



Report on the practical experience of RES project financing using crowdfunding

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CrowdFundRES
Unleashing the potential of Crowdfunding for Financing Renewable Energy Projects



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Executive Summary

This report contains case studies from four of Europe's leading renewable energy systems (RES) crowdfunding platforms, there is one case study from Oneplanetcrowd (the Netherlands), BetterVest / GreenCrowding (Germany), Lumo (France) and three case studies from Abundance (United Kingdom). A case study of CONDA from Austria has also been included in order to also cover Austria which is a target country in the project.

The case studies provide a detailed view of how each platform is set up, regulated and operates its business as well as an overview of individual projects that have raised funds on the respective platforms. The data set is limited so it is not simple to statistically analyse the case studies to gain insight into platform success drivers or investor preferences but it is possible to highlight differences and similarities between platforms for future analysis.

The report aims to contribute to a better understanding of how platforms operate, identify the challenges facing platforms but also the drivers of growth. The report is intended to inform the development of best practice guidelines for new platforms entering the market or existing platforms considering diversifying into the RES market, it is also intended to give insights into policy recommendations.

Core areas of success:

Platform regulation: The regulatory environment in each jurisdiction is very different; with France having the most restrictive crowdfunding regulation (of the five countries covered in this report). It is not possible to draw a clear line between regulatory regime and the growth of a country's crowdfunding platforms from the case studies in this report, but with an understanding of what supports growth on different platforms it is clear that certain restrictions in the French market almost certainly limit growth. In particular the inability of French platform Lumo to operate a secondary market and to take on non nationals as clients is felt to limit growth. This report would recommend that the French regulator review their crowdfunding policy framework and perhaps draw on the experience of other jurisdictions such as the Netherlands, Germany and the UK.

Platform technology: The report examines the website (technology) capability of each platform. The report finds that the platforms all conduct the core investment process in a robust manner but that Abundance has the most sophisticated platform in terms of broader functionality, however at this point in the development of RES crowdfunding technology does not seem to be a core driver of growth. As the market develops this can be expected to change with investors looking for increasing levels of sophistication in their post investment service for instance greater number of tools to help people understand how their investments are performing or tools to help with secondary sale of investments and eventually as competition grows start to select platforms based on their broader technological capabilities.

Platform investment instrument: All platforms are focused on providing RES developers with debt finance, which is not surprising given that the majority of the capital in the renewable market is debt. Lumo and Abundance use debt securities (Bonds and Debentures) while Oneplanetcrowd and Bettervest / greencrowding use loans. This split is driven primarily by regulatory and legal issues in the respective countries which mean that different frameworks favour the use of different instruments.

Platform developer onboarding: The report finds that RES Crowdfunding platforms appear to have advanced processes for conducting project due diligence and take care to ensure that the projects raising capital on their platforms are well run. No project is launched on to a RES crowdfunding platform without a due diligence process being conducted, as standard all platforms appear to conduct financial, technical and legal due diligence on projects.

Investment information provided to investors: The report finds that across crowdfunding platforms there appears to be broad recognition that a downloadable offer document is required, this is either due to regulatory requirements (Bettervest and Abundance) and/or simply from an understanding that it helps the investment sales process (Oneplanetcrowd and Lumo).

Platform operational learnings:

After sales service provided to investors and borrowers: this report finds that all platforms provide some degree of ongoing information to investors, there also appears to be a focus on ongoing borrower management services provided by platforms such as monitoring the operational and financial performance of projects. Firms describe how they conduct ongoing financial due diligence ensuring that project performance matches forecasts and they also check annually that funded projects maintain their key contracts and relevant insurance covers. This ongoing due diligence runs counter to many people's perception of crowdfunding and it's a positive indicator of the professionalism of the RES crowdfunding sector.

In terms of broader after sales service only Abundance currently operates a secondary market for its investors. However apart from Lumo, which is restricted from operating a secondary market for regulatory reasons, the other platforms covered indicate an intention to develop secondary markets as their platforms mature.

RES developer motivations: the report finds that different platforms target different RES developer motivations. The dominant approach is to fill gaps in the debt market for smaller RES developers. Lumo appears to be the only platform that is fully focused on working with developers where the idea of community engagement is the prime motivator for working with a RES Crowdfunding platform.

Fundraise description: this report finds that all platforms appear to utilise digital and social media based marketing tools. Abundance, the largest of the platforms, has used traditional advertising tactics. Oneplanetcrowd provide an interesting alternative approach - they list reward-based crowdfunding projects where the projects then bring their own funders to the platform. Oneplanetcrowd therefore aims to convert these reward-based funders into investors, in essence using the reward projects to do the marketing for Oneplanetcrowd.

For RES projects there is often also a motivation to mobilise people living locally to the RES projects to become investors, therefore there is often a focus on local events and community-driven marketing efforts.

A more detailed research project would need to be conducted to fully understand how marketing spend translates to euros raised and without this it is difficult to compare the effectiveness of these different strategies.

Challenges and lessons learned

Growing the crowd:

For all platforms and perhaps not surprisingly the size of their investor base and cost of acquiring new investors was the core restraint to growth. Building awareness of renewable energy based crowdfunding and the existing platforms is key to scaling the industry.

To address this many platforms launch smaller projects at the beginning to grow a base and build confidence. There is also a focus from platforms on building relationships with their investors because repeat investment is central to scaling platforms.

Regulation is a driver:

Good regulation is a key driver of growth and in each jurisdiction there are regulatory issues which could be tackled. No platform is asking for the reduction in regulation per se, but instead that the regulation is designed with full consideration of the risks and operational models of these new business. Poorly designed crowdfunding regulation can curtail growth of platforms and also create risks at the detriment of consumers.

France: there are a number of constraints on the sector which it is felt could be removed while not undermining investor protection. Enabling crowdfunding platforms to operate secondary markets and onboard non French investors are key requirements.

Germany: The 2015 promulgation of the German Retail Investor's Protection Act provides greater clarity to investors and RES developers. For example, if certain criteria are met, a prospectus must not be published. Yet, there is still uncertainty as regards parallel investments from the crowd and professional investors.

UK / EU: Abundance is a MiFID firm and operates a bulletin board as its secondary market. The bulletin board operates a little like ebay, however Abundance is limited in how it can operate its bulletin board and specifically cannot allow buyers and sellers to conclude their sale on the platform. Investors therefore have to conclude their sale off platform via email. If Abundance wanted to enable on platform conclusion of sales the bulletin board would potentially be categorised as a Multi Lateral Trading facility under MiFID, this would significantly increase the regulatory capital requirements of the firm. A crowdfunding platform does not require many of the extra capability that a MTF permission provides (specifically two way pricing), therefore there is an argument to create regulatory space so that a more advanced form of Bulletin Board can operate but one that stops short of offering full MTF capability.

Pan European Standards

Currently it is difficult for crowdfunding platforms to operate across borders. For instance Lumo is not able to take on investors from outside France, while Abundance even though it has a European Passport is not free to advertise in France. There will be some additional uncertainty around the impact of the UK's exit negotiations with the EU. There are also cross border issues stemming from different interpretations of prospectus directives as well as the fact that the cost of establishing and operating companies that issue debt securities varies per country. Projects seeking funds via Abundance need to have a public limited company (PLC) structure. Incorporating and running a PLC vis-à-vis limited company pose notably higher notary, accountancy and admin costs in countries like Germany. For SMEs this can be a deal breaker, particularly in the efficiency sector where the average project size is smaller. There appear to be discrepancies in the French rules where they require platforms to have retail investment advice permission, this is a significantly higher level of regulatory control than any other European country where it is standard for crowdfunding to be offered on an unadvised basis. In the UK there are requirements for investors to pass an Appropriateness test before investing - this assesses the client's understanding of the key risks of investing in investments offered by Abundance. A pan-European harmonization of downloadable offer documents would be another step into the right direction, providing greater clarity and transparency to investors and RES projects alike.

Fund Raise Data

With a limited data set there is no scope to conduct statistical analysis of the case study data so the analysis has been limited to a qualitative review of the data to draw out differences and similarities between platforms.

Age: there does appear to be a consistency in the age breakdown of investors with investment on average fairly evenly spread across the different brackets, but with less investors in the 66+ age something that is possibly due to the online nature of crowdfunding. Crowdfunding possibly represents a new model for engaging younger investors with savings into investing in renewable energy.

Run rate: Abundance on average has the highest run rate on its projects with Oneplanetcrowd coming in second. The run rate has increased over time on Abundance which can be expected as the community of investors grows and trust in the platform increases. Abundance is the longest running platform so it can also be expected to have the highest run rate.

It is difficult to compare run rates between investment or technology types due to the small number of case studies, but one thing that is clear from the limited data set is that the run rate on Abundance short term debenture (1 year) is significantly higher than the long term debentures it offers, indicating that investors tend to prefer shorter term instruments.

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Mean / median investment: Abundance has the highest mean investment but at the same time due to its low minimum investment amount has the lowest minimum investment. Even with its low minimum investment level the median investment level is above average, possibly this is driven by the maturity of the platform.

Non-national investors: Abundance and Oneplanetcrowd are the only platforms who take on investors from outside their home country. Abundance have seen their proportion of foreign investors per project increase over time, this is likely linked to increased awareness across Europe.

Financial Inclusion: RES crowdfunding platforms tend to offer lower minimum investment amounts than traditional RES investments and the evidence from the case studies listed in this report show that a significant number of smaller investors participate on each of the platforms. The indications are that crowdfunding is engaging a new demographic of investors with renewable energy and therefore broadening out the number of stakeholders in the industry.

Description of Case Study

Overview of platform case study

Below is a summary of the sections contained in each platform case study and what they cover.

1. Platform Regulatory Description

This section outlines the regulatory status of the platform, the section also explores any unique regulatory features as well as the platform's ability to operate across borders.

2. Website (Platform) capabilities

This section outlines the capabilities of the platform's website, identifying the main attributes that the platform offers clients as well as identifying key features that the platform operator feels are important for the overall success of its operations.

3. Investment product description

This section outlines the investment products used by the platform, different platforms typically focus on equity, loans or bonds, but some will offer a variety of debt and equity offers.

4. Platforms developer on boarding process

This section outlines the process that a platform goes through to recruit RES developers and the due diligence the platform undertakes before launching a specific project on its platform.

5. Investment information provided to investors

This section outlines the information the platform provides to prospective investors on the investment.

6. Ongoing Service to Borrowers and Investors

This section outlines the work that the platform does after the investment is raised in terms of service to both the investors and the RES developers who have borrowed money.

Overview of project case study

Below is a summary of the sections contained in each project case study and what they cover.

1. Company and technology description

This section provides a description of the RES developer company that is raising funds as well as a description of the renewable energy technology that is being used by the company.

2. Company Capital Structure

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This section will outline the capital structure of the company, for instance who owns the equity and the debt in the company. Leading on from this it will outline where the crowdfunded finance will sit in the capital structure.

3. Investment product used (loan, equity bond) and terms

This section leads on from the section above to provide full detail on the structure of the investment made by the crowd.

4. RES Developer motivations

This section explores the motivations of the RES developer for using crowdfunding to raise their finance.

5. Fund Raise Description

This section details how the platform went about marketing the fund raise and raising the capital for the RES developer.

6. Fund Raise Data

This section contains the quantitative data on the fund raise including detail on speed of raise and demographics of investors.

7. Challenges and lessons learned.

This section outlines any challenges identified by the platform and lessons learned from the case study project itself or more broadly.

Platform Oneplanetcrowd

Platform Description

1. Platform regulatory description

Oneplanetcrowd International B.V. is the operating company which is a full subsidiary of Oneplanetcrowd B.V., the holding company.

Oneplanetcrowd has been granted dispensation to act as 'broker in redeemable funds', as referred to in section 4:3 of the Financial Supervision Act (Wet op het financieel toezicht, or Wft). This means that Oneplanetcrowd is allowed to be intermediary in the provision of loans by consumers to entrepreneurs and organisations. Entrepreneurs can be funded to a maximum of €2,5 million in one year. Oneplanetcrowd is under the supervision of the Netherlands' Financial Markets Authority (Autoriteit Financiële Markten) and reports to the supervisor every 6 months.

Oneplanetcrowd is a multi-lingual platform and promotes reward campaigns outside the Netherlands, mainly in Germany. Loans and convertible loan campaigns are not offered outside the Netherlands.

2. Website (Platform) capabilities

Oneplanetcrowd core function is crowdfunding through a multilingual multi-finance-model platform. In addition an 'incrowd' functionality is offered with which entrepreneurs can raise funds in a private online environment. For payment services and the escrow account Oneplanetcrowd makes use of payment service provider Buckaroo. Oneplanetcrowd offers a repayment service to entrepreneurs for repaying the loans, which isn't done through its web application but through manual support services. Entrepreneurs are offered XML batch payment files. Therefore Oneplanetcrowd is further developing the IT infrastructure, including software modules offering detailed insight in the loan portfolio and offering wallet/holder accounts from which balance can be (re)used to invest in new projects. Finalization of the loan administration system and wallet services is expected for December 2016. Developing a communication tool for entrepreneurs on the platform to inform the crowd with automated quarterly business updates is in planning for development.

