Financing Community Renewable Projects
IMechE

Triodos Bank

February 2019
Content

1. About Triodos
2. Project Finance at Triodos Bank
3. Examples of Community Projects Financed
4. Lessons learnt
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
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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>975</td>
</tr>
<tr>
<td>Funds entrusted</td>
<td>9,163</td>
</tr>
<tr>
<td>Loans</td>
<td>7,095</td>
</tr>
<tr>
<td>Total assets</td>
<td>9,081</td>
</tr>
<tr>
<td>Net Profit</td>
<td>20.5</td>
</tr>
<tr>
<td>Core Tier 1- ratio</td>
<td>18.3%</td>
</tr>
</tbody>
</table>
Renewable Energy Project Finance at Triodos Bank

### 2015

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

### 2016

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

### 2017

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

*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
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
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 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

1. Country
2. Sponsor/Owner
3. Resource
4. Technology
5. Regulatory/Compliance
6. Construction
7. Off-take
8. O&M
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 (e.g., 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
Off-take and O&M

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)
Stirling Habbitts
Sector Lead Project Finance London, Triodos Bank NV
+44 7448 790 971
+44 203 621 4153
stirling.habbitts@triodos.co.uk

www.triodos.com
www.triodos.co.uk
twitter.com/triodosuk
facebook.com/triodosbankuk