

Financing Community Renewable Projects
IMechE

Triodos  Bank

February 2019

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About Triodos

- UK Headquarters in Bristol
- One of the largest investors in renewable energy in UK & EU
- Mission: make money work for positive social, environmental & cultural change



Triodos Bank is a European bank with 37 years of experience in funding the sustainable economy

Triodos  Bank

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Transparent about all loans

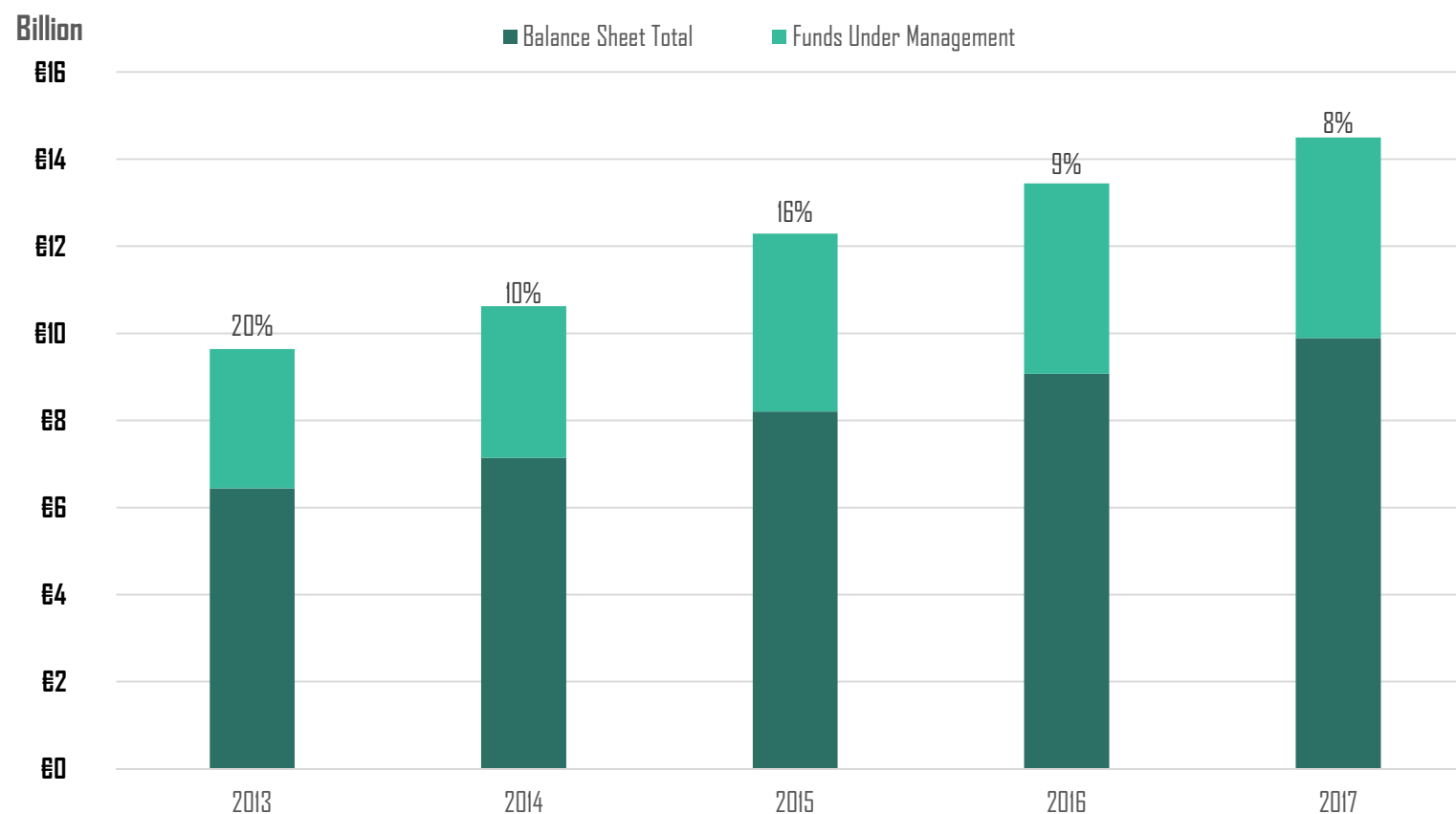
- Online interactive tool allows anyone to search through our loan book by keyword, location or sector
- Allows customers to pinpoint where their savings are going
- Connecting people to their money and their community

www.knowwhereyourmoneygoes.co.uk

} It's about more than money



Assets Under Management – €15.1bn (at Q2 2018)



