

SIMEC ATLANTIS ENERGY LTD

INTRODUCTORY NOTE

13.01.2021

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Price (p): 21.50
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Market cap. (£m): 106.3

Introduction

SIMEC Atlantis Energy ('Atlantis') is a UK-based developer, owner and operator of renewable and sustainable energy projects. Having listed on AIM in early 2014 as a tidal stream power specialist, the Company has through a number of astute deals in recent years expanded into other energy subsectors. Besides its Tidal Power division, Atlantis now boasts a Thermal Power division and a Sustainable Infrastructure division (these two units are complementary to one another and can work in tandem); and a Hydropower division.

Across each of the four divisions, Atlantis' activities range from project origination and development; to project delivery and construction; to project operations and maintenance. At present, the Company has one proprietary project across its four divisions that is operating and generating power – namely MeyGen, its flagship 6 MW tidal stream project in Scotland. However, the first project in the Thermal Power division – the conversion of the 220 MW Uskmouth coal power plant in Newport, Wales – is set to begin construction towards the end of this year. In tandem, the Sustainable Infrastructure division will establish an initial two pellet plants in the UK (with a further two to be established in 2023/24), which will provide its proprietary biomass/plastic pellet fuel to the converted Uskmouth power station for its anticipated extended life of 20 years.

Uskmouth and MeyGen are first-of-a-kind projects, worldwide. Their successful developments will provide Atlantis with proof of concept, and thus blueprints, to roll out these nascent energy technologies across the globe just as the Green Industrial Revolution snowballs. The former, Uskmouth, represents a novel sustainable energy technology that utilises existing coal power plant infrastructure, burns much more cleanly than coal, and cleanses the world of colossal amounts of non-recyclable plastic waste. Whilst not a 'renewable' source of energy, it is nevertheless highly practical and economically attractive. We consider it a bridge fuel for the next three decades whilst the world transitions to a society and economy entirely fuelled by renewable energy sources. A minor, yet technically important component of that renewable energy world could be tidal stream power. Through MeyGen, Atlantis is ideally positioned to become *the* leading player in this subsector in the decades ahead.

This is an Introductory Note to Atlantis. We shall publish a series of notes on the Company in due course, focusing specifically on:

- *Thermal Power and Sustainable Infrastructure divisions*
- *Tidal Power and Hydropower divisions*
- *Financials, Valuation and Investment Thesis*

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Tidal Power division

Atlantis specialises in tidal *stream* power. This involves the generation of electricity by tidal turbines without the use of barrages. The optimal locations for tidal stream projects are where tides are subject to high velocities, such as in straits or inlets. The critical advantage of tidal power (of all forms) over other renewable energy sources is *predictability*. The sun might not always shine, the wind might not always blow... But that moon isn't going to stop orbiting anytime soon.

Whilst tidal power technology has been in development for several decades, it is no way close to being economically competitive with other renewable energy technologies, notably wind and solar. A major reason for this is that it has received only a tiny fraction of the government-backed financial support that the mainstream renewable energy technologies have. New technologies require such support in their early years of deployment: as in any industry, with repetition of delivery and increasing scale comes decreasing cost (in this case, levelized cost of energy ('LCOE')). However, to kickstart and to accelerate the rollout of the new technology requires financial support from the State, so that it can compete with mature technologies in those formative years.

In 2017, the UK government (in our view, rather foolishly) pulled its ringfenced financial support for the nascent tidal stream industry. This has stalled the continued development of the industry (especially of Atlantis' flagship project, MeyGen). However, the government now looks set to make a U-turn, by splitting tidal power and the more competitive offshore wind from competing for the same government financial support packages in the next auction, later this year.

Atlantis' first division, Tidal Power, has been in existence since the Company's inception in 2005. A little over \$100m was invested in developing its technology and projects before its IPO in 2014. Its flagship asset, MeyGen (Phase IA), is a 6 MW tidal stream power project located in the Pentland Firth in the north of Scotland. With an array of four 1.5 MW turbines that have generated in excess of over 35 GW since the project completed its commissioning in April 2018, MeyGen is the largest of its kind in the world.

