RNG WORKS

THE COALITION FOR RENEWABLE NATURAL GAS

# Cutting Edge Funding and Contractual Structures For Successful Bioeconomy Project Financing

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RNG Works 2020 Technical
Workshop & Trade Expo
Renewable Natural Gas Coalition

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# Mark J. Riedy

## Partner

Kilpatrick Townsend & Stockton LLP

Represents 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.

General Counsel, Global Solar Council (since 2017).

Advisory Board, Consortium for Advanced Bioeconomy Leadership Education (CABLE) (since 2017) and Renewable Natural Gas Coalition (since 2019).

General Counsel, National Tribal Energy Association (since 2017) and Alternative Fuels & Chemicals Coalition (since 2019)

Member of Finance Committees of Solar Energy Industries Association, Smart Energy Producers Association, Energy Storage Association, New York Battery & Energy Storage Technology Consortium, and Renewable Natural Gas Coalition (since 2016).

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, 2009 American Recovery And Reinvestment Act, FY2017 – FY2018 Budget Acts, and 2017 Tax Reform Acts.

Named One Of The Top 100 Bioenergy Leaders Worldwide – BiofuelsDigest – 2011-2012 (#67), 2012-2013 (#50), 2013-2014 (#56), 2014-2015 (#49) and 2015-2020 (#42).

AV Preeminent Rating By Martindale-Hubbell For Last 27 Years.

Named One Of Washington, DC & Baltimore's Top Rated Lawyers For Business & Commercial By Legal Leaders For since 2012.

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 – since 2011.

Graduated With JD – Georgetown University Law Center And BA – University of Michigan – Summa Cum Laude And Phi Beta Kappa.

# Challenges And Solutions

## A. ***Growing The Bioeconomy Industry – Challenges and Solutions***

### 1. ***Challenges –*** What are the obstacles to growing energy storage?

- Perceived Lack of Funds at the Company and Project Levels.
  - Grants and Equity.
  - Bank and Corporate (Bonds) Debt.
- Lack of Certainty in Government Programs.
  - Government Funding Programs.
  - Tax Incentives – Requires Extensions and a standalone 30% ITC for energy storage systems.
  - Energy storage is not always fully integrated into power units and able to obtain the 30% ITC. Again, it was overlooked in the Tax Reform Act of 2017, Budget Act of 2018, 2019 Tax Act and 2020 Spending Act.
  - 30% ITC is required for Anaerobic Digestion (AD) Units and Nutrient Recovery Systems.
  - ITCs and PTCs are also required for Advanced Biofuels and Renewable Chemical Projects.

# Challenges And Solutions

2. ***Solutions*** – What are the energy and industrial policies needed to move forward?
   - Creative Debt Financing and Equity Funding – Company, Project and Portfolio Levels.
   - Insurance Protections. The insurance industry creatively would wrap technology risks and credit enhance bank, taxable corporate debt (project company bonds) and tax exempt municipal bonds. New insurance revenue hedges for wind and solar eventually may move into energy storage as a standalone energy storage ITC – legislation is pending to do so. Other insurance policies are under development to address risks associated with (i) feedstock quality and quantity, (ii) regulatory incentives (RINs and LCFs credits) and carbon capture and either sequestration or use under IRC §45Q for monetizing associated tax credits and reducing CI scores for CARB LCFS credits.
   - ITC/PTC Tax Incentives Extensions occurred through the 2017 Tax Reform Act, 2018 Budget Act, 2019 Tax Act and 2020 Spending Act. In addition – need to provide the 30% ITC to all uses of energy storage, AD Units, nutrient recovery systems, biorefineries for advanced biofuels and manufacturing facilities for renewable chemicals and bio-based products.
   - The 2017 Tax Reform Act provides corporate tax rates at 21% (instead of 35%) through 2022 and 100% first year expensing of capital depreciation costs for equipment purchased after September 27, 2017 through December 31, 2022, when the rate decreases 20% annually through December 31, 2026. These incentives will create interesting structuring opportunities.

