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U.S. And International Case Studies For Financing Bioeconomy Projects

Panel: The Pitch – Solving the Bioeconomy's Toughest Challenges
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Mark J. Riedy, Esq.

- *Has Represented Clients In Renewable And Conventional Energy (Fuels And Power And Infrastructure) Project Finance Since 1978, Government Funding Initiatives (Grants, Loans, Loan Guarantees, etc.) Since 1980, And Clean Tech Private Placements Since 1999, Domestically And Internationally.*
- *A Founder And Original General Counsel:*
  - *Renewable Fuel Association –1979-1984.*
  - *Clean Fuels Development Coalition – Since 1985.*
  - *Clean Fuels Foundation – Since 1990.*
  - *American Council On Renewable Energy/Biomass Coordinating Council – Since 2001.*
  - *Latin American Council On Renewable Energy – Since 2009.*
- *Assisted Clients In The Creation Of The Original Alternate Energy Tax Incentives In The 1978 And 1980 Tax Acts, And Their Expansions And Extensions Thereafter.*
- *Assisted Clients In The Renewable Fuels And Renewable Power Industries In The Development Of Provisions In The 1978 Public Utility Regulatory Policies Act, 1983 Caribbean Basin Economic Recovery Act, 1990 Clean Air Amendments (And Reformulated Gasoline Regulations Thereto), 1992 Energy Policy Act, 2005 Energy Policy Act, And The 2007 Energy Independence And Security Act, 2008 and 2014 Food, Conservation And Energy Acts, And 2009 American Recovery And Reinvestment Act.*
- *Named One Of The Top 100 Bioenergy Leaders Worldwide – BiofuelsDigest – 2011-2012 (#67), 2012-2013 (#50), 2013-2014 (#56), 2014-2015 (#49) and 2015-2016 (#42).*
- *AV Preeminent Rating By Martindale-Hubbell For Last 20 Years.*
- *Named One Of Washington, DC & Baltimore's Top Rated Lawyers For Business & Commercial By Legal Leaders For 2012-2016.*
- *Vice Chairman For Project Finance, American Bar Association, Section For Energy & Natural Resources Since 2010.*
- *Kilpatrick Townsend Ranked #1 Worldwide For Infrastructure Construction and #1 in U.S. for Intellectual Property – Chambers – 2011-2016.*
- *Graduated With JD – Georgetown University Law Center And BA – University of Michigan – Summa Cum Laude And Phi Beta Kappa.*

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Case Studies – Companies Funding Bioeconomy Projects in the US Versus Internationally

A. U.S. Case Study – Dairy Cattle Waste Biomass-to-Biogas/Bioproducts/Biopower Project- Multiple Phase $152 Million Total Project Costs ("TPC") (the "Project")

1. Multiple Project Products:
   - Biogas to pipeline as Renewable Chemical feedstock and other Industrial Chemical uses.
   - Biogas to Renewable LNG and CNG.
   - Biofertilizer-Ammonium Sulfate.
   - Biopellets.
   - Biogas to 15MW-18MW of Biopower.

2. Advantages:
   - Replicable Projects.
   - Significant GHG emissions reduction of methane and CO^2.
   - 30% additional available energy from biomass/manure.
   - Project creates microgrid opportunity using renewables.
   - Creates more nitrogen for high-end fertilizers.
   - Significant boost in amononia output for newly-created ammonium sulfate capture.
   - Uses conventional ammonia recovery system on market today.
   - Not water-intensive as other alternative energy sources.

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3. Management Team Strengths:
   - Advanced European Technology Partners.
   - More than 25 years experience on design and execution of biogas plants worldwide.
   - Designed, constructed and commissioned more than 30 full-scale facilities worldwide.
   - Specialized in design of mid-to-large scale projects worldwide.
4. Met with officials from each of the USDA-Section 9003, Section 9007 (Renewable Energy for America Program ("REAP")), Business & Industry ("B&I"), Rural Utility Services ("RUS") and DOE-Section 1703 Loan Guarantee Programs for debt finance, as determined after discussions with commercial lenders that ultimately would not finance the Project without a credit enhancement.
5. 1st of a kind anaerobic digestion system-but sufficient amounts of the technology are commercial. Thus, the Project may qualify within either of the first commercial or second commercial federal loan guarantee programs.