3. Investment product description.

Oneplanetcrowd operates rewards, loans & convertible loan crowdfunding. Its renewable energy crowdfunding does not use the reward mechanism. Funding periods generally are 45 or 60 days. Entrepreneurs repay loans annually over an agreed period of time, generally 2 to 7 years. Renewable energy projects generally have a longer loan period (5 years or more).

4. Platforms developer onboarding process:

4.1 Developer marketing process

Oneplanetcrowd does not focus on developers specifically. In order to find new projects they use the following marketing channels:

- Conferences & events: speaking at conferences and events
- Quicksan on the website
- Network of Start Green Capital (initiator of Oneplanetcrowd)

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- PR: focus on generating PR in trade press as well as public press
- Recently started a partnership with a third party specialized in structuring energy projects.

4.2 Platform Due Diligence Process and requirements

Oneplanetcrowd considers it its duty to assess the entrepreneurs and their projects before they are published online on the crowdfunding platform.

All entrepreneurs follow the approval procedure:

Initial screening: After a short intake call, personal interviews are held on Oneplanetcrowd premises. Based on the initial data provided by quick scan/mail/ telephone it is decided if the project fits the platform criteria & financial products.

Handing in documentation: When deemed suitable the entrepreneur will be asked to supply the following documents and information:

- Proof of identity. A copy hereof is requested in order to ascertain the entrepreneur's identity.
- Chamber of Commerce (Kamer van Koophandel, or KvK) registration number. This is to determine whether the organisation is registered and whether the entrepreneur is legally entitled to represent the organisation.
- Office for Credit Registration (Bureau Krediet Registratie, or BKR) listing. This will show any record of outstanding payments or credit repayments in the name of the entrepreneur.
- Certificate of Good Conduct.
- Financial prospectus. Historical data (including annual report and recent balance sheet) and projections of results and returns expected in the future.
- Business plan. Starting entrepreneurs wishing to obtain a subordinated convertible loan from the crowdfunders must turn in a business plan.
- Copies of contracts and permits crucial to the project/company.

Interview & analysis: Evaluation of the financial prospectus is carried out by experienced business analysts at Start Green Capital. The prospectus must forecast - insofar as can be reasonably projected - that the enterprise will be able to meet its future obligations to the crowdfunders.

Finalizing documentation: When the project is deemed suitable the agreements entered into by entrepreneur and crowdfunder upon investment in the project are drawn up by Oneplanetcrowd and then submitted to the entrepreneur for approval prior to online publishing.

Project Live: Once the approval procedure and signing of the project agreement between entrepreneur and Oneplanetcrowd have been successfully completed, the entrepreneur's project is published online. The project page which will eventually be published online, with the entrepreneur video and the different investment buttons, is reviewed by Oneplanetcrowd for clarity, transparency and completeness.

Oneplanetcrowd has a Service Level Agreement with Start Green Capital for using the services of Start Green's investment associates and financial business analysts at cost price. With Start Green's analysts, Oneplanetcrowd is fully equipped to scan the project and carry out financial, technical and legal due diligence. If needed, an expert review can be acquired from the extensive network of Oneplanetcrowd and Start Green Capital.

5. Investment information provided to investors

Information on the project is provided on the project page and more recently a downloadable investment document has been supplied covering all vital project/company info, including a report from the analysts and detailed info on the financial terms applicable.

6. Ongoing Service to Borrowers and Investors

6.1 Post investment service to investors

Oneplanetcrowd provides the following post investment service to its investors:

- Info & updates from the project
 - Every six month updates are given by the entrepreneur.
 - Financial data of the last two quarters and a forecast for the coming two.
 - Updates on milestones reached, highlights
- Check with entrepreneurs if they live up to their obligations
 - Reward obligations are monitored and if needed action is taken to make sure entrepreneur delivers
 - If repayment of loans does not occur on time, Oneplanetcrowd contacts entrepreneur to discuss a suitable solution. If needed, platform will legally support the crowd and will mediate between the entrepreneur and the crowd.
 - If entrepreneurs cannot meet obligations, Oneplanetcrowd's custodian agent will execute the security rights on behalf of the investors.

6.2 Post investment service to RES developers

Post investment Oneplanetcrowd provides repaying funds back to investors.

7. Platform operational performance

Oneplanetcrowd uses linear or bullet loans with a fixed annual percentage rate. Oneplanetcrowd monitors repayments to the crowd and currently all repayments to investors in RES are matching forecast.

8. Platform operational learnings

8.1 Start up

Oneplanetcrowd launched its website with 10 projects with the intention to attract a lot of crowd. Unfortunately only two successfully raised the target amount. It is better to start with 2-4 projects that are highly appealing to a large crowd and use that to generate media attention.

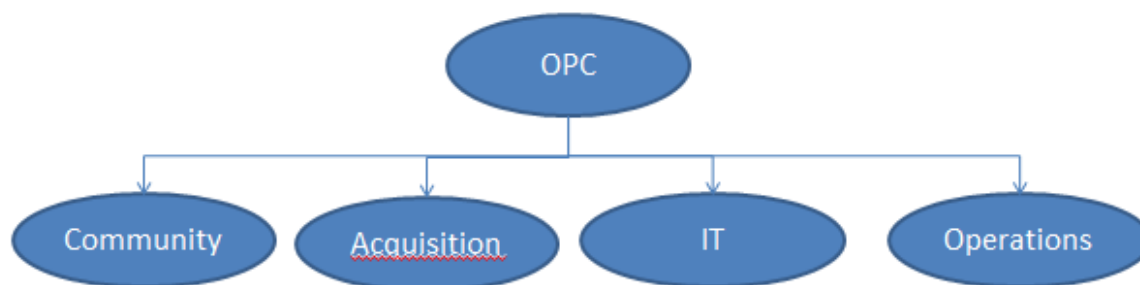
8.2 Ongoing topics

Oneplanetcrowd has learned several lessons along the way. These include not developing all your IT yourself and trying to source modular standardised applications. Also withholding from automating all of your processes before you go live, because you don't know your needs until you get started. Automate/implement more IT gradually when you know your needs. In the beginning, when you are small, it's fine to do parts manually. These manual processes help you to understand your automization needs.

The quality of your due diligence of the projects, is in the end the quality of your service: it determines how much capital flows back to your investors according to predicted returns. Having experienced and qualified staff or external experts for your due diligence is crucial.

8.3 Scaling topics

Don't hire staff too junior due to capital limitations. Attract senior experts on the relevant topics. It will make you grow faster. Your IT in the end is crucial and must be built on reliable frameworks and in a modular structure. Oneplanetcrowd (OPC) is of the opinion that a crowdfunding platform team should be organised alongside its critical success factors. With one specialist heading each department/success factor: community management, project and partner acquisition, IT and operations (due diligence new projects, monitoring funded projects), as outlined in the chart below.



Oneplanetcrowd Project Case Study 1: Biomass Power Plant

1. Company & technology description

Oneplanetcrowd has worked with a company that has successfully executed several projects in the main focus areas (office parks, community pools, nursing homes, residential areas) from feasibility to the operations phase. The company serves the Dutch market for community-scale wood fuel heating, it builds and manages local biomass power plants that generate heat from wood. A flexible service offering has been developed to implement wood energy solutions replacing gas-fuelled systems.

2. Company capital structure

The company develops mid-size biomass power plants all over the Netherlands. Financing is structured through a combination of bank loans and subordinated bonds that are issued by the Fuelling the Future Fund. In addition the new customers of the wood fuel heating plants will sign a 20 year purchase agreement and pay a one time commission equal to the saving on the investment for a system fuelled by gas.

After the initial investments during the development and building of the plant the equity invested via the Fuelling the Future Fund are replaced by a subordinated loan via crowdfunding. This 'freed' capital will then be used to start-up a new project and pay for the financing in the initial phase.

3. Crowdfunding investment product (loan, bond, share)

The crowdfunding product used in this project is a subordinated loan, with a bullet repayment and a 5 year tenor. The interest rate is 7.5%, to be paid annually.

4. RES Developer Motivations

4.1. Rational for using crowdfunding

Opportunity for local community to participate in the investment. The subordinated bond option has an investment threshold of EUR 100k (limited by regulatory provisions). Crowdfunding makes it possible for people to participate for a lower amount and be part of the success of the company. Once the crowdfund had taken place, the company also noticed that the project helped them with respect to marketing/PR and useful contacts for future projects.

4.2. Rational for using specific platform

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Oneplanetcrowd was used for its specific focus on and expertise with projects with a sustainable and social impact. Oneplanetcrowd has an active crowd of more than 17,000 investors specifically interested in projects with both an attractive financial return as well as a positive impact on the world we live in.

4.3. Rational for choice of investment structure

The company wanted to attract debt to free-up the equity in the project, so that the equity could be released and used to invest in the development of new projects. The loan needed to be sub-ordinated because of the existing bank loan.

5. Fundraise description

5.1. Description of target audience

The Oneplanetcrowd target is middle higher income investors looking for an alternative investment option for their savings.

5.2. Description of channel deployed

The main channel is the Oneplanetcrowd website. Traffic is generated by both the entrepreneur and OPC through:

- Direct mail
- Social media
- PR
- Events

5.3. Description of messaging

The messaging used is earn a double dividend: a Return on Investment along with a societal impact.

6. Description of example activities

Direct mailing network entrepreneur, weekly newsletter to Oneplanetcrowd's 17.000 newsletter subscribers, pushing the projects via facebook, linked-in & twitter, generate media attention in national and local press.

7. Fund Raise Data

| Platform | Oneplanetcrowd |
|----------------------|---------------------|
| Project Name | Biomass Power Plant |
| Technology | Biomass |
| Location | Netherlands |
| Financial Instrument | Loan |
| Term Period | 5 years |
| Interest Rate / IRR | 7.5% |
| Date raise started | 15-Jan-15 |
| Date raise closed | 08-Feb-15 |
| Days Open | 24 |

| | |
|--|-------------|
| Total Amount Raised | EUR 290,000 |
| Number of investors | 116 |
| Mean Investment Amount | EUR 2,500 |
| Median Investment Amount | EUR 1,000 |
| Smallest Investment | EUR 500 |
| Largest Investment | EUR 30,000 |
| Investment run rate | EUR 12,083 |
| Youngest investor (age) | 21 |
| Oldest investor (age) | 74 |
| Mean Age | 49 |
| Median Age | 48.3 |
| % in age bracket: | |
| 18 - 35 | 5% |
| 36 - 50 | 49% |
| 51 - 65 | 38% |
| 66 + | 8% |
| % Male | 78% |
| % Female | 22% |
| % Investors from outside platform home country | 2.58% |

8. Challenges and areas for improvement

8.1. Description of challenges

The core challenges for Oneplanetcrowd are:

- Building a larger crowd
- Increasing the rate of return for the current crowd
- Building partnerships with RES developers so that they become repeat issuers.
- Finding good projects

8.2. Description of success drivers

The core drivers of success for Oneplanetcrowd are:

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- Track record of successfully funding projects with high PR value (Snappcar, Peerby, iLost)
- Track record of mother company Start Green Capital (as co-financier)

8.3. Description of mistakes, lessons learnt

Funders of Oneplanetcrowd projects seem to prefer a fixed return on their loans, rather than a variable financial return based on the amount of energy generated in the project. Previous variable return renewable energy projects had difficulties in raising finance. This project got funded within two weeks, much quicker.

8.4. Identify any policy asks

Nothing from this project created a policy ask.

Platform Green Crowding / Bettervest

Platform Description

Green Crowding collaborates with bettervest, a German crowdfunding platform. Bettervest & Green Crowding only fund renewable and energy-efficient projects on their platforms. The financial instruments available for investments are subordinated loans (partiarische Nachrangdarlehen). The case study refers to an energy-efficient project that was successfully funded on bettervest's platform.

1. Platform regulatory description

Bettervest is subject to the German regulatory framework. On July 10th 2015, the Retail Investors' Protection Act (Kleinanlegerschutzgesetz) entered into force in Germany. The Act covers subordinated loans, which are classified as investment products. Other noteworthy changes are that there are no prospectus requirements up to a threshold of € 2.5 million funding per project and that the maximum investment of private investors is €10,000.

Bettervest holds a §34f GewO license and is fully compliant with the regulatory framework governing its crowdfunding activities in Germany. Until now, non-German crowd investors cannot invest via the platform. Yet, the platform can fund RES projects located outside Germany.

2. Website (Platform) capabilities

Bettervest is an online crowdfunding platform where non-professional investors can finance renewable and energy-efficient projects. Online payment and contract signature processes adhere to high technical and regulatory standards. Investors can follow-up on their investments online. The client account area shows customer-specific information such as next payment, contracts and updates on their investments. There are no cash and investment accounts available on the platform. Cash is directly paid into client bank accounts. A secondary market mechanism is not implemented to date.

