Renewable Power Project Finance
Debt Structuring

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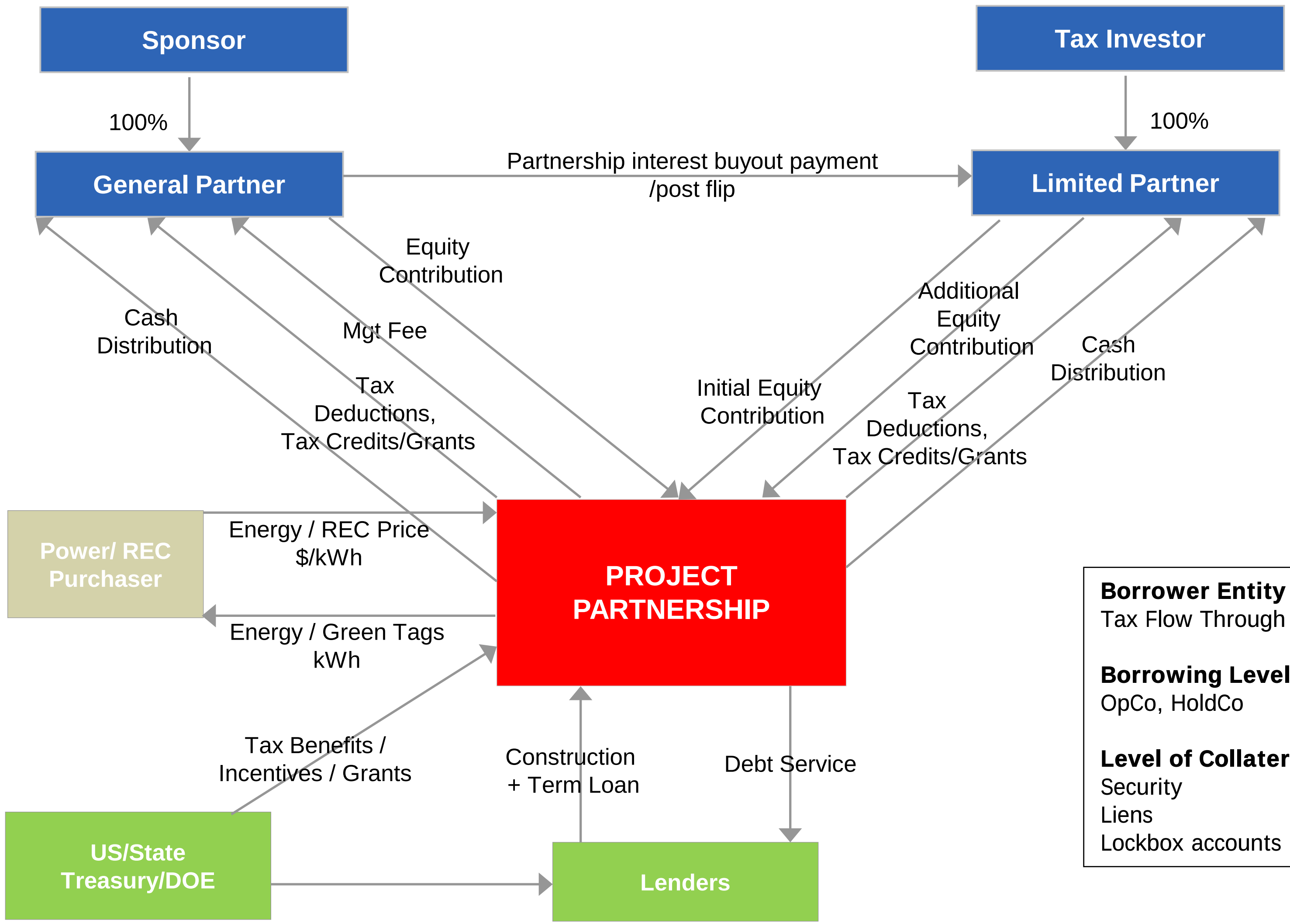
Infocast Project Finance Tutorial
New York, NY
September 9, 2011

Agenda

- Project Structure
- Debt Terms
- Project Cost
- Cash Flow Waterfall
- DSCR and Debt Sizing
- Closing and Term Conversion Conditions
- Subordination
- Multitranche Debt Structures
- Intercreditor/Subordination Agreements