# Challenges And Solutions

- Opportunity Zone Funding – New under the 2017 Tax Reform Act. Opportunity Zone Funds are certified investment vehicles that deploy funds into Opportunity Zones that are otherwise eligible for the 20% capital gains tax and "sheltered" under proscribed rules governed by the Department of Treasury. These Opportunity Funds are required to hold at least 90% of their assets in Opportunity Zones. A maximum of 25% of a state, District of Columbia, territories or possessions, low- income census tract (as defined in Section 45 D(e) of the Internal Revenue Code as areas of at least 20% poverty levels) may be designated Opportunity Zones. Investments are eligible for capital gains tax deferral after 5 years and for permanent exclusion after 10 years of keeping those investments in place. These investments can be provided into (a) businesses, such as new technology companies, and (b) projects of all types At present, there are 8764 designated Opportunity Zones. Approximately $6 - $7 trillion currently is available for these funds from income otherwise subject to a 20% capital gains tax. On August 31, 2020, 150 QOZ Funds of $75 billion existed. Twenty-five (25) of these funds specifically are for energy investments. Expect many more funds to be created as IRS issued final rules on December 19, 2019.
- Bio Development Opportunity Zones are being developed to expand QOZs to areas with substantial biomass supplies. The proposal would be to extend the true up period to December 31, 2030, increase the step-up cost basis from 10% - 15% to 30% - 70%. Also, a potential expansion is proposed beyond equity to incentivized loans.

# Challenges And Solutions

3. ***Good News*** – Plenty of funding is available. Bloomberg New Energy Finance in January 2020 report stated that $55.5 billion was invested in U.S. clean energy projects in 2019, or a 28% increase over 2018.
4. ***Bad News*** – These funds are difficult to access and structure.

# Equity, Equity Equivalent And Debt Funding

| | Type of Funding | Corporate-Level Funding | Project-Level Funding | Dilutive ("D") or Non-Dilutive ("ND") |
|---|---|---|---|---|
| 1. | Grants (State and Federal – DOE, USDA, DOT) | ✓ | ✓ | ND |
| 2. | Angel Funding – **5% to 7% ROIs** (including Crowdfunding – **average ROIs 5% to 7%** (as modified in June 2015 by Regulation A-Plus), Foundations and Family Offices – **7% plus ROIs expected** – Prime Coalition, CREO Syndicated, as part of Clean Energy Investment Initiative -- up to $4 billion, Keiretsu – largest - $24 billion annually in angel private placements with 6% to cleantech | ✓ | | D |
| 3. | Venture Capital Equity – **double digit percentage returns in 7 – 10 years**. | ✓ | ✓ | D |
| 4. | Private Equity – **double digit % returns**. $1 billion Breakthrough Energy Coalition Fund and $2 trillion Saudi Arabia Public Investment Fund. | ✓ | ✓ | D |
| 5. | Strategic Equity – **Equity ROI and ownership percentages can be better**. Total acquired Saft for $1.1 billion. Tesla $2.6 billion acquisition of Solar City. | ✓ | ✓ | D |
| 6. | Infrastructure Equity Funds (USDA's four 2x $150 million, $100+ million and $25+ million equity and debt funds through Rural Business Investment Corporations ("RBICs"), project funds and Sovereign Wealth Funds, Macquarie new $675 million renewable energy fund) | | ✓ | D |
| 7. | Opportunity Zone Funding – New under the 2017 Tax Reform Act. Opportunity Zone Funds are certified investment vehicles that deploy funds into Opportunity Zones that are otherwise eligible for the 20% capital gains tax and "sheltered" under proscribed rules governed by the Department of Treasury. On 12/16/19 – 128 QOZ Funds at $41.3 billion. Fourteen (14) of these QOZ Funds are specifically for energy. | ✓ | ✓ | D |
| 8. | State (California, Connecticut, Hawaii, Illinois, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New York, Washington) and Federal Green Funds, State Revolving Funds – **Debt, Grants, No Equity** | | ✓ | ND |
| 9. | International Green Funds (Australia, Brazil, Canada, Caribbean Energy Security Initiative ($20 million US fund), European Investment Bank, India, Malaysia, UK) – **Debt, Grants, No Equity** | ✓ | ✓ | ND |
| 10. | Tax Equity – ITCs, PTCs, Bonus and MACRs Depreciation and NMTCs | | ✓ | Initially D to later ND |
| 11. | Sponsor Equity – Project Developers, Hedge Funds, YieldCos, EB-5 funding and Opportunity Zone Funds | | ✓ | D |
| 12. | Portfolio Equity - MLPs/ REITs/ YieldCos | | ✓ | D |