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6. Initial Program Decision Challenges:
   - DOE Section 1703 Renewable Energy & Energy Efficiency Loan Guarantee Program:
     - $4.5 billion senior debt available. Still no conditional commitments signed. However, several are in underwriting.
     - 2 Parts-competitive. Final application deadlines were extended on June 22, 2016 for each of Part 1 and Part 2 to November 30, 2016, subject to further extension(s).
     - Expensive:
       - $150,000 application fee (Part 1 - $50,000/Part 2 $100,000 because senior debt is less than $150 million),
       - 1% Facility Fee,
       - Underwriting Costs,
       - 10% Credit Subsidy (Borrower pays 7%/DOE pays 3% up to $17 million), and
       - Annual Maintenance Fee (up to $500,000).
     - Approx. 3.5% interest rate for up to 30 years generally for full loan guarantee coverage of Treasury loan from Federal Finance Bank ("FFB") generally of 70% of TPC/30% "equity."
     - Time to Close: can take up to 12 months plus to financial closing from initial application. The application reviews, however, recently have accelerated, as I recently moved an energy storage applicant through Part 1 and into Part 2 in 5 weeks – the fastest review to date at DOE.
     - Of $13 billion between the Renewables and Clean Fossil LG Programs, Kilpatrick Townsend's 10 client applicants represent approximately $7 billion in senior debt requests.
   - USDA Section 9003 Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program:
     - 2 Phases-competitive.
     - 2 Filing Periods Annually – LOIs are due on September 1 and March 2, respectively, for Applications due on October 1 and April 1, respectively.
     - No government fees like DOE until closing-generally partial guarantee of 60%-80% of senior debt with 20% to 50% of project equity.
     - Bank loans (fixed or variable interest rates) or project company debt (bonds) secured by 20 year loan guarantees.
     - Time to close: will take 12 months plus to close from initial application.
     - Approximately $1 billion available – only 6 applications to date with 4 requested to file a Part 2 application of which 2 are Kilpatrick Townsend clients. In the last 4 competitive rounds, we are 15 for 15 in clients reaching the finals, receiving conditional commitments and/or closing.

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6. Initial Program Decision Challenges (cont'd):
   - USDA-RUS Electricity Direct Loan Program:
     - Uncapped direct loans form Treasury FFB. Non-competitive applications for only commercial technology projects.
     - Treasury loan at 12.5 basis points over Treasury rate locked in at financial closing.
     - Term of PPA up to 35 years.
     - Covers power project only, and not the fuel and renewable chemical/bioproducts portions.
     - Can finance 100% of the project with a corporate guarantee or 75% of the project (with 25% equity and equity equivalents) without a corporate guarantee on a project financing basis.
7. Team Decision:
   - Use a combination of B&I and 9007/REAP Loan Guarantee Finance Programs for Debt and split into 3 phases.
   - Each program requires commercial technology and is non-competitive and allows up to $25 million in loans secured by 15 year loan guarantees.
   - Speed to closing – much faster – up to 6 months from application submission if project is otherwise completed and NEPA permit is in place.
   - Interview lenders of record ("LORs")-regional banks focus, as too small for Wall Street Banks.
   - Originally: Phase 1-$53 million TPC. However, with new B&I rule (published June 3, 2016 in the Federal Register with an August 2, 2016 effective date), we can double the Phase 1 to $100 million TPC and apply for $25 million senior debt in each of B&I and 9007/REAP.
   - Two loans:
     - Originally was to be $10 million through B&I (for the chemicals and production application) and $15 million through 9007/REAP (for the energy applications) or $25 million through 9007/REAP alone (if the renewable chemicals, products and energy are held to be part of a single integrated system), under a single borrower (two (2) identical shareholder borrowers also could have obtained $25 million from each of B&I and 9007/REAP) and now we can increase the funding to $50 million senior debt from one borrower applying into B&I and REAP under the new B&I rule.
     - Due to a location in depressed economic area, USDA can provide up to 90% guarantee coverage on senior debt, but only through the B&I and not the 9007/REAP program.