The project has 392 MW of further development capacity under its MeyGen seabed lease with The Crown Estate, which Atlantis intends to roll out in stages. The next stage – MeyGen Phase IC – will increase project capacity by a further 80 MW, via the installation of either 40x 2 MW turbines (the 'AR2000' model), or 27x 3 MW turbines (AR300 model). Total capex is estimated to be ~£180m. Atlantis is forging ahead with the project – with or without further government support – by entering negotiations to establish private wire power purchase agreements with data centre owners and operators. Data centres consume immense amounts of energy: direct and exclusive access to a renewable, *predictable* energy source is a compelling proposition.

In France, the Company owns 49% of Normandie Hydrolienne ('NH'). NH was established with the intention of eventually harnessing up to 2 GW of power from the Alderney Race (or *Raz Blanchard*), the eight-mile strait that runs between Alderney and La Hague, France, as well as more than 1 GW of power from adjacent concessions under the control of the States of Alderney. Other shareholders in NH include *AD Normandie Développement*, the regional agency for economic development in Normandy; and *Normandie Participations*, the regional investment fund. NH is developing a pilot 12 MW project in the Raz Blanchard, which is projected to cost in excess of €50m. Financial close is targeted toward the end of this year.

Successful commercialisation of NH's pilot project would open up the prospect of multi-hundred MW developments in the Raz Blanchard. Indeed, in 2018 Atlantis submitted a strategic plan to the French government setting out plans to deliver 1 GW of tidal power in the Raz Blanchard by 2025, with the potential to add a further 1 GW by the end of 2027. That first GW would attract €3.3 billion in capital investment; create up to 10,000 jobs in France; and, upon the commissioning of the final phase of the proposed first GW project, Atlantis' management believes that the LCOE for tidal stream could hit a price lower than any offshore wind farm currently under construction in France or in the UK.

Atlantis has also worked, is working on, or is exploring a range of tidal stream power projects (owned by third parties) in China, Japan, India, Indonesia, Australia and Canada. In 2020 the Company successfully installed a 500 KW turbine in the Zhoushan archipelago in China; and this quarter it is completing the installation of a replica project in Japan. These demonstration projects could prove to be Atlantis' keys to opening up two substantial markets that are both urgently seeking to decarbonise their societies and economies.

Atlantis is now a recognised world leader within the nascent tidal stream industry: in addition to its extensive experience and industry know-how, it also has numerous patents in place over its first-in-class technologies. Its proprietary suite of technologies includes, amongst others:

- The world's largest tidal turbine generator, the 3 MW AR3000;

- An innovative subsea hub that enables the connection of multiple turbines to a single export cable, thus delivering significant cost reductions;
- A wet mate connection system, which enables rapid and automatic connection and disconnection of power and communication infrastructure offshore without any intervention;
- A variable pitch system that enhances the efficiency of tidal turbine generators.

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Thermal Power division

In 2018, Atlantis dramatically diversified its business via the acquisition of the Uskmouth Power Plant in Newport, South Wales. The vendor was SIMEC Group (“SIMEC”), one of the four pillar companies of the GFG Alliance, an international group of businesses owned by industry tycoon Sanjeev Gupta and his family. Atlantis’ acquisition of Uskmouth valued it at £53.4m, which was paid for entirely in consideration shares. Post completion of the deal, SIMEC held a 49.99% stake in Atlantis (since diluted via equity placings to 43.4%).

Uskmouth was a coal power plant that was in operation between 1959 and 2017, at which point coal as a primary fuel became economically unviable. SIMEC / Atlantis have devised a method of reconstituting the plant so that it will operate on a novel type of fuel, namely *Subcoal*. In summary, Subcoal is produced from biomass (i.e. paper, card) and non-recyclable plastic waste (approximately 50% of each). Typically, this waste would be sent to landfill. Subcoal emits half as much CO₂ as coal does (it burns almost as cleanly as natural gas, in fact); and it is much more efficient than biomass pellets. It also rids the world of colossal amounts of non-recyclable plastic waste: at nameplate capacity, Uskmouth will consume 880 thousand tonnes per annum (‘ktpa’) of Subcoal, which itself would require circa 1.2 million tonnes of waste to produce.