# Debt

## B. ***Debt – Government Loan Programs***

1. DOE

i. Title 17, Section 1703 (commenced in 2005) (Time to Closing: 12 to 24 months)

a. Uncapped Federal Finance Bank/Treasury Department ("FFB") loans credit enhanced by DOE loan guarantees. Many new and unique renewable, clean fossil and nuclear technologies are able to be funded. Alternative Fuel and Electric Vehicle recharging infrastructure are included for such funding.

b. New Facility Plan for multiple (10, 20, 30, projects) smaller projects – like a credit line to draw approximately 3.5% to 4% fixed/30 year funding for approximately 70% of total project costs. Need commonality to make multiple projects appear to be one – like one offtaker or a couple similarly investment grade or near investment grade credit-rated offtakers. Wind and solar can participate with energy storage or alone with demonstrable new technologies and/or energy efficiencies/savings.

c. Senior debt amounts of up to $4.5 billion are available in Renewable Energy and up to $8.5 billion similarly is available in Advanced Fossil Energy Programs – DOE extended the rounds through January 30, 2020. Borrower pays fees to DOE throughout the process. The program continues to operate through February 16, 2022.

# Debt

ii. Tribal Energy (commenced July 2018)

a. Provides $2 billion for tribal energy projects of all types involving federally-recognized tribes and Alaska tribal corporations. Projects need not be on tribal lands. Fees payable to DOE are nearly 95% less than those in 1703 and reimbursable through loan proceeds. The program has been expanded to Tribal and private sector joint borrowers. The program continues to operate through February 16, 2022.

iii. Potential changes for Title 17 Loan Guarantees:

a. Move all borrower fees to financial closing and make them recoverable from loan proceeds, as today they are not and also are not counted as equity.

b. Increase entry to the Program through air pollutant reduction in addition to CO2 emission reductions – recently accomplished.

c. Cap the credit subsidy payment at 3%.

d. Reduce the time to closing to 6 months.

e. Enable the use of short term contracts and merchant arrangements by using various hedging mechanisms to protect debt service payments so that defaults do **not** occur under loan agreement covenants which would invoke the loan guarantee overlying the loan.

# Debt

2. USDA

a. Section 9003 of Farm Bill (commenced in 2008) (Time to closing – 8 months) – Integrated Biorefineries – $250 million of Senior Debt per projects with 60% - 80% coverage generally for 20 year terms. Energy Storage Systems only would receive financing if integrated into renewable electricity built into the biorefinery. Approximately $1.5 billion remains available. New rule, effective October 1, 2020, requires 120 days of Integrated Demonstration Unit data before Conditional Commitment is executed.

b. Section 9007/REAP of Farm Bill (commenced in 2008) (Time to closing – up to 6 months) – $25 million of Senior Debt – can stack 9007/REAP and B&I together. More than $400 million is available annually. New streamlining rules makes 9007/REAP and B&I work very similar. Now permitted are the following: (i) 80/20 Debt/Equity ratio from 75/25, (ii) previously unguaranteed construction loans can be guaranteed if lender pays USDA ½% of such loan, (iii) potentially, 9007/REAP's closing and annual fees will reduce B&I's such fees to 1% from 3% and ¼% from 1/2%, respectively, and (iv) B&I's balance sheet equity test is removed.

# Debt

c. Business & Industry ("B&I") Program (commenced in 1972) (Time to closing – up to 6 months) – $25 million of Senior Debt – can stack B&I and 9007/REAP together. More than $1 billion is available annually.

d. "Rural" (<50,000 person) site requirement for 9007/REAP and B&I, but not for 9003.

e. Rural Utility Service ("RUS") Program For Electricity (commenced in 1935) – direct uncapped FFB loans with unlimited available funding at 12.5 basis points over Treasuries (0.66% on 10 year, 1.201% on 20 year and 1.414% on 30 year Treasuries on September 28, 2020) for shorter of PPA term or 35 years with two models: 100% corporate finance v. 75% project finance. Electricity sale only program (storage integrated into power unit qualifies) with sales into rural areas of 20,000 or less persons by cooperatives, municipalities and qualified utilities. No rural site requirements.

f. Energy Efficiency and Conservation Loan Guarantee Program (commenced in 2014) – uncapped 15 year direct FFB loans with unlimited available funding for energy storage and energy efficiency projects at Treasury interest rates for projects in less than 20,000 person areas.

