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RESEARCH

## EQTEC – Initiation of Coverage

18<sup>th</sup> April 2018

**Well positioned both financially and operationally to grow substantially in the waste-to-energy market**

EQTEC provides engineering and design services and sells its EQTEC Gasifier Technology (EGT) to waste-to-energy operators and enterprise partners. The company works together with multiple parties involved in W2E projects including the developers, waste owners, building contractors and funders with a view to ultimately providing its gasification technology, associated engineering & design services and O&M services.

### ■ Efficient and reliable technology with a strong track record

Unlike many operators in the gasification market, EQTEC has already proven the economic viability of its technology and seen many years of it operating in a commercial environment. **Flagship project the Movialsa plant in Spain has seen over 90,000 hours of commercial operations since 2011.**

### ■ Large pipeline of opportunities provide near-term revenue potential

EQTEC currently has a large pipeline of projects across the UK, Europe and US, with total capex values ranging from €10 million to €100 million. An operations update in April confirmed that the company has recently seen a “significant increase” in the level of international interest in EGT. This follows the signing of an equipment purchase contract with US power company Phoenix Energy, the first such contract signed under EQTEC’s Growth Optimisation Plan.

### ■ Debt facilities provide funding for growth

EQTEC has two debt facilities in place. A Combined Secured Loan Facility with Altair Group has recently been increased by £0.879 million to £3.5 million. Additionally, the company has a \$10 million secured facility with Cuart Investments Fund. These provide substantial financial resources to use on executing pipeline opportunities and for working capital.

### ■ Waste and energy market drivers put the company in a sweet spot

EQTEC’s technology and services lie in a sweet spot, providing a solution to dealing with problems associated with two of the world’s most pressing issues - rising levels of waste (and how to manage it) and growing demand for energy. Research Nester forecasts that the global waste-to-energy will grow at a CAGR of 5.7% to 2024 to reach a value of \$42.52 billion.

### ■ Valuation suggests 171% upside with further long-term potential

Based on our forecasts and using a peer derived EV/EBITDA multiple we set an end 2020 target price for the shares of 2.293p. **With this implying 171% upside, we initiate coverage of EQTEC with a stance of Conviction Buy.**

*This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.*

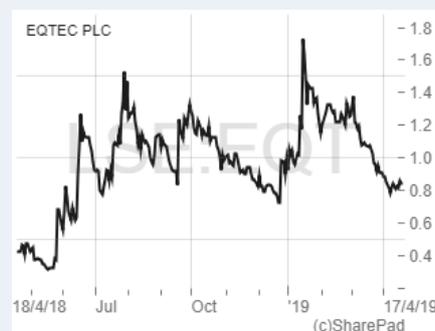
**CONVICTION BUY**  
Price target – 2.293p



#### Key data

EPIC	EQT
Share price	0.845p
52 week high/low	1.73p/0.315p
Listing	AIM
Shares in issue	1,967,771,381
Market Cap	£16.63m
Sector	Alternative Energy

#### 12 month share price chart



#### Analyst details

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**IMPORTANT:** EQTEC is a research client of Align Research. Align Research own shares in EQTEC. For full disclaimer & risk warning information please refer to the last page of this document.

## Corporate Background

As a listed entity **EQTEC (EQT)** has its origins in Kedco plc, an Irish energy group which focused on green energy production and listed on AIM in October 2008. Following a strategic shift the business changed its name to REACT Energy (Renewable Energy And Clean Technology) in December 2013.

The shaping of the company in its current form began in early 2017 when REACT issued shares to EBIOSS Energy, an industrial engineering group involved in the engineering, construction, project development and operation of waste-to-synthesis gas plants. EBIOSS is listed on the Mercado Alternativo Bursátil (MAB), the Spanish equivalent to AIM.

The shares were issued to EBIOSS as settlement for a €5.15 million debt owed by REACT's 50.01% owned subsidiary Newry Biomass. This related to the purchase (agreed in December 2015) of an Integrated Biomass Gasification Power Plant, powered by EBIOSS's EQTEC gasifier technology, for use in the repowering of REACT's Newry Biomass gasification project in Northern Ireland - Newry was put on care and maintenance in September 2014 due to an underperformance of the initial gasification technology. Following the issue of the shares, EBIOSS owned a 51% stake in the company, which subsequently changed its name to EQTEC Plc to reflect the strengthening of strategic and operational ties with EBIOSS.

