



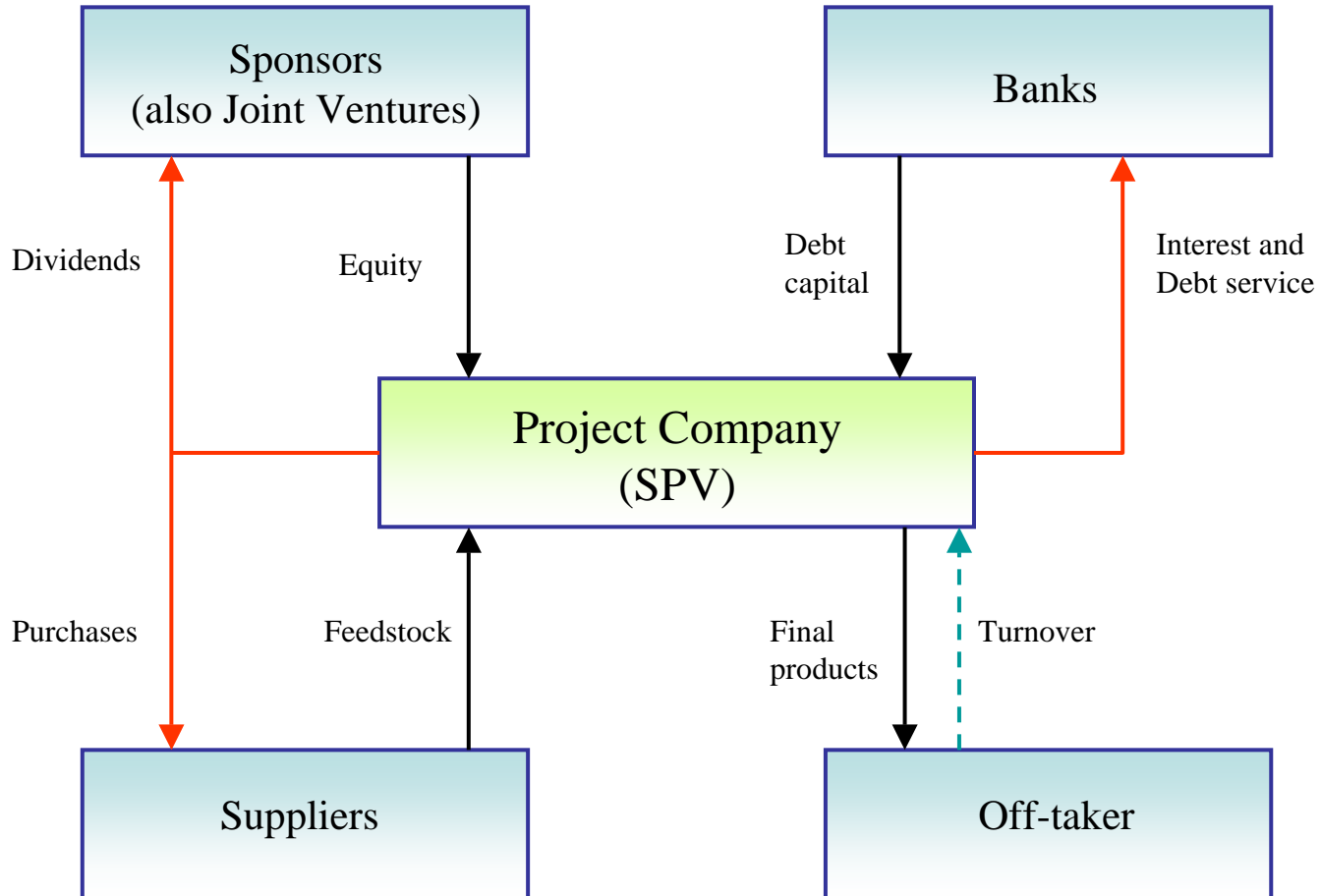
**SUSTAINABLE ENERGY FINANCE ROUNDTABLE**  
**CREATING THE CLIMATE FOR CHANGE**  
New York City / 27 October 2005