# Debt

g. Fees are not payable to USDA until closing in the amounts of 1% to 3% and annually at ¼% to ½%, depending on the program.

h. USDA has “streamlined” its rules for 4 of its programs – two in Rural Development – 9007 and B&I and two in RUS effective October 1, 2020. The 9007 and B&I may look very similar in application at what was the expected May 5, 2019 final rule issuance, effective 60 days thereafter.

   – Could make B&I work like 9007/REAP in 3 important areas:

      1. An equity test of 20% of total projects costs v. 25% of balance sheet equity
      2. Reduce closing fees from 3% to 1% and annual fees from ½% to ¼%
      3. Hoped for: eliminate the 2 cycles (up to 24 days per cycle) requirement for biofuels and one cycle (up to 24 days) requirement for biopower to then take out the construction loan with the guaranteed loan for permanent financing. Instead received: guaranteed construction loans if lender pays USDA ½% which cannot be passed through to the borrower.

# Debt

i. Rural Business Investment Companies (“RBIC”) – allows companies to access companies in the USDA’s Farm Credit Agency for loans/equity into funds for loans and investments. Current RBICs are $25 million, $100 million and two at $150 million in 4 funds to date – use for one’s projects. 75% of these investments and loans are made into “Rural Business Concerns,” or enterprises whose principal office is in areas of less than 50,000 persons.

# Debt

3. SBA
    a. Small Business Loans.
    b. Small Business Innovation Research (SBIR) – Grants.
    c. Small Business Investment Corporations (SBICs) – Preferred Equity.
4. HUD
    a. Section 108 (for electricity) loans, loan guarantees and block grans.  100% loans can be interim (for no fixed time) at 20 basis points over 3 months LIBOR (variable) (0.22% on September 28, 2020) or permanent for up to 20 years (fixed) at 20 – 50 basis points over 10 year Treasury rate (0.66% on September 28, 2020).

# Tax Incentives

## C. ***Tax Incentives***

1. H.R.3301 – the Taxpayer Certainty and Disaster Relief Act of 2019 (the "2019 Tax Act") (enacted December 20, 2010)
   a. Extends the current production tax credit (PTC) for wind for an additional year from 2019 to 2020. In this regard, the 2019 Tax Act extends the wind PTC for facilities the construction of which begins during 2020 at a rate of 60% of 2.3 cents per KWH. Under prior law, the PTC for wind facilities phased down to 40% for facilities for which construction began in 2019 and to 0% for facilities for which construction began in 2020. Interestingly, the Bill leaves in place the phase down at 40% for facilities that began construction in 2019, despite increasing it to 60% for 2020.
   b. In addition, the Act retroactively extends the PTC for other renewable energy facilities including geothermal, biomass, landfill gas, and certain hydropower and marine hydrokinetic for which construction begins before January 1, 2021. Under the new law, taxpayers alternatively may elect to claim a Section 48 investment tax credit (ITC) of 18% (which is 60% of the original 30% ITC value) in lieu of the PTC.

# Tax Incentives

2. H.R. 1865 –the “Further Consolidated Appropriations Act of 2020”(enacted December 20, 2019)(“2020 Spending Act”)—extends:
   a. the $1.00/gallon biodiesel and renewable diesel for 5 years retroactively to January 1, 2018 and forward to December 31, 2022;
   b. the statute also included a 3-year extension of four key biofuels credits — retroactively for 2018 and 2019 and through the end of 2020. The four credits are:
      – Second generation biofuel producer credit (a/k/a the cellulosic ethanol credit)--$1.01/gallon
      – Alternative fuel mixture credit--$0.50/gallon (for CNG including renewable natural gas)
      – Alternative fuel refueling property credit (capped at $30,000 per commercial property and $1,000 per residential property)
      – Second generation biofuel plant property depreciation allowance (Additional first year 50% bonus depreciation for cellulosic biofuels)
      – Need to expand the 30% ITC to biogas and nutrient recovery systems (as H.R. 3744 would have done in 2019), if not to bioeconomy projects generally