In July 2017 shares in EQTEC were suspended from trading following the announcement that it had entered into non-binding heads of terms to acquire EQTEC Iberia SL, a company 67% owned by EBIOSS and 33% by Inava Ingenieria de Analisis, an entity owned by certain employees of EQTEC Iberia. EQTEC Iberia is a Spanish technology and engineering company and the owner of EGT (EQTEC Gasifier Technology), a proprietary gasification technology which converts biomass and waste into a synthetic gas which can power a gas turbine to generate electricity.

The £14 million reverse takeover was completed in December 2017 with all consideration paid to the vendors in the form of new shares in the company. At the time, EQTEC also raised £1.6 million in a placing at 0.65p per share for its working capital and development needs and a new board was appointed to drive the company's new strategy of focusing on opportunities in the energy-from-waste market in the UK and Europe.



The next major corporate development came in August 2018 when Ian Price, a waste and renewables sector specialist with over 20 years' industry experience, was appointed as the company's new CEO with immediate effect. A strategic review of Eqtec Iberia completed shortly after concluded, amongst other things, that the near-term focus should be shifted from business development to execution of opportunities within the pipeline, with the engineering function of the company allocated further resources to help realise these opportunities.

A new Growth Optimisation Plan has set the goal of the company becoming, *"the preferred supplier of energy recovery from waste technology..."*. The broad strategy is focused on sourcing and providing assistance to clients in developing waste elimination projects to which it will ultimately sell its gasifier technology along with operations and maintenance (O&M) services. **The first contract has recently been signed under the growth plan and going into the rest of 2019 EQTEC has a large pipeline of projects, with total capex values ranging from €10 million to €100 million, which provide significant near-term revenue generating opportunities.**

## Operations

EQTEC's main operating subsidiary is Eqtec Iberia SLU, a company which provides engineering & design services, operations and maintenance services, and sells its flagship EQTEC Gasifier Technology (EGT) to waste-to-energy operators and enterprise partners. Founded in 1997 and based in Barcelona the company was originally focused on Engineering, Procurement and Construction (EPC) services and maintenance for combined heat & power plants using fuels such as natural gas or diesel.

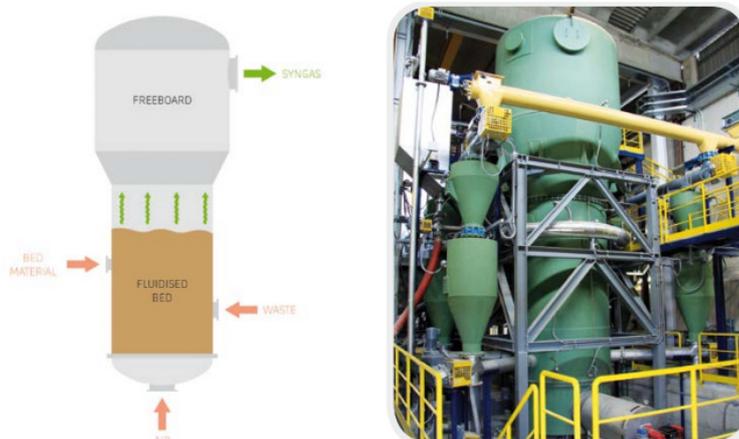
Over a 20 year period Eqtec Iberia has designed or constructed more than 70 power plants across several countries in Europe, with capacities ranging from 60 KWe to 35.6 MWe, and seen its technology operate for more than 90,000 hours on commercial projects.

### Eqtec Gasification Technology (EGT)

In simple terms, **gasification** is a process that uses heat, pressure, and steam to convert carbon containing materials, such as coal, waste and biomass, into a synthesis gas (or syngas) which in turn can be conditioned and used to power a generator and produce electricity. While gasification technology has been around for almost 200 years it has seen renewed interest over the past decade due to its ability to address both environmental and energy demand concerns.