Project Structure / Flow of Funds



Borrower Entity
Tax Flow Through

Borrowing Level
OpCo, HoldCo

Level of Collateral
Security
Liens
Lockbox accounts

Debt Terms – Wind Project Example

	Bank Market	Institutional Market
Max Amount	Based on 1.0x DSCR in Low Case	Based on 1.0x DSCR in Low Case
Maturity	5 - 18 years	20+ years
Interest	LIBOR plus [2.00% - 2.25%] with periodic step-ups of 0.125% - 0.25%	US Treasury + [4% - 5%] fixed
Fees	2.00%-2.25% upfront [25-50 bps less for Grant Bridge Loan] 0.5% on undrawn amounts $50-100 K annual admin fee	Lower than bank market
Amortization	Semi-annual schedule commencing six months from Financial Close; sculpted to attain Base Case DSCR	Semi-annual schedule commencing six months from Financial Close; sculpted to attain Base Case DSCR
Target DSCR	1.30x Min / 1.40x Average	1.30x Min / 1.40x Average
Reserve Accounts	▪ 6 month Debt Service Reserve ▪ 6 month O&M Reserve ▪ Non-Routine Expenditure Reserve (subject to IE review) ▪ Distribution Reserve (subject to 1.20x min DSCR)	Similar to bank market
Customary Covenants	▪ All project cash goes to “lock box” account and distributed subject to lender approval and agreed payments waterfall ▪ PPA “Tail” 1-2 years after debt maturity ▪ EPC/BOP with acceptable credit support ▪ 2-5 years performance guarantee with acceptable credit support ▪ Full security package ▪ LIBOR Swaps	▪ All project cash goes to “lock box” account and distributed subject to lender approval and agreed payments waterfall ▪ May not need PPA “Tail” – may take some residual risk ▪ EPC/BOP with acceptable credit support ▪ 5 years performance guarantee with acceptable credit support ▪ Full security package ▪ Prepayment penalty

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Total Capital Cost

- Total capital cost of a project that is financed include
  - EPC
  - BOP
  - Development Fee
  - Interest During Construction (IDC)
  - Financing Fees
  - Closing Costs
- Capitalization of Costs During Construction
  - Monthly Drawdowns
  - Interest on interest
  - Commitment Fees

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Cash Flow Waterfall

Revenue	
Energy/Capacity Revenue/Env. Credits	Operating Account
Oper. Expenses	
Fuel/O&M/Admin/Leases/Prop Taxes	
Operating Income/EBITDA	
WC Replenishment	
Cash Available For Debt Service	
Interest Payments	
Principal Payments	
Cash Available For Reserves/Prepayments	
DS Reserve Conditions	DS Reserve Account
O&M Reserve Conditions	O&M Reserve Account
Mandatory Prepayments	
Cash Available for Distribution	
Distribution Condition	Distribution Reserve Account
Cash Distribution to Equity	

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DSCR Analysis

- DSCR = CADS/TDS
- Base Case DSCR – Term and Step Ups
- Max Debt Amount – Base Case DSCR vs. Breakeven DSCR
- Credit Drivers
- Actual vs. Assumed Amortization (for Mini perm)

Production Estimates for a Wind Project

Probability of Exceedance	Net Energy Output (GWh/Year)		Net Capacity Factor		Net Capacity Factor Discount from P50	
%	1 Year Average	10 Year Average	1 Year Average	10 Year Average	1 Year Average	10 Year Average
99%	242	281	27.5%	31.9%	22.8%	10.3%
95%	257	290	29.2%	32.9%	18.1%	7.5%
90%	270	296	30.6%	33.6%	13.9%	5.7%
75%	291	305	33.1%	34.7%	7.0%	2.6%
50%	313	313	35.6%	35.6%	0.0%	0.0%