Q2 2018	€ M
Equity	975
Funds entrusted	9,163
Loans	7,095
Total assets	9,081
Net Profit	20.5
Core Tier 1- ratio	18.3%

Triodos Bank

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Renewable Energy Project Finance at Triodos Bank

2015

Rank	Lead Arranger	No. of deals
1	Triodos Bank	57
2	Banco Santander	51
3	Natixis	35
4	HSH Nordbank	26
5	Nord/LB	22
6	EIB	13
7	KfW	13
8	RBS	10
9	Credit Agricole	8
10	Rabobank	8

2016

Rank	Lead Arranger	No. of Deals
1	Triodos Bank	70
2	Nord/LB	26
3	HSH Nordbank	20
4	KfW	19
5	EIB	16
6	Mitsubishi UFJ	15
7	EBRD	14
8	Rabobank	12
9	Natixis	12
10	SMBC	11

2017

Rank	Lead Arranger	No. of Deals
1	Triodos Bank	68
2	Mitsubishi UFJ	58
3	HSH Nordbank	37
4	Nord/LB	35
5	EBRD	29
6	KfW	25
7	SMBC	25
8	Société Générale	24
9	EIB	22
10	Santander	15

*Clean Energy Pipeline Global League Tables 2016

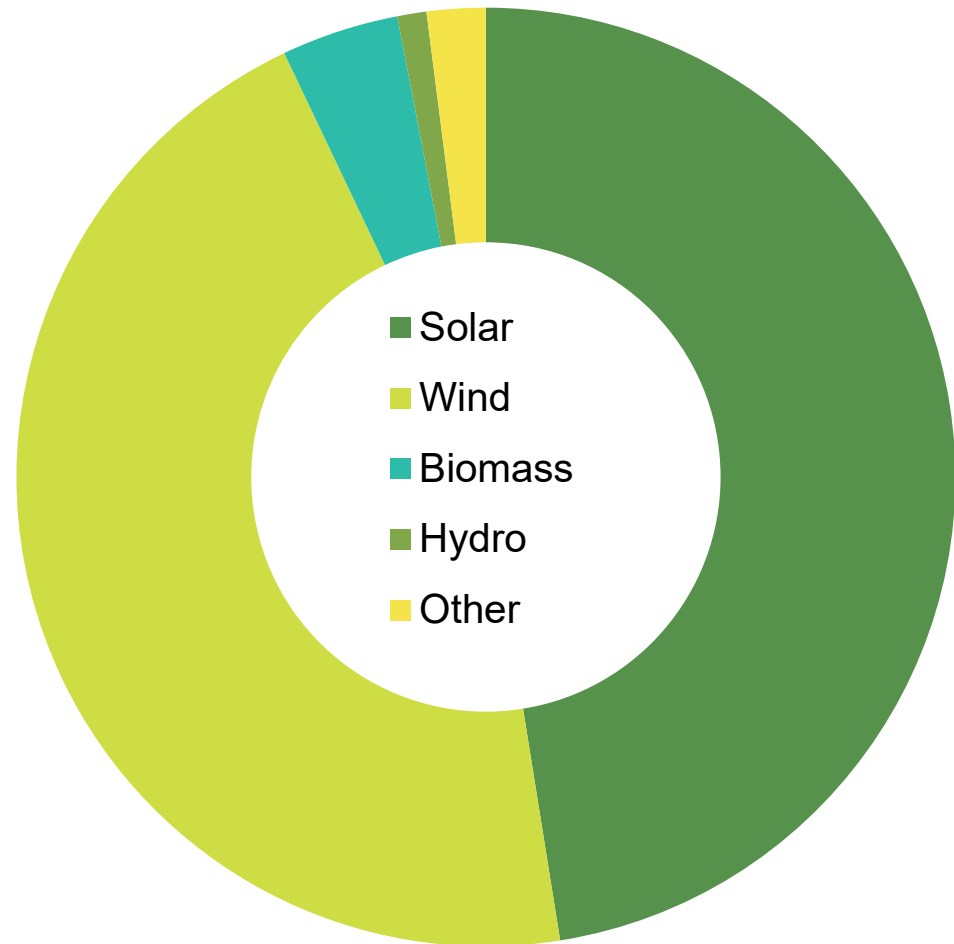
Renewable Energy Project Finance

Renewables

- Solar
- Wind
- Biomass
- Hydro
- Energy efficiency
- Heating

Countries (2016)

- Netherlands
- UK
- Belgium
- France
- Spain
- Germany
- Ireland
- Costa Rica
- Georgia
- Guatemala



Triodos Bank - Renewable Energy Project Finance (in MW / technology)

Total lending portfolio : 2.150 MW installed



Wind projects – installed capacity (MW)

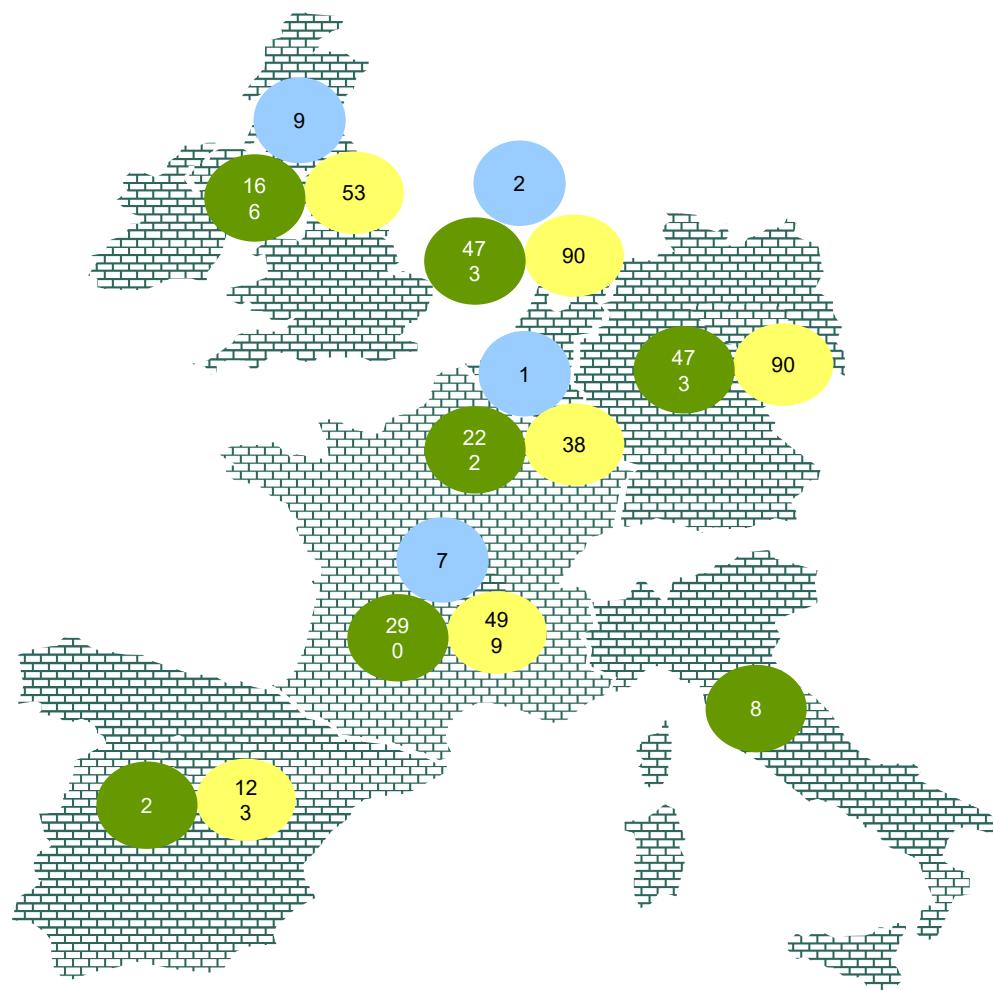


Solar projects – installed capacity (MW)