The process itself involves no combustion (burning) of materials, but instead uses an oxygen controlled environment in a closed reactor, with high pressure and heat breaking carbon containing materials down to the molecular level to recover energy locked within the feedstock. The resultant syngas is a mixture of carbon monoxide, carbon dioxide, hydrogen and small amounts of methane (dependent on the feedstock used) and can also be used to produce products including chemicals, fertilisers and fuels.

EQTEC's own gasification technology, developed by Eqtec Iberia over the past two decades, is based on a bubbling fluidised bed reactor for the gasification of a wide range of combustible materials. This type of reactor is widely used in the industry due to its versatility in terms of the diversity of solid fuel to gasify. It achieves a better mixture between inert and combustible material due to its high heat transfer index and because it reaches high heating speeds. The EGT reactor itself consists of a cylindrical steel container coated on the inside with a layer of refractory insulation material. **The technology allows for modular and scalable generation plants which are environmentally friendly and produce extremely low emissions of pollutants.**

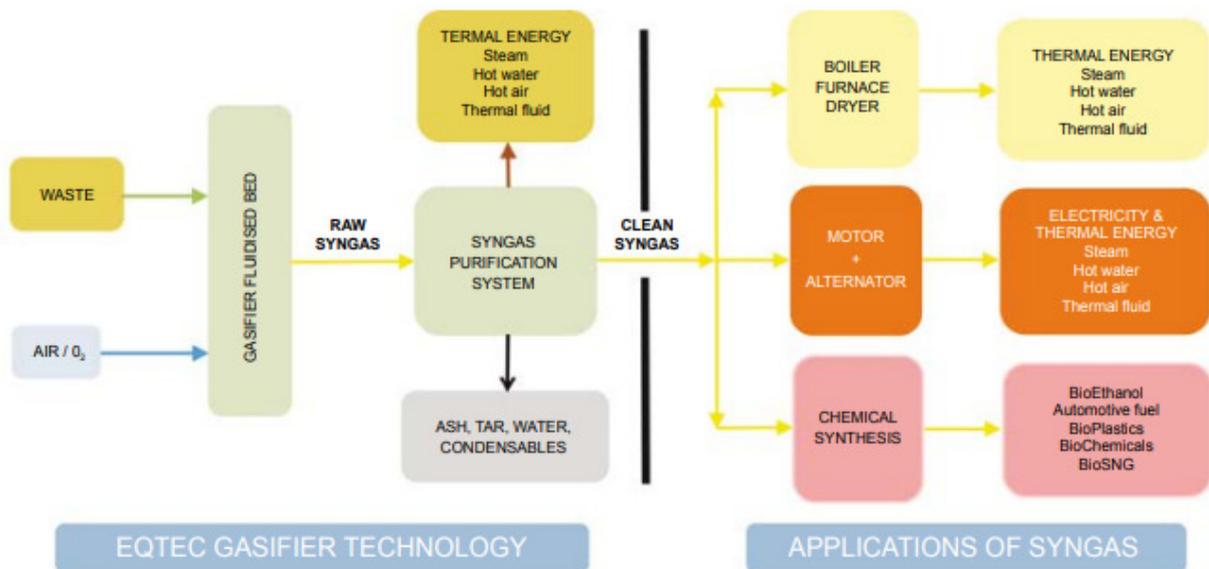


*Fluidised bed gasifier using EQTEC Gasifier Technology. Source: Company*

## Waste to energy process

The process from the arrival of the waste to the plant to the production of syngas for energy production can be simplified into four stages:

1. Waste, which reaches the plant in the form of pellets or chips, undergoes an initial drying process to remove water. The fuel input can come from Refuse Derived Fuel (RDF), produced from various types of wastes such as Municipal Solid Waste (MSW) by shredding and dehydrating it after all recyclable elements have been removed. Other fuels, including biomass, can also be used (see page 7).
2. In a stage known as pyrolysis or devolatilisation, the dry waste is decomposed at temperatures above 300°C, forming a mixture of solids, liquids (primary tars) and gases. The solid resulting from this thermal degradation is called “char” and the liquids, due to their partial tar and condensable vapour content are commonly described as “tar”.
3. The gasification stage. When the temperature of the char exceeds 700°C the gaseous, liquid and solid products from the previous stage react with each other and the gasifying agent (air) to create a gaseous mixture. The final result is a gas mainly composed of hydrogen, carbon monoxide, carbon dioxide, methane, nitrogen, dihydrogen monoxide, a minority of tars and suspended solid particles.
4. The gas (syngas) is then purified, with pollutants removed in order to have a clean product which can be used as fuel for direct combustion in gas engines to generate electricity. To address the formation of tars EGT applies an IP-protected thermal cracking and steam reforming process.