# Tax Incentives

3. Renewable Energy Tax Incentives require extension at the Federal level for those not addressed adequately in the 2019 Tax Act and 2020 Spending Act. Thus, required Government Action includes the following:
    a. Expand the 30% ITC for all forms of energy storage use as part of any future near term tax legislation: (i) integrated into solar and wind, (ii) independent of solar/wind and grid and (iii) integrated into the grid. Senator Heinrich (D-NM) (S.1142) and Representative Bushmore (R-FL) (H.R. 2096) in Summer 2019 reintroduced "The Energy Storage Tax Incentive and Development Act" which would accomplish this full use of energy storage for the 30% ITC in a standalone tax incentive under IRC Sections 48 and 25D. States must become more aggressive with the development of tax and non-tax incentives, like the state of Maryland with its comprehensive 30% ITC for all uses of commercial and residential energy storage.
    b. Extend the solar 30% ITC, Section 45Q credits for carbon capture and sequestration/use, and energy credits for offshore wind facilities. These extensions, plus a further extension for onshore and offshore wind, are being proposed in new legislation to be introduced in early 2020. Representative Tom Reed also is to introduce a new tax credit for "first of a kind technologies" called the Energy Sector Innovation Credit. That said, a tax bill passing in an election year will be an uphill battle.

# Tax Incentives

4. R&D Tax Credit permanently established in December 2015 Tax Extenders portion of Omnibus Appropriations Act.
5. Prepaid PPAs and other such contracts, whereby the buyer prepays for part or all of the commodity and the seller reports the income over the time the goods are delivered, are now prohibited under the 2017 Tax Reform Act. That said, states, such as Florida and New York, are allowing prepaid PPAs.
6. Mandatory Repatriation – Approximately $2.6 trillion is parked off shore in US-owned holding companies. Under the 2017 Tax Reform Act, all post-1986 “net earnings and profits” are subject to a repatriation tax of 15.5% for cash/cash equivalents and 8% for illiquid assets. These taxes are payable over 8 years at 8% per each of the first 5 years commencing in 2017, 15% in year 6, 20% in year 7 and 25% in year 8. The Treasury could use these funds for various opportunities such as energy and other infrastructure funding.

# Project Financing Structures

## D. ***Project Financing Structures***

1. Project Financings are non-recourse debt and equity fundings that traditionally require long term purchase and sales agreements like 10 year plus PPAs for electricity or offtake agreements for fuel sales to assure the coverage of debt service payments to the lenders. "Non-recourse" means that the projects assets (including equipment and cash-flowing contracts) collateralize the loan without corporate and/or personal guarantees.
2. Bioeconomy transactions have challenges in that very few have been project financed outside of biopower and renewable natural gas (RNG) projects (as few bioeconomy projects have large sponsors with strong balance sheets and more than 90% of the developers do not have an investment grade credit rating) and many are first or early stage commercial technology project financings with many risks.

# Project Financing Structures

3. First commercial technology projects can be structured as:
    a. 100% equity depending on their size and back-levered with debt after some operational period following project COD.
    b. Opportunities exist for debt financing in a first commercial technology project financing, depending on the reduction of risks and credit enhancement of the commercial loan or corporate debt/bonds on potentially one of the following debt/equity ratios—(i) 70/30, (ii) 60/40, (iii) 50/50, (iv) 40/60, something else. Similarly, a more significant debt percentage may be reserved only for project financing project #2 and beyond for the same technology.
    c. Banks and other lending institutions may require balance sheet items such as corporate and/or personal guarantees making the financing more of a recourse-based corporate financing in the funding of a first commercial project. Similarly, with the right credit enhancement to protect debt service payments such as government loan guarantees, technology insurance policy wraps, revenue protection credit hedges (like Allianz Risk Transfer for wind and Energetic Insurance for commercial solar), long term (10 year equipment warranties), etc., they might provide debt finance on a non-recourse basis secured by the project equipment and revenue generating agreements. Predictable revenues are a must for lenders to finance.