3. Investment product description.

Bettervest intermediates subordinated loans to private, non-professional investors. Loans funded by the crowd are paid out to project owners after a successful funding period. The funding period can last up to 180 days. Project owners repay loans annually over an agreed period of time.

4. Platforms developer onboarding process:

4.1. Developer marketing process

Bettervest relies upon an established network of installation companies, energy advisors and other companies in the sector. Some project owners find bettervest via google search engine, others are recommended by existing project owners. Word of mouth promotion, speeches at conferences, as well as features in magazines and newspapers are another route of taking new project owners on board.

As part of the process, bettervest directly contacts potential clients via mail and phone.

4.2. Platform Due Diligence Process and requirements

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Bettervest require that RES developers using the platform can bring 30% of the funding requirements to the platform themselves, bettervest then aim to supply the remaining 70%.

Each project funded by bettervest must undergo a technical and financial due diligence process in two steps. Firstly, bettervest carries out an assessment. Secondly, an independent energy consultant assesses the technical viability of the project. Bettervest can recommend energy consultants. Each project owner also receives technical support from bettervest and has access to a network of installation companies via bettervest.

During the due diligence process, project owners must answer the following questions amongst others.

- General information
 - Description of project and intended use of funds.
 - Statement of your motivation to be financed by bettervest
 - Are there any conflicts of interest, say for example your company has shares in bettervest or receives payments from bettervest?
- Financial information
 - Shareholder Agreement, in case of a Limited Liability Company (LLC), a list of shareholders
 - Certificate of registration, which should not be older than 6 months, including the ownership and representation relationships, identity of the shareholders, and managerial and supervisory executives (address (es) and date(s) of birth inclusive).
 - Copies of identification documents of all authorised representatives.
 - Financial plan
 - Balance Sheets of the past three years
 - Rental contract
 - Contracting documents
- Technical information
 - Size and type of the current system
 - Product data sheet of products under usage
 - The energy consumption of the current system over the past three years
 - Full maintenance contracts including prices

Depending on the type of technology, additional questions must be answered, such as.

- CHP or heating installation
 - Dimension of heated surface in m²
 - Construction /setup diagram of the new plant (provided by implementer)
 - Load profile and energy consumption
- LED
 - Installed overvoltage protection
- PV, Wind or Bio-energy project
 - All necessary permits: building permit, network approval
 - Land lease or ownership contract for the country
 - Law excerpts regarding the specified compensation

5. Investment information provided to investors

Investors have access to a great array of technical information, most noteworthy energy consultant reports, installation offers, data sheets of used products as well as a detailed description of the project itself. With regards to financial data, the investors have access to annual accounts of the loan participants, the rating report of the company made by the leading German solvency rating company “Creditreform” as well as the “investment information sheet”, a document requested by German law, which will also be deposited at the “BaFin” the German financial conduct authority. In addition, pictures and videos about the project and the project owner are available on the platform.

6. Ongoing Service to Borrowers and Investors

6.1. Post investment service to investors

After funding is complete and once the right-of-revocation period of 14 days has ran out, 70% of the loan is paid out to the project owner. The remaining 30% is paid out once the project owner provides proof that the technical implementation is initiated.

Loans funded via bettervest are paid back annually. If the project owner misses a yearly payment, the investor has the right to cancel their investment. Contractually, the investor may terminate the loan agreement with immediate effect of full repayment. Claims of all existing and future creditors are met pursuant § 39 Insolvenzordnung.

Investors can see all investments and important data such as tax information and accrued interests in their login area. Additionally investors can ask questions via mail, Facebook or phone and get support in case of problems with the project owner.

Each investor signs a contract with the RES developer online. The contract has been accepted by the RES developer upfront in an offline version and has sent this version to bettervest. Then the investor receives this contract with electronic signature via email.

6.2. Post investment service to RES developers

Bettervest takes care for the entire after-funding process. The project owner only has to pay their yearly annuity. After the funding is done, bettervest initiates the payout of the funding sum to the project owner, and reminds them if needed to send needed information for the payment steps. Bettervest addresses all questions from investors unless further information is required from the loan participant. Additionally, bettervest reminds the project owner to pay his yearly annuity.

The loan participant pays its yearly annuity to the project account, which is managed by an independent escrow (Treuhänder). Once the payment arrives on the account, the escrow distributes the respective payments to all investors, payments go straight to the bank of the crowd investor.

Funded projects are closely monitored. The loan participant provides regular financial and technical updates. Financial filings and audit reports are assessed as well as independent credit ratings of the loan participants. Repayments are closely monitored. Over the life-span of the loan, data and independent reports on technical implementation and energy consumption are evaluated amongst others.

7. Platform operational performance

38 out of 39 projects matched forecast and actual cash returned.

8. Platform operational learnings

8.1. Start Up Phase

A key learning from bettervest was to set the right priorities. This is very important, particularly in the beginning. It matters for picking the right market niche, type of projects, media outlets and other activities.

8.2. Scaling Phase

In order to scale, bettervest prioritises quality over quantity, in particular during the due diligence process it is very important to pick the right projects. It is time-intensive to evaluate projects - spending a lot of time on assessing projects that are not presented on the platform in the end or cannot be funded harm the cost-effectiveness of the platform's ongoing activities. The platform only gets paid when a project is successfully funded. However, the work and costs of assessing projects is done upfront. For the reputation of the platform, it is also very important that

Practical experience of RES project financing using crowdfunding

projects presented on the platform adhere to high quality standards. Past performance of projects is an important indicator to investors, giving them trust.

Another important operational learning was that close cooperation with energy efficiency, finance and crowdfunding professionals created greater efficiencies and benefits. Effective collaboration resulted in more tangible results in terms of funded projects.

Success also depends on the team members. The team as in any startup is so decisive in making it a success or failure.

Bettervest Project Case Study 1: Hotel Magnetberg CHP Plants

1. Company & technology description

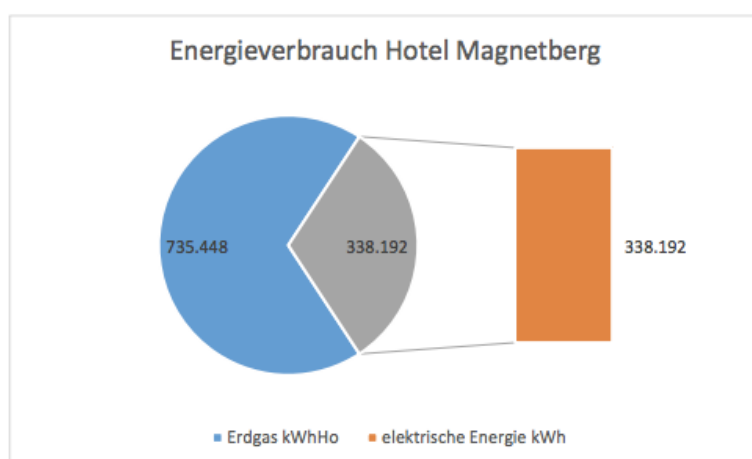
The project concerns the installation of two combined heat and power (CHP) units in Hotel Magnetberg, located in Baden-Baden, Germany. The combined output of the cogeneration units is 20 KW electric and 40.1 KW thermal power, leading to annual CO₂ savings of approximately 95.78 tons, **29.4% vis-à-vis its previous CO₂ emission**.

The total cost of the project was €172,250. The investment yields a return of **7% over a period of 7 years**.

The crowdfunding campaign started on October 30th 2015 for a period of 3 months. The sought capital of €172.250 was fully sourced within 37 days.

Previously, natural gas-fired central heating supplied the hotel with heat, while power was bought from the public grid. The power and gas consumption of the year 2014 is shown in the figure below. According to the independent energy report of Ingenieurbüro Peter Wunsch, total power demand was 338,192 kWh and total natural gas demand 735,448 kWh in 2014.

Figure 1. Energy consumption prior to the CHP installation, 2014



Source: Ingenieurbericht Peter Wunsch, September 13th 2015, "Prüfbericht Plausibilitätsprüfung Wirtschaftlichkeit, BHKW Hotel Magnetberg Baden Baden", Saarbrücken, Germany.

Two identical CHP cogeneration units have been installed next to the existing natural gas boiler. A buffer storage has been installed for heating water. Technical details of the installed CHP units are as follows.

Type: InDop

Practical experience of RES project financing using crowdfunding

Make: 20 TO
 Electrical net power: 20.0 kW
 Thermal power: 40.1 kW
 Thermal output of the combustion gas: 64.2 kW
 Overall efficiency: 93.7 %
 Buffer: 2,000 liters
 Overhaul necessary after 40,000 operating hours

To generate heat and power, the CHP requires 955 210 kWhHo per annum natural gas as input. The CHP units generate approximately 543,219 kWh per annum heat which covers around 86% of the hotel's annual demand. The residual heat demand of 91,940 kWh is generated via the existing boiler. Simultaneously, the newly installed CHP units generate around 273,652 kWh power each year, of which 232 605 kWh per year is delivered to the hotel. This corresponds to 68.8% of the hotel's annual power consumption. A surplus of 41,407 kWh is fed into the public power grid every year.

The extent to which the CHP can be used to cover energy needs is based upon the load response of the reference electric energy of 2014. During winter months the CHP is expected to run at full load most of the time. In other seasons, the CHP is assumed to run under full load until the buffer storage is fully charged.

Thanks to the CHP installation, significant CO₂ savings can be achieved. Previously, the hotel's power demand was supplied by the grid. Taking the merit order of the German power supply into consideration, annual saving of about 95.78 CO₂ tons can be achieved, the equivalent annual consumption of eight family homes. The underlying rationale is that less power is produced via conventional power plants with a worse CO₂ balance than the CHP units, such as coal-fired power plants and plants without waste heat recovery.

The input of natural gas with CHP is now higher than it was previously. However, the CHP also produces electricity. In return, external energy supply from power plants is no longer needed. Thus, the primary energy balance of the project is improved after the installation of the new system.

Total cost of the project is €172,250. It includes the crowdfunding intermediary and escrow fee.

Andreas Cordier Hotelbetriebsgesellschaft mbH bought the CHP units from the installation and service company "W&S Wärme und Strom Service GmbH". Furthermore, a full maintenance contract has been agreed upon. The maintenance contract is valid for 10 years at maximum operating hours of 7,000 hours per year. The contract includes all repairs.

In comparison to the previous energy and maintenance costs, the newly installed CHP is estimated to generate annual cost savings of €32,201.

2. Company capital structure

The 3-star Superior Hotel Magnetberg has 76 beds, a restaurant and a wellness area. It was fully renovated in 2012. After the installation of the CHP units, no further hotel renovations are in planning.

The loan participant is the limited company "Andreas Cordier Hotelbetriebsgesellschaft mbH".

The limited company "Andreas Cordier Hotelbetriebsgesellschaft mbH," runs and owns the Hotel Magnetberg. Since July 2011, Mr. Andreas Cordier is the only shareholder of the company as well as CEO of Hotel Magnetberg.

The project costs of €172,250 were completely funded by the crowdlending campaign. Andreas Cordier Hotelbetriebsgesellschaft mbH did not personally invest equity. The only financial instrument used to finance the project is the subordinated loan crowdfunded via bettervest.

The subordinated loan sourced via crowdfunding is part of Andreas Cordier Hotelbetriebsgesellschaft mbH's balance sheet. The project is thus not ring-fenced via a special purpose vehicle.

Practical experience of RES project financing using crowdfunding

By the end of 2014, Andreas Cordier Hotelbetriebsgesellschaft mbH had total assets of €292,311. In 2011 Andreas Cordier Hotelbetriebsgesellschaft mbH took a bank loan to finance renovations. In 2014, the financial liabilities amounted to €223,931. Despite the fact that a loss of €49,319 was not covered by shareholders' equity in 2014, the company was allowed to assume that an "indebtedness" is not applicable in the bankruptcy legal sense (§19 InsO) due to proper on-going operations.

"Creditreform" is the leading solvency index in Germany. It provides an assessment of the creditworthiness and the risk of default for companies. Companies are scored between 100 (excellent credit) and 600 (inadequate credit / suspension of payments). The solvency index for "Andreas Cordier Hotelbetriebsgesellschaft mbH" is 349, which implies below average creditworthiness.

3. Crowdfunding investment product (loan, bond, share)

The subordinated loan sought equals €172.250. The repayment period is seven years with an annual interest rate of 7%.

The loan is structured as a so-called fixed-rate mortgage loan (Annuitätendarlehen). Annual loan payments are fully amortized. The repayment amounts are fixed for seven years.

The annual repayment date is set the same day the loan was initially transferred to the loan participant.

4. RES Developer Motivations

4.1. Rational for using crowdfunding

The hotel's rationale for using crowdfunding was to seek funding to implement efficient power generation technology. Bettervest intermediates a crowd-funded subordinated loan, which does not interfere with other liabilities of the hotel.

Another important rationale for the use of crowdfunding was the positive marketing effect. The hotel benefited from a tailored marketing campaign via the bettervest platform. News about the hotel's environmentally friendly initiative were disseminated across online and offline media channels. As an example, bettervest undertook a press event in the hotel while the funding was running. The positive image campaign not only led to a successful crowdfunding campaign but also helped the hotel win new guests. For example, the hotel offered investors, who invest more than 2,000€, a gift-voucher for a stay over of one night with a breakfast buffet.