*Gasification process using EQTEC Gasifier Technology. Source: Company*

EQTEC has also developed its own computer assisted kinetics model (EKM) which is capable of simulating the main chemical reactions that occur in an EGT gasifier, accurately predicting the chemical composition of the gas generated. This allows the optimal conditions of gasification of each residue to be determined according to its chemical composition.

The whole process is managed by the EQTEC Monitoring Platform (EMP), a monitoring and control system for energy production plants which allows safe, reliable and efficient operation of the installation, with features including remote monitoring and maintenance management.

## Movialsa integrated biomass gasification cogeneration plant

Unlike many operators in the gasification market, EQTEC has already proven the economic viability of its technology, having successfully delivered its technology to clients and seen many years of it operating in a commercial plant. The company's flagship project is the Movialsa plant in Spain, located just under two hours south of Madrid in the Ciudad Real province. This was delivered by Eqtec Iberia for client Mostos, Vinos y Alcoholes SA (Movialsa), a Spanish agriculture company, in 2011.

Using EGT, the installation has a high electrical and thermal efficiency, superior to alternative technologies such as biomass combustion. The process sees feedstock (olive pulp & olive pits from an adjacent oil factory) pass into one of four gasifiers to produce a syngas which is directly combusted by three 2.0 MWe General Electric Jenbacher gas engines to generate electricity. The electricity is then sold into the national grid and heat output is used in an adjacent alcohol distillery.

The three engines have now run for more than 90,000 hours between them at the targeted output without major issue, with the plant designed to run continuously on automatic mode with minimum operation manpower requirements. **Also, General Electric has officially approved the syngas for use in its Jenbacher engines.**



*Movialsa plant. Source Company*

## Advantages of EGT

**Variety of feedstocks can be used as fuel** – EGT can use a range of different feedstocks as fuel, with each plant designed according to the waste that will be used as the raw material. This provides the opportunity to provide the technology for clients in a number of different industries. Fuels that can be used range from municipal solid waste (MSW) to plastic waste, waste tyres and a range of organic materials (biomass) which come from the agriculture and forestry industries such as wood chips, olive pulps, straw and nut shells.

## Commercial track record

Investors in the gasification sector have experienced a number of project disappointments around the world, often related to technology failure. **It should come as some comfort that EQTEC has a track record of successful technology delivery to plants which are operating commercially.** As well as the 6 MW Movialsa plant in Spain Eqtec Iberia has also delivered the 1.2 MW Belisce 1 plant in Croatia, which started commissioning in August 2017 using woodchips as a feedstock. A third 1 MW plant was commissioned in 2015 in Gallina, Italy, using straw as feedstock. Adding to the commercial operations, Eqtec Iberia has installed its technology in a number of R&D plants at universities in Portugal, France and Spain, along with a 3 MW plant in Karlovo, Bulgaria.

**Efficiency** - EGT produces a high quality syngas which can be used directly as fuel in internal combustion engines. This offers a higher overall efficiency in comparison with alternative technologies which, due to producing a lower quality syngas, first have to burn gas to generate steam which is then used to produce electricity. EGT delivers an electrical efficiency (% useful power output given power input) of between 26% - 34%, with the Movialsa plant reportedly operating at 30.2% electrical efficiency. In contrast, traditional combustion based biomass plants typically achieve 15-23% electrical efficiency.