**Lenders' Views on Sustainable Energy**

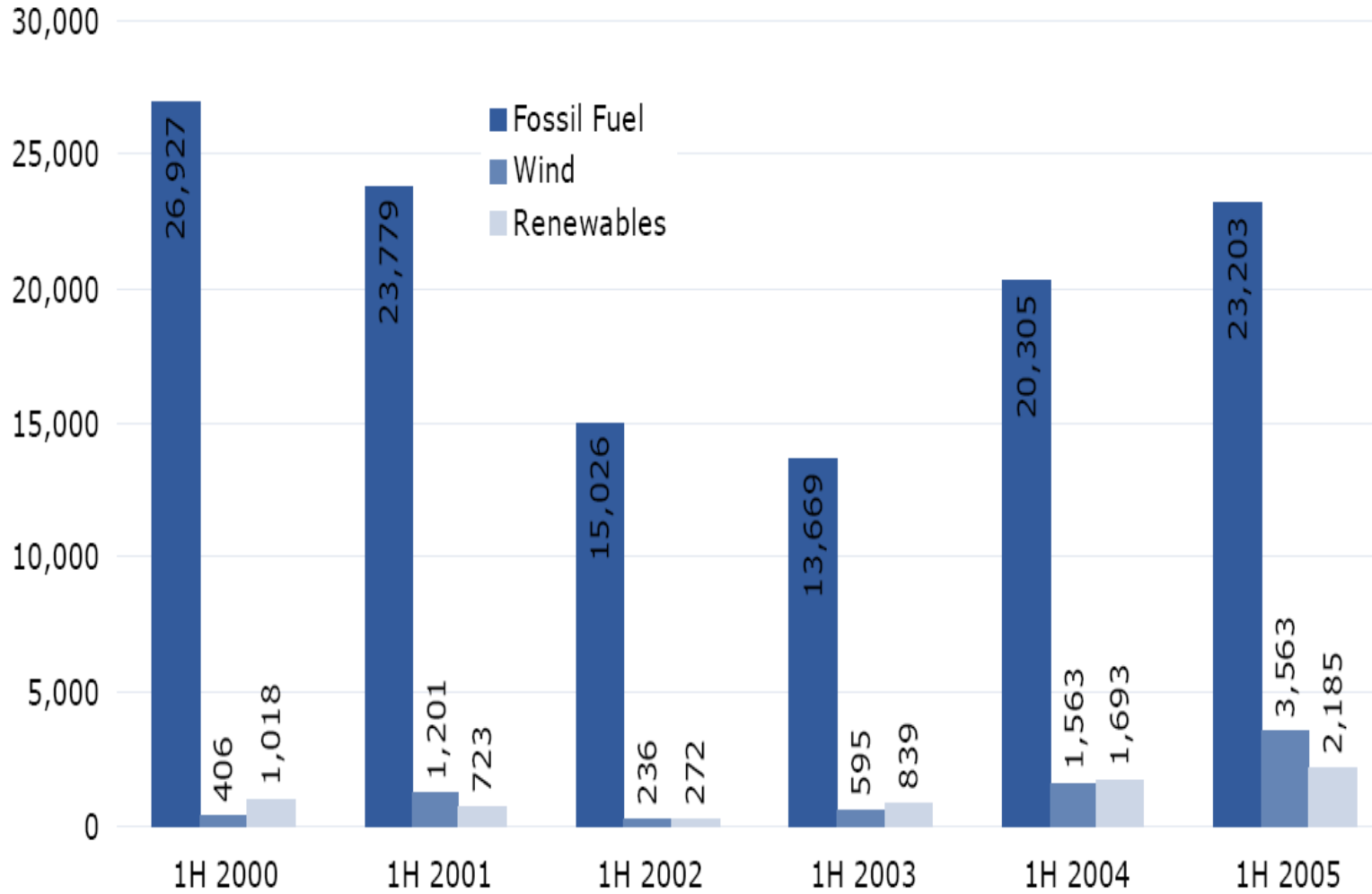
**OECD Country Debt Markets and Sustainable Energy**