4.2. Rational for using specific platform

The rationale for using bettervest was partly due to bettervest's technical experience and know-how. Its tight due diligence process and network of experts gave the hotel further certainty that the technical viability of the project was thoroughly assessed. Moreover, bettervest's expertise in marketing energy-efficient investments was an ideal fit for the project owner.

Another important decision-making factor was bettervest's 100% success rate. Until now, all projects put on bettervest's platform have been fully financed.

4.3. Rational for choice of investment structure

Bettervest intermediates subordinated loans. The financial instrument did not interfere with other liabilities of the project owner.

5. Fundraise description

5.1. Description of marketing activity

Bettervest used various online and offline media channels, and held a press event in the hotel during the funding campaign.

5.2. Description of target audience

Bettervest's target audience is made of individuals above 18 years of age who are interested in sustainable energy projects, social projects (as many of our projects have a social aspect, for example our projects in Africa) and the technical aspect of our projects.

5.3. Description of channel deployed

Marketing channels used to promote crowdfunding campaigns include the website, newsletter to registered investors, social media (e.g. Facebook, twitter, etc.) as well as national and local magazines and newspapers. In particular the latter channel is typically deployed in cooperation with the project owner to maximize the effectiveness.

5.4. Description of messaging

Bettervest's key message is that energy efficiency and renewable energy projects are for free. They pay for themselves by reducing the energy bill. The loan participant thus only repays its energy saving costs.

Apart from that, bettervest's philosophy is a holistic approach of energy projects combined with energy efficiency and further sustainable steps. Global energy transition will only occur if "normal" citizens are -> everyone is a change maker do good and talk about it

6. Description of example activities

Soon after a project is launched online, newsletters are sent to registered investors. In addition, Facebook posts are drafted about the project. For each project, a video on the key messages of the project is made.

The case study is a good example of combined marketing efforts of bettervest and the project owner. The hotel hosted for example a press event to spread the news about the energy efficient crowdfunding campaign. Another initiative of the hotel was to give investors who invested more than €2,000 a gift voucher for a one-night stay at the hotel. The initiatives resonated well with media, the overall image of the hotel as well as the crowdfunding campaign.

7. Fund Raise Data

| Platform | Bettervest / Green Crowding |
|----------------------|-----------------------------|
| Developer | Hotel Magnetberg |
| Project Name | n/a |
| Technology | Energy efficiency/ CHP |
| Location | Germany |
| Financial Instrument | Loan |
| Term Period | 7 years |
| Interest Rate / IRR | 7% |
| Date raise started | 30-Oct-15 |

| | |
|---|-------------|
| Date raise closed | 06-Dec-15 |
| Days Open | 37 |
| Total Amount Raised | EUR 172,250 |
| Number of investors | 133 |
| Mean Investment Amount | EUR 1,257 |
| Median Investment Amount | EUR 500 |
| Smallest Investment | EUR 50 |
| Largest Investment | EUR 10,000 |
| Investment run rate | EUR 4,655 |
| Youngest investor (age) | 22 |
| Oldest investor (age) | 78 |
| Mean Age | 42.6 |
| Median Age | 43 |
| % in age bracket: | |
| 18 - 35 | 33% |
| 36 - 50 | 41% |
| 51 - 65 | 22% |
| 66 + | 4% |
| % Male | 86% |
| % Female | 14% |
| % investors from outside platform home country | 0.00% |

8. Challenges and areas for improvement

8.1. Description of challenges

The core challenges for bettervest are:

- Cost and time of due diligence: Checking and carrying out due diligence of projects is time-consuming and cost-intensive. The margins are limited as projects quickly become too expensive.
- Project selection: Another challenge is to find the right projects. Still, many project owners are not aware of the benefits of crowdfunding. It is thus a big challenge to select the right projects while remaining extremely efficient.

8.2. Description of success drivers

The core drivers of success for bettervest are:

- A commonly understood legal framework that accounts well for underlying risks could drive success. In particular, harmonization across European regulatory systems would be a great enabler to expand the market reach, leading to scalability.
- Reputation and knowledge about crowdfunding are other important success factors since trust is an important ingredient to grow the business in the longer term.

8.3. Description of mistakes, lessons learnt

- A lesson learnt is that investors will be doubtful to invest if online information about a project is incomplete. Thus, a deep discussion with the crowd is very important to understand what kind of information is required and in which manner it shall be presented.
- Spending too much time with the wrong project owner can kill a crowdfunding platform. Therefore measures must be implemented to find out at a very early stage and rapidly if a project is worth spending time on.
- This is why a selection process framework is important to implement.

8.4. Identify any policy asks

A global regulatory treatment would greatly benefit the industry. In particular across Europe, harmonized policies would lead to greater growth in the crowdfunding industry, the financing of more environmental friendly projects and a greater engagement of citizens in the rollout of clean technology across Europe.

Green Crowding / BetterVest: Belgium Experience

Green Crowding collaborates with bettervest, another German crowdfunding platform, which finances renewable and energy-efficient projects. The financial instrument intermediated via the platform are subordinate loans (partiarische Nachrangdarlehen). The platform is subject to German laws governing crowdfunding activities.

Due to its extensive network in Belgium, Green Crowding also initiated projects in Belgium. One reason to enter Belgium was the financial viability of projects. The underlying green certificate system provides better returns for small- to mid-scale renewable and efficiency projects in Belgium than in other EU countries. The size, location and risk-return profile of the environmental-friendly projects in Belgium appeal to crowd investors. The success of energy cooperatives in Belgium also led to the conclusion that it was a good market for crowdfunding renewable and efficiency projects.

A pipeline of projects was already initiated in Belgium. One project, a 117 kWp solar roof in Belgium, was identified as the first project to be financed. The underlying financials and location of the project in Brussels was a good fit. In addition, the project owner had a successful track record and a pipeline of similar projects.

Green Crowding GmbH investigated how costly and time-consuming it would have been to extend its license to Belgium. After a more thorough research, the final conclusion was that the underlying sunk costs of being fully legally compliant in Belgium was not economic viable.

Most importantly, it would have taken significant time to undergo all administrative burdens imposed by Belgian laws. The project owner, which is also an SME, had a deadline to finance the project. By the time that all legal,

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administrative and resulting technical feasibility work would have been put in place, the deadline would have had long passed. Moreover, the sunk costs would have put significant financial pressure on the crowdfunding platform.

It was also tested whether enough funding could be sourced via German crowd investors. The marketing pull from German crowd investors of the project suggested, however, otherwise. One reason was that German crowd investors are not fully aware of the Belgian green certificate system. Thus, their trust in putting their savings to work for a renewable project in Belgium was lower than for German projects they fully understood. Another reason was the proximity to the project, despite the fact that Brussels is less than 300 km to the German border. Yet, there was not enough interest from regional and national investors.

To make the project happen, a cooperative was launched instead of financing the project via crowdfunding. The cooperative succeeded in raising the needed funds. The project owner could leverage on initial discussions and due diligence proceeding with Green Crowding to raise funds successfully via the cooperative. However, the crowdfunding platform did not benefit from the efforts and work put into the project.

In Belgium, there is already a successful track record of energy cooperatives. The process, time and underlying costs related to the launch of an energy cooperative are slimmer for launching a cooperative than a crowdfunding platform in Belgium.

Regulatory Description:

Prior to May 2014, no specific legislation addressed crowdfunding activities in Belgium. Consequently, companies operating in Belgium have been subject to significant regulatory uncertainty.

Uncertainties relate to the question whether direct offerings via crowdfunding qualify as a regulated financial service requiring a licence as an investment firm. As a consequence the growth of crowdfunding in Belgium has been very slow. Only two crowdfunding platforms have offered services that could in principle finance renewable projects. One company issues exit-sharing notes ("Notes"), which are debt instruments through a holding company. The holding company is a professional company, typically a particular venture capitalist, co-investing along with the crowd. Another company, which offered direct equity participation had to suspend operations. It had to avoid the potential application of the regulatory framework applicable to investment firms by waiving its entire fees for its services.

The Belgian Act of 25 April 2014 included various provisions amending the Prospectus Act of 16 June 2006 on public offer of investments instruments and came into force on 17 May 2014. Under the Prospectus Act the following operations do not qualify as a public offer of "investment instruments".

- The crowdfunding campaign raises less than EUR 300.000;
- A maximum investment of EUR 1.000 per person and per project is raised.¹

¹ <http://www.thales.be/language/en/crowdfunding-in-belgium-the-2014-report-3/>

Platform Lumo

Platform Description

1. Platform regulatory description

Lumo is authorized and regulated by the AMF (Autorité des Marchés Financiers). Lumo is authorised to arrange investments, in form of shares and bonds (non convertible) up to 1m€ per year, with a total maximum of 5m€, for only certain types of company (SA & SAS) and to advise customers on investing up to 1m€ per project.

Lumo has no capital adequacy requirement and can not passport its offers across borders.

2. Website (Platform) capabilities

Lumo's platform has all the capabilities to perform crowdfunding campaigns.

But due to AMF requirements:

- Lumo can't handle cash from customers: it has to use a PSP (Payment Service Provider). Therefore Lumo opens an e-wallet for each of its customer. Cash returns are paid into clients e-wallet, from here clients can re-invest the funds in future project or withdraw their funds
- For regulatory reasons Lumo can not organize a secondary market on its platform, its crowdfunded investments are therefore in effect non transferrable.

3. Investment product description

Lumo focuses on arranging investments via project finance senior bonds, but project finance junior bonds, corporate junior or senior bonds can be proposed too depending on the issuer and the project.

In most project finance for mature RES, a developer has to commit 20% of the total amount of the project cost to obtain 80% financing by a bank via a loan. Lumo's project finance senior bonds are usually issued with the same maturity and rate as this loan.

4. Platforms developer onboarding process:

4.1 Developer marketing process

As a pioneer in France, Lumo has been invited to many conferences and working groups relating to crowdfunding for RES. Many of Lumo's RES developer partners derived from meeting at events, SERGIES was one of them.

Since then, Lumo has a more pro-active onboarding process and is a member of almost all national association of RES developers in France.

4.2 Platform Due Diligence Process and requirements

Lumo works with a selected group of high-quality project developers and is focused on building long-term relationships with them. Lumo prefers to finance a pipeline of projects originating from the same RES developer.

Due Diligence Process

Lumo is only offering retail investors pre-financed projects, that have been financed by professional players (banks or RES developers); Lumo is then offering retail investors the opportunity to co-finance these selected projects alongside these players, Lumo therefore does not fully exit the professional investors.

Lumo is therefore not re-inventing the wheel and is not re-doing a full due diligence process on the projects it is selecting.

Lumo's added value is not to judge the financial bankability of one project, it relies on the professional co-investors to provide this due diligence, instead Lumo focuses on the project's 'social bankability'. This means Lumo makes sure the project has been well perceived by all its stakeholders for instance local authorities and the neighbours to the project. Lumo has refused to take on some bankable projects because of the conflicts they created around them.

5. Investment information provided to investors

Before seeing the financial offers, potential investors receive a risk warning, the warning covers the following:

- Potential risk of losing capital
- Illiquidity of the proposed financial products

During the investment process the investors will receive

- 5 to 10 pages term sheet for the bond offering (Terms & Conditions)
- Simplified business plan
- Compulsory information document about the issuer (2 to 5 pages)
- Lumo's employees are available to answer questions by mail during the investment process

After the investment process, the investors will receive:

- RES production numbers, at least yearly
- Alert email for payment being made to the clients e-wallet account.

6. Ongoing Service to Borrowers and Investors

6.1 Post investment service to investors

- Energy & financial production numbers & general updates about the project
- E-wallet management services (annuities payment), cash being handled by our PSP (Payment Service Provider)
- possibility to offer its bonds to relatives (over 18 years old)

6.2 Post investment service to RES developers

- Investor relations
- E-wallet management services (annuities payment), cash being handled by our PSP (Payment Service Provider)
- bonds registrar administration

7. Platform operational performance

All of Lumo's projects are matching forecast and actual cash returned.

8. Platform operational learnings

8.1 Start Up Phase

At the start up phase Lumo's key challenge was navigating the regulatory regime. In addition one of the key success factors was in convincing developers and banks to try out a test offer.

8.2 Scaling Phase

In order to scale, Lumo has found it imperative to build relations with clients which have a pipeline of projects (very different from most other crowdfunding activity, where raises are often a one-off activity for a business or project). Convincing more banks to work with them will also prove fundamental, as is finding the right balance between local retail investors and projects at all time on website.

Lumo Project Case Study 1: SERGIES SAEML

1. Company & technology description

SERGIES is a SAEML (Société Anonyme d'Economie Mixte Locale): a local private company issued from a public-private partnership: SERGIES is owned by 85% by a public structure: the Electrification Syndicate from La Vienne (a French county) and 15% by 3 private financial institutions.