In July 2019, Atlantis completed the front-end engineering and design (‘FEED’) for the conversion of Uskmouth; and in July 2020, its contractor, Japanese heavyweight Mitsubishi Hitachi Power Systems (‘MHPS’), completed industrial scale combustion testing of Subcoal.

The amended plan for the conversion of Uskmouth is to initially convert only one of the three 110 MW generation units, with a second to come online 18-24 months after the first. Phase I of the conversion is estimated to cost ~£120m and will take 18 months to complete; and Phase II will require a further ~£60m capex.

Atlantis is now preparing the project for construction-readiness so that it can achieve financial close and begin the conversion of the power plant. The key items to complete include:

- i) Securing an environmental permit from Natural Resources Wales (‘NRW’), and planning approval from Newport City Council (‘NCC’);
- ii) Signing an Engineering, Procurement and Construction (‘EPC’) contract;
- iii) Securing offtake arrangements for the 220 MW of baseload power that the plant will ultimately generate;
- iv) Establishing fuel production plants throughout the UK that will transport the Subcoal fuel pellets to Uskmouth via rail;
- v) Securing project finance.

Below, we address the progress made on each of these items:

- i) Final decisions by each of NRW and NCC are due in H1 this year (we believe that both are likely to be in Q1). To note, NRW’s position is as follows:

As part of our decision-making process, we scrutinise the proposals of any application to make sure the operator will be able to comply with all relevant legislation. If all legal requirements will be met, we must issue the permit or variation. We cannot refuse a permit or variation solely because of local opposition to the activity.”¹

The key risk is centred upon emissions levels (notably CO₂). Our understanding is that MHPS and Atlantis have thus far provided all of the necessary answers and evidence to NRW, which have all met NRW’s requirements. One item concerning emissions (specifically, flue gas treatment) remains outstanding, that MHPS is working on now. The deadline for the environmental permit application is 19 February, with a decision due from NRW by 19 March.

NCC is primarily focussed on the planning permission that Atlantis has sought for new external infrastructure at the power station, such as the silos for storage of fuel pellets. We believe that there is very little risk of Atlantis not being granted planning permission, which we expect will occur in February.

- ii) We believe that the award of the EPC contract is due imminently. We assume that MHPS is the front runner, given its key role in the development of Uskmouth and the fuel to date.
- iii) Atlantis has a route-to-market (‘RTM’) power purchase agreement (‘PPA’) in place with Marble Power, another GFG Alliance business, for as much as 205 MW. However, as at MeyGen the Company is also in negotiations to establish private wire PPAs with data centre owners and operators in Newport (this includes the potential to build a new data centre on land directly adjacent to the power station). Such private wire PPAs would benefit the data centres considerably (via the avoidance of network charges), whilst enabling Atlantis to lock in prices in excess of 100% higher than what it might receive via selling its electricity output through the RTM PPA to the Grid. Moreover, Atlantis already has a term sheet for a private wire PPA in place with yet another GFG Alliance company, Liberty Steel Newport (‘LSN’). This could be executed if the proposed installation of a new electric arc furnace at the LSN Facility adjacent to Uskmouth goes ahead.
- iv) Discussed in the following subsection.
- v) In August last year, Atlantis entered into an exclusive debt financing agreement with leading South Korean financial institution, Hana Financial Investment Co. Ltd (‘HFI’), to work together to fund 100% of Phase 1 of the Uskmouth conversion project through a senior secured loan. This agreement is not legally binding and subject to a number of conditions precedent, including HFI completing its due diligence. However, if agreed, the facility would provide up to £170m towards capex, development costs, operating costs, fees and interest. It would also provide an equity bridge loan for Atlantis, throughout the construction phase, so that the Company could ultimately retain 100% ownership of Uskmouth.