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Debt Sizing Example

YEAR		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cash Avail For Debt Srv		22.4	23.1	23.4	23.7	24.1	24.8	25.1	25.5	25.9	26.6	19.9	20.3	20.7	21.1	21.5	21.8
Interest		9.6	9.3	8.9	8.5	8.1	7.6	7.0	6.3	5.7	4.9	4.0	3.4	2.8	2.1	1.3	0.4
Principal		4.6	5.3	6.1	6.8	7.5	7.8	8.8	9.8	10.7	12.1	7.8	8.6	9.6	10.2	11.3	5.2
Total Debt Service		14.3	14.6	15.0	15.3	15.6	15.3	15.8	16.1	16.4	17.0	11.7	12.0	12.3	12.3	12.6	5.6
Actual DSCR	**1.76**	1.57	1.59	1.56	1.55	1.55	1.62	1.59	1.58	1.58	1.57	1.69	1.68	1.67	1.72	1.71	3.87
Target DSCR	**1.46**	1.40	1.40	1.40	1.40	1.40	1.45	1.45	1.45	1.45	1.45	1.50	1.50	1.50	1.55	1.55	1.55
Loan Amort	**100.0%**	3.5%	4.0%	4.6%	5.1%	5.6%	5.9%	6.7%	7.4%	8.1%	9.2%	5.9%	6.5%	7.2%	7.7%	8.6%	4.0%
BOY Loan Balance		132.0	127.4	122.1	116.0	109.2	101.8	94.0	85.2	75.5	64.8	52.7	44.9	36.3	26.7	16.5	5.2
EOY Loan Balance		127.4	122.1	116.0	109.2	101.8	94.0	85.2	75.5	64.8	52.7	44.9	36.3	26.7	16.5	5.2	-

Loan Avg. Life 9.17

CP to Financial Close

- Execution of the Partnership Agreement and equity commitment documentation; Execution of all financing documentation, including security documentation.
- All permits and government approvals for construction and operation of the project are final and non-appealable.
- Acceptable equipment/performance warranty.
- Independent Engineer report confirming production estimates, technology, design, engineering, construction, EPC/BOP contracts, O&M and warranty assumptions.
- Attainment of Base Case and Break Even DSCR.
- Insurance Consultant on the adequacy of Project insurance policies.
- Phase 1 Environmental Site Survey and any necessary additional work required to satisfy Lenders that there are no environmental liabilities.
- A review of the adequacy and reasonableness of the Project agreements.
- Customary legal opinions.

CP to Term Conversion

- Absence of any Event of Default or inchoate Event of Default.
- Achievement of substantial completion under the EPC/BOP, satisfactory completion of acceptance and reliability tests.
- Commencement of commercial operation under the PPA.
- A certification of the Independent Engineer as to the overall completion of the Project and its ability to perform according to the Base Case assumptions and the requirements under the PPA.
- Confirmation of the liens in favor of the Agent.
- Customary legal opinions and certifications by the Borrower.
- Funding of the equity commitments.

Subordination

What is Subordination?

- Placement of a creditor or group of creditors in a lower priority for the collection of debt from a debtor, either generally or from specified assets, as compared to another creditor or group of creditors.
- Subordination can take place by the transaction structure (structural subordination) or by agreement among the creditors (contractual subordination).
- Important if a debtor has more than one creditor but is unable to pay them all in full.

Types of Subordination

- Structural Subordination
  - Subordination by lending to holding company instead of operating company (Opco/Holdco)
- Contractual Subordination
  - Subordination by agreement among two or more creditor classes with respect to a borrower.
  - Generally creditor classes are all secured.
  - Subordinated secured debt goes by different names such as Second Lien Debt, Junior Secured Loans, Tranche B, Term B Loan.

Reasons for Multitranche Debt Structures/Subordination

- Different creditor classes have different lending terms
  - Bank lenders – variable interest rate/shorter term
  - Institutional lenders – fixed interest rate/longer term
- Senior secured lenders may require limit on senior secured debt lower than optimum debt capital needs of borrower
  - Senior debt limit may be necessary to achieve desired credit rating
- Some lenders desire higher interest rate yield but cannot be unsecured
- Different types of creditors may desire first lien/second lien in different assets to match their credit exposure
  - e.g., working capital lenders get first lien on current assets (such as receivables)
- Subordinate debt can be equity substitute (e.g., affiliate debt)

Multitranche Debt Structures

- First Lien/Second Lien
- Opco/Holdco
- Tranche A/Tranche B
- Lien Sharing with Hedge Providers

Multitranche Debt Structures

- First Lien/Second Lien
  - First lien lenders are senior; get first priority lien in all assets
  - Second lien lenders are subordinate; get second lien in all assets
  - Benefit:
    - Easier to attract lenders because get lien in project assets, with higher interest yield
  - Detriment:
    - Must negotiate intercreditor/subordination agreement, adding cost and potential delay