SERGIES has a diversified portfolio of RES assets (Wind and Solar) producing around 120 GWh/year, equivalent to the consumption of a city of 60 000 people.

SERGIES was created in 2001 to develop RES for the Electrification Syndicate.

2. Company capital structure

SERGIES has a capital of 10,100,010€ as of 2014/12/31. To finance the Iteuil project, SERGIES put 200k€ Equity, Retail Investor 150k€ in Junior Debt and 1,550k€ came from a bank loan.

3. Crowdfunding investment product (loan, bond, share)

- Financial instrument: junior corporate bond
- Maturity: 9 years
- Interest rate: 3.19%, annuity
- Subscription period: 31 July- 16 November 2015
- Issuance: 30 November 2015
- Issuer: SERGIES SAEML (Société Anonyme d'Economie Mixte Locale)
- No secondary market
- Nominal 25€, max investment 2k€ (for the first 2 months of the campaign), Total 150k€

4. RES Developer Motivations

4.1. Rational for using crowdfunding

Practical experience of RES project financing using crowdfunding

The reasons for SERGIES to use crowdfunding are:

- SERGIES had requests for local residents to be able to participate in their projects as early as 2008.
- Before Iteuil, SERGIES had 2 successful crowdfunding campaigns with Lumo and wanted to test it on a bigger size project.
- La Région Poitou-Charentes offers an incentive for crowdfunding and SERGIES wanted to take advantage on it. The incentive takes the forms of a cash payment for every 1€ invested by someone from the Region:
 - 1€ of subvention for 1€ invested by someone from the Région but up to 250€ per person
 - Up to 50k€ per project, or 30% of total cost, whichever is the lowest

4.2. Rational for using specific platform

- Lumo was the pioneer for RES crowdfunding in France.
- Lumo is based in La Rochelle and SERGIES in Poitiers, therefore we are in the same Région and in the same eco-system, including a base of local retail investors.
- We first met as early as 2013, before crowdfunding was 'legalized' in France.
- Lumo has a specific interest to work with public-private partnership.

4.3. Rational for choice of investment structure

- SERGIES is not creating a SPV (Special Purpose Vehicle) for each one of the 'small scale' PV project they are building, so the 'Corporate Bond' structure was chosen in this case.
- In order to deliver to retail investors a shorter maturity and higher interest rate, the 'Junior Bond' was chosen over the senior one.

5. Fundraise description

5.1. Description of marketing activity

- First Lumo is using its customer base to find investors for a new project.
- Then a press release and some other public relation tolls are used to spread the news about the project.
- Digital marketing via social network can be used too in some cases.

This communication effort starts usually locally and then is spread globally (France) close to the end of the campaign. This strategy varies depending on the goal of the client (RES developer), who could have a preference between local investors and global visibility.

5.2. Description of target audience

- Local retail investors interested by local investment
- 'Green' retail investors (and more generally speaking 'Impact Investors') interested by renewable energy investment

5.3. Description of channel deployed

Lumo is using different marketing channels depending on the crowdfunding campaign goals:

- Physical events to present the RES projects
- Press release for paper medium
- Push on social network (mainly LinkedIn and twitter)

Practical experience of RES project financing using crowdfunding

- Video to be promoted on Lumo's website

5.4. Description of messaging

Lumo is using various sets of messages to reach different investors:

- receive the same return as the bank
- know where/how your money is working
- invest locally
- invest in green energy

6. Description of example activities

Lumo and SERGIES organized an event in Poitiers to spread the word about their projects. Advertising in a local paper was financed by Lumo to present the RES project, but not the financial offer. Currently regulatory restrictions in France mean that the financial promotion can not be advertised.

7. Fund Raise Data

| Platform | Lumo |
|--------------------------|---|
| Developer | SERGIES |
| Project Name | Iteuil |
| Technology | PV |
| Location | France |
| Financial Instrument | 1,4 MW Corporate Junior Bond (Debt Security) |
| Term Period | 9 years |
| Interest Rate / IRR | 3.19% |
| Date raise started | 31-Jul-15 |
| Date raise closed | 16-Nov-15 |
| Days Open | 109 |
| Total Amount Raised | EUR 150,000 |
| Number of investors | 193 |
| Mean Investment Amount | EUR 777 |
| Median Investment Amount | EUR 250 |
| Smallest Investment | EUR 25 |
| Largest Investment | 20 025 € |
| Investment run rate | EUR 1,376 |
| Youngest investor (age) | 21 |

| | |
|---|-----|
| Oldest investor (age) | 79 |
| | |
| Mean Age | 44 |
| Median Age | 43 |
| | |
| % in age bracket: | |
| 18 - 35 | 35% |
| 36 - 50 | 35% |
| 51 - 65 | 22% |
| 66 + | 8% |
| | |
| % Male | 76% |
| % Female | 24% |
| | |
| % Investors from outside platform home country | 0 |

8. Challenges and areas for improvement

8.1. Description of challenges

Not to be able to communicate the interest rate and maturity on the bond in meetings was a challenge for Lumo and especially for the RES promoter. This restriction is a regulatory constraint and something Lumo is lobbying to have removed.

- For this project Lumo needed to raise larger ticket size as before.
- Long term (9 to 15 years) maturity of Lumo's investment product is seen as too long for most retail investors, especially as Lumo can't provide liquidity.

8.2. Description of success drivers

- Lumo has good brand recognition in its Région.
- SERGIES has a very good reputation in the same Région.
- Lumo's track record of successfully returning money on previous projects since 2012.
- Support from the Région eco-system.

8.3. Description of mistakes, lessons learnt

Lumo has different kind of investors for its bonds, they need to be addressed by different means.

8.4. Identify any policy asks

- Lumo is lobbying for a tax break for 'local green bonds'
- It is near impossible not to talk about the interest rate and maturity, especially when competitors with simpler agreements can do it, is found to be counterproductive. So Lumo is asking for a removal of this constraint.

Platform Abundance Investment

Platform Description

1. Platform regulatory description

Abundance Investment Ltd is authorised and regulated by the Financial Conduct Authority (525432). Abundance is authorised to arrange investments in unlisted corporate Debentures and Shares issued by renewable energy public limited companies and distribute these investments to ordinary retail investors² and professional clients. Abundance is a MiFID firm and has a European financial services passport enabling it to operate across the EEA.

2. Website (Platform) capabilities

Abundance has the following functions on its platform:

- Cash accounts: enable clients to hold cash on the platform
- Investment accounts: enable clients to hold investments on the platform
- Child accounts (cash and investment)
- SIPP accounts – UK pension tax wrapper (cash and investment)
- ISA accounts – UK savings tax wrapper (cash and investment)
- Secondary market: ‘ebay’ like mechanism enabling people to trade investments they have purchased.
- Portfolio tools: a range of tools to help people understand what they have purchased.

With Abundance specialising in long term debt instruments it identifies the secondary market as a key feature for the platform. In addition to access the UK tax incentivised investment markets, the platforms ability to create segregated accounts for a single client (General, ISA and Pension accounts) enables Abundance to market different tax wrappers to its members.

3. Investment product description.

Abundance focuses on arranging investments in Debentures.

A Debenture is a Corporate Bond and in the UK is a “Designated Investment”. A designated investment is a security or a contractually-based investment, that falls within certain investments specified in Part III of the UK Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 (SI 2001/544) (as amended). Such investments include (among others) Debentures, shares, government and public securities. Designated investments fall under MiFID.

In the UK Debentures are issued by public limited companies (plc), debenture holders therefore benefit from the protections that the plc company structure provides. For instance they are required to produce audited annual accounts and there are additional controls and responsibilities on company directors.

² Financial Conduct Authority defines ‘ordinary retail investor’ as retail clients who are neither sophisticated investors nor high net worth individuals.

4. Platforms developer onboarding process:

4.1. Developer marketing process

Abundance does not have a sophisticated marketing strategy for RES Developers, to date most of their developer clients have come to them via word of mouth. Activities that the business does conduct in order to market itself to RES developers are as follows:

- Conferences: the firm focus is on speaking engagements at conferences.
- PR: Generating PR in trade press as well as national press

4.2. Platform Due Diligence Process and requirements

Abundance operates a five-stage project due diligence process.

Phase 1: Initial screening

Initial phase will gather key facts about a project to check fit with Abundance's criteria and objectives. For instance, Abundance excludes any development companies that do not have a track record of successful development behind them. Abundance does not raise money for start up developers from retail investors.

Phase 2: First meeting

If the initial screening has not already involved a face-to-face meeting with the controlling shareholders, this is arranged. Its purpose is:

- to get a better understanding of the objectives of using a public offer to raise funds
- to assess shareholders' understanding of and willingness to embrace the responsibilities of making an offer to the public
- to gain a fuller understanding of the project, the proposed terms of the funding and the longer term objectives of the project owners
- to explain in more detail the steps involved in preparing for a public offer and its marketing
- to outline the responsibilities of the directors of the issuing company, both during the offer and subsequently.

Phase 3: Commercial suitability

A fuller review of the financial model and testing of key assumptions to ensure that the proposed project will satisfy all stakeholders' commercial objectives. Target returns to investors are established at this point and form part of an Initial Term Sheet which is appended to the engagement letter between Abundance and the issuer and its controlling shareholder(s). Terms may vary before launch, but target returns are expected to remain unchanged.

Phase 4: Detailed due diligence

Abundance adopts a project finance-like due diligence exercise, which generally takes 6-8 weeks for a first-time issuer, to satisfy 2 requirements:

- the final phase of determining whether we think a project and its shareholders should be promoted to our customers
- to enable us to confirm that any materials used to market the offer comply with the Financial Promotions regulations

Practical experience of RES project financing using crowdfunding

- Due diligence covers all legal, accounting, and technical aspects of a project. Third party technical reports are required for all projects as well as third party review of the financial model.

Phase 5: Board sign off

Abundance board approval is required before any new mandate is taken on. Prior to launch, the Board is taken through an overview of the due diligence process and its findings, and anything else pertinent to a decision to market.

Abundance requires all its issuers to retain legal counsel to advise them on the public offer and the directors' obligations.

5. Investment information provided to investors

Abundance provides an Offer Document to investments which is downloaded from their website. In addition there is summary information held on the site, however investors have to confirm they have read the Offer Document before investing.

As the offer is below £5m it is exempt from the Prospectus Directive, but the document produced by Abundance is comparable in detail. The document is reviewed by lawyers and then signed off by Abundance as a Financial Promotion.

For investors buying debentures on the secondary market there is debenture performance data for them to use – specific data is energy production against target and cash returned against target.

All clients before investing are shown generic platform based risks, the clients are also warned to read the Offer document carefully to ensure they understand the project specific risks. Clients need to confirm they have read and understood these risks before being allowed to invest. In addition clients are shown and must confirm acceptance of the Abundance platform Terms and Conditions.

6. Ongoing Service to Borrowers and Investors

6.1. Post investment service to investors

Abundance provides an on going service to investors through the provision of the following:

- Asset Management: monitoring the performance of the underlying investment and the issuing company.
- Secondary market services: providing free secondary market services to investors.
- Data & updates from the project: provide investors with ongoing information on the performance of their investment and the company.
- Cash handling services: manage any cash returns to investments and money movements related to secondary market trades.
- Tax wrapper management: Abundance is an ISA Manager and also administers elements of its pension offer, where required the firm therefore interacts with HMRC to provide on going data in line with its responsibilities.

6.2. Post investment service to RES developers

Abundance provides the following ongoing services to its borrowers:

- Investor relations: Abundance is the point of contact for debenture holders, RES developers therefore do not have to handle queries from their investors on a day to day basis.

- **Debenture registrar services:** Abundance holds the register of debenture holders on behalf of the issuer and updates this if there are any debenture sales. The firm also therefore manages any cash returns paid by the developer.

7. Platform operational performance

Abundance uses Forecast Cash Returned against Actual Cash Returned as the investment performance metric. Abundance has chosen this method because they structure amortising debentures where a fixed amount of cash is returned each year, this means their interest rates start low but increase over time as the same amount of cash is paid out on a decreasing amount of outstanding. In total, Abundance has paid € 2,640,247.40 to investors. This equates to an average forecast performance ratio of 101.31%.

8. Platform operational learnings

1.1. Start Up Phase

Abundance became the first regulated crowdfunding platform in the UK, which has been crucial for building trust with developers and investors – as well as understanding the regulatory environment. In the start up phase the platform has to be very dynamic – always changing and improving operational processes. By engaging closely with the renewable energy and finance sectors, it is important to have sufficient expertise on board.

1.2. Scaling Phase

In the scaling phase Abundance will be looking to expand capabilities in the secondary market and its offering of types of investments – particularly within tax-free wrappers. This will help attract more investors who don't have much experience investing in RES. In addition, it will be crucial to balance the supply of new projects on the platforms with the ability to raise the money, making sure the number and size of projects doesn't grow too quickly for the also growing investor base.