Whilst this debt financing agreement is highly attractive and our preferred route, we believe that the Company has a number of other options lined up, including traditional project finance (i.e. a combination of subsidiary level equity and debt – which would see Atlantis’ 100% ownership reduced); 100% receivables financing (i.e. the sale of future revenues to a lender, in return for an upfront loan to fund the capex); and a combination of export credit financing and vendor financing from the EPC contractor.

We note that in November 2018, UK infrastructure fund manager Equitix signed a heads of terms with Atlantis to acquire a 25% equity holding in Uskmouth, for a cash consideration of £32.9m. The deal – which has since lapsed – implied an equity value for Uskmouth of £131.5m (on a 100% basis). Evidently, the inherent value of Uskmouth has increased *substantially* since then as the project has been materially derisked (notably, the FEED has been completed and industrial scale fuel testing successfully carried out).

Assuming that the above outstanding items are successfully completed, and financial close occurs in Q3 this year, we expect Uskmouth Phase I to come online early in 2023, with Phase II coming online at the start of 2025.

¹ <http://www.naturalresources.wales/about-us/news-and-events/statements/uskmouth-power-station-application-to-change-environmental-permit/?lang=en>

The economics of the Uskmouth project are extremely attractive. Our modelling suggests that Uskmouth will generate annual revenue of £45m to £50m in 2023 and 2024, and EBITDA of circa £35m. From 2025, once the second of the generation units has come online, we expect revenue to increase to between £90m and £100m, and EBITDA to circa £70m. We note that the two brokers covering the stock suggest similar numbers.

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Sustainable Infrastructure division

Upon acquiring Uskmouth, Atlantis entered into a fixed price fuel supply agreement with SIMEC Subcoal Fuels Ltd (“SSF”), a newly incorporated 50:50 joint venture company between SIMEC and Dutch recycling specialist, N+P, which owns the Subcoal technology.

The fuel supply agreement stipulated that SSF would provide a dedicated supply of Subcoal energy pellets to Uskmouth for a period of 20 years, covering Uskmouth’s entire demand of 880 ktpa. Uskmouth would pay £4 per tonne to SSF for the Subcoal.

In August last year, Atlantis entered into a deal with SIMEC and N+P to effectively replace SIMEC as the 50/50 joint venture partner of N+P. SSF was replaced with NPA Fuels Ltd (‘NPA’), a newly established JV company owned by Atlantis and N+P, and the fuel supply agreement with Uskmouth was novated from SSF to NPA.

We consider the execution of this deal a hugely significant (and value enhancing) event for Atlantis: it not only provides the Company with security of fuel supply for Uskmouth, but it creates an entire new division that can generate substantial revenue for Atlantis *beyond* Uskmouth by selling its proprietary pellet fuel to future conversion projects in the UK and abroad.

In summary, a fuel production plant (‘FPP’) sorts, shreds, cleans, dries and pelletises the waste input (50% biogenic, 50% non-recyclable plastic). 1 tonne of input waste produces approximately 0.75 tonnes of Subcoal pellets. NPA intends to establish a total of four FPPs across the UK to supply Uskmouth: each plant will produce approximately 220 ktpa of fuel (thus consuming almost 300 ktpa of waste). As Uskmouth is being developed in two phases, NPA will only be required to establish two FPPs in the near-term.

NPA is currently negotiating land and rail rights at several different locations across the UK, including both greenfield and brownfield sites. Acquiring and repurposing *existing* facilities is, in our view, the preferred route (at least for the first two FPPs): it will remove much of the planning, permitting and consenting process that would be required for greenfield sites, thus significantly accelerating the time to financial close (project financiers will require all permits in place – at least for the first two FPPs – before proceeding).

NPA will generate two revenue streams. Firstly, it will receive gate fees from the receipt of waste. The waste that it will be after is undesirable, high energy waste (detailed below) that would usually be destined for landfill. Landfill operators currently charge in excess of £100 per tonne to receive such waste. NPA will charge say £70 pt to the waste management companies seeking to dispose of their waste – who will enjoy a ~30% saving compared to going down the landfill route.