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7. Team Decision (cont'd):
   - "Equity" level of Capital Stack (will require 20% to 40% of equity and equity equivalents).
     - Tax Equity-funds for sale of the 30% Investment Tax Credits ("ITCs") and 50% Bonus Depreciation for equity side of capital stack.
     - New Market Tax Credits ("NMTCs") funds from qualified Community Development Enterprises ("CDEs") using competitively won Treasury funding allocations for 39% tax credits over a 7 year period for equity side of capital stack. The new B&I rule will permit loan guarantee coverage on the debt portion of a NMTC transaction.
     - EB-5 (visas and green cards for loans and for equity) funds for equity side of capital stack. That is -- funding invested into a project to procure visas and green cards from the U.S. Office of Immigration and Department of Treasury.
     - Sponsor Equity.
     - Strategic Equity (because intend to duplicate this Project throughout dairy farms initially in the United States and then internationally).
     - State and Federal grants permitted (DOE 1703 program will not permit other Federal support – e.g. Federal grants, and Federal contracts).
     - Subordinated Debt (new B&I rule will permit loan guarantee coverage of this debt tranche).

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8. Challenges in this Financing:
   - Originally 2 Senators were holding up the new B&I Program Final Rule, published June 3, 2016, originally scheduled for a May 1, 2016 publication. They held up the process and succeeded to have private equity providers qualified as lenders of record. Under the new B&I rule, the definition of "Non-Regulated Lenders" was broadened to where private equity companies under certain conditions could become qualified lenders of record. The new B&I rule allows one borrower to access up to full $50 million in senior debt, instead of the previous structure of two (2) different entity borrowers (which can have identical shareholding) must be used to obtain $25 million from each of B&I and 9007/REAP, or use one entity to access up to $25 million from the combined B&I and Section 9007/REAP Programs. Previously, we chose the latter approach. However, with the new final B&I rule, we likely will adjust the application to a larger Phase 1 funding of $50 million of senior debt.
   - B&I Program, until the new Final Rule was issued, had a 51% US ownership requirement which challenged the use of foreign equity from European technology partners. The new B&I rule removed this restriction. Section 9007/REAP (and Section 9003) Programs removed this U.S. ownership restriction in prior rulemakings.
   - Expired tax and non tax equity-ITCs, Bonus Depreciation, NMTCs and EB-5 funding (funding for US visas) - finally extended in 2016 Omnibus Appropriations Act in late December 2015:
     - 30% ITC for Biopower if in construction by 12/31/16.
     - 50% Bonus Depreciation through 12/31/16 for biopower and cellulosic biofuels facilities.
     - $3.5 billion per year through 12/31/19 available for NMTCs (with 39% tax credits realized by a Treasury allocatee, i.e., a Community Development Enterprise ("CDE"), over a 7 year period).
     - EB-5 funding reinstated through 9/30/16.

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8. Challenges in this Financing (cont.):
   - B&I closing fee of 3% (annual renewal fee of 0.5%) versus Section 9007/REAP closing fee of 1% (annual renewal fee of 0.25%), until both become 1% closing fee (annual renewal fees of 0.25%), with the new Final B&I Rule. That said, this change will become effective with the FY 2018 appropriation, or effective October 1, 2017.
   - B&I, unlike Section 9007/REAP, measures % equity as a % of tangible balance sheet equity versus a percentage of total project costs, which did not change to the Section 9007/REAP measurement when USDA issued the B&I Final Rule.
   - B&I and Section 9007/REAP require a project site in a "rural" area, meaning an area with a population under 50,000 persons.
   - Government funding requires the procurement of a National Environmental Policy Act (NEPA) permit which can take up to 8 months if only an environmental assessment (EA) is required.
   - 2 loans with 2 different loan guarantees.
   - EPA penalty on the site for ground water contamination from dairy manure.
   - Use of EB-5, ITC/Bonus Depreciation tax equity and NMTC funding together, as each adds complexity to the funding through sophisticated transaction structuring.
   - Any regulatory "hiccup" regarding a future change in certainty on the various multiple credits/ regulatory incentives. Thus, revenue streams must be conservatively "stress-tested" without such incentives to ensure payment of debt service.
   - Previously, we were unable to credit enhance the leveraged loan on a NMTC or subordinate debt transaction. However, under the new B&I final rule, we now can use a loan guarantee over each type of loan.
   - B&I, with its new rule, "opened up" the universe of non-regulated lenders who could work in its program as qualified lenders of record.

