Deals and Corporate Finance

Alphakat Holding International Ltd

Investment in a plant in Cyprus for the production of bio-diesel oil from hydrocarbon materials

Teaser Document

Strictly private and confidential

Draft

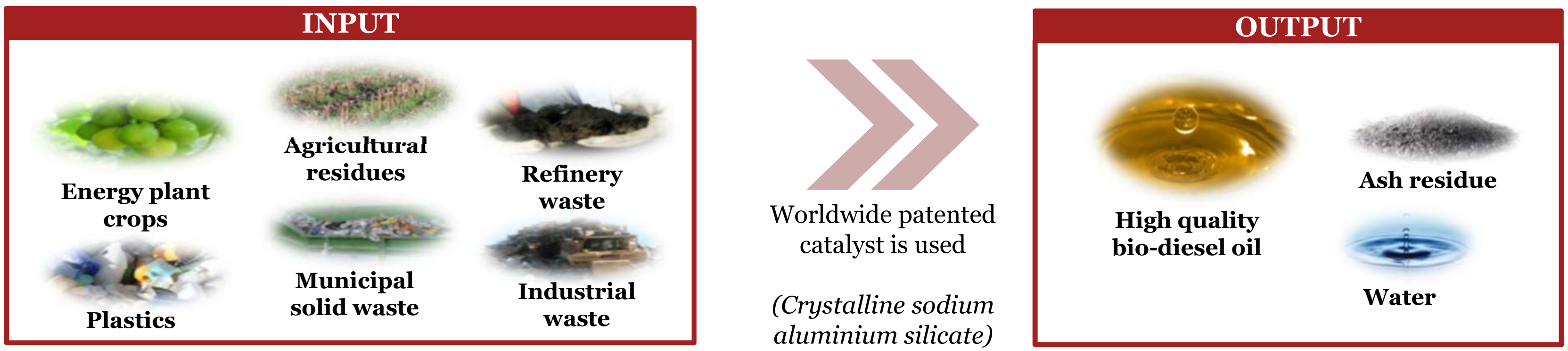
4 December 2018

Important note to the reader

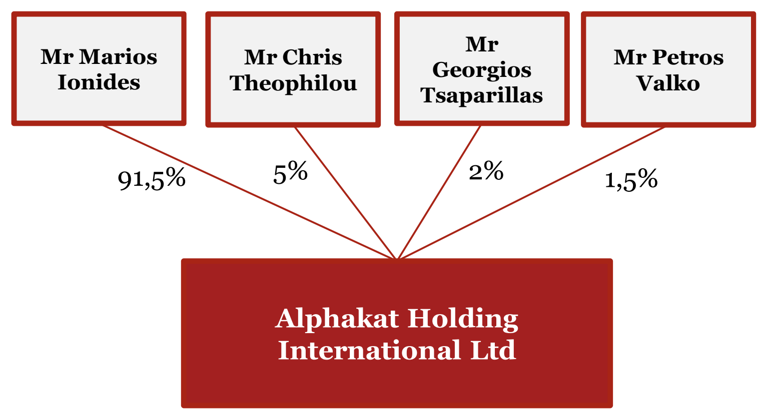
- The purpose of this document is to provide a brief overview of the proposed investment. In order to gain a more extensive understanding of the project's scope and financials, a more detailed report has been prepared and is available upon request.
- PwC's work was solely based on information provided by the owners of Alphakat Holding International Limited. Our work was carried out on the assumption that such information was reliable and, in all material respects, accurate and complete. We did not subject the information contained in this teaser to checking or verification procedures except to the extent expressly stated.
- Nothing in this teaser is or should be construed as advice to proceed or not to proceed with the proposed or any other transaction. While this teaser may be a factor taken into account by you when deciding whether or not to proceed, regard must be had by you to the restrictions on the scope of our work and should not be regarded as a substitute for any warranties or representations an investor would reasonably be expected to obtain.
- It is also noted that factors outside the scope of our work will need to be taken into account in determining whether to proceed with the proposed or any other transaction. Consequently, in providing you with this teaser, PwC is not providing you or any third party with investment advice and the decision as to what action to take as regards any potential transaction ultimately remains the sole responsibility of the investor.
- It was not part of the scope of our work to determine or assess the development/construction costs and other expenses of a technical nature associated with the proposed plant and we express no view as regards the technical feasibility of the Project or any technical specifications of the Project. Assumptions and input of technical nature have been provided to us by Management, upon which we did not perform any verification procedures.
- In addition, it is noted that we have not been provided with any data/supporting evidence in relation to the adoption of Alphakat technology in other existing/ operational plants and we are not in a position to comment on the technical capabilities of the proposed Project. However, it should be noted that Alphakat technology (under Alphakat GmbH) is included in the European Union list of projects eligible for funding under the Juncker investment plan (subject to due diligence and other procedures).
- We did not perform a legal review of the patents, lease agreements, agency agreements and other documents related to the Project. Moreover, there are still significant uncertainties as regards key source of input (Koshi Sorting Plant) which may affect the Project viability.
- We would like to stress that PwC will accept no liability for any losses or damage to any third party arising from a transaction or other decision related to the work presented in this teaser.

