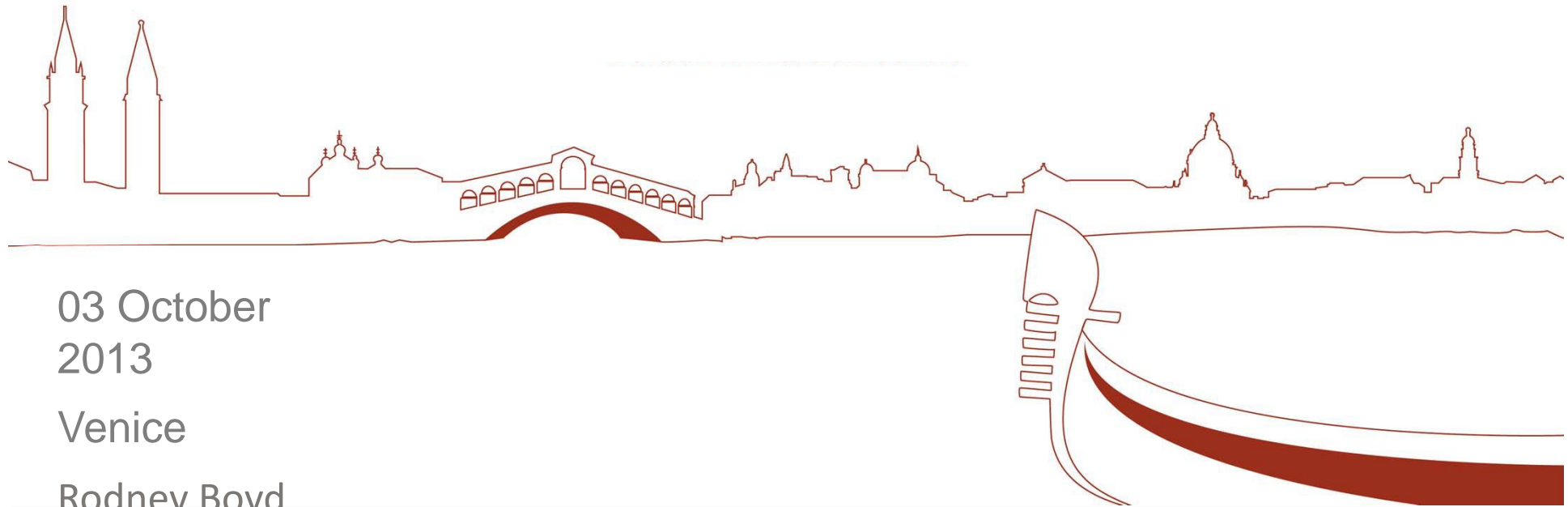


Jädraås Onshore Windfarm

Third Annual Meeting of the San Giorgio Group



03 October
2013

Venice

Rodney Boyd



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Why is the Jädraås Onshore Windfarm finance interesting?

Goal

- To create **new project financing capacity** during a period of limited long-term lending.

