

**KPMG**  
cutting through complexity

**Securing Funding for Anaerobic Digestion**

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**Agenda**

- Current funding environment
- Anaerobic digestion funding options
- What makes a fundable AD project?
- Conclusion

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**Introduction**

- Up to date experience in fundraising across a number of renewable technologies:

Anaerobic Digestion

Wind

Solar

Biomass

Marine

- Focused on fundraising for smaller, non-utility scale projects (£2m - £100m)
- Independent developers seeking construction-phase finance

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**Macro Funding Environment**

- While fundraising is challenging, renewable energy remains an attractive investment / funding proposition

**Global Renewable Funding \$b**

Year	Global Renewable Funding (\$b)
2004	33
2005	57
2006	90
2007	129
2008	159
2009	160
2010	211

**Fossil Vs Renewable Energy Funding Gap**

Source: New Energy Finance 2011

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### Macro Funding Environment

Funds however are heavily focused on where is perceived to be the most attractive regions

#### European Investment

Year	Investment (\$B)
2004	9
2005	18.4
2006	27.3
2007	46.6
2008	47.6
2009	45
2010	35.2

#### Asian Investment

Year	Investment (\$B)
2004	5.6
2005	11
2006	18.3
2007	26.2
2008	34.4
2009	45.7
2010	59.3

Source: New Energy Finance 2011

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### Bank Funding Environment

Traditionally a key funding stream for renewable energy projects

Banking / Project Finance markets have changed dramatically:

- Banks retrenching to home markets
- Fees Vs Margin
- Relationship lending

Banks are still lending, however:

- Keen to support key relationships
- Focused on established technology
- Margins & fees have risen

Green Investment Bank may prove helpful

#### Bank Renewable Energy Project Finance (\$b)

Year	Finance (\$b)
2004	4
2005	14
2006	19
2007	29
2008	46
2009	25
2010	39

Source: New Energy Finance 2011

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### Macro Funding Environment

Country Attractiveness Rating 2012

Rank	Country	RE Renewables	Wind Index	Solar PV	Biomass
1 (1)	China	70	76	88	88
2 (2)	USA	68	67	74	63
3 (3)	Germany	66	66	76	67
4 (4)	India	63	64	69	60
5 (5)	UK	59	66	44	66
6 (6)	Italy	57	58	63	53
7 (7)	France	56	56	56	57
8 (8)	Canada	54	61	46	50
9 (9)	Sweden	50	54	62	56
10 (10)	Brazil	49	51	46	51
11 (11)	Spain	48	47	53	43
12 (12)	Poland	47	47	44	44
13 (13)	Poland	46	52	42	42
14 (14)	South Africa	46	46	48	41
15 (15)	Japan	45	46	61	38
16 (16)	Denmark	45	55	62	36
16 (23)	South Africa	45	47	41	37
18 (18)	Ireland	44	52	30	43
19 (19)	Denmark	44	48	40	45

Source: 2012 European Attractiveness Survey

#### KPMG 2011 Renewable Survey Investor Target Countries

Country	Investor Target (%)
USA	55
China	45
India	40
Germany	35
UK	30
Canada	25
France	20
Italy	18
Russia	15
Spain	12

Source: KPMG Green Power 2011

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### Funding Anaerobic Digestion

Challenging funding proposition

- Despite four ROCs, few plants funded in Northern Ireland to date
- Scale, perceived technology risk and funding environment are factors
- Promoter funding expectations are also challenging to meet

However, good projects can, and are, being funded

- Long-term returns from ROCs are attractive for investors
- Northern Ireland has the necessary natural resources
- AD technology providers keen to establish foothold in NI

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### Funding Options

- 100% promoter cash
- Secured bank lending
- Bank project finance (unsecured)
- Infrastructure fund (PE/VCT/EIS/Other)
- Supplier finance

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### Secured Bank Lending

- ✓ Cheapest form of lending available
- ✓ Significant flexibility in project design & technology selection
- ✓ 100% equity ownership
- ✗ Farm is at risk if venture fails
- ✗ Requires asset cover and cash repayment capacity
- ✗ Few banks willing to lend even on this basis

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### 100% Promoter Cash

- ✓ Maximum flexibility in project design & technology selection
- ✓ Fastest development route
- ✗ Inefficient use of equity?
- ✗ Whole investment at risk if venture fails
- ✗ No project development support or third party due diligence

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### Bank Project Finance (unsecured)

- ✓ Ideal form of funding, maximising the quantum of 'cheap' debt without risking the farm
- ✓ Professional due diligence and structuring support
- ✗ Requires significant equity contribution
- ✗ Not available for 500kW projects (sub-scale)
- ✗ Expensive funding process for Promoter

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### Supplier Finance

- ✓ Supplier provides loan to farmer on commercial terms
- ✓ Fast development route
- ✓ Relatively cheap form of debt
- ✗ Only a few technology providers offer this (and are selective)
- ✗ Requires a sizeable equity investment
- ✗ Lack of third party due diligence

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### What makes a fundable AD project?

**Essential**

- Backable Promoter**  
Credibility, commitment
- Resources**  
Sufficient land, stable farm
- Technology Provider**  
Track record, turnkey contract
- Permits**  
Uncontested planning, easements, and construction

**Desirable**

- Synergy**  
Scale, location, proximity, gas export

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### Infrastructure Fund (PE / VCT / EIS / Other)

- ✓ Strongest market appetite
- ✓ Up to 100% of finance requirement
- ✓ Funder takes technology / development risk
- ✓ Farmer maintains majority ownership
- ✗ Expensive compared to bank debt, though cheap compared to equity
- ✗ Loss of project flexibility and technology selection
- ✗ Due diligence is time consuming and invasive
- ✗ Farmer retains feedstock risk
- ✗ Farmer likely to have to give up some equity ownership

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### Structuring a Project

**Debt / Equity Funder** → Majority of funding → **Anaerobic Digestion SPV**

**Anaerobic Digestion SPV** ↔ **Technology Provider**

**Anaerobic Digestion SPV** ↔ **Farmer** (Feedstock, Operations, Lease)

**Anaerobic Digestion SPV** ↔ **Leading Energy Supplier** (Power Purchase Agreement)

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### Contract List

Contract	
Investment Agreement	Covers financing of the SPV
Articles of Association	Covers legal operation of the SPV
Financial Model	Agreed financial base case
EPC Contract	Contract with technology provider
Grid Connection	NIE grid connection agreement
Civil's Contract	Balance of plant/ landscaping
Employer's Engineer	Review build-out
Financial Covenants	Farmer obligations
Lease	Specifies lease terms
Feedstock Agreement	Covers feedstock supply arrangements
Secondary Feedstock Agreement	Necessary if sub-contracting some feedstock
Operations Agreement	Farmer's operation contract
PPA	Power off-take contract
Maintenance Agreement	Maintenance Agreements
Professional advisor Contract	Legal / financial

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## Thank You

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### Conclusion

- Renewable energy remains an attractive, and active, investment proposition
- Funding is available for well structured projects
- Developers must be realistic in their funding expectations & accept appropriate risk (e.g. feedstock risk)
- Consider JVs with local farmers if unable to meet requirements (land availability etc)
- Fundraising is time consuming and will take a minimum of three months + nine months build – four ROCs won't last forever

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