Deutsche Bank

Financing Energy Efficient Projects

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Agenda

Deutsche Bank Strengths

- Powerhouse in Project Finance
- Expertise in Taxable and Tax Exempt Financing

Project Finance and Public Private Partnerships

- Fundamentals of Project Finance
- Introduction to Public Private Partnerships

Energy Efficient Transaction Case Studies

- Two Sample Transactions

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Section 1

Deutsche Bank Strengths

Deutsche Bank – One-stop shop for project capital raising

Debt Financing

- Debt underwriting
- Debt placement
- Principal investment capability
- Private placements
- Public/144A bonds
- Loan syndication
- Tax exempt and taxable munis
- PABs /TIFIA
- High yield debt
- Leasing
- Tax effective finance

Equity Financing

- Equity arranging
- Principal investment capability
- Initial public offerings
- Secondary offerings
- Private placements
- Equity linked offerings
- Share repurchase

Project Finance
Taxable/Tax Exempt

Risk Management

- Interest rate, foreign exchange and inflation hedging
- Commodities derivatives
- Power hedging
- Medium to long term oil, gas and product derivatives
- Tailored structured solutions

Deutsche Bank – Project & Infrastructure Finance

- By combining DB's industry and structuring expertise, structured credit risk capacity and capital raising capabilities, we are able deliver unique financing solutions to meet clients' financing goals and objectives
- DB has been at the forefront of precedent-setting transactions
- Our comprehensive execution platform spans a broad spectrum of financing markets and investor types, ideally positioning us to lead complex and structured transactions
  - Our leading capabilities to execute across taxable and tax-exempt capital markets offer our clients the ability to optimally access these markets
  - Established relationships with project finance-focused investors enable meaningful, real-time market feedback and market access
  - An industry-leading sales force and syndicate ensure all potential pockets of funding are investigated, minimizing financing costs and increasing execution certainty for our clients
  - DB's structured credit risk platform is a key component to our involvement in the sector

Deutsche Bank – A Powerhouse in Project Finance

Deutsche Bank is one of the leading financial advisors and bond arrangers in the Project Finance sector worldwide

Ranking Project Finance Financial Advisory North America & Europe – 1H 2008

Pos	Company	Volume (US$m)	Market share (%)
1	Credit Suisse	20,760	21%
2	**Deutsche Bank**	**6,929**	**7%**
3	HSBC	6,666	7%
4	Royal Bank of Canada	5,955	6%
5	Societe Generale	4,856	5%
6	PriceWaterhouseCoopers	3,908	4%
7	Macquarie	3,666	4%
8	Lexicon Partners	3,458	3%
9	Ernst & Young	3,364	3%
10	Natixis	2,868	3%

Source: Dealogic(private sector advisory only)

Ranking Project Finance Bond Arrangers Global – 2007

Rank	Bond arranger	Underwritten value (US$m)	No of deals	Market share (%)
1	Goldman Sachs	4,513	4	17
2	**Deutsche Bank**	**4,376**	**6**	**16**
3	ABN Amro	3,545	4	13
4	Citigroup	2,463	6	9
5	RBC Capital Markets	2,406	11	9
6	BNP Paribas	2,056	5	8
7	Lehman Brothers	1,787	7	7
8	Merrill Lynch	1,198	2	4
9	HSBC	1,161	3	4
10	Credit Suisse	900	2	3

pfi awards 2006

Deutsche Bank was voted:

Global Bond House of the Year

Winner

Global Bond House of the Year 2006

“ Beginning the year with Barts – the largest UK index linked transaction, executing Deal of the Year 2006 Essen Proton Therapy Centre and ending the year with Ostregion - the first investment grade rated, monoline wrapped, multiple drawdown bond used in a project financing ”

EUROMONEY **Winner**

Euromoney EU Transport/ Roads Deal of the Year 2007 for PPP A5 Ostregion

EUROMONEY **Winner**

Euromoney EU Renewables Deal of the Year 2007 for Solaris

EUROMONEY **Winner**

Euromoney Healthcare Deal of the Year 2006 for the Essen PPP

pfi awards 2006

Deutsche Bank was awarded:

EMEA PPP Deal of the Year

Winner

EMEA PPP Deal of the Year 2006

“ Essen was awarded PFI's EMEA PPP deal of the year for 2006 because of its pioneering multiple drawdown bond structure. Despite only being € 136m, the same model was later deployed on the larger Ostregion debt”

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Deutsche Bank Leadership – Combined Construction and Term Financing

DB can deliver a comprehensive financing package leveraging its experience structuring large, complex greenfield project financings.