Subsequently, NPA will process the waste into Subcoal pellets, which it will then sell to Uskmouth (currently agreed price of £4 pt) or to other future conversions (it would most likely charge 5x – 10x more for its Subcoal to them than it will to Uskmouth, given that the only alternative fuel for those converted coal plants would be biomass, which costs well in excess of £80 pt).

We estimate that an FPP with an output of 220 ktpa, selling to Uskmouth for £4 pt, would generate EBITDA of ~£10m pa, on revenue of ~£22m pa (on a 100% basis). Atlantis’ 50% share of the EBITDA generated by the four FPPs that will ultimately feed Uskmouth will thus be ~£20m pa.

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A global rollout of the Thermal Power and Sustainable Infrastructure divisions?

We believe that the two divisions working in tandem have the potential to create an entirely new energy subsector that could act as a bridge fuel for dozens of nations over the next three decades, until the world has achieved net zero carbon emissions by 2050. There are three key factors at play that make this seemingly extravagant statement in fact realistic:

i) Subcoal – highly efficient and relatively clean

Subcoal has a calorific value of 20 gigajoules per tonne ('GJpt'). This compares to coal at 25-28 GJpt; and to biomass wood pellets at 17-18 GJpt. Given that NPA is paid handsomely to simply take the waste streams that it requires in order to manufacture Subcoal pellets, it is in a position to sell the fuel to power plant operators at a substantial discount to all other fuel options available. After all, the gate fees alone already make the production of the pellets a profitable operation: the *selling* of the pellets is purely incremental profit. Uskmouth will be buying Subcoal pellets for \$4 pt: this compares extremely favourably to the cost of coal (~£70 pt); and to the cost of biomass wood pellets (~£100 pt).

Consequently, on a GJ/£ basis, the economic attractiveness of Subcoal over the other two fuels is incomparable. Subcoal at £4 pt enjoys a GJ/£ ratio of 5x, compared with coal at 0.4x, and biomass at 0.2x.

Although not as clean as natural gas, the combustion of Subcoal emits significantly less CO₂ than coal. Uskmouth operating at 220 MW capacity and running on coal would emit circa 2.3 million tonnes of CO₂ per annum. If it were running on Subcoal, it would emit 1.0 million tonnes of CO₂ pa; and 0.7 MT pa, if it were running on natural gas.

ii) Making use of undesirable non-recyclable waste

The waste streams used to produce Subcoal pellets are those which are unsuitable for recycling. This could be due to cross-contamination or mixing, technical limitation of mechanical recycling processes, or because it is not currently economic to recycle certain materials.

Moreover, NPA specifically targets waste with a high calorific value. This is precisely what all other energy from waste plants avoid, as it essentially clogs them up (rather, they compete for low energy waste). As such, NPA's FPPs will face limited competition in sourcing suitable waste input feeds.

Much of the waste that NPA will consume is the type that ends up in landfills. Whilst these operations are becoming increasingly better managed, many remain poorly run: exposed plastics at these sites emit methane, a much more potent greenhouse gas than CO₂. Even more pressing is the dire fact that a gargantuan amount of both this non-recyclable type of plastic – and indeed plastic that could be recycled – ends up in the world's oceans. Subcoal production on a global scale could ultimately cut the tsunami of plastic pollution by a significant degree.

iii) Existing infrastructure already in place

Subcoal has been designed to be a drop-in fuel replacement for thermal coal (more or less). It was specifically designed to ensure that it is suitable for transport, milling and combustion in a similar way to coal. As such, existing coal-fired power plants across the globe can be repurposed to contribute to baseload energy demand as the world transitions to renewable energy generation.

Whilst the total capex for Phases I and II of the Uskmouth conversion is considerable, at ~£180m, capex for future conversions should decrease significantly as the blueprint is refined through repetition. Ultimately, it should amount to only a fraction of what large scale, new renewable projects might demand in upfront capex. There are approximately 2,500 coal-fired power plants in operation around the world, and more than double that number again standing idle.

Subcoal is by no means a perfect solution. It emits significant quantities of CO₂ into the atmosphere, period. It certainly is not a green technology. However, what it does offer is a highly attractive bridge fuel over the next

three decades. The fact that *new coal plants* are still being constructed all over the world is indicative of the almost unlimited total addressable market for this technology.

