2,000MW by 2025, 6,000MW by 2030

• under construction (230MW)
  ✓ Mui Dinh (37.6MW, developed by EAB) in Ninh Thuan
  ✓ Trung Nam (90MW, developed by Trung Nam) in Ninh Thuan
  ✓ Khai Long (100MW, developed by Cong Ly) in Ca Mau

• new wind farm projects
  ✓ Phu Cuong (800MW, 150 - 200 MW Phase 1, developed by Phu Cuong, GE & Mainstream Renewable Power (MRP)) in Soc Trang
  ✓ Dam Nai (40MW developed by Blue Circle/TSV) in Ninh Thuan
Biomass

- biomass and co-generation (sugar)
- currently approximately 150MW biomass installations
- projected installed capacity
  - 500MW by 2020
  - 2,000MW by 2030
Feed-in tariff

- power tariffs in Vietnam are lower than those of other countries

  ✓ US cents 9.35/kWh for solar (initially proposed US cents 11.2/kWh)

  ✓ US cents 7.8/kWh for onshore wind (including US cent 1.0/kWh Government support via VEPF) and US cents 9.8/kWh for offshore wind

  ✓ US cents 5.8/kWh for power co-generation, other biomass projects subject to avoided costs regime

  ✓ US cents 10.05/kWh for solid wastes to power

  ✓ subject to avoided costs regime for small hydropower projects

- no escalation clause, tariff in the draft solar PPA is not adjustable on account of CPI or FX
**EVN’s offtake obligations**

- Vietnam adopts a monopoly “single buyer” RE electricity market
- EVN and its authorised member companies remain the sole intermediary power offtaker and aggregator of renewable energy projects
- no mechanism for direct corporate PPAs
Decision 11 re solar energy

• regulates the conventional solar photovoltaic (PV) power system

• classifies two types of solar PV projects:
  ✓ roof-mounted solar
  ✓ grid-connected solar

• requires all PPAs that are already executed before 01 June 2017 must be amended in accordance with the model form of the solar PPA

• leaves open many of fundamental bankability issues critical to the ultimate success in increasing the use of solar energy
Draft solar PPA

• MOIT’s first draft of the PPA model form is non-bankable, AmCham, VBF and other chambers submitted analysis and recommendations to the Government

• feed-in tariff

• EVN’s offtake obligations

• grid connection issues - seller currently bears the risk of connecting the power plant with the grid

• PPA term - 20 years from COD, no extension rights

• dispute resolution - no provision on international arbitration in a neutral forum

• termination rights and termination payments
Other bankability issues

- complex and lengthy RE master planning and licensing processes
- lack of a robust and consistent risk allocation framework to provide greater certainty on certain key risks that should be retained by the Government
- Government support on foreign currency conversion
- complex land acquisition process and compensation
- EVN creditworthiness
2017 outlook for Vietnam RE

Vietnam attracts plenty of attention from international investors on RE projects, including solar and wind energy.

- Feed-in tariff remains unattractive to investors.
- Government needs to act quickly to address policy lags and issues on RE development and investments.
- Numerous regulatory challenges need to be addressed for international lenders to project finance the development of medium and utility-scale RE projects.

Optimistic about market trends and project pipeline.
Lexcomm Vietnam LLC is a premier full-service commercial law firm licensed to practice in Vietnam.