Abundance Project Case Study 1: Upper Pitforthie Windgen PLC

1. Company & technology description

Upper Pitforthie Windgen PLC is a company that has been set up to own, operate and manage a single 500kW wind turbine on the Upper Pitforthie Farm near Stonehaven in Aberdeenshire. A power purchasing agreement is in place to supply North Eastern Fuels (a wood chipping and drying business on Upper Pitforthie Farm).

2. Company capital structure

Upper Pitforthie Windgen is run by two directors and shareholders, one of which is also director shareholder of North Eastern Fuels. Abundance has been appointed to arrange a second long-term debenture to refinance this project.

3. Crowdfunding investment product (loan, bond, share)

The investment is a fixed return transferrable Debenture with a term period of 1 year. The debenture offers an interest rate of 12%. The debenture was the first time that Abundance had offered a short term construction bond, it represents a significant departure from their standard model.

4. RES Developer Motivations

4.1. Rational for using crowdfunding

Practical experience of RES project financing using crowdfunding

Upper Pitforthie Windgen went for crowdfunding for the following reasons:

- Developer faced unique challenges with the project which meant that it required a more bespoke funding solution. Specifically the project had to raise money quickly to finance construction, in addition the project's grid connection was not due to come through immediately therefore in the early years the income was required to be generated solely via a power purchase agreement with the Farm hosting the project. These risks could be managed and investors protected but it required extensive work on Abundance to put the correct mitigants in place, this is work that more traditional funders were not happy to do.

4.2. Rational for using specific platform

- Abundance's track record financing single 500kW wind turbines: Abundance have raised approximately £4.5m for 4 similar projects which will make it possible to refinance the project after the wind turbine is built.

4.3. Rational for choice of investment structure

Upper Pitforthie Windgen are using debt as they would like to retain ownership and control over the assets, they are using short-term debt as the project is scheduled to fit in with other developments on the Upper Pitforthie Farm and aims to set up a long-term debt arrangement through Abundance Debentures once the turbine has been built.

5. Fundraise description

5.1. Description of marketing activity

The project followed Abundance normal marketing strategy, but in addition Abundance talked directly to High Net Worth investors in their network so that the offer was largely pre-placed before it went live.

5.2. Description of target audience

Mainstream ethically minded retail investors who are looking for short-term income generating investments.

5.3. Description of channel deployed

Currently predominately direct through the Abundance website with traffic driven to the website via traditional and digital MarComms.

5.4. Description of messaging

Win/Win message which emphasises the investment as generating a positive outcome for society / environment as well as a decent return for the investor.

6. Description of example activities

Using brand led outside communications backed up with investment need led conversion adverts online and in newspapers.

7. Fund Raise Data

Platform

Abundance

| | |
|---|--------------------------|
| Developer | WindGen |
| Project Name | Upper Pitforthie Windgen |
| Technology | Wind |
| Location | England |
| Financial Instrument | Debt Security |
| Term Period | 1 year |
| Interest Rate / IRR | 12% |
| Date raise started | 24-Nov-15 |
| Date raise closed | 03-Dec-15 |
| Days Open | 9 |
| Total Amount Raised | EUR 3,045,000 |
| Number of investors | 408 |
| Mean Investment Amount | EUR 7,463 |
| Median Investment Amount | EUR 1,400 |
| Smallest Investment | EUR 7 |
| Largest Investment | EUR 315,000 |
| Investment run rate | EUR 338,333 |
| Youngest investor (age) | 19 |
| Oldest investor (age) | 94 |
| Mean Age | 47 |
| Median Age | 46 |
| % in age bracket: | |
| 18 - 35 | 26% |
| 36 - 50 | 36% |
| 51 - 65 | 30% |
| 66 + | 8% |
| % Male | 76% |
| % Female | 24% |
| % investors from outside platform home country | 4.17% |
| Investor Resident Countries | Belgium |

| | |
|--|-------------|
| | Denmark |
| | Finland |
| | France |
| | Germany |
| | Italy |
| | Malta |
| | Portugal |
| | Switzerland |

8. Challenges and areas for improvement

8.1. Description of challenges

This project faced specific challenges – for example it had a tight timescale to get built to secure the feed in tariff price, therefore the money was required quickly. The raise was also the largest raise Abundance had performed and also the first time Abundance had offered pure construction risk to their investor base. To manage the risk of not raising the cash quickly a high interest rate was put on the debenture but also a provisional offer document was produced ahead of the formal launch which was used to pre place the debenture.

8.2. Description of success drivers

Strong brand builds trust with potential clients: Abundance has built a track record of on target investment performance therefore investors trusted the platform when they offered a debenture with a different risk profile.

8.3. Description of mistakes, lessons learnt

The fund raise was very successful, the combination of pre-placement work and high interest rate ensured a rapid fund raise.

8.4. Identify any policy asks

Nothing from this project created a policy ask.

Abundance Project Case Study 2: BNRG Gorse Plc

1. Company & technology description

BNRG Gorse Plc (BNRG Gorse or Gorse) is a company set up to own and manage ground-mounted solar PV installations that are 249kWp in size in the south and south-east of England. BNRG Renewables funded the construction of the project in the early months of 2014. Cash raised from Abundance investors was used to refinance the two sites in Kent once the projects were completed and generating electricity.

2. Company capital structure

Practical experience of RES project financing using crowdfunding

BNRG Gorse Plc is owned by BNRG Renewables Ltd. The directors of BNRG Gorse are also directors of BNRG Renewables. BNRG Renewables has previously used the Abundance platform to raise capital for Hoo Solar in 2013.

BNRG Gorse equity is owned by BNRG Renewables, Abundance investors supply 100% of the company debt via the debenture issue.

3. Crowdfunding investment product (loan, bond, share)

The investment is a fixed return transferrable Debenture with a term period of 20 years. The debenture offers an IRR of 7.35% and pays out a fixed amount of investment income and capital every 6 months. The capital is paid back in equal instalments across the term period.

4. RES Developer Motivations

4.1. Rational for using crowdfunding

BNRG Gorse went for crowdfunding for the following reasons:

- Engage public investors: the developer is keen to broaden participation in UK renewables and feels public investment can help with this.
- Source of capital: the developer wants to own and operate a portfolio of solar farms and has struggled to find affordable 20 year finance for their projects.

4.2. Rational for using specific platform

BNRG Gorse decided to go ahead with Abundance because:

- Abundance is the only platform in the UK providing 20 year project finance type offer and beyond crowdfunding is also one of the few places offering long term project finance.
- The developer has used the Abundance platform previously for the successful Hoo Solar project.

4.3. Rational for choice of investment structure

BNRG Gorse are using debt as they would like to retain ownership and control over the assets, they are using long term debt as the project does not generate sufficient cash to pay back capital in a shorter period.

5. Fundraise description

5.1. Description of marketing activity

The project followed Abundance normal marketing template.

5.2. Description of target audience

Mainstream ethically minded retail investors who are looking for long-term income generating investments.

5.3. Description of channel deployed

Currently predominately direct through the Abundance website with traffic driven to the website via traditional and digital MarComms.

5.4. Description of messaging

Win/Win message which emphasises the investment as generating a positive outcome for society / environment as well as a decent return for the investor.

6. Description of example activities

Using brand led outside communications backed up with investment need led conversion adverts online and in newspapers.

7. Fund Raise Data

| Platform | Abundance |
|--------------------------|---------------|
| Developer | BNRG |
| Project Name | BNRG Gorse |
| Technology | PV Ground |
| Location | England |
| Financial Instrument | Debt Security |
| Term Period | 20 years |
| Interest Rate / IRR | 7.25% |
| Date raise started | 04-Dec-13 |
| Date raise closed | 27-Jun-14 |
| Days Open | 205 |
| Total Amount Raised | EUR 1,022,000 |
| Number of investors | 569 |
| Mean Investment Amount | EUR 3,585 |
| Median Investment Amount | EUR 350 |
| Smallest Investment | EUR 7 |
| Largest Investment | EUR 70,000 |
| Investment run rate | EUR 4,985 |
| Youngest investor (age) | 18 |
| Oldest investor (age) | 84 |
| Mean Age | 46 |
| Median Age | 45 |
| % in age bracket: | |

| | |
|---|-------------|
| 18 - 35 | 30% |
| 36 - 50 | 32% |
| 51 - 65 | 29% |
| 66 + | 9% |
| | |
| % Male | 78% |
| % Female | 22% |
| | |
| % investors from outside platform home country | 2.11% |
| Investor Resident Countries | Denmark |
| | Finland |
| | France |
| | Germany |
| | Greece |
| | Italy |
| | Norway |
| | Switzerland |

8. Challenges and areas for improvement

8.1. Description of challenges

The project at the time was one of the largest raises offered by Abundance, it was therefore challenging to fill the project in a timely fashion. Also as the project was one of the earlier projects by Abundance, the lack of mature secondary market was a turn off for people when faced with a 20 year debenture.

8.2. Description of success drivers

The key driver of success on this project was the fact that the developer had already raised money on the platform and that project had performed well.

8.3. Description of mistakes, lessons learnt

n/a

8.4. Identify any policy asks

For debt security based platforms ensuring that there is a well functioning secondary market is essential. Abundance bulletin board secondary market is demonstrating itself to work well, it operates a little like EBay, but the customer experience could be improved if there is a more flexible understanding of what constitutes a Multilateral Trading Facility (MTF). Currently when trading on the Abundance bulletin board clients need to conclude their trade off platform to avoid being classified as an MTF - it would provide a much better investment experience if clients could conclude their trades on the platform. See the end of the document for more details.

Abundance Project Case Study 3: REG WindPower

1. Company & technology description

REG High Down Plc was set up to own, operate and manage a single 500kW wind turbine near the village of Pensilva, Cornwall. REG High Down is owned by Renewable Energy Generation Ltd ("REG") and is run by REG Windpower Ltd (also part of the REG Group) through an Asset Management Agreement. The project has later been sold to a fund managed by BlackRock, the global investment management firm.

2. Company capital structure

REG High Down is run by 5 directors, one of which is the CEO of the REG Group and the others have various other roles in the company. The wind turbine has been constructed and financed by REG through a shareholder loan and the capital raised by Abundance investor went to pay off that loan.

3. Crowdfunding investment product (loan, bond, share)

The investment is a variable return transferrable Debenture with a term period of 20 years. The debenture offers an IRR of 8.4-9.3% and pays out interest and a fixed amount of capital every 6 months. The capital is paid back in equal installments across the term period.

4. RES Developer Motivations

4.1. Rational for using crowdfunding

Engage public investors: the developer is keen to broaden participation in UK renewables and feels public investment can help with this. At the time that REG decided to work with Abundance there was growing pressure from the Government for onshore wind developers to open up projects for local investment. High Down became a test case for the company.

4.2. Rational for using specific platform

REG Windpower decided to go ahead with Abundance because:

- REG has struggled to find affordable long-term finance, paying off shareholder loan frees up capital for company to take on other projects. Abundance combined local investment with fixing a specific finance need for REG.
- Abundance provided a unique opportunity for the developers to engage members of public locally and further away to engage with renewable energy.

4.3. Rational for choice of investment structure

REG High Down would like to retain ownership and control over the assets, they are using long term debt as the project does not generate sufficient cash to pay back in shorter period and would like to free up capital to take on other projects.

5. Fundraise description

Practical experience of RES project financing using crowdfunding

5.1. Description of marketing activity

The project followed Abundance normal marketing template.

5.2. Description of target audience

Mainstream ethically minded retail investors who are looking for long-term income generating investments.

5.3. Description of channel deployed

Currently predominately direct through the Abundance website with traffic driven to the website via traditional and digital MarComms.

5.4. Description of messaging

Win/Win message which emphasises the investment as generating a positive outcome for society / environment as well as a decent return for the investor.

6. Description of example activities

Using brand led outside communications backed up with investment need led conversion adverts online and in newspapers.

7. Fund Raise Data

| Platform | Abundance |
|--------------------------|----------------|
| Developer | REG Wind Power |
| Project Name | REG High Down |
| Technology | Wind |
| Location | England |
| Financial Instrument | Debt Security |
| Term Period | 20 years |
| Interest Rate / IRR | 8.4-9.3% |
| Date raise started | 13-Feb-14 |
| Date raise closed | 15-Jul-14 |
| Days Open | 152 |
| Total Amount Raised | EUR 2,100,000 |
| Number of investors | 672 |
| Mean Investment Amount | EUR 3,125 |
| Median Investment Amount | EUR 700 |
| Smallest Investment | EUR 7 |
| Largest Investment | EUR 140,000 |

| | |
|---|-------------|
| Investment run rate | EUR 13,816 |
| Youngest investor (age) | 18 |
| Oldest investor (age) | 94 |
| Mean Age | 46 |
| Median Age | 46 |
| % in age bracket: | |
| 18 - 35 | 28% |
| 36 - 50 | 32% |
| 51 - 65 | 31% |
| 66 + | 9% |
| % Male | 77% |
| % Female | 23% |
| % investors from outside platform home country | 2.53% |
| Investor Resident Countries | Denmark |
| | Finland |
| | France |
| | Greece |
| | Italy |
| | Luxembourg |
| | Netherlands |
| | Norway |
| | Switzerland |

8. Challenges and areas for improvement

8.1. Description of challenges

The key challenge was that the project was the largest Abundance had taken on to date, so Abundance had to put significant resources into growing its investor base and find investors looking for long-term projects.