Background to Alphakat technology and the Company

- Alphakat technology, which was developed in Germany, uses any hydrocarbon-based input material (such as crude oil, brown coal, waste oils, all types of green matter, all types of burnable) and converts it into high quality bio-diesel oil, ash residue (which can be utilised in asphalt plants and/or fertilisers) and water vapour.
- Alphakat technology is a low cost production process, which can contribute significantly to the reduction in the volume of waste. It is an emissions free, odourless and safe process which has very high conversion rates.
- **According to Management, Alphakat technology has been successfully implemented in a number of plants around the world.**



- Alphakat Holdings International Ltd ("the Company") was incorporated in Cyprus in 2011 and is owned by:
  - Mr. Marios Ionides (91,5%), who began the cooperation with Alphakat GmbH in 2008 – a German company which owns the patent for Alphakat KDV technology
  - Mr. Chris Theophilou (5%) who is a Chemical Engineer
  - Mr. Georgios Tsaparillas (2%)
  - Mr. Petros Valko (1,5%)
- The Company has an exclusive agency agreement with Alphakat GmbH, for the Alphakat technology in Cyprus and Greece. Alphakat GmbH is the owner of a number of patents and has developed a number of products and applications based on the Alphakat technology.
- The Company is considering investing in KDV-600 production plants in Cyprus, which will utilise the proprietary technology developed by Alphakat GmbH.



The Project

- The Company is considering to **invest in the short-term in four KDV plants** which will be set up on a plot of land in Koshi, Larnaca, which has been leased from the Republic of Cyprus for 33 years (option to renew by the Government). The Project will be situated next to the Koshi Sorting Plant, thus utilising the waste residue without any cost (subject to adequate resolution of the current legal issues of the Sorting Plant).
- It is estimated that 9,98k tons of biomass (green waste, tree cuttings, agricultural waste and MSW) will be fed into each plant per year, as illustrated on the diagram below:

Input – Feed per plant	Tons/year
Green waste	9.976
Tree cuttings	
Agricultural waste	
MSW	
Lime additive	376
Total feed per plant	**10.352**

Output – Products per plant	Tons/year
Bio-diesel	**3.984**
Water (av.content 12,5%)	**1.244**
Carbon dioxide	**4.556**
Ash residue	**568**
Total products per plant	**10.352**

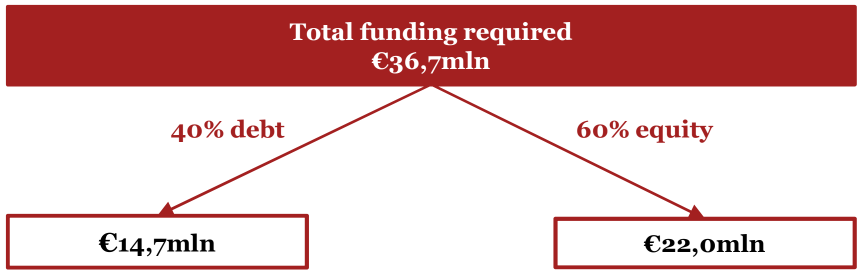
Conversion rate assumed for the Project **39,9%**

Conversion rate of similar existing KDV plants using Alphakat technology can reach up to 44,9%

- Management expects that there will be **enough supply of biomass in the surrounding areas** to cover the total input required for all four plants (i.e. 41,4k tons) at no cost, due to the following:
    - On the basis of an official study regarding future amounts of different waste fractions in Cyprus, available amounts of wood, garden waste and organic waste in Larnaca district for 2007 were in the range of 35k tons (for Larnaca and Famagusta areas together this amount exceeded 60k tons). The Company has already signed an agreement with the Municipality of Aradippou for the provision of up to 2k tons per year of green waste, at no cost, for a period of 5 years.
    - The plants will potentially be utilising the residue (RDF)/organic matter produced by the Waste Sorting Plant in Koshi, without any cost (estimated to exceed 50k ton of organic matter per year). Although there is currently no agreement with the Waste Sorting Plant and the current environmental permit secured does not allow for the use of RDF/organic matter, it is envisaged by Management that the Waste Sorting Plant will be a key source of input for the plants in the medium-long term. It is considered very important to secure the permit for RDF/organic waste to have more available inputs and Management considers that securing this will not be difficult given the Authorities' strong interest to utilise/manage RDF/organic matter.
- The total quantity of bio-diesel expected to be sold per annum for all four plants is estimated at 16k tons. Based on publicly available information in relation to energy consumption levels in Cyprus and as per the relevant EU Directive on renewable energy promotion, it is estimated that approximately 53k tons of bio-diesel will be required by the local market, which could imply that there will **be enough demand to meet 100% of the output of the four plants,** assuming no significant competition. In addition, it is noted that a letter of intent has been received from Petrolina (Holdings) Public Ltd ("Petrolina"), a local Petroleum company which has approximately 50% of the market share in Cyprus, for the sale of 8k-24k tons of bio-diesel fuel per year.
- The **annual selling price of bio-diesel of €920/ton**, assumed by Management is on the lower side of the range of market prices that petroleum companies, such as Petrolina and EKO, currently pay to purchase similar products.