Through its Thermal Power division (its industry know-how and experience in project conversions) and its Sustainable Infrastructure division (with NPA holding patents over Subcoal), Atlantis holds the keys to this market. The Company has a number of potential routes to commercial rollout: it could act as a fuel supplier only to third party plant owners and operators (with a one-off EPC contract for the Thermal Power division); or it could seek to acquire further plants itself and own the integrated businesses (FPPs *and* power station).

The latter option would be immensely lucrative, but of course substantially more capital-intensive, at least for the conversion work. For the power station acquisition itself, we believe it would be far less expensive than many would expect. The rationale for this is that end-of-life coal plants are a liability on the balance sheet (for example, Uskmouth's decommissioning costs are estimated at £12.8m). An owner looking to dispose of the asset would likely accept a modest – or indeed nominal – sum so as to pass on the substantial decom. liability.

Within the UK, future targets may include MoneyPoint in County Clare, Ireland – the nation's largest electricity generation station and only coal-fired power station; Kilroot in Northern Ireland; and potentially the Drax Power Station in North Yorkshire (whilst four of its six units run on biomass, the final two still run on coal).

However, the real prize for Atlantis lies abroad, where coal power and non-recyclable plastic waste are much larger and more urgent problems for governments. The regions that immediately spring to mind are South East Asia; South Asia; East Asia; and West Africa. With regards to entering the East Asia market, Atlantis is already well positioned through its relationships with Hana Financial Investment Co (South Korea) and Mitsubishi Hitachi Power Systems (Japan).

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Hydropower division

In October 2019, Atlantis completed the acquisition of Greenland Highland Renewables for a nominal sum of £1.00. GHR provides a complete range of management, operation and maintenance solutions and services to hydro generation asset owners throughout the UK. In its history, the business has consented 75 hydro projects; has built, optimised or is in the process of constructing, 50 projects; and is currently operating, maintaining and managing a portfolio of 42 generating projects.

The vendor of GHR was SIMEC, Atlantis' largest shareholder and strategic partner. Initially, the plan had been for Atlantis to acquire the entirety of the GHR business as it was then. This included a portfolio of 17 hydro-electric assets in Scotland, with a combined capacity of circa 28 MW. The deal was valued at £125m comprising circa £30m in equity and ~£95m in debt. We believe that the deal fell through due to Atlantis being outbid for the assets by infrastructure fund manager, Equitix.

The division is modest in scale, in comparison to Atlantis' other units: it currently generates EBITDA of ~£0.4m on revenue of ~£2.5m. However, the business has plenty of scope to increase its market share of the Scottish O&M for hydro market (currently at ~20%). Moreover, we believe that there is the potential to originate, develop and construct proprietary projects (more likely to be abroad than to be in its saturated domestic market of the Scottish Highlands). Finally, we believe that the skills of the GHR team are transferable across the wider Atlantis group, thus adding further incremental value.

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Financials

Atlantis' only proprietary project generating revenue at present is MeyGen Phase IA (77% ownership), which generates circa £5m pa at full capacity and accounting for ROCs, the government's financial support mechanism. EBITDA margin is in the region of 60%.

Once at nameplate capacity of 220 MW, Uskmouth (on a 100% ownership basis) will generate upward of £70m EBITDA pa, on revenue of ~£100m pa. These figures could increase considerably, were higher value private wire PPAs with data centres secured for the majority of the 220 MW output.

NPA's four FPPs supplying the Subcoal pellets to Uskmouth will generate a combined EBITDA of circa £40m pa, on revenue of circa £90m pa. Atlantis has a 50% shareholding in NPA.

Atlantis' Tidal Power division also has an OEM and O&M unit, named Atlantis Turbine and Engineering Services ('ATES'). The business unit designs, develops and sells Atlantis' proprietary turbines and associated equipment to third parties; as well as offering installation, operations and maintenance services. For example, the contract currently being carried out for Kyuden Mirai Energy in Japan by ATES is for equipment supply plus installation services. The contract value is £11m, and ATES should achieve a gross margin on it of 20-25%. ATES has been – and will continue to be in future development phases – the primary OEM provider to MeyGen, and is also contracted for ongoing O&M services. Whilst revenues from ATES are lumpy, they have the potential to grow substantially if and when tidal stream power is adopted globally.