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9. Positives to Reduce Project Risks:
   - Full Construction Wrap/Performance Bond from Investment-Grade Credited Rated EPC.
   - Insurance Price Floors for multiple long term (10-15 year) fuel, chemical and bioproduct offtake agreements/PPA/Price Collars for long term (10-15) feedstock agreements. Significant percentage of the multiple offtake agreements are with Investment Grade Credit Rated Purchasers.
   - 9 strong revenues streams from offtake agreements and monetized regulatory incentives to pay debt service and provide returns to investors from the following:
     - RINs, - D3, or D7 – FY 2017 RINs – D3 will exceed $1.70 gallon,
     - LCFS – Low Carbon Fuel Standard – Credits (for biogas LNG and CNG sales into California, currently >$125/per ton of CO2 emissions offsets or over $0.85 per gallon. California capped LCFS at $200/ton of CO2 emissions offsets for 2016 – will revisit cap annually),
     - State Carbon Credits (New Mexico, unlike many other states, permits the monetization of carbon credits and RECs),
     - State RECs (New Mexico, unlike many other states, permits the monetization of carbon credits and RECs),
     - PPA electricity,
     - Pellet fertilizer,
     - Ammonium sulfate,
     - Compost and
     - State of New Mexico Water Recycling Credits.

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Case Studies – Companies Funding Bioeconomy Projects in the US Versus Internationally

B. International Case Study—How To Structure And Finance An International Bioeconomy Project—Not For The Neophyte Or Feint-Hearted

1. Why invest in offshore bioeconomy products?
   - US regulatory uncertainty.
   - Perceived better returns.
   - Significant pipelines of project opportunities, among other important factors attract US developers to build their projects overseas.

2. Pick the country in which to build based on various factors including, but not limited to:
   - Stability, needs, political will, ability to financially close, etc.
   - This analysis entails four big questions:
     - Do they speak English?—the ugly American Syndrome – but language barriers can be daunting and costly (many countries will require the contracts to be in their respective language in addition to English, and you do not want to lose the intent of provisions through translations).
     - Do they have a mature Financial System?
     - Do they have a mature Legal System?
     - Can you get your money out?
   - 4 Significant Bioeconomy Venues:
     - Brazil
     - China
     - India
     - Malaysia

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3. Critical Tax and Corporate Structuring—the developer "Cowboy Syndrome"—i.e. looking for the finish line while forgetting that inadequate structuring later can economically disable a project.
   - Tax structuring:
     - International Double Tax Avoidance Agreements ("DTAAs")—Tax Treaties—to reduce host country taxes. Host countries can have excessively high direct and indirect taxes and can be tax aggressors. You seek to limit:
       - Corporate Income Tax and Capital Gains Tax on Investors.
       - Interest Income Tax on Lenders.
       - Royalty Tax on Licensors.
   - Corporate Structuring:
     - Limited liability protection to stop aggressive host countries from imposing excessive tax and non-tax project liabilities.
     - Tiers of limited liability projection, each of which can block tax and non-tax aggressor host country liabilities.
       - Tier 1 – Host Country.
       - Tier 2 – DTAA Country.
       - Tier 3 – Bahamas, Bermuda, British Virgin Islands or Cayman Islands (no taxes and no bilateral tax treaties, but strong limited liability protection).
       - Tier 4 – US – Delaware LLC, Nevada LLC, etc.
   - Bilateral Investments Treaties ("BITs")—provide additional necessary investor rights – such as more favorable arbitration rights.

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3. Critical Tax and Corporate Structuring—the developer "Cowboy Syndrome"—i.e. looking for the finish line while forgetting that inadequate structuring later can economically disable a project. (cont'd)
   - Examples:
     - Mauritius – 36 plus DTAAs for Asia and Africa, substantial number of BITs, LLCs to limit investor liability from general tax and non-tax liability from aggressive host countries. Mauritian DTAAs frequently limit host country corporate income tax on equity investors to 5% and their capital gains tax to 0%. LLCs in Mauritius are non-operating company "shells" simply to move investment money through. Debt, however, can be structured through Cyprus which reduces such host country tax to 10%, as Mauritius does not reduce interest income tax.
     - Singapore's DTAAs can be useful for equity investors and lenders of debt, but they generally require an operating company to demonstrate it incurred a minimum of 200,000 Singapore Dollars of expenses in each preceding year to use its DTAAs in the current year.
     - Could use DTAAs from Spain or Netherlands for Latin American investments.

