INRiSC

CREDIT ANALYSIS REVIEW

April 26, 2018

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Contents

1. Introduction

This memorandum concerns the high-level credit analysis in connection to Lendahand's (the '**Client**') potential note issuance of upOwa. The scope of the review is limited to a general review of the credit-related risks in association with the Issuer (upOwa.) and the potential issue (the note request). This memorandum does not intend to provide any advice regarding a potential investment in the request under review. Client should make its own considerations and investigations regarding any investment or any offering thereof made to its customers and clients as intended. No rights can be derived from the use of this document. We note that, apart from credit risks, various other aspects might be relevant when considering an investment, e.g. (local) market circumstances, technology risk, country risk, etcetera. The analyses of such other aspects are excluded from this review. We underline that the review is meant to identify risk, not validate the business case under review commercially. Any comments made on such aspects should be seen in conjunction with credit-related analyses and have no value of their own, nor intend to indicate any deeper analyses of such underlying aspects. Information used in this review is limited (as referenced in Appendix A.1). No due diligence or verification of information received has been made. INRiSC has no further interest in the Issuer or the notes issued. INRiSC is not supervised by any regulatory body.

2. Notes issuance & summary

The request concerns:

- A senior ranking, unsecured, covenanted, EUR/GBP equivalent 500,000 facility with 2 year availability under which notes can be issued with a maturity between 6-48 months, of which the expected average will be 2 years. Each note has semi-annual, linear amortizing repayments;
- Issuer is upOwa SAS, a "Société par actions simplifiée", similar to a private limited company (or a Dutch "besloten vennootschap") based in France;
- UpOwa SAS has, via its branch in Cameroon, hereinafter "upOwa Cameroon" activities in the installation and servicing of solar panels and electrical appliances in Cameroon;
- The notes issuance is used for the financing of working capital purposes in upOwa SAS.

RISK ANALYSIS OVERVIEW	
PROS	**CONS**
Company	
Strong management team	Vulnerable to socio-economic, tax regime and political situation in operating market, stable economic outlook
Successful track record in attracting funding	
First mover advantage in Cameroon	
Business	
Large (untapped) market for sustainable (energy) solutions in Africa	Larger players active on the African SHS market could potentially enter the Cameroon market place and drive down margins
Scalable business model	Counterparty risk on customers that have no credit history
Developing new product lines	
Product	
Decentralized off-grid solar utilities	The longer duration of maintenance and servicing contracts in comparison with direct sales could lead to higher costs as problems occur more often later in the products life
Additional sales from ancillary products and services	
Broad market acceptance	
Strong technology platforms and data management systems in place	
Financials	
Has attracted investments from financial institutions and professional VC investors	Negative asset conversion due to cash trapped in inventory
Payment behavior of the customer is well understood and there is an adequate system of control	The payback period of sales are longer than would be the case with direct sales
Healthy funding mix of debt and equity	Reliant on outside funding until cash flows from operations become positive
	FX-risks have less impact due to pegging of local currency to Euro
Note structure	
Relative short term to maturity (2 yrs. with semi-annual repayments)	Unsecured
Senior	

3. The Issuer

3.1. The company

UpOwa is a French Distributed Energy Services Company (DESCO) founded in 2014. The company sells Solar Home Systems (SHS) with Pay-As-You-Go technology to rural households in French-speaking Africa. UpOwa Solutions is based in France. In its headquarters it focusses on management, financials, R&D and supply chain management. The company has a local branch, or business unit, in Cameroon. Every business unit will have a link to a country region with local outlets, local HR and oversees local operations. Every region has multiple points of sales where the sales team and installers are operating.

In December 2014 upOwa launched a crowdfunding campaign to finance a pilot project in Cameroon. The pilot project started in 2015 and lasted a year. Full commercial operations started in July of 2016. UpOwa now employs seven people at its headquarters in France and 33 in Cameroon.

As a result of technology improvements, innovative distribution channels and tailored financing options, the most remote rural households can be reached. With Pay-As-You-Go (PAYG) costumers pay through regular instalments with their mobile phone. By offering the product in instalments the company makes the SHS affordable to people without savings in rural Africa. The company installs the solar kit for a small upfront fee and then guarantees maintenance of the system as long as the customer pays the regular installments. After three years the customer owns the SHS.

Last mile distribution is done via centralized operations management combined with multiple local units to ensure last-mile visibility and an uninterrupted supply chain by sales agents on motorcycles. The national call and training centers are set up in order to achieve homogeneity of processes, customer satisfaction and feedback.