As noted in the previous section, the Hydropower division (namely GHR) currently generates EBITDA of ~£0.4m pa on revenue of ~£2.5m pa.

It is thus plain to see how Atlantis can scale up to a £100m+ EBITDA business, *solely* from existing operations. Moreover, that figure does not account for the next major expansion planned at MeyGen (which would be completed before Uskmouth Phase II), from the current 6 MW to 86 MW – which could add a further £50m to £60m+ in high margin revenue for the Group.

The Company's balance sheet is sufficiently strong for the near-term. However, given the capital-intensive nature of the business, further equity fundraises will almost certainly be required in future. Gross cash was £9.8m as at 30 June 2020 (the last reported position), and Atlantis has raised a further £7.5m since then (via an equity placing in August 2020 at 12.0p). Additionally, the Company has access to a further £12m in equity funding through an innovative financing agreement entered into last month with a US investor.

Gross debt of £46.4m (as at 30 June 2020) is a little high for our liking, although manageable, given the aforementioned cash position and EBITDA potential of the Group.

We will provide our own comprehensive financial modelling in a future note.

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Valuation

We note that two analysts covering the stock (Arden and Investec) have target equity values of £330m and £366m respectively, equating to target prices of 66.8p and 74.0p. The average of 70.4p is 227% above Atlantis' current share price of 21.5p.

However, it is important to note that both brokers only account for *existing* operations. No value is attributed to the possible massive expansions at MeyGen and Raz Blanchard; nor is any value attributed to future conversion projects and / or fuel supply arrangements. In our view, the brokers' targets only account for demonstration projects of two novel sustainable energy industries that Atlantis holds the keys to commercialising. If and when Uskmouth and MeyGen Phase IC are successfully developed and brought online, the markets opened up for Atlantis will, for all intents and purposes, be limitless.

We will provide our own comprehensive valuation analysis in a future note.

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Investment Thesis

Given the breadth of its operations, the *novelty* of its three core divisions, the capital-intensive nature of the business, and its currently modest revenue profile and lossmaking status, Atlantis has historically struggled to attract investor appetite. Consequently, in our view its share price has failed to achieve anything close to fair value. However, we believe that with the Green Industrial Revolution accelerating exponentially across the globe, this will shortly change.

Atlantis' Thermal Power and Sustainable Infrastructure divisions offer a highly attractive, highly scalable 'bridging fuel', as the world pivots over the next three decades to wholly renewable energy. Needless to say, it is by no means perfect: it is a thermal energy source, emitting CO₂ and other noxious gases. Yet it is a *practical* solution: there are two and a half thousand coal power plants in operation worldwide, and twice more than that again sitting idle. The infrastructure is thus already in place for a rapid rollout of conversions to Subcoal, which makes the solution an economically attractive one. A successful conversion and commissioning of Uskmouth will act as the blueprint for the rollout: with each project completed, conversion costs will come down as experience generates enhanced efficiencies.

The integrated solution will, we think, become a real threat to the energy-from-waste (i.e. incineration) subsector; as well as a compelling alternative to biomass pellets. It is also attractive in that it consumes the highly calorific waste that energy-from-waste plants avoid, thus ridding the world of colossal amounts of non-recyclable plastic waste.

Importantly, Atlantis already has routes into Japan and South Korea, through its partnerships with MHPS and HFI, respectively. These two nations could be initial key markets.

Simultaneously, we believe that Atlantis' Tidal Power division is shortly to begin on a journey of rapid growth. The development of the tidal stream power industry has fallen by the wayside in recent years, as the commercialisation and exponential global rollout of wind and solar energy have dominated investment into the renewable energy sector. Tidal has been stuck in a perpetual R&D phase, as no one has yet committed or secured the capital to fund the construction of multi-hundred-million megawatt projects. Completion of numerous such projects – which will drive the technology down its cost curve – is vital for the industry to achieve a LCOE that is competitive with other renewable energy sources.