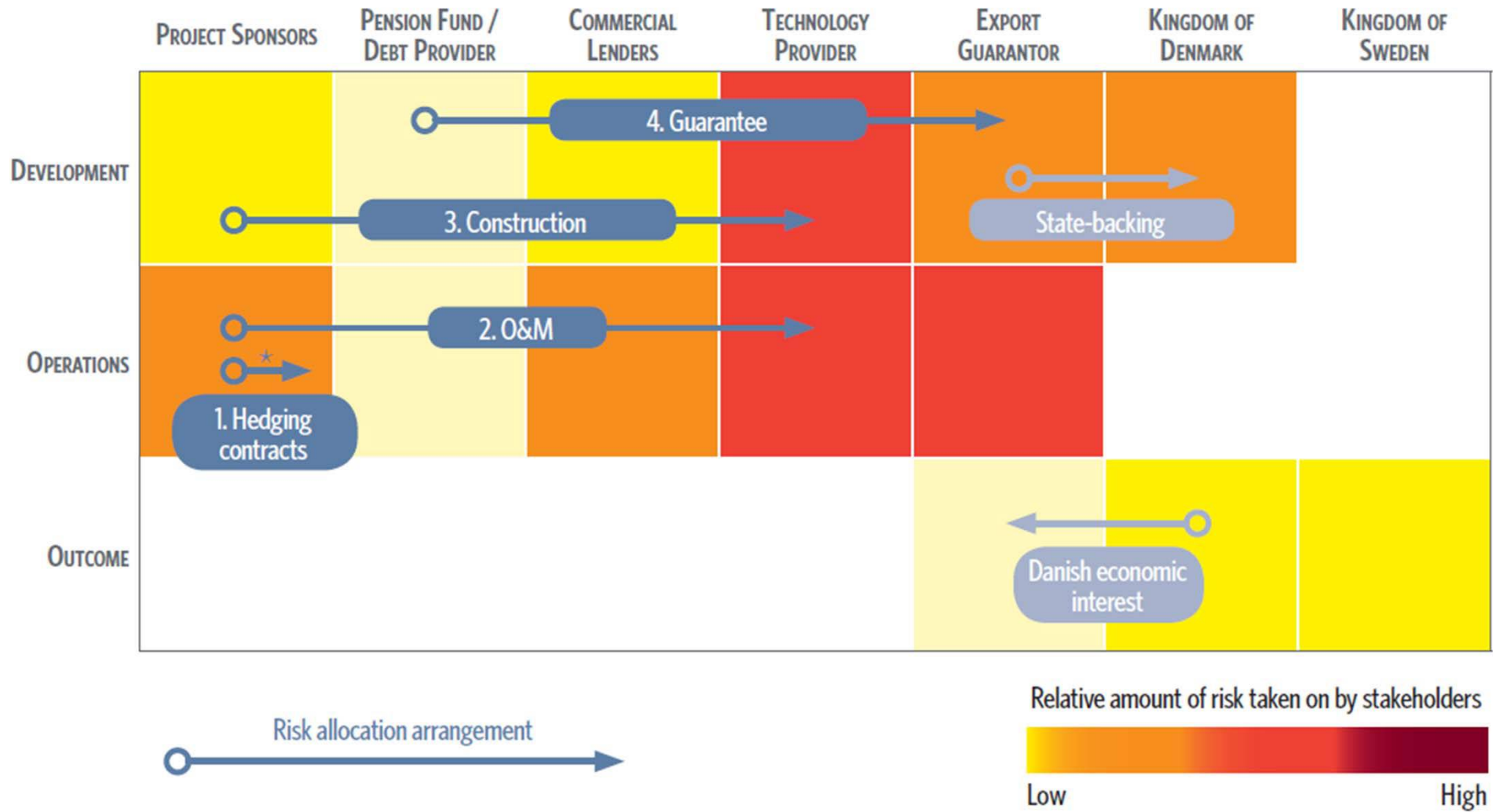
Challenges

- Limited commercial financing → Alternate lending from **pension fund**
- Project profitability → Swedish renewable **incentive**
- Price risks → Flexible **hedging** contracts