The current corporate structure will change in the future. As of today, money from France flows into the Cameroonian branch through bank transfers. The company is planning on turning the Cameroonian branch into a subsidiary by 2019. Money will flow into the subsidiary through shareholder loans including an arm's-length interest rate and amortization terms matching the expected free cash flows in Cameroon. Working with local subsidiaries lowers the risk for the parent company and is the industry standard. Setting up a local company will not seriously influence cash flows to and from notes and investors.

UpOwa has teamed up with Gaia Impact and Persistent Energy who both installed a member to the board of upOwa. Both Gaia and Persistent are specialized in electrical off-grid energy companies and stimulate these companies by investing in smart innovations. The company completed its seed phase with a successful commercial pilot and an operational branch in Cameroon and is now looking for funding to scale up.

3.2. Management

- Kilien de Renty (CEO and co-founder)
  - Kilien has launched this project after 3 years, of which two in the US, working as a Marketing Engineer and Business Developer for the "Commissariat à l'énergie atomique et aux énergies alternatives" (CEA) in the field of new technologies for energy and communication. His former experience as a Market Analyst at Engie and his past community commitments as volunteer firefighter and scoutmaster paved the way to the creation of an impactful company that tackles a major business opportunity in the Energy sector. He holds a Master Degree in Engineering, Grenoble INP (France)
- Caroline Frontigny (BD Director and co-founder)
  - Co-founder of upOwa, Caroline worked in the French embassy in the US before joining the World Bank as a Development Analyst for 4 years. She is in charge of business development and partnerships at a corporate level, and is also deeply involved to support operations development. She holds a Master Degree in Engineering, Supélec (France)
- Loïc Descamps (COO)
  - With more than a 20-year experience in Europe and Africa, Loïc has gained solid background in business development, general management and commercial and marketing management in various sectors (distribution, retail, telecom/ICT, banking). Designing, implementing and executing successful operational plans and initiatives that drive significant revenue growth and competitive market positioning in a cost-efficient manner is what he does best! He is an accomplished multilingual communicator with excellent negotiation skills, with a proven track record of forging strong business relationships and motivating multinational teams to meet and surpass demanding performance goals. Also highly qualified with an on-going MBA, an Executive Management Masters and a Bachelor's degree in Marketing, Loïc recently joined upOwa as Chief Operating Officer (COO) based in Cameroon.
- Thomas Muguet (CIO)
  - Thomas runs the Information Systems and Software Engineering teams at upOwa. Software enthusiast for more than fifteen years, he has a wide experience of project management and software development

from the engineering industry. He graduated from Ensimag, Grenoble Institute of Technology and has a M.S. in Advanced Information Systems & Software Engineering.

3.3. Credit history Issuer

UpOwa was founded in 2014. INRiSC was able to review a relevant four-year track record of historical figures. According to the data reviewed, the company has attracted a bank loan since 2016. The company has attracted mezzanine debt and equity from several investors specialized in the off-grid electricity business in developing countries. The company has as of yet not attracted local debt in Cameroon.

4. Business analysis

The Solar Home System uses a photovoltaic (PV) module and an inverter to convert solar energy into energy which can be stored in a battery. The battery can then be used to provide power for light and low-power uses such as mobile phone charging. UpOwa has also developed its own proprietary technology consisting of the monitoring system and management platform. This technology allows for remote monitoring and control of the system. The management platform is compatible with any supplier. In the future upOwa could monetize this technology by becoming a monitoring and management service provider to other off-grid companies. This potential revenue stream is not included in the financial projection of the company received by INRiSC.

As mentioned above the SHS is paid in installments. Once all the installments are paid off, the customer becomes the owner of the solar kit. The contract periods vary between 12 to 36 months. When a customer defaults, the SHS can be remotely disabled and in the worst case the system will be repossessed. After repossession the system goes through a set of quality tests which determines if the systems are ready to be resold. Currently 6% of the systems sold are repossessed, with a recovery rate of 93%. The number of customers not paying their bills is relatively stable with Portfolio At Risk (PAR)60 and PAR90 of 8.6% and 5.2% respectively. PAR figures represent the accumulated missed days of repayment. Customers can extend the repayment period with 2 months without penalty.

Potential new customers are identified by local sales agents after which they receive a questionnaire regarding their energy habits and social economic status. Hereafter, the customers are trained on the workings of the system and payment scheme. The customers receive a follow up call by an agent from the call center to ensure that the information provided is accurate and well-understood. Finally, only in particular cases, a field agent in charge of quality may visit the customer to perform an installation or satisfaction check and solve issues which are impossible to solve from a distance.