MGS New Data Centre

April 2008
Senior and Junior Secured Bonds due 2040
$210 million

Sole Underwriter:
Deutsche Bank

Paniolo

August 2007
Senior and Junior Secured Bonds due 2027
$186 million

Sole Underwriter:
Deutsche Bank

Archives of Ontario

May 2007
Senior and Junior Secured Bonds
$60 million

Sole Underwriter:
Deutsche Bank

Entertech

March 2007
Fixed rate senior & sub, taxable & tax exempt bonds due 2032
$153 million

Sole Underwriter:
Deutsche Bank

North Bay Hospital

March 2007
Secured Notes
$411million

Sole Underwriter:
Deutsche Bank

Kicking Horse Canyon

October 2005
Senior Secured Full Amortizing Construction and Term Loan
$127 million

Lead Underwriter:
Deutsche Bank

Royal Ottawa Hospital

December 2004
Senior Secured Notes
$137 million

Lead Underwriter:
Deutsche Bank

William Osler Health Center

November 2004
Senior Secured Notes
$468 million

Lead Underwriter:
Deutsche Bank

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Deutsche Bank Leadership: Tax-Exempt Financing

DB possesses an industry-leading structuring, execution and distribution platform for structured tax-exempt financings

City of Hoboken

September 2008

General obligation tax -anticipation and bond anticipation notes

$35 million

Jefferson Parish, LA

May 2008

Tax-exempt mandatory put bonds secured by sales tax revenues

$100 million

Oakland Diocese

November 2007

Private placement of taxable bonds to finance various parish projects

$110 million

YWCA of Snohomish County

June 2007

Tax-exempt bonds issued to finance acquisition of low income multi - family housing

$13 million

Wesley Homes

April 2007

Tax-exempt bonds for continuing care retirement campus in Des Moines, WA

$52 million

Enertech

March 2007

Fixed rate senior & sub, taxable & tax exempt bonds due 2032

$153 million

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Section 2

Introduction to Project Finance

Fundamentals of Project Finance

Project Finance is when lenders loan money for the development of a project solely based on the specific project's risks and future cash flows, with no recourse to the project's sponsors outside of their equity investment.

- Individual or portfolio of projects has reached a sufficient size to allow for project financing
- Project has demonstrated technological viability
- Key contractual relationships are with reputable counterparties
- Long-term, reliable revenue is sufficient to support debt financing (e.g., concession agreement, power purchase agreement, offtake contract)
- Physical assets that can "make whole" (i.e., the value of the assets is sufficient to cover debt repayment)

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Advantages of Project Finance

- Allows for single asset financing that may be outside the normal course
- Moves significant liabilities off balance sheet as debt is held at project level
- Maximum equity returns to sponsors and equity investors with no dilution to ownership
- No loss of control over the company
- No/limited recourse to sponsors
- Protect key assets such as IP and investments in other projects and assets
- Monetize tax incentives (e.g., Investment Tax Credits, Production Tax Credits, New Market Tax Credit, Biofuels Credit, State Tax Incentives)
- Ability to obtain government grants for project costs from new legislation