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4. Debt Finance and Insurance
   - Generally, no export credit agency (ECAs), international funding agency or multilateral development banks (MDBs) will accept technology risk. Incubate your first commercial project in the US (with USDA and DOE loan guarantees programs, where they can stand-up 1st commercial projects) and then venture abroad with a second commercial. That said, BNDES (Brazil) and the China Export-Import Bank are the exceptions, as they will loan to 1st commercial projects without a credit enhancement.
   - Prominent International Funding Authorities and ECAs – some examples are:
     - **US Trade Development Agency (U.S. Funding Agency)** – provides grant based feasibility studies to determine a country's/project's feasibility.
     - **US Export-Import Bank (ECA)**
       - Finances projects in both developing and developed countries—atypical of the majority of ECAs which generally finance only projects in developing countries.
       - Finances up to 85% of US content and up to 30% of foreign content. Thus, equity slices are reduced.
       - Loans are low cost and long term--near Treasury rates—typical base rates: Effective April 15 through May 14, 2016, 10 year fixed loan at approx. 2.68% and 18 year fixed loan at approx. 3.09%, each plus an exposure rate (dependent on the host country), and rates are recalibrated monthly but fixed at financial closing.
       - Loans and loan guarantees. No equity available.
       - Project, corporate and equipment finance.
     - **US Overseas Private Investment Corporation (OPIC) (U.S. Funding Agency)**
       - Finances projects in developing, emerging (like Israel and Turkey) but not developed countries.
       - Where US content is unavailable – OPIC requires that 25% of the project equity be from US investors.
       - Low cost and long term financing – generally approx. 600 basis points over LIBOR and 15 year terms are available.
       - Loans and Loan Guarantees. No project equity.
       - Various insurance policies are available. Political Risk – for expropriation, etc; arbitration award protection when host country courts do not act; feed-in tariff reduction; etc.
       - Loan Guarantees securing loans used in international equity funds to increase the available funds.

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- **MDBs** – Five (5) World Bank private sector finance arms:
  - International Finance Agency ("IFC").
  - European Bank for Reconstruction and Development ("EBRD").
  - Asian Development Bank.
  - African Development Bank.
  - Inter-American Development Bank ("IADB").

  MDBs typically:
  - Finance in developing countries only, and not in developed countries.
  - Generally provide loans, loan guarantees and project equity (sometimes corporate, VC and private equity). Financing can be low cost and long term.
  - Typical loans have tenors of 7 to 12 years and interest rates of 450 basis points over LIBOR, while typical loan guarantees are for periods of up to 15 years.
  - Multilateral Investment Guarantee Agency (MIGA) provides insurance similar to OPIC.

5. International Green Banks/Green Bond Issuances.
6. Equity:
   - Private Equity.
   - Infrastructure Funds.
   - Strategic Equity.
   - MDB Equity—as described above, where available.

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7. Challenges in Financing International Projects:
   - Lack of familiarity by foreign parties with U.S. investor expectations. 20% + ROIs in a short period of time.
   - Foreign partners often require more funds from U.S. investors without wanting to provide additional ownership interest.
   - Once invested into a country, it can be very difficult to extricate oneself and leave with one's funds. (Liquidation of Joint Venture companies involves long court proceedings in India.)
   - Litigation of disputes can take 10 years plus. (I have insurance claims, tax and contract dispute actions now in 21st year in India).
   - Foreign arbitration awards may not be enforced in host country courts. (This situation is why you need OPIC/MIGA insurance.)
   - Corruption is often rampant. FCPA, OECD and UK Bribery Act Compliance are critical considerations. Need to have protective contract provisions at a minimum. Need training sessions for employees working overseas.
   - Excessive permitting often occurs at the Central, State, Provincial and local levels (Dabhol India Power Project example – nearly 900 permits and other government authorizations required to effect financial closing).

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7. Challenges in Financing International Projects (cont'd):
   - Aggressive tax regimes can reach beyond the host country to assert tax jurisdiction over an investor's worldwide income. One similar example is India's Vodofone case, where Vodofone Europe acquired Hutchinson Wampoa's 's (Asia) Cayman's subsidiary only to be taxed $2 billion by the Government of India. India claimed that because Hutchinson had an Indian Subsidiary (which was not part of the transaction), then India could assert a capital gains tax on the unrelated transaction. Indian Supreme Court ruled in favor of Vodofone, after a long court battle.
   - Corporate laws in foreign countries may require a super (75%), and not simple (51%) to gain complete control – for example – to block a shareholder special resolution that could completely change the focus of a company's business.
   - Protection of Intellectual Property from "reverse engineering."

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Conclusion

We live in a difficult period of sputtering economies, constrained cash flows, increasing risk aversion and other negative influences, as we attempt to expand and vary the world's energy assets.

As such, the continued creation of new, and refinement of existing, highly sophisticated debt financing and equity funding mechanisms are critical to the development and construction of new energy projects of all types.