Investment Proposition

- The total funding required for the Project is approximately €36,7mln (which includes capital expenditure of €34,9mln and pre-operational costs for the first two years amounting to €1,8mln).



- As per Management, the existing shareholders of the Company have already contributed to the investment through the value created as a result of:
  - The patent rights of Alphakat incorporated technology
  - Securing land next to input source (Waste Sorting Plant in Koshi), through lease agreement with the Government
  - The letters of intent/agreement that the Company already has in place in relation to:
    1. The sale of 8.000 – 24.000 tons of bio-diesel fuel per year to Petrolina
    2. The provision of up to 2.000 tons of green waste from Municipality of Aradippou, at no cost, for a period of 5 years.
  - Securing Environmental permit for management of waste using green waste as input from the Ministry of Agriculture, Rural Development and Environment and building permit for the proposed Project
- Given the subjectivity of the estimate of the potential value of existing shareholders' contribution, for the purposes of the preparation of the financial projections and in estimating the Project IRR and Equity IRR, a range of indicative levels of existing shareholder contribution have been considered (€6mln - €10mln), as presented on the following page. It is noted that we have not performed any work to derive this indicative value of existing shareholders' contribution, and it was provided to us by Management.

Key assumptions used in the formulation of the financial projections

Area	Assumption	Comment
Capital expenditure (Years 1-2)	€34,9mln	Capital expenditure mainly consists of the cost of the 4 KDV plants (€28,3mln) and other related building costs, infrastructure costs and cost of fixtures and fittings and moving machinery. These costs have been based on a sales contract between the Company and Alphakat GmbH (for the €28,3mln cost for the 4 KDV plants) and other information provided by Management.
Selling price of bio-diesel	€920/ton	The selling price of bio-diesel assumed by Management is on the lower side of the range of market prices that petroleum companies, such as Petrolina and EKO, currently pay to purchase similar products.
Direct input cost	Negligible	Given that the main raw material used in the KDV process is waste, the cost of raw material assumed for the four plants is negligible.
Operating expenses	€5,3mln per annum	Operating expenses are expected to consist mainly of labour costs, management costs and electrical power costs. Implied EBITDA margin of c.65% (Year 3); relatively high EBITDA margin is mainly attributable to the zero direct input costs.

Indicative Financial results and debt servicing

Key financial performance indicators

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	€000	€000	€000	€000	€000	€000	€000
Revenue	-	-	15.571	15.882	16.200	16.524	16.854
EBITDA	(1.262)	(503)	10.275	10.428	10.583	10.738	10.895
Interest (expense)/income	(389)	(753)	(791)	(527)	(214)	203	739
Profit/(Loss) after tax	(1.651)	(1.256)	7.263	7.265	6.810	7.310	7.868
Debt service coverage ratio	-	-	*1,7x*	*2,5x*	*2,6x*	*2,9x*	*3,5x*

Key financial position indicators

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	€000	€000	€000	€000	€000	€000	€000
Total assets	18.188	34.937	37.667	41.749	45.582	50.134	55.632
Total loans and overdraft	(8.169)	(15.823)	(11.290)	(8.106)	(5.129)	(2.371)	-
Net assets	10.019	19.114	26.377	33.643	40.453	47.763	55.632

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	€000	€000	€000	€000	€000	€000	€000
EBITDA	(1.262)	(503)	10.275	10.428	10.583	10.738	10.895
Capital Expenditure	(18.188)	(16.749)	-	-	-	-	-
Change in working capital	-	-	(2.600)	(52)	(53)	(55)	(56)
Taxation	-	-	(469)	(884)	(1.807)	(1.879)	(2.014)
Free cash flows	**(19.450)**	**(17.251)**	**7.206**	**9.491**	**8.722**	**8.805**	**8.825**

Value of existing shareholders' contribution	Project IRR
€6mln	21%
€8mln	20%
€10mln	19%

Value of existing shareholders' contribution	Indicative equity stake of shareholders for investing €22,0mln	Equity IRR
€6mln	78%	27%
€8mln	73%	25%
€10mln	69%	24%

Sensitivity Analysis on key parameters	Project IRR (%)	Equity IRR
Base Scenario - Assuming existing shareholders' contribution of €8mln	**20%**	**25%**
Increase in selling prices: 5%	22%	28%
Decrease in selling prices: -5%	18%	22%
% of output sold: 95%	18%	22%
% of output sold: 90%	15%	19%
Conversion rate assumed: 35% (Vs 39,9% in base scenario)	17%	21%