# Typical Project Finance Structure



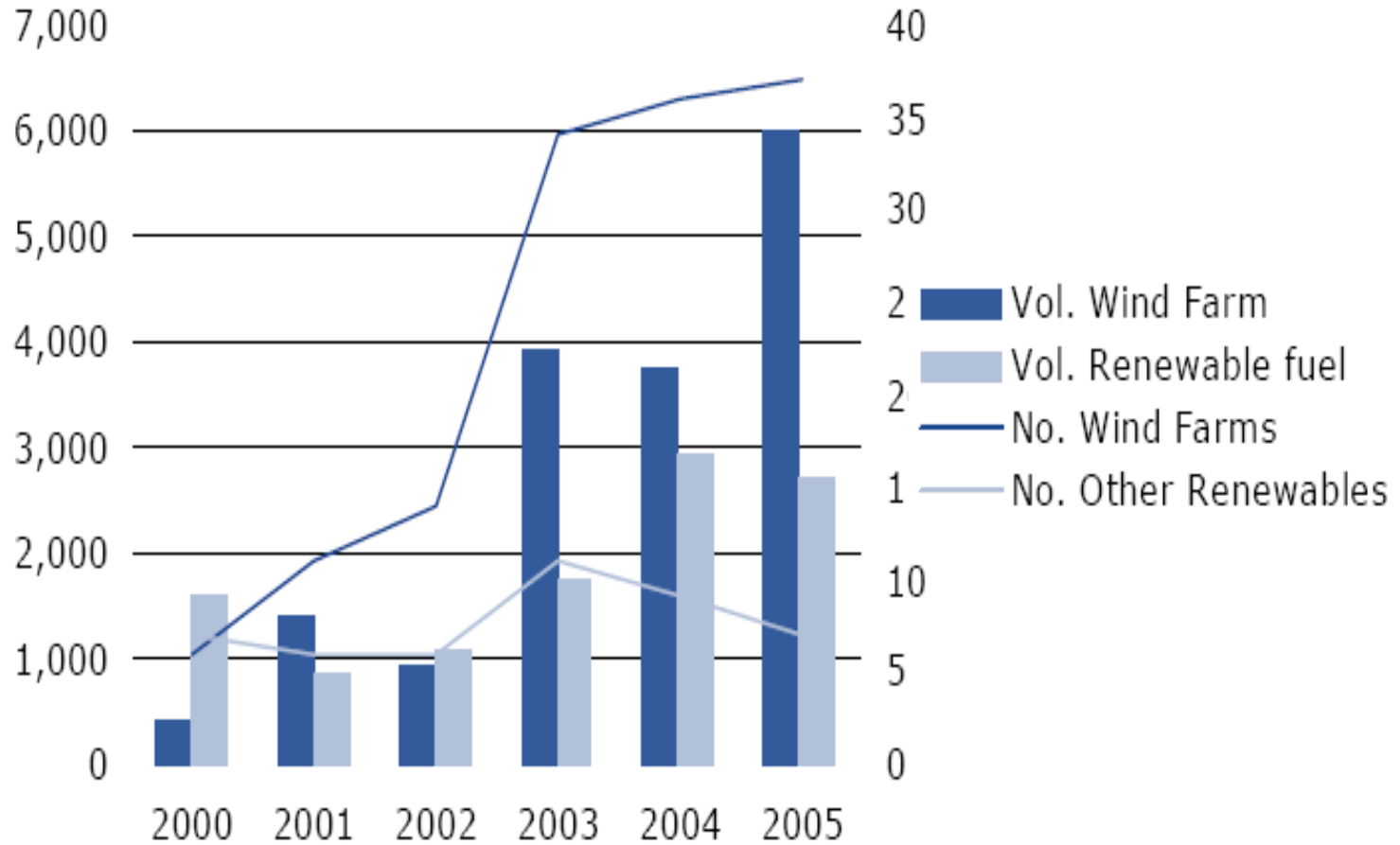
# Development of Project Finance for the Renewables Industry

## 1H Power Volumes (US\$m) 2000-2005



# Development of Project Finance for the Renewables Industry

## Renewables Industry Analysis (US\$m) First Nine Months 2000-2005



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CORPORATES & MARKETS

Source: Dealogic

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A member of HVB Group

# Project Finance – Principle of Risk Sharing

## Basic project risks and mitigating factors

### Construction risks

- **Timely completion of the project**
- **Completion on budget**
- **Reliable technical design**

### Mitigating factors

- **Experienced contractors**
- **Fixed price, turnkey EPC-Contract**
- **Review by independent technical advisers**
- **Completion guarantee**
- **Installation of adequate completion tests**

### Operating risks

- **Technical performance**
- **Operating costs**

### Mitigating factors

- **Proven technology**
- **Experienced operator who is incentivised to perform properly**
- **Independent review by technical advisers**

# Project Finance – Principle of Risk Sharing

## Basic project risks and mitigating factors

### Offtake / Market risks

- **Sourcing risk of feedstock (price-/quantity)**
- **Offtake risk**

### Mitigating factors

- **Fixed supply contracts**
- **Fixed offtake contracts**
- **Reliable regulatory system**

### Other risks

- **Change in interest rates**
- **Political risks**

### Mitigating factors

- **Derivate financing instruments**
- **Political Risk Insurance through ECA-/Multilateral involvement or through private insurance companies**

# Advantages and Limits of Project Finance for the Renewables Industry

## Advantages:

- **Off-balance structure**
- **Tailor made financial solutions**
- **Mid-/long-term financing**
- **Financing of construction and operating phase**
- **Generally dividends are allowed to be distributed to the shareholders according to certain covenants and generally before full amortization of project debt**

## Limits:

- **Minimum debt volumes required**
- **Financing of proven technology only**
- **Minimum equity requirements**

# Current trends and developments in the Renewables Industry

- **strong growth of the renewables industry especially in Western Europe and the US**
- **strong interest and demand for renewable energy projects**
- **change in sponsors / investors over the past 10 years**
- **achievement of cost savings in certain technologies**
- **project sizes have increased significantly**
- **sufficient liquidity available**

# Challenges and Limitations for the Development of the Renewables Industry

- **cumbersome licensing processes**
- **legal uncertainties on the regulatory environment**
- **sustainability of the renewable energy targets sometimes questionable**
- **high demand for bankable renewable energy projects exceeds current offer**
- **small developers often face difficulties in financing initial project development**
- **private equity investors request certain minimum returns**
- **unproven technology**
- **small projects**
- **renewable energy projects in emerging markets face additional political and regulatory risk issues**

# Outlook

- **continuous high interest in and demand for renewable energy projects**
- **renewable energy needs to become more competitive**
- **higher proportion of baseload power needs to be achieved**
- **further industry consolidation in some areas expected**
- **short-to-midterm liquidity will be available**
- **huge backlog demand in Eastern Europe**
- **huge potential in emerging markets**