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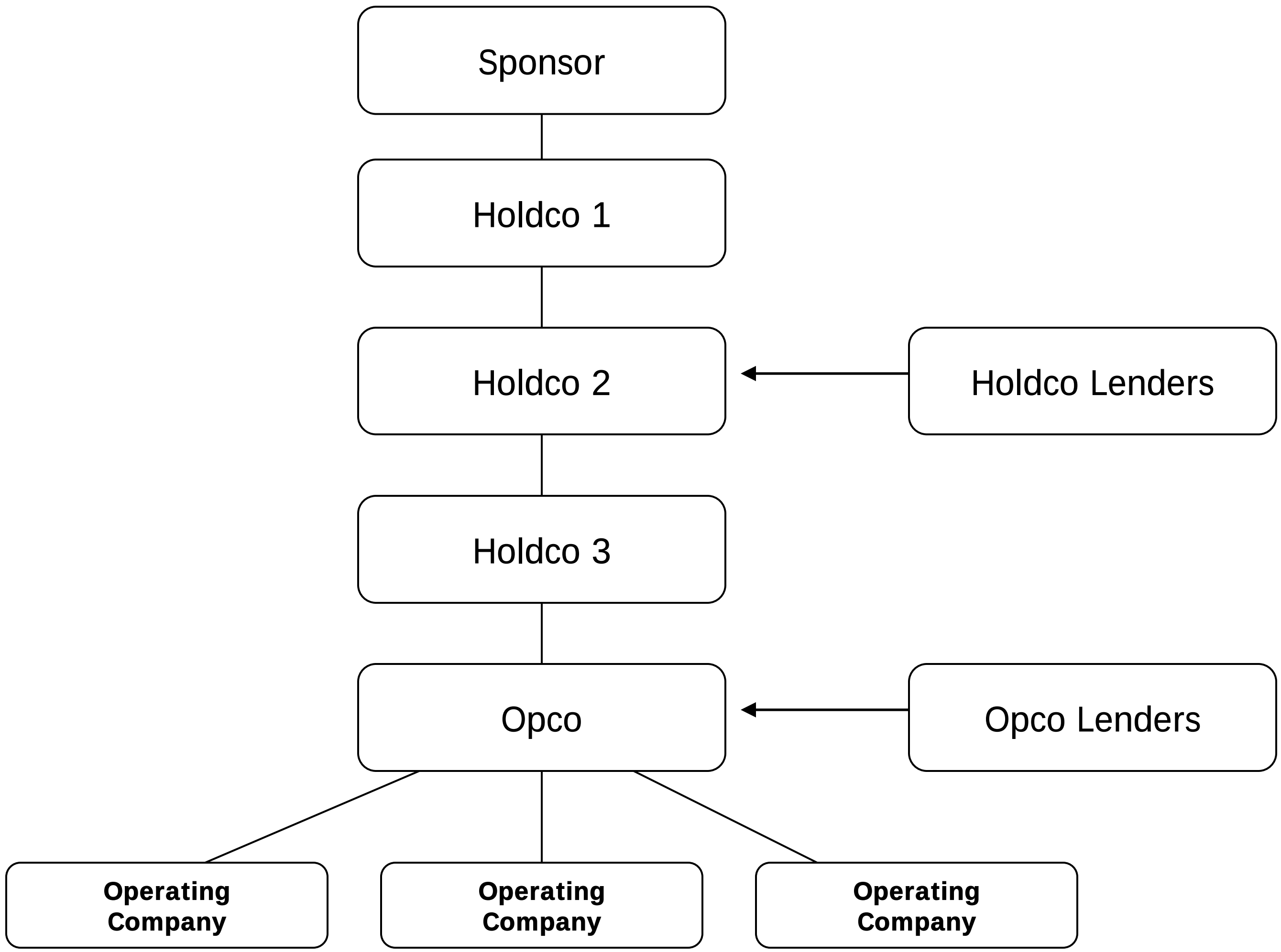
Multitranche Debt Structures

- Opco/Holdco
  - Subordination by lending to holding company instead of operating company
    - Places lenders at least one step away from cash flow and operating assets of operating company
    - No lien in project assets, just in Opco equity
  - Secured and unsecured creditors at operating company would be paid prior to holding company debt
  - Unless holding company has own operations, payment would be primarily from equity interests in and dividends from operating company
  - Popular prior to credit meltdown, but difficult now

Opco/Holdco Example



Multitranche Debt Structures

Opco/Holdco

- Benefit:
  - No intercreditor or subordination agreement required (but not always)
- Detriment:
  - Subordinate not just to secured operating company lenders but also to unsecured operating company lenders and trade creditors
  - Can mitigate through limits on operating company debt and operations