Hydro projects – installed capacity (MW)

Figures as at 31 Dec 2016



Triodos Bank

Triodos Bank



Burnham & Weston Energy CIC - 1

5% inflation linked bond backed by an operational community solar scheme which supports community projects in the Weston-super-Mare area

Target: £4,000,000

Amount raised: £4,000,000



Coigach Community

5% inflation linked bond backed by a wind turbine supporting a community in the Highlands of Scotland

Target: £1,750,000

Amount raised: £1,750,000

Rooftop Solar

Severn Community Energy and Poplar HARCA Rooftop Solar



Severn Community Energy

- Community owned 4.2MW project
- Bristol City Council as developer and landlord.
- Bristol Council also invested £650,000 in build
- Supported by Triodos debt and further funds from SASC
- Surplus income to be invested in Ambition Lawrence Weston regeneration project – forecasted at £,000s per year over the life of the project



Poplar HARCA

- Poplar Harca are an east London based housing association
- 2016 Triodos Bank financed installation of rooftop solar pv assets.
- 700 kWp of rooftop solar across 20 installations

Example - Stokes Marsh Solar

- 15MW solar farm with SunEdison panels in Wiltshire, England
- £12.8m finance, using both project finance lending and mezzanine lending from the Triodos Renewable Europe Fund (TREF)



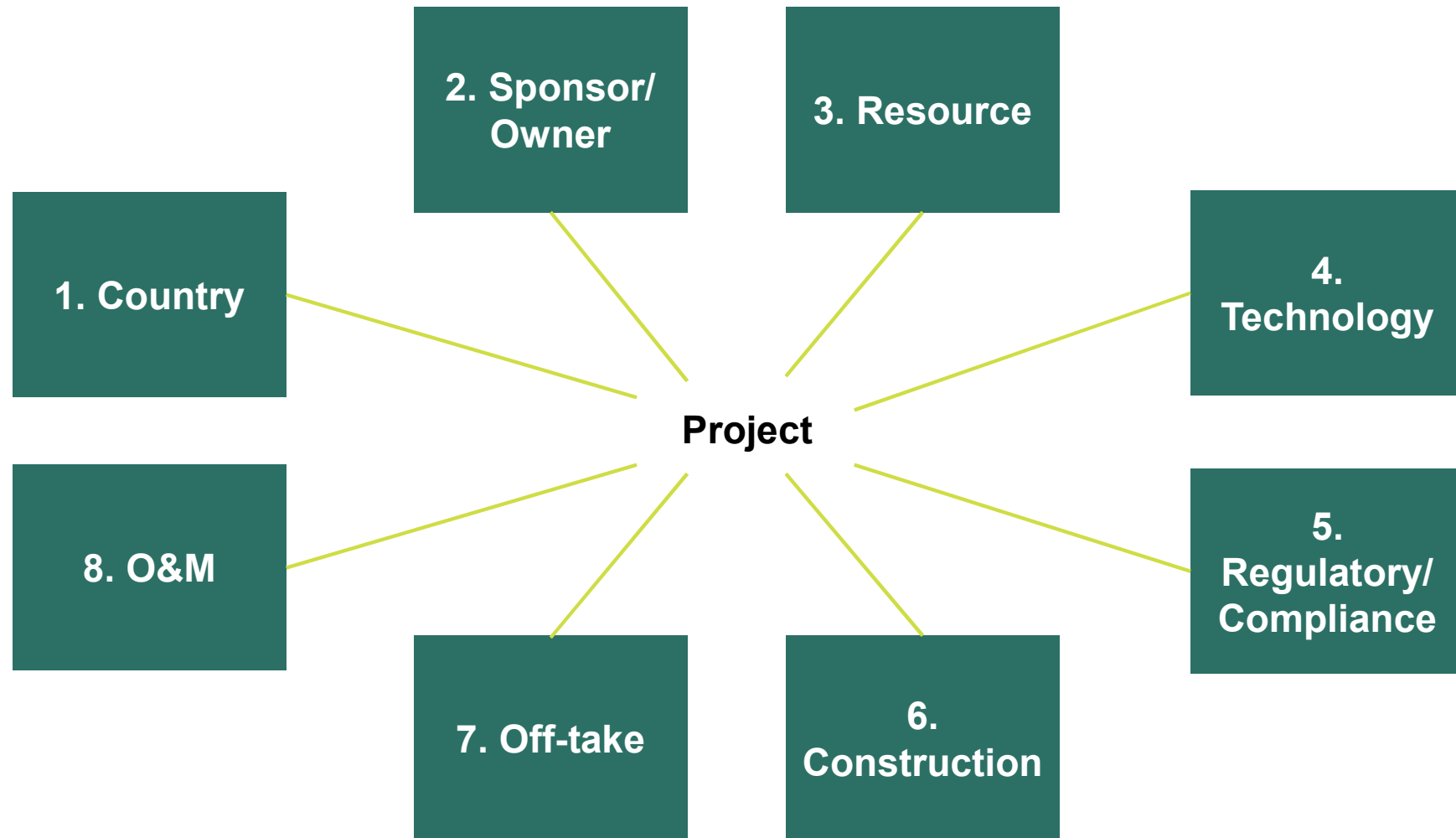
Community Interest Companies (CICs)