The Green Industrial Revolution looks set to change that. Many are now truly waking up to the immense, but as yet unharnessed, potential of the world's oceans as a source of green energy. France is looking to commit significant sums to the demonstration project – and subsequently to the mass scale projects – that Atlantis is involved in through its JV company, NH, in the Raz Blanchard; the UK government looks set to enhance its financial support for its domestic tidal power industry, by removing it from competing with offshore wind for government support; demonstration projects in Japan and China that Atlantis itself has been responsible for could each evolve into multi-hundred MW projects.

Whilst tidal stream power will likely never reach the LCOE of wind and solar, it offers a highly compelling feature that the others do not: *predictability*. This key differentiator could catalyse governments to scale up investment into the tidal industry manifold in the coming years, as it could become a minor but crucial component of the energy mix of a global green society in the long-term.

At its current share price of £21.5p, Atlantis has a market capitalisation of £106.3m. In the long-term, we have no qualms in suggesting that it could evolve into a multi-billion-pound company. Through its patented Subcoal technology in the JV vehicle, NPA, and its experience gained through converting Uskmouth (and the trade secrets accumulated), Atlantis has the necessary tools to establish an entirely new sustainable energy industry that could be rapidly rolled out across the world. Granted, the industry would only have a life of three decades or so, as wholly renewable energy infrastructure comes online; but during that time Atlantis could also become *the* world leader of a maturing tidal stream power industry.

The immediate-term risk is of course the environmental permit at Uskmouth, which NRW is set to make a decision on in the next two months. At this juncture, we will reiterate NRW's own words:

“As part of our decision-making process, we scrutinise the proposals of any application to make sure the operator will be able to comply with all relevant legislation. If all legal requirements will be met, we must issue the permit or variation. We cannot refuse a permit or variation solely because of local opposition to the activity.”

Last week Atlantis appointed a new CEO, Graham Reid, who has extensive international experience in the energy and infrastructure space. Most recently he was CEO of RES Americas, a subsidiary of one of the world’s largest global renewable energy companies, the RES Group. In that and previous roles, Mr Reid has delivered more than 5 GW of wind, solar and storage projects. Existing CEO, Tim Cornelius, who has been in charge of Atlantis for 15 years, will continue to support the Company in a new role as a Senior Adviser.

We consider this a very positive move. Mr Cornelius has acted as the visionary for Atlantis, having brought the business together through astute deal making to where it is now – at the outset of commercialising, on a grand scale, two globally significant sustainable energy technologies.

Mr Reid, however, is an executioner. A blue chipper in large scale project delivery. We believe that the Board wanted someone who will now primarily focus on getting Uskmouth over the line (and secondarily, on expanding MeyGen). Mr Cornelius will be able to focus on doing what he does best: longer term group strategy, including seeking out and structuring further expansion and deal making opportunities.

In our view, that Mr Reid took the job is highly encouraging with regards to the likelihood of Uskmouth receiving the environmental permit from NRW. Given his experience, we believe he must have done his own extensive due diligence and have a very good idea of the status of the permit.

Finally, in light of the capital-intensive nature of Atlantis’ business, and of the plethora of inorganic growth opportunities ahead for the Company, it should be apparent to readers that a much higher share price is a near-requisite. The higher the share price, the easier it will be for Atlantis to raise large sums of capital: it will also facilitate the use of the Company’s paper to make further acquisitions (i.e. issuance of consideration shares). A rising share price will facilitate acquisitions and /or fundraises, which will drive growth, which will subsequently drive the share price higher, which will enable even larger acquisitions or fundraises, which will drive the share price still higher... etc. Needless to say, Atlantis’ Board is acutely aware of this and, we believe, will be doing everything in its power to drive the share price northward this year. There is an abundance of key items of news in the near-term that could kick it off.

Disclosure

The author of this paper, Myles McNulty, is a private investor. He and his family hold shares in SIMEC Atlantis Energy.

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