Multitranche Debt Structures

Tranche A/Tranche B Facilities

- Liens are shared on pari passu basis as between Tranche A and Tranche B
- Tranche A typically banks, while Tranche B typically institutional lenders (fixed rate)
- May involve subordination of Tranche B through payment waterfall
  - Payment on Tranche B debt service comes after payment on Tranche A debt service in payment waterfall (sometimes limited to Tranche B principal payments)
  - Sometimes, payment subordination does not apply in foreclosure waterfall (i.e., to application of collateral proceeds obtained through foreclosure on collateral)

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Multitranche Debt Structures

Lien Sharing with Hedge Providers

- Commodity Hedge Providers (fuel, power) permitted to share in first lien
- Issues re hedging exposure/voting because of value fluctuation
  - Commodity hedge exposure capped at dollar amount or at maximum term (5 to 7 years)
  - Voting minimum (20%) and maximum (49%) for hedging counterparties

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Intercreditor/Subordination Agreements

- Can be among most difficult of documents to finalize
  - Densely drafted, with little boilerplate, so every provision has potential significance
  - Many issues are legal/technical in nature, with heavy bankruptcy emphasis, so more difficult to understand and explain to business persons
  - Can be difficult to indentify what are market provisions because each deal often unique
- Borrower is largely disinterested in terms, except
  - to minimize restrictions on changes to senior debt and subordinate debt (e.g., principal amount, interest rate, covenants)
  - to make sure agreement is reached among the lenders so financing can close
- Some forms of Intercreditor Agreements exist
  - ABA Model Intercreditor Task Force developed a model form for First Lien/Second Lien credit facilities
  - Common forms have been developing for project finance transactions
    - E.g., intercreditor agreement for power plant project financings between lenders and commodity/interest rate hedge providers

Interests of Senior vs Subordinate Lenders

- Senior Lenders' Interests
  - Want to control remedies, including timing
  - Do not want to be forced into foreclosure or bankruptcy by Subordinate Lenders
  - Want to control sales/releases of collateral, including in work-out
  - Want flexibility to provide borrower with additional secured financing (including Debtor in Possession (DIP) financing) without having to deal with Subordinate Lenders
  - Overall, keep the Subordinate Lenders in a silent position

- Subordinate Lenders' Interests
  - Want ability to preserve value in the collateral after payment of senior debt
  - Control over collateral and remedies
  - Control over sales/releases of collateral
  - Control over foreclosure/bankruptcy
  - Want to preserve rights as secured creditor in bankruptcy
  - Want option to buy-out senior debt as ultimate fail-safe protection

Common Issues in Intercreditor/Subordination Agreements

- Lien vs Debt subordination
- Amount/Scope of Senior Debt
- Blockage of Payments on Subordinated Debt
- Relative Lien Priorities (effect of invalid lien)
- Remedies Standstill
- Amendments to Senior/Subordinate Debt Documents
- Subordinate Lenders' Purchase Option of Senior Debt
- Bankruptcy Issues

Bankruptcy Issues

Bankruptcy issues can be the most heavily negotiated but also can be most difficult to understand

- Senior Lenders will want maximum control over borrower bankruptcy
- Subordinate Lenders will want to preserve as many rights as they can as a secured party and prevent sale of collateral for less than FMV
- Bankruptcy Code provides for intercreditor/subordination agreements to survive bankruptcy and remain enforceable

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Bankruptcy Issues (continued)

List of Typical Bankruptcy Issues

- Ability of Subordinate Lenders to file involuntary bankruptcy petition against borrower
- Waiver by Subordinate Lenders of “adequate protection” rights, including in connection with use of cash collateral and sales of collateral
- Consent by Subordinate Lenders to “debtor in possession” financing (but subject to cap)
- Limits on Subordinate Lenders’ rights to vote on plan of reorganization or liquidation contrary to Senior Lenders
- Limits on Subordinate Lenders’ rights to request relief from automatic stay to permit exercise of remedies

Alyra Renewable Energy Finance LLC

A firm imbued with a singular focus and rich experience in renewable energy, Alyra provides financial advisory services exclusively to the renewable energy sector. The firm specializes in acquisitions, joint ventures, structured tax equity and project finance transactions and typically represents strategic investors in such transactions. Clients include the leading energy companies and institutional investors in North America and Europe.