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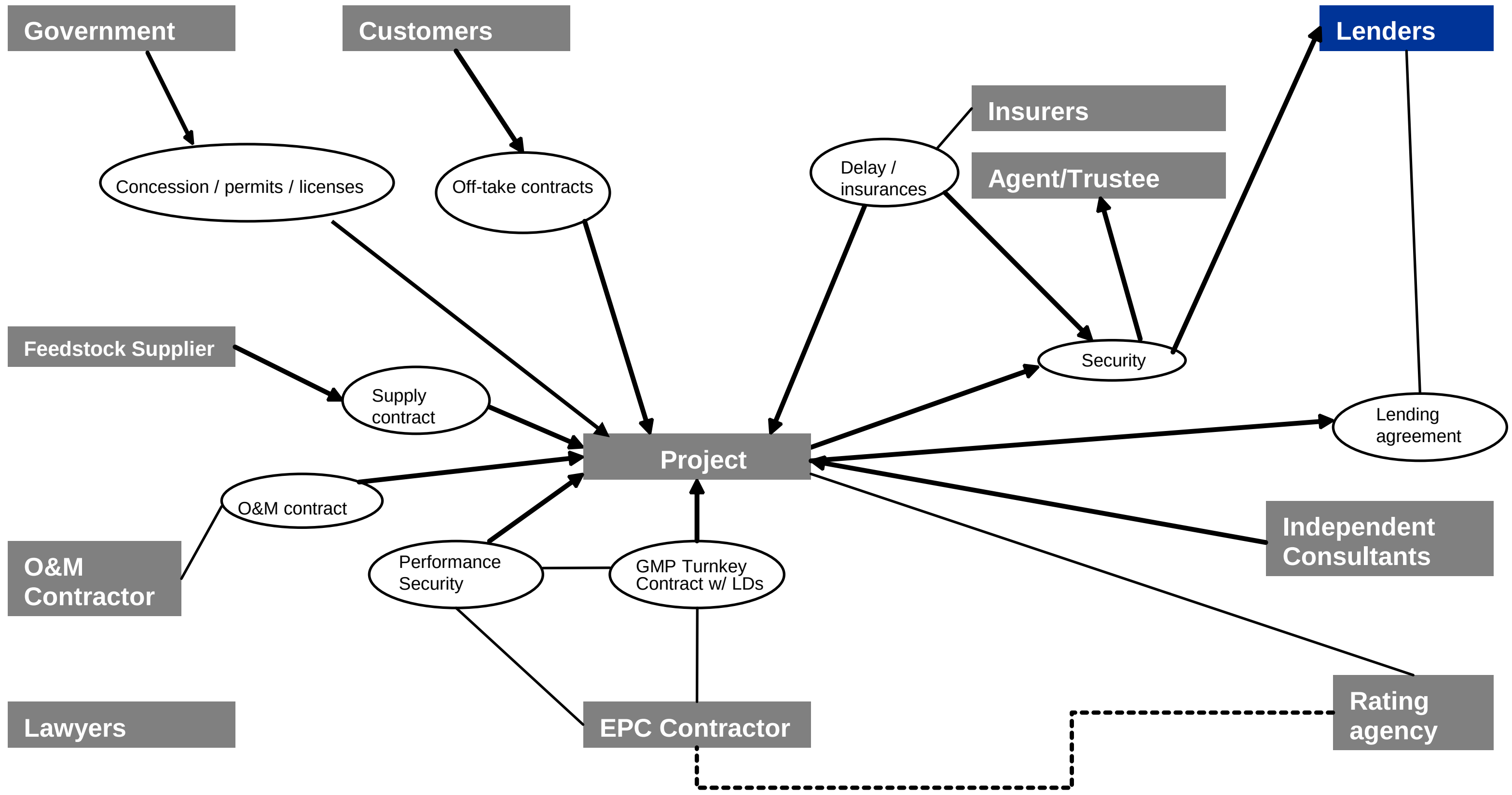
Typical Project Finance Participants



Risk Considerations and Mitigants

Risk	Criteria	Mitigant(s)
Construction	■ Lenders/investors require certainty around the cost and timing of construction	■ Fixed price, date certain, turnkey EPC contract with experienced and creditworthy contractor; or ■ Completion guaranty or other construction period Security (e.g., LC) from creditworthy sponsor(s)
Environmental Factors	■ Ability to continue operations in face of natural disasters or disruptions	■ Located on a geographically “safe” area ■ Has a track record of no major disruptions or disasters ■ Designs proven to withstand major disaster in the area and verified by an independent consultant
Supply costs	■ Predictability and stability of supplies and costs	■ Long-term fixed-price contracts with supplier ■ Adequate performance security from supplier
Offtake / Usage	■ Certainty of project offtake and/or usage ■ Ability to attract and maintain tenants	■ Creditworthy counterparties signed to long term fixed price contracts with limited outs ■ Project located in a strategically important area ■ Few viable alternatives
Operations	■ Predictability of operating and maintenance cost structure	■ Long-term O+M agreement ■ Track record of operating similar assets ■ Local knowledge and expertise
Technology	■ Comfort level with type of technology being used for the project	■ Use of proven, commercial technology ■ Ability to replace key technological components ■ Review by independent consultant of technological risk