8.2. Description of success drivers

The key drivers of success were:

- The project had a high return rate.
- The project was with a well-established developer, an AIM-listed company, which helped build investor confidence

8.3. Description of mistakes, lessons learnt

Practical experience of RES project financing using crowdfunding

Nothing to report

8.4. Identify any policy asks

N/a

Platform CONDA

1. Platform Regulatory Description

CONDA is organised as a corporation. In order to start a business as a crowdfunding platform the authorisation for the business of an investment counselling and the authorisation for business consultancy was needed. When the platform was started the business of investment platforms was not known, therefore they went for two business authorisations to make sure legal prerequisites are met.

2. Website (Platform) capabilities

The key features of the website are an investment platform to invest into companies, further there is a discussion fora, a newsroom and a page where details of projects are presented. In addition to that a blog is provided. The platform itself can check the identity of investors.

3. Investment product description

At CONDA only subordinated loans are offered to investors. In the case of financing startups investors get an interest rate in return and additionally a bonus based on the value of the company. When small and medium sized companies are financed investors get an interest rate in return and a bonus based on the volume of sales. The second option will only be chosen by companies that already have a positive EBIT.

4. Platforms developer on boarding process

Projects offered to CONDA will be first screened by an innovation scout that makes a first analysis, if a cooperation with the company is desirable. Afterwards an advisory board will deepen the assessment and a Mini-Due Diligence will be made. In case of energy project additional external expertise is needed in order to assess the projects.

5. Investment information provided to investors

At CONDA Investors get support with the finance plan and the business plan. Information is provided at the website. Further they have the possibility to ask questions at the online section.

6. Ongoing Service to Borrowers and Investors

The companies are accompanied until they leave the platform. Usually a subordinated loan has an investment period of 5 to 10 years. In this time quarterly reports are checked.

CONDA Project Case Study: Clean Capital, Solar power plant Lärchenholz

1. Company and technology description

To implement the project a GmbH (LTD) was founded. The GmbH belongs to 80 % to the company Janach, 20 % of the company is owned by Clean Capital. The GmbH has 35.000 Euro equity. the rest was financed by a bank loan and equity. However, it was not only a solar power plant that has been financed, but also the renovation of the roof. It is still possible that the equity will be increased for further projects.

Finally a solar power plant with 150 kWp was realised. A feed in tariff of 18,12 Cent has been granted for 13 years. The project was realised in two steps. In 2014 one part of the project of 15 kWp has been realised and in 2015 the solar plant was completed.

2. Company Capital Structure

The equity of the company amounts to 35.000. The finance volume of the project was 330.000 Euro. About 50 % is equity, about 50 % a bank loan, while 145.000 was raised through crowdfunding.

3. Investment product used (loan, equity bond) and terms

As an investment product for crowdfunding subordinated loans were chosen.

4. RES Developer motivations

For the project developer the main motivation was to realise a large scale project with citizen participation. They also wanted to give local investors the possibility to participate and they wanted to attract attention for their company, clean capital. Finally this worked out and Clean Capital was invited to many presentations.

Further the investment volume of the project was very high. It was always the target of the project developer to get project finance over a bank but nonrecourse. But it was difficult to get a bank loan for the whole sum. This would have only been possible if they would have provided private securities, like buildings or their flat, which they didn't wanted.

5. Fund Raise Description

On implementing the solar plant, they went on the assumption that Crowdinvestors want something exciting. They don't want to invest in something boring. They want high yields and short-term yields, while taking high risks. They think that this works out perfectly for financing Start-ups and CONDA, the platform they chose is specialised in this. The platform itself supported the project with facebook-entries and newsletters, but the main part of the work to identify investors was done by the project developers. Finally the major part of investors was mobilised by the project developers.

Clean Capital had the advantage that they had already experience in financing projects. Therefore they knew how to get to investors. This was helpful in mobilising interested investors as mobilising investors through the platform was less successful. This is the reason why the project developer stated that they will not do a second project in that way. The costs for the platform were very high, about 10 % of the investment volume. As the yields of solar projects in Austria are very low, these costs are perceived as very high. These low yields in Austria are mainly due to a subsidy scheme that grants feed in tariffs only for a period of 13 years, in Germany the feed in tariff is granted for 20 years. Therefore the yields are higher and according to the project developer, it works out better there to include a crowdfunding platform. Clean Capital will keep on organising citizen participation models, but they will not do a crowdfunding campaign in this form again.

6. Fund Raise Data

In general Clean Capital wanted that investors do not invest more than 5.000 Euro each. In general a lot of small scale investors could be mobilised. Most persons were older than 40 years and used crowdfunding as an alternative to the savings book. One investor contributed 20.000 Euro, in total about 50 persons participated. On average people invested 2.500 Euro.

7. Challenges and lessons learned.

As a project developer using a crowdfunding platform can be useful, if the platform is capable of mobilising the investors and the costs are acceptable. If the project developer has to bear the costs and also has to mobilise the investors, than it is not feasible. For Clean Capital this form of financing has not proven to be worthwhile.

Still, Clean Capital had very good experiences with citizen participation models and will further work on this. There are many small cooperatives and small citizen participation models that worked out very well. The regional identification is very important as well. On the other hand, financing over crowdfunding platforms is seen as rather difficult as they are specialised on financing Startups. In this aspect they have a good network of investors. Projects as the solar power plant Lärchenholz proved to be very difficult on the other hand. Clean Capital stated that they are not thinking about another project like this.

Crowdfunding for RES in Austria - an overview

1. Crowdfunding in Austria

Austria is one of the target countries of the CrowdfundRes project, while crowdfunding using internet platforms is still at an early stage in Austria. The market for crowdfunding has started to develop recently and new crowdfunding platforms emerged in the last years attracting more and more participants.

In Austria crowdfunding platforms mainly using equity-based crowdfunding to provide finance for startups. Further, some platforms specialised in projects for sustainability and environmental projects. When engaging in the field of renewable energy, crowdfunding is used mainly for raising funds for equity for the company. There is also investment in concrete projects or technologies but not in power plants or installations. In that instance also reward based crowdfunding is used. One example is the Mini-Solar-panel called "Simon" that Ökostrom AG wanted to develop. They started a Crowdfunding Campaign in 2015 with the platform "1.000 x 1.000". In total 985 funders gave 654.223 Euro and enabled the project to be funded. The investors were promised a Mini-Solar-panel as reward.

Interestingly crowdfunding platforms did not start to engage in the field of project financing for renewable energy installations, with the exception of the project Lärchenholz with the crowdfunding platform CONDA, which was completed in 2015. As pointed out in the case study above, the project developer was not very satisfied and will not start a second project in that way. The main reason was that mobilising investors over the platform did not work out as well as expected. The project developers had to find investors mainly on their own. Therefore their conclusion is that crowdfunding platforms are specialised in financing startups, but are not very good in project financing.

However, this negative experience can be also due to the fact that this kind of Crowdfunding is not very common in Austria. It may also be the case that crowdinvestors are more interested in financing startups and have different expectations regarding the level of risk and yields for financing renewable energy projects.

This is something that also renewable energy expert Cornelia Daniel Gruber (2015) highlights. She explained that the annual returns are too low for crowdfunding platforms in order successfully engage crowdinvestors in project financing for renewable energy installations.

2. Potential for crowdfunding platforms

While the crowdfunding platforms do not engage in project financing for renewable energy projects yet, many experts see potential for future involvement. For the energy advisor Georg Günsberg, crowdfunding via internet platforms is very tangible and offers easy administration. Peter Molnar, former director of the Climate Alliance Austria, a coalition of 954 municipalities in Austria, would welcome crowdfunding platforms engaging in that field, and expects positive effects to municipalities. This effect could be even strengthened by using the platform as an information hub for municipalities.

Critical feedback came from Elfriede Sixt, a crowdfunding consultant and author of the book “Schwarmfinanzierung und Crowdfunding”. She argues that crowdfunding platforms are also interested in their own annual yields. This can be costly to municipalities. Municipalities and project developers therefore have the option to simply collect money on their own and save the money for the services of a platform. She said that using crowdfunding should be taken into consideration, if the marketing effect is important to the client. Therefore the costs of the platform are partly offset by the marketing effect generated through the crowdfunding campaign.

In contrast to that Matthias Komarek, who supports municipalities in setting up solar energy projects in lower Austria, identified potential for cost reductions through crowdfunding platforms. If standardised legal and financial models were offered to municipalities or project developers, costs for legal consulting could be saved. Further, many municipalities or project developers are worried about legal consequences if their model used was not approved by the legal authorities. Actually many municipalities were faced with legal problems in the past by the financial authorities in Austria for not setting up finance models properly. Therefore standardised financial and legal models offered by a crowdfunding platform that are legally proven, could be another beneficial point for crowdfunding platforms to enter the market.

In general the legal environment would allow for crowdfunding platforms to enter the stage. Gregor Lässer, lawyer in the federal state of Vorarlberg, stated that in general the issuance of bonds, shares and subordinated loans would be suitable for crowdfunding in Austria as well. But he also identified disadvantages: many citizens are engaging in financing regional renewable energy projects because the regional identity is important to them. If internet platforms attract investors that are far away from the planned installations this would also have negative impacts on the regional character of projects and could have impacts on the acceptance by local citizens.

Conclusion: Comparison of Case Studies

Platform Conclusions

Platform Regulatory Description

The case studies highlight that the French regulatory environment is significantly more restrictive than other jurisdictions and that this in turn perhaps curtails the growth of Lumo, something that is arguably to the detriment of French investors, RES developers and the French crowdfunding industry. The restriction on operating a secondary market, advertising rates of return and limiting investment to only French investors does not appear to increase investor protection if anything it undermines protection for investors by weakening the crowdfunding business. In the UK market platforms can operate a secondary market and advertise interest rates and this has now been done successfully with no consumer detriment for a number of years. From the case studies, the regulatory environment of Germany, the Netherlands and the UK appear to have struck the right balance between investor protection and platform freedom and the platforms appear to be developing robust business off the back of the regulation. If regulation does not allow platforms the space to grow then investors will lose out, as the platforms they are operating on will never reach scale.

Conclusion: This report would recommend that the French regulator should review their crowdfunding policy framework and perhaps draw on the experience of other jurisdictions such as the Netherlands, Germany and the UK.

Website (Platform) capabilities

In terms of platform capability Abundance appears the leader in terms of platform sophistication with multiple account types, a fully fledged secondary market and full money processing capability.

Lumo, Bettervest and Oneplanetcrowd appear to have similar functionality focused on fund raising and all platforms appear to deliver the core investment process in a robust fashion. Austria's CONDA limited success in crowdfunding for RES projects does not appear to be deriving from a lack of platform capabilities, but rather from other market factors.

Conclusion: At this point in the development of RES crowdfunding technology does not seem to be core driver of growth. Though as the market develops this can be expected to change with investors looking for increasing levels of sophistication in their post investment care and perhaps starting to select platforms on their broader technology capability.

Investment product description

All platforms use debt instruments (loans or bonds), this is something which is not surprising because renewables are predominantly debt financed, with often providing up 100% of the projects CAPEX requirements. The market for debt is therefore significantly larger than the equity market. In addition by focusing on the debt element the crowdfunding platforms are not responsible for the management of the asset, but can leave that to the project owners and renewables professionals.

The dominant model used is the provision of debt to an SPV which holds the generating asset. The outsider to this is the Bettervest project where the loan is provided directly to the hotel for the purchase of the asset. This arguably increases the risk to the crowdfunding investors, because the investor is directly exposed to the wider risks associated

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with the running of the hotel as well as potentially having less rights over the asset in case of the Hotel going out of business.

There is also a tendency to use subordinated debt for the crowdfunded element, something that can be seen in the Oneplanetcrowd, Bettervest and Lumo projects. However, in these cases the terms are improved to reflect the risk in the case of the Oneplanetcrowd loan.

Conclusion: To date the RES crowdfunding covered in this report appear to have maintained a careful balance between risk and reward, it is important this continues as the platforms start to scale over the coming years.

Platforms developer on boarding process

RES crowdfunding platforms do not appear to do active advertising to recruit developer partners, across the board there appears to be a focus on building relations with a selected group of developers so that repeat business can be developed with these developers.

There appears to be across the board a recognition that detailed due diligence is required with all platforms having comprehensive processes for assessing the viability of the project. Whether that is an outsourced process such as with Lumo where the crowd are put in only if a professional investor / lender has already committed to lend money, to processes such as Abundance, Oneplanet crowd and Bettervest where experienced internal teams (and external technical experts) assess each individual project. In comparison to the wider crowdfunding industry, which includes startup and donation crowdfunding, standards for due diligence processes are higher for the four RES crowdfunding companies. Abundance seems to take further steps and, where required, demand changes to projects in order to mitigate risk.

Conclusion: RES Crowdfunding platforms appear to have advanced processes for conducting project due diligence and take care to ensure that the projects raising capital on their platforms are well run.