# Project Financing Structures

## E. ***Other Project Financing Mechanisms***

1. **Credit Enhanced Project Company Bonds** – taking non-investment grade project company debt to investment grade with loan guarantee/insurance wraps. 150 – 200 basis points over approximately 1.201% (for 20 year) and 0.66% (for 10 year) Treasury rates (as of September 28, 2020) plus a small percentage spread) for the credit enhanced portion of senior debt – sell the corporate debt/project company bonds to institutional market. Low cost/long term financing that we invented and obtained our 1st financial closing 10 years ago.
2. **Green Bonds** – As of January 20, 2020, the Climate Bond Initiative reported that more than $773 billion green bonds have been issued globally with more than $185 billion issued in 2019. By December 31, 2020, it projects that more than $1 trillion green bonds may be issued globally.

# Project Financing Structures

3. **Insurance Policies –**

   a. To wrap technology risk, protect revenue streams, provide floors on offtake agreements.

   b. Allianz Risk Transfer has a 10 year wind revenue hedge with an annual fixed payment to provide revenue certainty. May be provided beyond wind projects.

   c. Energetic Insurance, backed by Scor Global P&C, has developed a 10 year commercial solar revenue insurance policy to project developers against payment default in C&I transactions. May be provided for solar + storage projects.

# Project Financing Structures

d. A new technology protection policy is available at up to10 years with a reasonable upfront, one-time (versus an annual) premium of 5% to 15% of the loan amounts, depending on technology risk level, amount of loan protected and length of the policy. In the event of a technology glitch that affects debt service payments, the insurance will pay debt service while a Tracking Account provides the insured an interest free loan of up to $100 million to resolve the problem expeditiously. Underwriting can require up to 120 days. It would wrap technology risk and credit enhance project loans or bonds. This technology insurance shortly may protect each of debt service and equity return payments.

   In December 2017 and April 2018, it was used to wrap such technology risk and tax exempt municipals bonds (with coupon rates below 6%) for first-time closings of project financings for the initial two ever/first commercial biojet projects, each along with $70 million U.S. Navy grants, respectively. Kilpatrick participated in each of these financings. Additional first commercial biojet and energy storage project financing closures are imminent with this unique insurance protection financing mechanism.

# Project Financing Structures

e. Project warranties – 2 to 3 year product warranties from credit-rated suppliers are being extended to 10-year warranties and paid for by developers. They have become the market standard to mitigate technology risk particularly for energy storage.

f. Kilpatrick is working with major insurance companies to create a “Regulatory Risk Protection” Insurance Policy to protect debt service payments and equity returns initially in the event of a significant impairment or elimination of RINs and/or LCFC credits by Federal and/or State governments for renewable fuel projects. Such a policy should protect buyers and sellers under offtake contracts and eliminate the need for “reg-out” provisions in such agreements. It could be extended to similarly protect state RECs and carbon credits and the federal CCU and CCS credits from government impairment or termination in the energy storage and renewable power areas.

g. Need a cyber security insurance protection policy as Property and Casualty and Business Interruption Insurance Policies do no adequately cover this emerging significant risk.

# Project Financing Structures

h. CCS injected into geological formations is being used to reduce CI scores (as is animal waste processed RNG, solar and/or wind) especially for liquid advanced biofules. CARB is requiring long term (up to 99 year) assumption of liability to permit this CI reduction. Insurance is needed to protect this liability assumption. Kilpatrick is working with major insurance companies to develop this IRC Section 45Q/CARB protection insurance to protect LCFS values increased by reduced CI scores. Also, reduce CI scores with wind/solar power projects and/or RNG into liquid fuel operations.

i. Kilpatrick is working with major insurance companies to develop Feedstock Insurance to protect against the risks of quality changes or quantity short falls in feedstock.

# Project Financing Structures

4. **Project Capital Stacks** – structured to reduce sponsor equity, with funds from EB-5, NMTCs, subordinated debt, state and federal grants, New Opportunity Zone Funds, etc. The 2020 Spending Act provides $5 billion for NMTCs for calendar year 2020 and extends for one year, or from 2024 to 2025, the carryforward period for unused NMTC allocations.
5. **International Debt** – US Ex-IM, OPIC (which became the new IDFC on September 30, 2019 with a new $60 billion and the availability of equity as of December 20, 2020 with the enactment of the 2020 Spending Act), TDA – other Export Credit Agencies and Multilateral Development Banks.