Section 3

Public Private Partnerships: Where Public Sector Development and Project Finance Meet

Introduction to Public Private Partnerships

- A public private partnership ("PPP") is an arrangement in the form of a long term performance based contract between the public sector (any level of government) and the private sector (usually a team of private sector companies working together) to deliver public infrastructure to citizens.
- A growing demand of infrastructure projects coupled with increasing government deficit has led to a trend of partnering with the private sector in Canada, Europe, UK, Australia and, to a much lesser degree, the US through PPP's.
- A PPP could be any kind of infrastructure or service such as a new hospital, bridge, data centre, or government building – anything that citizens typically expect their government to provide.
- Because the government is at the center of the transaction (by providing the enabling concession and/or the cash flow to the project), it can require the project to meet certain public goals such as energy efficiency, sustainability and innovative design.
- Through private sector project management, construction, financing and operations, government can draw on the efficiencies and expertise of the private section to build the infrastructure more quickly and cost effectively while avoiding upfront capital costs and paying for infrastructure only when it is ready to be used.

PPP Model

PPP projects are typically procured through a number of models, including: Build-Finance, Build-Finance-Operate/Maintain and Design-Build-Finance-Operate/Maintain ("DBFM"). The DBFM model has the following characteristics:

- Design: technical requirements and specifications are developed by public sector, detailed design developed by consortium during the RFP and early in project term
- Build: the consortium builds the asset in accordance with the Project Agreement
- Finance: consortium arranges financing for the project construction, public sector repays in monthly installments over a 20-30 year period starting after completion of construction
- Maintain: based on project specific output specifications, there are performance based requirements that can lead to deductions if missed

Section 4

Sample Energy Efficient Transactions

Case Study 1: Financing LEED Certified Buildings

Ontario Data Center C$210 million debt financing

Financing details

Closing Date:	April 2008
Commencement of Construction:	April 2008
Completion of Construction:	May 2010
Debt Maturity:	2040

Description:	Fixed-rate, fully amortizing senior and sub notes
Total debt:	CAD 210 million
Ratings:	A
DB role:	Sole Underwriter

Project Background/Overview

- Financing for the design and construction of a new Tier IV data centre in Guelph, Ontario
- Greenfield construction of a "mission critical" data centre that will handle storage and processing of most government information needs; reducing the need for paper and physical storage.
- Two year construction period will be followed by a 30 year operating period
- Debt service is supported by availability based payments from Infrastructure Ontario, an agent of the Province of Ontario

Deal Highlights

- DB provided one -stop construction plus term committed financing
- Debt structure tailored to exact needs of the project to improve bid competitiveness through reduction of financing costs
- Maturity of the financing matches the term of the operating period, eliminating refinancing risk and increasing cash flow certainty
- DB acted as the sole underwriter and facilitated financial close amid extremely turbulent market conditions

Case Study 2: Financing a Green Project under DB/Muni Partnership

Enertech – waste to renewable energy facility in California

Financing details

Closing Date:	March 2007	**Description:**	Fixed-rate, fully amortizing senior taxable and tax-exempt notes
Commencement of Construction:	February 2008	**Tax Exempt Bonds:**	USD $130 million
		Taxable Sub Bonds:	USD $ 20 million
Completion of Construction:	Early 2009	**Taxable 3rd Lien:**	USD $ 2.5 million
DB role:	Sole Underwriter and Principal Investor	**Debt Maturity:**	2022

Project Background/Overview

- Enertech holds a patented technology to convert biosolid wastes into a high grade renewable fuel usable as energy source in industrial applications.
- Enertech signed 25 year put-or-pay contracts with several California counties, all rated “A” or better by S&P and Moody’s, to dispose of the biosolid waste, including LA county, Riverside, Orange County, and City of San Bernadino.
- The put-or-pay contracts give Enertech healthy and stable cash flows, and solves the problems with the Municipalities’ biosolid waste buildup.

Deal Highlights

- DB structured the financing on a taxable and tax-exempt basis and underwrote the entire $160m cost of the facility on debt, resulting in no equity dilution.
- Debt was structured around the “put-or-pay” contracts Enertech had signed with municipalities.
- Long-term financing matches the term of the waste disposal contracts, eliminating refinancing risk and increasing cash flow certainty.
- DB acted as the sole underwriter and funded the entire Project with debt, achieving all the goals of the equity investor.

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