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NEW DEVELOPMENTS IN RENEWABLE PROJECT FINANCE

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Edward Kayukov

Overview

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- **Drivers for Renewable Energy**
- **Sources of Capital for Renewable Projects**
- **Emerging Equity and Debt Structures**
- **Critical Issues**

Financing

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- **Drivers for Renewable Power**
  - Policy and regulation:
    - Renewable portfolio standards (RPS) in 24 states. RPS provide a strong motivation for utilities to enter into long-term PPAs with renewable projects or long-term contracts for purchase of RECs (renewable energy credits).
    - Federal production tax credits and accelerated depreciation.
    - Investment Tax Credits (Section 48). Other Federal programs and incentives.
    - Various subsidies through state public goods charges (grants, loans and revenue supplements).
    - Greenhouse gas programs (RGGI, California).
  - Economics
    - Improving technology (installation costs for Wind Projects have declined to $1,400-1,700/kW).
    - Low operating costs for wind, solar and geo (no fuel costs).
    - Limited opportunities in other PF sectors.
    - High prices for fossil fuels.

Financing

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- **Sources of Debt for Development of Renewable Projects:**
  - Post-energy crisis recovery has led more financial institutions back to the energy sector.
  - Opportunities in other sectors have been relatively constrained.
  - Renewable energy finance still dominated by foreign banks (Dexia, HUB, Bayern LB, HSH Nordbank, Mizuho, Fortis) and insurance companies (Manulife).
  - US institutions usually participate on the equity side.
  - Other sources of debt financing:
    --Capital markets—144A bonds (FPL, Ormat).
    --Clean Energy Renewable Bonds (CREBs) available to coops, munis.

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- **Sources of Equity for Development of Renewable Projects:**
    - Strategic investors
        - Utility subsidiaries (FPL, AES, AEP), including non-US utilities (Iberdola, ENEL). Acquisition of active developers.
        - Oil companies (Shell, BP).
        - Load-serving utilities own/develop projects (Mid-American)
    - Tax-oriented investors (mainly US banks and insurance companies – JPMorgan Corp, Prudential, New York Life, UBOC)
        - Monetize tax credits and cash flow (on a flip basis).
        - Generally passive.
    - Developers receive cash flows/tax credits (after flip date)
    - IPOs of active developers (Babcock, Macquarie)

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- Private equity funds
  - Funds oriented to the energy sector generally (Arclight).
  - Funds oriented to renewables specifically (BBWP, Marathon).
  - Funds oriented to infrastructure (MIG).
- Venture capital
  - More relevant for start-up technologies.
  - Return expectations.

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- **Sources of Capital:**
  - Long-term Power Price Hedges:
    - More relevant as merchant wind plants proliferate.
    - Sources include:
      - Commodity firms (J. Aron).
      - Banks (Deutsche Bank, Fortis).

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- **Debt and Equity Structures:**
  - Monetization of multiple revenue sources – PPA, REC, market sales, and tax benefits.
  - Debt financing:
    - More products such as equipment, construction, portfolio and back-leverage loans.
  - Equity financing (driven by PTC/ITC requirements):
    - More financial investors, and evolving structures to optimize tax and cash value.
  - Financial hedges:
    - Price, volume and commodity.

Debt Financing

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- **Equipment and Construction Financing**
  - Short-term equipment loans have become prevalent (especially in wind):
  - Wind turbine shortages lead to more front-loaded payment schedules. Manufacturers require higher payments upfront.
    - Turbine supply loan to fund Turbine Supply Agreement (TSA) deposits and payments.
    - Commitments tend to be for less than full TSA cost. Advance Rate/equity guarantee.
    - Secured by the TSA, perhaps by other assets.
    - Rates are higher than construction loans.

Debt Financing

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- **Equipment and Construction Financing**
  - Construction financing is now common.
    - Takeout typically is via firm equity commitment and/or term financing commitment, but the trend is toward soft takeout.
    - Secured by all project assets (complete site control, permits, title work, full project documentation).
    - Margins are dropping (1.125 – 1.30% over LIBOR in the wind sector).