Community Interest Company “CIC” - What is a CIC?

- Essentially a CIC is a limited company with three differences
 - An asset lock
 - Payment of dividends to private shareholders is restricted to 35% of reserves
 - A CIC should provide a [financial] community benefit

CICs were used in the UK government's Feed-in-Tariff (FiT)

Main considerations for Project Finance



Country & Sponsor / Owner

1. Country

- Political stability & credit rating
- Countries where Triodos is active
- History of retrospective regulatory changes

2. Sponsor/ Owner

- Financial standing/ credit rating
- Relationship with Triodos
- Availability of equity
- Track-record?
- Management experience?

Resource & Technology

3. Resource

- Independent wind/ solar yield study
- Info sources used
- Verified by technical advisor

4. Technology

- Track record (GW installed/ ranking globally)
- Credit Standing
- Triodos experience on other projects
- Technical advisor opinion
- Spare parts inventory
- Warrantees

5. Regulatory/ Compliance

- Permits/ authorisations in place (eg: construction permits, generation licence)
- Grid Connection Agreement in place
- Land Lease – Fixed pricing, long duration
- EIA

6. Construction

EPC Contract

- Contractor track record, credit standing, etc
- Fixed-price + turn-key + single-point responsibility
- Construction risk passed through to EPC Contractor
- Payment milestones
- Liquidated damages for delay, performance
- Performance guarantees

7. Off-take

Off-taker - Track record, credit standing, Triodos prior experience

Volume & Price Risk (PPA)

- % Market Risk – Subsidised revenue vs market
- % Volume

8. O&M

O&M Contract

- Contractor track record, credit standing, Triodos prior experience, Technical Advisor opinion
- O&M incentives (bonuses & penalties/ LDs)
- O&M guarantees (eg: Performance Ratio)
- Lender right to replace or approve replacement of O&M provider

Lessons learnt

“begin with the end in mind”

- Engage with the bank early + develop a relationship
- Experienced advisors who understand Bank requirements
- Just because a contract is signed does not mean it is acceptable to the bank
- Strong understanding of resource (solar, wind, hydro...)
- Careful choice of technology & supplier
- Agreed electricity marketing strategy
- Property, property, property!

Other considerations

Financial

- Bank Base Case typically P90
- Interest Rate risk hedged for loan tenor
- 6-month Debt Service Reserve Account

Contractual

- Advisors (Technical + Legal + Insurance) & Financial Model Review
- Termination events in key contracts (eg: EPC, O&M, PPA); Force Majeure; Change of Control
- Security Package (eg: pledge of shares + bank accounts + assets; assignment of rights under project contracts; assignment of insurance proceeds)
- Sensitivity Analysis (eg: EPC cost; O&M cost; solar irradiation; performance ratio degradation; availability; inflation)

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