Recruitment of local agents is done through referrals from current employees. The potential sales agents participate in a training session after which only a few are selected to become upOwa's agents. The commercial agents receive a minimal fixed income according to Cameroonian law and a commission which is based on installations sold. After several months, agents receive an additional bonus based on repayment behavior of the customer and a final bonus once the system is fully repaid. These procedures are established in order to mitigate the risk of attracting un-creditworthy clients by the sales agents.

As there are currently no competitors in Cameroon, UpOwa has a first-mover advantage leveraging its existing last-mile distribution network. As the potential market is considerable, many potential new entrants can be accommodated. Current alternatives like firewood, kerosene and oil lamps are more expensive and have negative health and environmental effects. Substitutes such as diesel generators, mini-grids or grid extensions have proven to be unable to reach the last mile and are too expensive for the Bottom of the Pyramid (BoP) consumers.

UpOwa is manufacturer agnostic which reduces the risk of a supplier conflict harming the business. UpOwa currently has three suppliers: Greenlight Planet, Amped Innovation and Omnivoltaic which are paid in USD. Lead times are approximately two months at most. The manufacturers offer a 2-year warranty against hardware dysfunction.

Manufacturers are paid in USD and the LAH loan is in EUR and GBP exposing the company to forex risk as the company's revenue is in CFA Francs. The company does not intend to hedge against the EUR/GBP/USD in the short term. Diversification of funding across EUR, USD and GBP will be the first hedging strategy. In the future the company will look at additional hedging strategies when deemed beneficiary. The local currency CFA Franc is pegged to the Euro minimizing the indirect forex exposure from the operating branch' revenues to repayment of the LAH note. According to Standard & Poors, Cameroon has a B rating with stable outlook.

5. Financial analysis Issuer

INRiSC was able to review the consolidated annual accounts from 2015 onwards. The consolidated projections are based on the financial model provided by upOwa. The projections are based on supportive operations of the headquarters in France and on the sales of goods in Cameroon. INRiSC was able to obtain a good overview of the financials of the company going forward. Please note that INRiSC did not test the reality of the projections in terms of market share captured, underlying price levels, costs related to the realization of the product or its components. Nor did we test for consumer payment behavior, payment terms or consumer default rates and loan losses. Different than usual, INRiSC included the LAH notes issuance in the *Financial Ratio Table*. INRiSC intends to follow through with this method as of now.

The realized revenues from 2015 until 2017 have risen substantially. The company is currently operating at a net loss, but it projects to become profitable from 2020 onwards. These negative earnings are also reflected in the negative total debt/EBITDA ratio and the negative value for both the Interest cover and Debt service cover ratio's until 2019. DESCO companies are asset heavy and therefore have significant start-up losses as the company invests in assets that have long payback periods. See *Appendix A2* for all the ratio definitions used.

Key financial ratios, projected, including notes issuance	2018	2019	2020	2021
Current ratio	39.52	42.16	15.03	19.37
Total debt/EBITDA	Neg	Neg	3.95	2.55
Gearing	0.73	1.36	1.47	0.54
Own and Assoc. M/Tot Assets	0.52	0.40	0.39	0.64
Interest cover ratio	-15.00	-0.96	2.69	4.19
Debt service cover ratio	-15.00	-0.96	2.69	3.11
Cash cover ratio	55.3	4.0	7.0	7.0
Solvency ratio	52%	40%	39%	64%

Financial Ratio Table

5.1. Liquidity

UpOwa has a long cash cycle, due to the following two facts. First, the payment plans from PAYGO have a 1- to 3-year duration which stretches the cash cycle. Both points are not a company specific negative but an industry norm. The accounts receivable position entails a risk of non-payment by the customers though current PAR figures reflect the positive consequences of the measures taken by the company in mitigating this risk. Moreover, the large accounts receivable portfolio and a relatively strong cash position are positively affecting the current ratio. This indicates a strong ability to cover short-term liabilities from current assets.

5.2. Solvency

The increases in debt in relation to equity is reflected by the initial increase and thereafter decrease of the gearing ratio over the projected years. The decline in 2021 reflects the relatively big increase in retained earnings in relation to previous years. Leasing operations are capital-intensive, this is reflected by the relatively high gearing ratio. The company is planning a new equity raise in 2018 and indicated that it is confident that it can attract the funds from current investors. The projected solvency ratio indicates a strong position and reflects the ability to raise more debt if necessary. This is further strengthened by an increasing EBITDA in 2021 and corresponding decline in the debt/EBITDA ratio.