Alyra was founded in January 2004 by Mohammed Alam, following his energy banking career with Fortis Capital Corp. where he led a range of origination, structuring and restructuring of renewable and conventional power transactions. Before Fortis he worked at GE Capital Markets Group, GE's internal investment banking group, performing investment structuring and financial advisory in Latin American energy and infrastructure transactions. Earlier, he began his finance career at Brown Brothers Harriman, focusing on emerging markets research.

Mr. Alam is involved in supporting clean energy growth through his roles in the public bodies and advocacy. In December 2010, Mr. Alam was appointed by U.S. Commerce Secretary Gary Locke as a member of the Renewable Energy and Energy Efficiency Advisory Committee, to advise the U.S. Commerce Secretary on issues related to the global competitiveness of the U.S. renewable energy industry. In March 2011 Mr. Alam was part of the Antarctic Renewable Energy Expedition, led by polar explorer Robert Swan, OBE, and his environmental advocacy organization, 2041.

Mr. Alam holds a Master's degree in Public and Private Management from the Yale School of Management where he was one of three recipients in his class for the Scholastic Excellence Award. He also holds a Bachelor's of Science degree, summa cum laude, from the University of Massachusetts, with various scholastic and leadership honors and distinctions, including the valedictorian nomination. Mr. Alam frequently speaks at major international energy conferences and is an author of published articles for leading energy publications.

RECENT ENGAGEMENT HIGHLIGHTS

- Exclusive Advisor to Spinnaker Energy regarding the buyout of a 707 MW wind and solar power development portfolio from Martifer Renewables.
- Exclusive Advisor to ARRCON Wind regarding the sale of its 550 MW wind power development portfolio.
- Exclusive Advisor to Project Resources Corp. regarding a strategic transaction to fund a wind power development portfolio in the Midwest.
- Exclusive Advisor to a premier solar PV development company in the Western U.S., regarding recapitalization of the development company.
- Advisor to a solar PV project development company regarding the sale of 23 MWs contracted PV projects.
- Exclusive Advisor to Duke Energy regarding its acquisition of all wind power assets of Tierra Energy.
- Originator and Advisor to Duke Energy regarding the $240 million acquisition of Catamount Energy.
- Exclusive Advisor to a major strategic investor regarding a $80 million wind power portfolio acquisition opportunity.
- Exclusive Advisor to a major strategic investor regarding a $50 million solar energy development portfolio acquisition opportunity.

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Fulbright is one of the largest law firms in the United States, with almost 1,000 lawyers in our 16 offices in the U.S., Europe, Asia and the Middle East. With our oldest and largest location based in the energy capital of the world, Houston, Texas, our long-standing commitment to serving the fast-changing needs of the energy, natural resource and infrastructure industries has been at the core of Fulbright's practice since our founding in 1919.

Our constant commitment to this growth and development has seen Fulbright act on a number of "firsts"; for instance, our project finance attorneys have acted on some of the first railway privatizations in Africa (the Tanzania railway, and cross-border Kenya-Uganda railway (African Transport Deal of the Year 2006)), our infrastructure attorneys have advised on some of the leading innovative PPP structures in the USA, and our disputes team has become a leader in FCPA and financial services investigations.

From its early roots in the Texas oil and gas industry, Fulbright's core practice areas have expanded and adapted constantly to developments in the sectors we serve. Our energy practice now includes alternative and clean energy, our dispute resolution practice has evolved to cover arbitrations and investigations (particularly in the financial services sector) as well as litigation, and our health law and IP practices have flourished across our network.

RECENT RANKINGS

The Chambers Global Guide recognized Fulbright on the international level for its work in Projects & Energy: Oil & Gas. (2011)

Fulbright was ranked number 5 by BTI Consulting in their Survey of Law Firm Client Service Performance. (2011)

The Chambers USA Guide recognized Fulbright as a leader on the national level for its work in the Energy: Oil & Gas area. (2010)

The Best Law Firms rankings by the U.S. News Media Group and Best Lawyers ranked Fulbright in the Top 10 of all law firms . (2010)

For the ninth year in a row, *Corporate Board Member* and FTI Consulting, Inc. listed Fulbright as a top firm in their annual "America's Best Corporate Law Firms" study, which ranks the top 20 national corporate law firms . (2010)

The IFLR1000 - *Euromoney's Guide to the World's Leading Financial Law Firms* lists Fulbright as a leading firm in Project Finance in North America, Latin America and Asia-Pacific. (2010)

The Best Lawyers in America featured 197 Fulbright lawyers. (2010)

Thank You

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