Debt Financing

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- **Multiple Asset Financing**
  - Trend towards "warehouse" facilities (standard terms with same lenders/developers for several projects) or portfolio facilities (a single facility for a holding company owning interests in several projects).
  - Portfolio facilities allow better diversification of risk, lower pricing and transaction costs.
  - More typical for term loans for operating assets, but seeing increasing use in construction financing.
  - Can also have complicated mechanics for removal of assets from the portfolio.

Debt Financing

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- **Back-Leverage Debt**
  - Involves financing of cash equity interests in one or more project entities where there is no project-level financing.
  - Loans are usually capped at certain percentage of the value of the equity interest (usually 80%).
  - Unlike classic term loans, back-leverage loans are secured only by borrower’s equity interest in the project entity and a sweep of all cash distributions allocable to borrower (subject to certain excluded fees and operating expenses).
  - Repayment is subject to the partnership distribution terms and management rights.

Financial Equity

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- **Financial Equity**
  - Leveraged vs. unleveraged structures.
  - Renewable project returns compare favorably to alternative tax investments. Pricing trend is down.
  - “Flips” are common – oriented to a pre-determined target return with disproportionate allocation of cash and tax.

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- **Financial Equity**
  - Equity contributions can be upfront or pay as you go.
  - In leveraged financial equity deals, debt/tax equity issues similar to leveraged leases ("equity squeeze" provisions).

Financial Hedges

- **Financial Hedges**
  - Financial hedge between project and financial party.
  - Key elements include:
    - Fixed price.
    - Fixed volume.
    - Cross commodity hedge.
    - Shortfall risk.
    - Security.

- **Regulatory Scheme**
  - Complexity – state by state.
  - Bundling of environmental attributes.
- **Transmission**
  - Interconnection costs and upgrades.
  - Imbalance costs.
- **Permitting and Land Use**
  - Evolving permit regime.
  - Complex environmental interaction of state and federal agencies (e.g., Altamont Pass wind project repowering in CA).

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- **Issues with Respect to Power/RES Sales**
  - “Bundled” v. Unbundled.
  - Offtaker credit.
  - Performance guaranties and deficiency payments.
  - Subordinated liens for power purchasers complicate negotiations with lenders.
  - Treatment of imbalance penalties. Need for new transmission capacity/expensive upgrades.
- **Turbine Supply Issues/EPC Issues**
  - Turbine shortages lead to more front-loaded structures, allocation of more risk to purchasers.
  - Delivery terms.
  - Lower caps on delay LDs turbine warranty payments.
  - Shorter warranty term (usu. 2 years).
  - More limited warranties (availability not being offered by more established turbine providers).
  - Need to correlate delivery schedule with the work under balance-of-plant (BOP) contract.
  - Turbine certification (GL, DNV) for new suppliers.

About Milbank

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We are a leading legal advisor in the energy sector:

- ✓ International Law Firm of the Year (*Legal Week*).
- ✓ US Projects Firm of 2005 (*Chambers USA*) and Americas Project Finance Firm of 2005 (*IFLR*).
- ✓ Over 100 renewable energy project transactions globally.
- ✓ Ranked “Number One” in Top 10 Legal Advisors for Renewable Project Finance Deals in 2004-5 (*Renewable Project Finance*).
- ✓ Nine “Deals of the Year” for 2005 (*Project Finance*).

Milbank Contacts

Milbank
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Ed Feo
Project Finance Partner, and leader of its renewable energy practice

Los Angeles

213-892-4417
efeo@milbank.com

Simon Friedman
Tax Partner

Los Angeles

213-892-4412
sfriedman@milbank.com

Allan Marks
Project Finance Partner

Los Angeles

213-892-4376
amarks@milbank.com

Mark Regante
Tax Partner

New York

212-530-5236
mregante@milbank.com

Jonathan Maizel
Project Finance Partner

Washington, D.C.