5.3. Cash flow analysis Issuer

The cash cycle of the company is relatively long due to the large investments in working capital and supply lead times. The company is projected to become profitable in 2020. Cash flow from core operations, meaning that the company can be considered cash flow positive when disregarding working capital investments, will also be positive and rapidly growing from 2020 onwards. Nevertheless, the PAYG leases put pressure on the lessors' cash cycle as it stretches the incoming cash flow. This is a risk inherent tot the business model and consequently causing the company's cash flow from operations to be negative over the projected years. In addition, to balance the projected increase in the accounts receivable portfolio working capital investments are required which negatively affects the cash flow from operations.

6. Collateral analysis

UpOwa's risk profile is tied to that of their customers which they provide with credit. The company has a system in place dealing with customers in arrears. The company is able to remotely lock the system and reposes it when necessary. UpOwa shows that it has the ability of repossessing the installations effectively with a current recovery rate of 93%. There are no senior secured lenders with claims on part of the inventory or the receivables of the company. INRiSC is not in the position to validate what the exact discount on the inventory would be in a distressed situation. The LAH notes will be *pari passu* with the current unsecured debt providers.

7. Risk analysis

The proceeds of the notes issuance by upOwa is used to purchase stock and support working capital financing needs. UpOwa has a considerable exposure on its customers' creditworthiness. Steps in mitigating this risk have been taken and seem effective as reflected by current PAR figures and recovery rate.

Although the company is currently exposed to forex risk, as suppliers are paid in USD and the note issuance is in EUR and GBP, a hedging strategy will not be implemented in the short term. A hedging strategy might be implemented when deemed beneficiary. The local currency CFA Franc is pegged to the Euro decreasing the forex exposure from the operating branch revenues. Cameroon has a stable economic outlook which lowers the forex risk. In addition, convertibility risk is deemed low, by which we mean the risk of restrictions on exporting funds.

The notes are unsecured meaning that any recovery in case of default ranks behind current and potential future secured lenders who have claims on inventory and receivables of the company. According to the current capital structure the LAH notes will be *pari passu* with other senior debt funding.

A. Appendices

A.1. Information used

The information used in this analysis were obtained from Client and include:

- Business presentation;
- Information Memorandum;
- Organizational chart;
- Financial projections provided by UpOwa;
- Shareholder agreements;
- Convertible loan agreements;
- Bank loan agreements;
- Interview with Kilien de Renty, Caroline Frontigny and Fabio Eucalipto from UpOwa by INRiSC.

A.2. Ratio definitions

- The current ratio measures a company's ability to pay short-term and long-term obligations.

$$Current\ ratio = \frac{Current\ assets}{current\ liabilities}$$

- Total debt divided by EBITDA is an indicator of the total debt capacity of the company. EBITDA being the Earnings before Interest, Taxes, Depreciation and Amortization.

$$Debt\ EBITDA\ ratio = \frac{Total\ debt}{EBITDA}$$

- Gearing refers to the debt to equity ratio and compares a company's own equity or capital to funds borrowed by the company. Only the tangible equity of the company is included, meaning that goodwill and other intangibles are deducted from the equity position.

$$Gearing = \frac{Tangible\ net\ worth}{Total\ debt}$$

- Own and Assoc. M/Tot Assets mirrors the solvency ratio with the addition of mezzanine funds (subordinated unsecured debt, convertibles, etc.) as risk capital to the equity position.

$$Own\ and\ Assoc.\ M\ Solvency = \frac{Own\ and\ Assoc.M}{TotAssets}$$

- The interest coverage ratio is a debt ratio and profitability ratio used to determine how easily a company can pay interest on its outstanding debt.

$$ICR = \frac{EBIT}{Interest\ payments}$$

- Debt service coverage ratio - the Debt-Service Coverage Ratio (DSCR) is a measure of the cash flow available to pay current debt obligations. A DSCR greater than 1 means the entity – whether a person, company or government – has sufficient income to pay its current debt obligations. A DSCR less than 1 means it does not.

$$DSCR = \frac{EBIT}{Total\ debt\ payments}$$

- Cash coverage ratio - this ratio assesses whether the company has sufficient levels of cash to meet its financial obligations.

$$Cash\ coverage\ ratio = \frac{Cash + marketable\ securties}{Total\ quarterly\ debt\ repayments}$$

- Solvency ratio is a key metric used to measure an enterprise's ability to meet its debt and other obligations. The solvency ratio indicates whether a company's cash flow is sufficient to meet its short-term and long-term liabilities.

$$Solvency = \frac{Tangible\ net\ worth}{Total\ Assets}$$