Investment information provided to investors

Lumo, Bettervest and Abundance all provide specific risk warnings that a client has to click through before they are able to read the full investment information. In all three cases this is prescribed by their respective regulators. In Abundance and Bettervest cases this does not appear to have curtailed growth.

All platforms provide or have the intention of providing a downloadable investment memorandum. Oneplanetcrowd is currently building this functionality in to their process. In the case of the other platforms there is a regulatory requirement to provide a detailed investment memorandum. Bettervest and Lumo provide a range of secondary documentation to support the sales process, but on Abundance apart from a very short summary of the project do not provide any other information. The regulation in the UK means investors are focused on a single document which should contain all the information the investor requires to make an informed decision to invest.

All platforms do provide some additional softer content such as photos and videos to support the sales process.

Conclusion: there appears to be broad recognition that a downloadable offer document is required that is either due to regulatory requirements (Bettervest and Abundance) and/or simply from an understanding that it helps the investment sales process (Oneplanetcrowd and Lumo). Currently there is no evidence regarding what investors prefer - an array of documents or a single summary document - but we expect that this will become clearer over time.

Ongoing Service to Borrowers and Investors

All platforms provide ongoing services to borrowers and investors – this includes project updates and general investors relations and interest repayments. Most platforms tend to monitor the financial and operational performance of the project (for instance checking the company has its various contracts and insurances in place and up to date). Abundance is also unique in providing a secondary market service to its clients.

Conclusion: all platforms provide some degree of ongoing information to investors. Abundance is the only platform providing after sales service, though at this point it is not clear that this translates directly into broader sales or reputational benefit.

Platform Operational Performance

With one exception, all the platform's projects are matching or exceeding their forecasted performance.

Conclusion: This speaks particularly well for the platforms' due diligence processes and forecasting abilities. While it is possible that the forecast figures may use a low base scenario, the forecasts are attractive enough to raise substantial investment from the public. Given the strong performance figures for the RES crowdfund projects, this gives investors greater confidence to invest in future projects and sets the basis for a higher growth trajectory for RES crowdfunding.

Overview of project case study

RES Developer motivations

There are two reasons for RES developers to seek crowdfunding for their projects. On one hand it is the desire to engage the public with their projects or business and on the other hand it is a simple desire for cash. In some countries there are moves to obligate developers to offer communities the chance to invest, in the UK for instance this an agenda which is being advanced and it is starting to create some new project opportunities.

Different platforms appear to be driven by different factors. Lumo for instance is primarily driven by developers' desire to engage the public. Lumo's developer partners do not appear to have trouble raising capital but increasingly are facing local opposition to project development so enabling local investment is perceived to help maintain local support. CONDA also aided a RES Developer seeking to widen public participation. Bettervest, Oneplanetcrowd and Abundance appear to be filling gaps in the RES debt market working on deals where either traditional finance will not operate because the deal size is too small or because the project has some unique characteristics which means it does not meet traditional lending requirements. SMEs seeking funds via bettervest also use the crowdfunding campaign to connect with their clients (hotel visitors, gym visitors etc.), improve their image and be featured in local media.

Conclusion: different platforms target different RES developer motivations, but the dominant approach is to fill gaps in the debt market for smaller RES developers.

Fund Raise Description

Bettervest is the only platform that prescribes that their borrowers should bring a proportion of the funding to the platform themselves. This is a tactic used quite often on equity or reward crowdfunding platforms, but bettervest seem to be unique in the RES crowdfunding space in adopting this tactic. RES raises are much more conventional investment offers than average crowdfunding campaign and the platforms tend to operate more in line with the peer to peer lending model where they are competing with traditional finance, there is therefore a desire to be seen as a trustworthy funding partner who can meet all the borrowers needs.

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All the platforms deploy the online social marketing tools such as Facebook, LinkedIn and other digital tools and certain platforms have experimented with advertising to help support their fundraises. Some platforms have also invested in offline marketing, including print media and events. From the data supplied in the case studies this appears to have translated into higher investment run rates and higher individual investment amounts. What is not clear from the case studies is the effectiveness of these campaigns in terms of marketing cost per € raised.

Oneplanetcrowd have relied on using networks to build its crowd. They run a reward based crowdfunding platform as well as an investment based platform, on the reward based platform the projects bring their own networks to the platform thereby building the oneplanet crowd, Oneplanetcrowd then try and convert a percentage of these people into investors.

Conclusion: all platforms appear to utilise digital and social media based marketing tools, Abundance the largest of the platforms has used traditional advertising tactics, Oneplanetcrowd provide an interesting alternative approach as they run reward based projects to attract funders to their platform and subsequently aims to convert these reward based funders into investors. Lumo builds upon trust and engagement in local communities. Bettervest provides investment opportunities with shorter maturities. It launched smaller projects at the beginning, building a base of repeat investors. Since most of bettervest's creditors are B2C SMEs like hotels, they also market the projects on and offline. Without detailed work on marketing spend against euros raised it is difficult to compare the effectiveness of these different strategies.

Challenges and lessons learned.

Growing the crowd:

For all platforms and perhaps not surprisingly the size of their investor base and cost of acquiring new investors was the core restraint to growth. Building awareness of renewable energy based crowdfunding and the existing platforms is key to scaling the industry.

Regulation is a driver:

Good regulation is a key driver of growth and in each jurisdiction there are regulatory issues which could be tackled. No platform is asking for the reduction in regulation per se, but instead that the regulation is designed with full consideration of the risks and operational models of these new business. Poorly designed crowdfunding regulation can curtail growth of platforms and also create extra risks for the investors.

France: there are a number of constraints on the sector which it is felt could be removed while not undermining investor protection. Enabling crowdfunding platforms to operate secondary markets, advertise investment rates and onboard non French investors are key requirements.

Jurisdictions like Germany recently overhauled the Retail Investor's Protection Act with the intention of providing better investor protection and certainty to crowdfunding platforms. Yet, there is still uncertainty as regards parallel investments from the crowd and professional investors.

UK / EU: Abundance is a MiFID firm and operates a bulletin board, which operates as a secondary market - a little like Ebay. Abundance is limited in how it can operate its bulletin board and specifically can not allow buyers and sellers to conclude their sale directly on the platform. Investors therefore have to conclude their sale of platform via email. If Abundance wanted to enable on platform conclusion the bulletin board would potentially be categorised as a Multi Lateral Trading facility under MiFID which increases the regulatory capital requirements of the firm significantly. A crowdfunding platform does not require many of the extra capabilities that an MTF permission provides (specifically two way pricing), therefore there is an argument to create regulatory space so that a more advanced form of a secondary market can operate but that stops short of offering full MTF capability.

Pan European Standards

Currently it is difficult for crowdfunding platforms to operate across borders. For instance Lumo is not able to take on investors from outside France, while Abundance even though it has a European Passport is not free to advertise in France. Costs and time of entering another European market are too high right now. There are also cross border issues stemming from different interpretations of prospectus directive as well as the fact that the cost of establishing and operating companies that issue debt securities is very different in different countries.

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Fund Raise Data

This section contains the quantitative data on the fund raise including detail on speed of raise and demographics of investors, where available. There is not sufficient data to make any definitive statements on major trends in crowdfunding for RES projects, but a few generalisations can be made however.

| Platform | Abundance | Abundance | Abundance | Lumo | Oneplanetcrowd | Bettervest/ Green crowding |
|-----------------------------------|--------------------|---------------|----------------|-----------------------|---------------------|-------------------------------|
| Developer | WindGen | BNRG | REG Wind Power | SERGIES | n/a | Hotel Magnetberg |
| Project Name | Upper Pitforthie W | BNRG Gorse | REG High Down | Iteuil | Biomass Power Plant | n/a |
| Technology | Wind | PV Ground | Wind | PV | Biomass | Energy efficiency/ CHP |
| Location | England | England | England | France | Netherlands | Germany |
| Installed Capacity | 500kW | 500kW | 500kW | 1,4 MW | | 20kW electric, 40.1kW thermal |
| Financial Instrument | Debt Security | Debt Security | Debt Security | Corporate Junior Bond | Loan | Loan |
| Term Period | 1 year | 20 years | 20 years | 9 years | 5 years | 7 years |
| Date raise started | 24-Nov-15 | 04-Dec-13 | 13-Feb-14 | 31-Jul-15 | 15-Jan-15 | 30-Oct-15 |
| Date raise closed | 03-Dec-15 | 27-Jun-14 | 15-Jul-14 | 16-Nov-15 | 08-Feb-15 | 06-Dec-15 |
| Days Open | 9 | 205 | 152 | 109 | 24 | 37 |
| Total Amount Raised | EUR 3,045,000 | EUR 1,022,000 | EUR 2,100,000 | EUR 150,000 | EUR 290,000 | EUR 172,250 |
| Total Capital Required | EUR 3,045,000 | EUR 1,022,000 | EUR 2,100,000 | EUR 1,900,000 | EUR 2,000,000 | EUR 172,250 |
| % of Total Raised through CF | 100.00% | 100.00% | 100.00% | 7.89% | 15.00% | 100.00% |
| Number of investors | 408 | 569 | 672 | 193 | 116 | 133 |
| Interest Rate / IRR | 12.00% | 7.25% | 8.4-9.3% | 3.19% | 7.50% | 7.00% |
| Mean Investment Amount | EUR 7,463 | EUR 3,585 | EUR 3,125 | EUR 777 | EUR 2,500 | EUR 1,257 |
| Median Investment Amount | EUR 1,400 | EUR 350 | EUR 700 | EUR 250 | EUR 1,000 | EUR 500 |
| Smallest Investment | EUR 7 | EUR 7 | EUR 7 | EUR 25 | EUR 500 | EUR 50 |
| Largest Investment | EUR 315,000 | EUR 70,000 | EUR 140,000 | EUR 20,025 | EUR 30,000 | EUR 10,000 |
| Investment run rate | EUR 338,333 | EUR 4,985 | EUR 13,816 | EUR 1,376 | EUR 12,083 | EUR 4,655 |
| Youngest investor (age) | 19 | 18 | 18 | 21 | 21 | 22 |
| Oldest investor (age) | 94 | 84 | 94 | 79 | 74 | 78 |
| Mean Age | 47 | 46 | 46 | 44 | 49 | 42.6 |
| Median Age | 46 | 45 | 46 | 43 | 48.3 | 43 |
| % in age bracket: | | | | | | |
| 18 - 35 | 26% | 30% | 28% | 35% | 5% | 33% |
| 36 - 50 | 36% | 32% | 32% | 35% | 49% | 41% |
| 51 - 65 | 30% | 29% | 31% | 22% | 38% | 22% |
| 66 + | 8% | 9% | 9% | 8% | 8% | 4% |
| % Male | 76% | 78% | 77% | 76% | 55% | 86% |
| % Female | 24% | 22% | 23% | 24% | 45% | 14% |
| % investors from outside platform | 4.17% | 2.11% | 2.53% | 0.00% | 2.58% | 0.00% |

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Age: there does appear to be a consistency in the age breakdown of investors with investment on average fairly evenly spread across the different brackets. There are predominantly less investors in the 66+ age, possibly due to the online nature of crowdfunding. Crowdfunding is a model which is therefore likely to engage younger investors with savings and investing. Oneplanetcrowd is an outlier in that it does appear to have a noticeably older community of investors - its mean is 49 years old while Bettervest seems to have a noticeably younger crowd with a mean of 42.6. There is not a clear reason for this difference, further research is required to understand what drives this difference and whether this is something specific to the Netherlands or Oneplanetcrowd itself.

Though on the average Abundance appears to have an audience that sits in the middle it does lay claim to the youngest (18) and oldest investor (94).

Sex: On all platforms the investor base is predominantly male. It may be the case that women are less interested in investment or in RES projects, but there is not enough data to make any conclusions. More research would be needed on why there is a significant gender disparity consistent across the platforms.

Run rate: Abundance on average has the highest run rate on its projects with Oneplanetcrowd coming in second. The run rate has increased over time on Abundance which can be expected as the community of investors grows and trust in the platform increases. Abundance is the longest running platform so it can also be expected to have the highest run rate.

It is difficult to compare run rates between investment or technology types due to the small number of case studies, but one thing that is clear from the limited data set is that the run rate on Abundance short term debenture (1 year) is significantly higher than the long term debentures it offers, indicating that investors tend to prefer shorter term instruments.

Mean / Median investment: Abundance has the highest mean investment but at the same time due to its low minimum investment amount has the lowest minimum. Its median investment level is above the average of the different platforms. This seems to be linked to the maturity of the platform.

Non national investors: Abundance and Oneplanetcrowd are the only platforms able to take on investors from outside their home country. Abundance have seen their proportion of foreign investors per deal increase over time, this is probably simply linked to increased awareness across Europe.

Financial Inclusion: RES crowdfunding platforms tend to offer lower minimum investment amounts than traditional investment and a group of investors are investing smaller sums of money. This seems to indicate that crowdfunding is engaging a new demographic of investors with renewable energy participation than has previously been the case.