# Project Financing Structures

6. **Project Level** – New 100% Debt Credit Finance Facility – no equity required; thus, no company ownership dilution.
    a. Requires Investment Grade Credit Rated Product Offtakers and/or Performance Guarantee Providers with these contracts/guarantees equaling the term of the loan. Insurance Products can wrap required minimum % "take or pay" (i.e., "hell or high water") provisions to pay debt service under the negotiated payment terms. Also, there are no liens on any of the assets. Further, all retainers and closing points are "baked into" the 6% interest rate for the lender. The lender has done $4 billion of these transactions over the past 28 years outside of the energy, chemical and biobased product industries. The funds come from pension funds, insurance and other institutional investors. Two large biojet first commercial projects and one geothermal project may represent the first ever energy closings with these funds.
    b. Another Fund – has similar loans requiring take or pay offtakes, but not from investment grade offtake with a "Hell or High Water" provision. All-in 7% to 12% interest rate plus a 25% carried equity interest.
    c. 100% Debt through a Credit-Tenant-Lease Structure – provides up to 100% debt secured by long term (up to 20 years) technology risk insurance and insurance finance guarantee for the term of the loan.

# Project Financing Structures

**7. Project Level Working Capital Loans –**

a. Asset Management Company – loans secured by appraised assets convert to sub debt at project financial closing up to 7 years. Lender takes 1st lien in collateral while loans are working capital and changes to 2nd lien position on conversion at project financial closing. Mezzanine interest rates – 9% - 13%, that enables developer borrower to raise funds for project development on non-dilutive basis. Consider purchasing a significant piece of project equipment in advance of project financial closing (with a small deposit from the working capital loan and a promissory note for the balance) to secure the working capital loan, where the developer does not already have assets for security.

b. Private Equity Company – $500,000 – $10 million loans ($150 million fund) – loans – 9 – 13% to closing equity 2 – 13%.

c. Private Equity Fund – Bridge loans of $3 million to $5 million (also do investments at Holding Company and project levels in sweet spot of $25 million - $75 million).

# Project Financing Structures

8. **Parent Company Level Loans** – New developing loan fund of $250 million which would lend up to $10 million for up to 10 years at a flat 10% interest. The loan would be secured by cash flowing contracts. The funds are loaned solely to the parent company and can be used by the parent company as equity at the project level and/or working capital at the parent level. This group has a second fund for project level financing.
9. **Revenue Shortfall Funds** – up to $50 million of funds annually per project at 12% interest for revenue shortfalls caused by nonperformance of new technology in initial commercial projects. These funds should interest lenders and equity providers, as they protect debt service payments and rate of return/dividends, respectively. These funds protect such shortfalls from technology risks and not from risks caused by pricing or other commercial shortcomings. They represent liquid funds immediately available versus insurance that can take sometime to pay out. This group possibly can bring working capital to the transaction.

# Project Financing Structures

10. **Smaller projects** – use all equity to close quickly and construct and, after one year of performance, then project finance the facility “selling” down equity to a 70/30 to 80/20 debt/equity model on better terms with lenders. This approach is similar to “back-levering” solar power projects as tax equity participants, requiring first liens on project assets, exit such projects**.**
11. **Revolvers** – Use Debt and/or Equity revolvers for construction to build projects, move funds back into the funds by replacing with other funds and put the revolver funds back to  use to build the next project, and continue the process.

# Project Financing Structures

12. **Tax Exempt Municipal Solid Waste Bonds –** low coupon rates for maturities out to 30 years for senior debt and shorter maturities for construction loans. To qualify, 65% of feedstock must be solid at ambient temperature (approximately 68 degrees Fahrenheit). Qualified solid waste means the processing of solid waste in (i) a final disposal process (e.g. a landfill), (ii) an energy conversion process and (iii) a recycling process. Energy conversion processes lead the muni tax exempt financings for renewable natural gas and hydrogen, sustainable aviation fuel, renewable diesel, renewable chemicals, and biobased products to name many of the potential end products.

# Project Financing Structures

## *F. Conclusion*

## Locations

# Counsel to innovative companies and brands around the world

We help leaders create, expand, and protect the value of their companies and most prized assets by bringing an equal balance of business acumen, technical skill, and creative thinking to the opportunities and challenges they face.

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