

30 June 2022

HYDROGEN UTOPIA INDUSTRIALS

HUI.L

5.5p

Market Cap: £21.1m



Source: LSE Data (priced as at prior close)

KEY DATA	
Net (Debt)/Cash	£4.7m (at 31/12/21)
Enterprise value	£16.4m
Index/market	AXS
Next news	ТВС
Shares in Issue (m)	384.3
Chairman	Guy Peters
Chief Executive	Aleksandra Binkowska
Finance Director	James Nicholls-May

COMPANY DESCRIPTION

Hydrogen Utopia is a plastic waste-to-energy technology company. www.hydrogenutopia.eu

HYDROGEN UTOPIA IS A RESEARCH CLIENT OF PROGRESSIVE

ANALYSTS

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Hydrogen Utopia International (HUI), the waste plastics to hydrogen company, has released its final results for the year ending 31 December 2021. While the financial results are not too material, the announcement highlights how the company, over the past year, is transforming into a fully-fledged business. HUI is developing its technology and building a potential project pipeline, and the current year should see the company make further progress in both of these areas.

- Technology. The company is moving ahead to get the technology up and running. HUI engaged Electron, the Netherlands-based thermal engineering company, to design a chemical conversion chamber that will be at the heart of the facility to convert waste plastics to hydrogen. The partners are in the final stages of assembly to test the first lowertemperature pyrolysis stage of the process. Depending on the results, they will then test the second higher-temperature gasification stage. The company has also partnered with Linde for the provision of hydrogen extraction and gas clean-up equipment, design and engineering services to HUI at its plants.
- Project pipeline. HUI, at its IPO, stated that it was looking at a range of plants throughout the EU. However, the most advanced project appears to be in Tipperary, Ireland. Here the company reached a potential agreement with Trifol Resources (TRL) to build its first plant. The partners are working on a development and collaboration framework that will provide the basis for developing the HUI and TRL processes at this site. This framework is expected to be concluded over the coming months.
- Finances. The final results for the year ending 31 December 2021 should not be too important for investors compared with the development of the business. since they cover the period preceding the successful IPO in January 2022. The company is currently pre-cash flow and reported a loss of approximately £1m, representing the cost of running the business. However, after the IPO, the company now has net cash of approximately £4.7m, which will be used to fund the development of the business over the next few years.

These financials should be of little importance to investors at this stage, given they cover the period prior to HUI's IPO. However, the final results do highlight how the company is transforming from a concept into fully-fledged business, developing a technology that "can help to create a more sustainable world". In the short term, the market will look at the testing of the chemical conversion chamber with Electron. Investors will also look at the progress that is being made on HUI's first proposed commercial plant in Ireland.



Final results highlight progress in technology and projects

HUI, the waste plastics to hydrogen company, has released its final results for the year ending 31 December 2021. This covers the financial period ahead of its successful IPO in January 2022. While the financial results are not material, the announcement highlights how the company has been transforming from being a concept company into a fully-fledged business over the past year. This evolution has come from the development of the waste plastic to hydrogen technology and from the building of a potential project pipeline, which is moving closer to the company starting to build its first plant.

The process. HUI is committed to developing a technological solution for turning waste plastics into syngas and hydrogen. This addresses two important problems that are currently being faced by the global economy – plastic waste and climate change. The company is looking to use waste plastics as a feedstock, which in the current environment would have been dumped, incinerated or put into landfill. Through pyrolysis and gasification, this waste can be converted into synthetic gas (syngas). This syngas can be used as a fuel in its own right industrially for the generation of power and heat or as a building block for other chemical processes. HUI's business plan envisages 99.999% purity hydrogen being extracted from the syngas, with the remaining syngas available as a fuel or building block. Methane could also be extracted from the syngas as an alternative to hydrogen extraction. Hydrogen has an important part to play in the decarbonisation of the global economy as it can be used in areas such as transportation and hence reduce the reliance of fossil fuels – an issue that has come to the fore with the Russian invasion of Ukraine.

HUI technology. The company is moving ahead to get its technology developed to a point where it can be rolled out commercially across its planned sites. HUI partnered with Electron, the Netherlands-based thermal engineering company, in May 2021 to design a chemical conversion chamber that will be at the heart of the facility to convert waste plastics to hydrogen. This will entail the pyrolysis of plastic at a temperature of up to 500°C to create syngas. The second higher-temperature gasification stage will then produce hydrogen. This has reached an advanced stage with the equipment design. This week, the partners announced that they are in the final stages of assembly of a rig to test the first lower-temperature stage of the pyrolysis within the next month. Depending on the results, the design will be adjusted and then testing of the second stage can begin. HUI and Electron are currently sourcing suitable plastic material ahead of this testing programme.

The company has also partnered with Linde, the leading global industrial gas and engineering company. In 2021, Linde performed a four-month technical feasibility evaluation in relation to the deployment of syngas clean-up and hydrogen extraction in a HUI plant. A framework agreement has now been signed for the provision of hydrogen extraction and gas clean-up equipment, design and engineering services to HUI at its plants – with Linde having a right of first refusal for the provision of equipment and services (provided it is competitive on pricing).

HUI project pipeline. HUI has been busy at looking to establish areas for potential plants to create a substantial project pipeline. This has been predominantly in the EU, where there is the ability to obtain funding from EU grants as well as local, national and private sector funding. The initial reaction by the countries has been very positive.

The most advanced project appears to be in Tipperary, Ireland. In April 2022, HUI reached a potential agreement with Trifol Resources (TRL) to look to build its first full-scale waste plastic to hydrogen plant. TRL has a 2.64-hectare site that is large enough for HUI and TRL to build their respective plants. The partners are working on a development and collaboration framework that will provide the basis for developing the HUI and TRL processes. This framework is expected to be concluded over the coming months. HUI is also in discussions with a Tier 1 feedstock and off-take supplier.



Elsewhere, the company has been looking at a raft of potential projects, most being located in Poland and, to a lesser extent, Greece. The most advanced of these projects is in the city of Konin, Poland.

HUI Finances. The final results for the year ending 31 December 2021 should not be too important for investors compared with the development of the business (as discussed above), since these financials cover the period preceding the successful IPO in January 2022 and the company in this period was pre-cash flow. In 2021, HUI reported a post-tax loss of approximately £1.04m, representing the cost of running the operations and putting in place the processes to transform the company into a fully-fledged business. The cash outflow of £0.98m was of a similar magnitude to the loss made. However, after the IPO, HUI has net cash of approximately £4.7m, which will be used to fund the development of the business over the next few years.



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