202-835-7565
jmaizel@milbank.com

Karen Wong
Project Finance Partner

Los Angeles

213-892-4419
kwong@milbank.com

Milbank Locations

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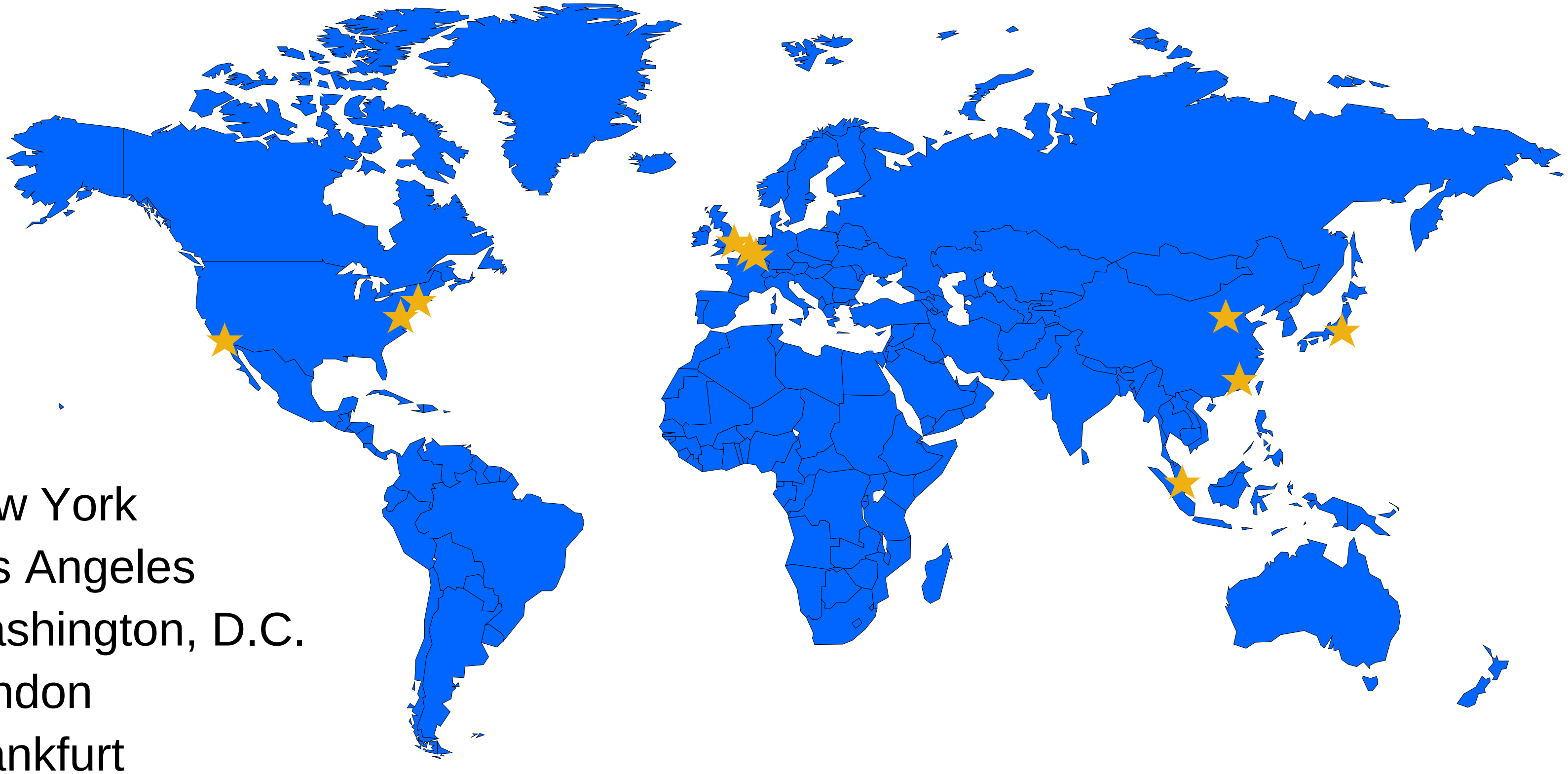

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