Financing

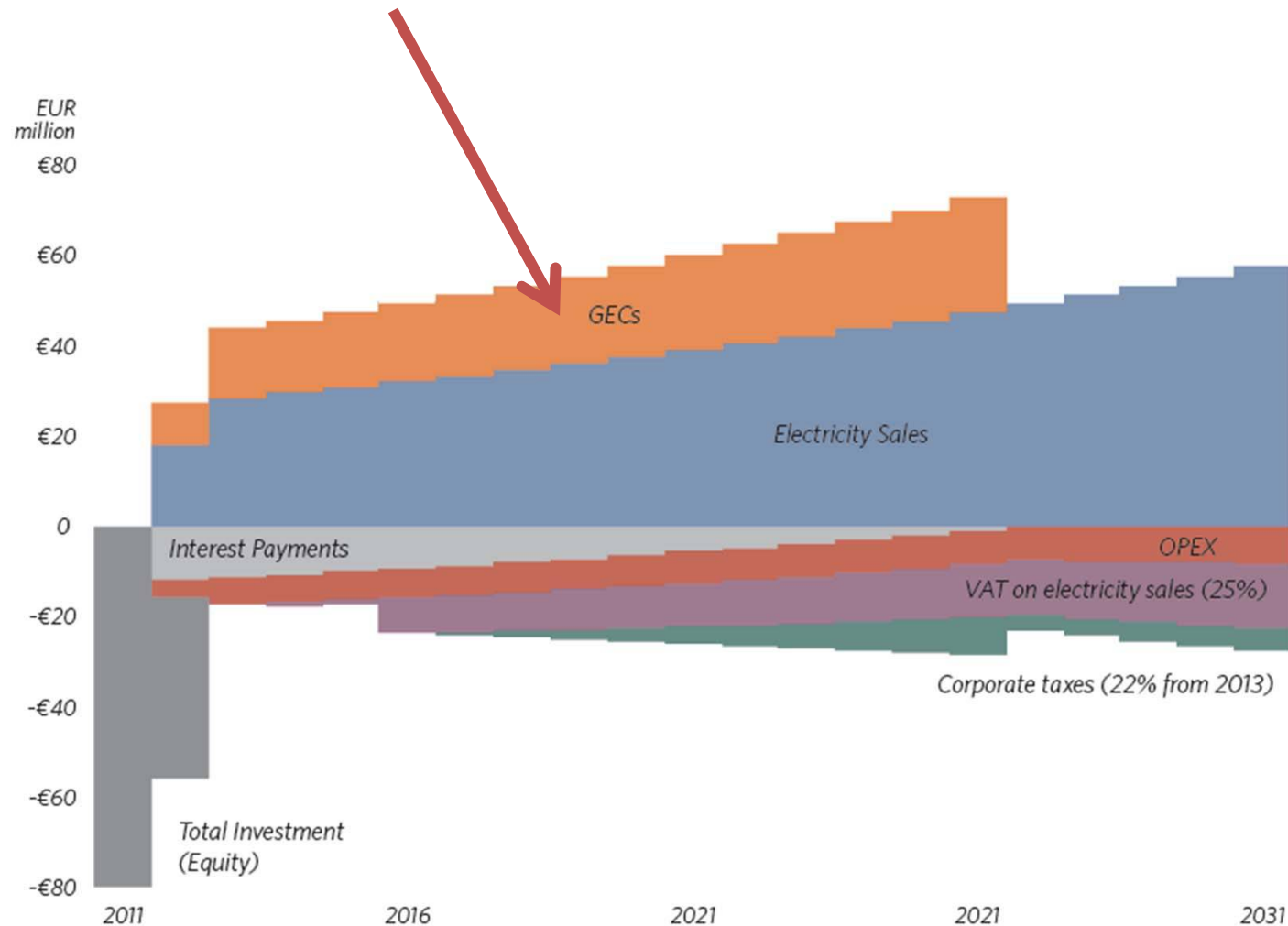


Jädraås risk mapping



Jädraås cashflow

- Swedish **incentives** were critical to project viability



Is Jädraås financing scalable and replicable?

What were the critical elements?

- Strong **public support** from two countries:
 - Danish export guarantee on pension fund financing
 - Swedish renewable electricity certificate
- Project participant **existing relationships simplified processes.**

What are the possible areas of further replicating?

- Application to **smaller-scale technologies?**
- In other geographies, **a shift to developing economies?**
- Alternative **long-term investors?**
- Other **guarantee providers?**

Thank you
rodney.boyd@cpivenice.o
rg

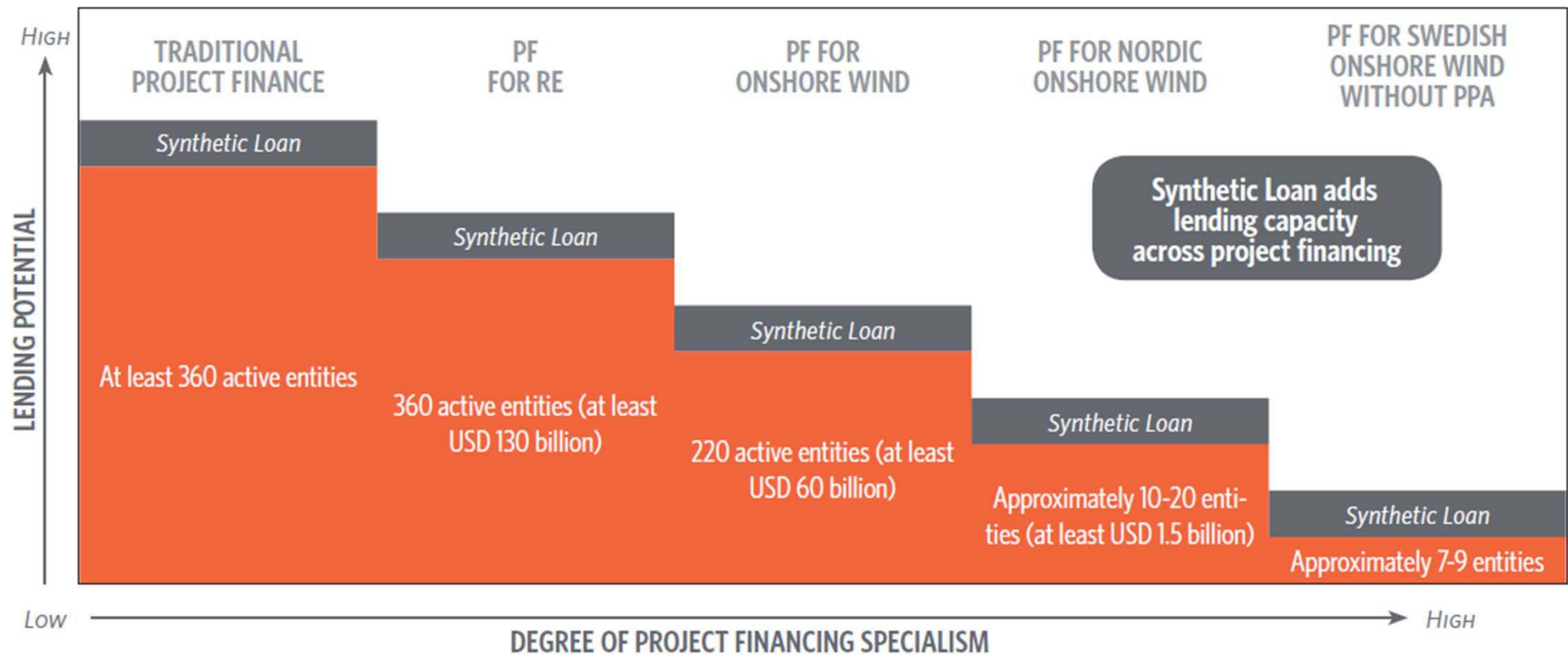


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Back-up 1: Synthetic Loan arrangement



Back-up 2: Sensitivity tests – turbine availability + capital cost

Table 8: Sensitivity test of Jädraås project profitability as a function of turbine availability.

PRE-TAX	IRR SENSITIVITY TO WIND TURBINE AVAILABILITY			
-25%	-15%	-10%	-5%	Reference
75%	85%	90%	95%	100%
4.92%	6.42%	7.13%	7.82%	8.49%

Table 9: Sensitivity test of Jädraås project profitability as a function of capital expenditure.

PRE-TAX	IRR SENSITIVITY TO CAPITAL EXPENDITURE							
-30%	-20%	-10%	-5%	Reference	5%	10%	20%	30%
-252	-288	-324	-342	-360	-378	-396	-432	-468
20.12%	14.66%	11.08%	9.69%	8.49%	7.43%	6.50%	4.89%	3.56%

Back-up 3: Distribution of financial returns

Table 10: Summary of estimated benefits to Jädraås financing structure stakeholders.

	LENDERS (PENSIONDANMARK)	GUARANTOR (EKF)	OTHER LENDERS (DNB, SEB)
BENEFIT TO STAKEHOLDER	PD(+EKF) (on commercial terms: e.g. same rates, tenor, and level of seniority) Spread over reference rate*: TOTAL: 4%: PD → 1-1.5% EKF → 2.5%	EKF premium over PD for administrative costs, due diligence etc.	DNB, SEB lend on commercial terms and rates, business-as-usual investment.
ESTIMATED RETURN EXPECTED ON INVESTMENT	1-1.5%	2.50%	4% (DNB to get advising/arranging bank premium)

*Note: EURIBOR - Euro Inter-Bank Offered Rate is the average interest rate at which loans are agreed between the major banks in the EUR money market (a reference Eurozone transactions using EUR). In the period 2010 to 2012, the EURIBOR 12-month rate was approximately 1.5-2% (see European Banking Federation EURIBOR website <http://www.euribor-ebf.eu/>).

Back-up 4: Effectiveness table

Table 4: Summary of the effectiveness of the Jädraås Onshore Windfarm.

INPUT	OUTPUT	INTERIM BENEFITS	OUTCOME
Private capital: EUR 360 million	Installed wind capacity: 203 MW	Clean energy: 580 GWh per year of wind energy generation, for up to 100,000 Swedish homes	Increased technology learning / LCOE reductions
Danish State-backed guarantees valued at EUR 120 million	Maintains jobs for construction: 200 employees for construction	Creates skilled jobs for operation: 10 new and additional jobs for O&M	Generates Danish exports: EUR 250-300 million
Swedish Government Incentives (renewable certificates): EUR 200-225 million over 15 years	IRR for SPV: After tax 5.4-7.9% (project) After tax 13.7-17.7% (equity)		Contributing towards Sweden's energy and emissions targets Once commissioned provides 0.5% of Swedish electricity demand (2011 annual figures (SEA 2012)), contributes 2.9% of Sweden's 2020 renewable electricity production target. No emissions savings calculated. Taxes EUR 80-90 million corporate taxes and EUR 90-100 million VAT to Sweden over project life