In terms of biomass conversion efficiency (weight of biomass per kWh), the Italian plant operated at c.0.90 kg of biomass processed for each kWh, Bulgaria at 0.92 kg/kWh and Movialsa is operating at c. 0.80kg/kWh. Also, the process conditions in EQTEC gasifiers achieve carbon to gas conversions of c.95% and a very low concentration of tars of around 5g/m<sup>3</sup> N of gas to the gasifier output.

## Patents

Eqtec Iberia has two European patents covering its gasification process and the clean-up of the produced syngas which were granted in July 2017 and September 2017 respectively. These are: Process and Reactor for Gasification of Organic Solid Materials EP14786221 and Process and Reactor for Conditioning a Gas Stream from a Gasifier, Thermal Cracking of Tars And Steam Reforming EP14786222.1. Eqtec Iberia also has a third patent granted in Spain, covering the process flow and heat recovery parts of the system. It will look to apply for an EU patent for this in due course.

## Market Background

**EQTEC's technology and services lie in a sweet spot, providing a solution to dealing with problems associated with two of the world's most pressing issues - rising levels of waste (and how to manage it) and growing demand for energy.** To give some high level figures, the World Bank estimates that population growth and urbanisation will result in annual solid waste generation increasing by 70% from 2016 levels to 3.4 billion tonnes in 2050. Another report published in the journal *Nature* by Hoorweg, Bhada-Tata and Kennedy forecasts that solid waste generation will more than triple to exceed 11 million tonnes per day by 2100 - just over 4 billion tonnes for the year.

Bodies whose job it is to deal with waste, such as local governments, therefore face many challenges, not least meeting the costs associated with waste disposal, such as gate fees and transportation costs, but also meeting government waste regulations. So it's no surprise that waste is now increasingly being seen as a valuable input commodity for energy generation, not only by local authorities but also by corporations which themselves produce high levels of waste materials or biomass from their operations. On the energy side, BloombergNEF's *New Energy Outlook 2018* report forecasts that global electricity demand will reach around 38,700 terawatt-hours by 2050, up from 25,000 terawatt-hours in 2017.

### Opportunities

To highlight the value of opportunities in the sector, a report published in October 2018 by Research Nester forecast that the global waste-to-energy will grow at a CAGR of 5.7% to 2024 to reach a value of \$42.52 billion. Increasing demand for the conversion of solid and municipal waste into energy by safe and environmentally friendly waste disposal methods (as opposed to methods such as landfill and incineration) is expected to be the key market driver. Further, Meticulous Research's report, *Global Gasification Market – 2018-2024*, projects the global gasification market will grow at a CAGR of 5.3% over the forecast period to reach \$4.49 billion in size. Within this, the waste gasification segment of the market is forecast to grow slightly faster, at a CAGR of 6.7% to \$800.8 million.

Europe in particular is a key focus for EQTEC, the company having a strong pipeline of opportunities across a number of countries on the continent (see page 9). The market here is underpinned by EU legislation, including the Renewable Energy Directive which requires EU members as a whole to fulfil at least 20% of their energy requirements from renewable sources by 2020. Looking to the medium-long term, an agreement was reached last year on a binding renewable energy target for the EU for 2030 of 32%, with a clause for an upwards revision by 2023.

While the UK's renewable energy policy post Brexit (should it come to pass) is uncertain, the core drivers of the waste-to-energy market remain and the government continues to promote waste reduction policies. Of note, a policy paper, *Our Waste, Our Resources: A Strategy for England*, published by the government in December 2018, set out a strategy to minimise waste, promote resource efficiency and move towards a circular economy.

According to government statistics, the proportion of local authority collected waste going to Energy from Waste plants increased from 9% in 2000/01 to 41% in 2017/18, with the country currently having around 40 plants. However, the UK's infrastructure remains relatively under-developed in comparison to other major European countries, such as Germany, France and Italy. Reflecting a lack of processing facilities, figures from the Environment Agency show that just over 3.2 million tonnes of waste derived fuel was approved for export in 2017. This provides a huge source of potential feedstock and highlights the opportunities available for experienced waste-to-energy market players such as EQTEC.

## **Specific feedstock based opportunities in Europe and the US**

Also in Europe, and in particular in the Mediterranean countries, there is a significant opportunity specifically in the agricultural waste sector and more particularly in eliminating waste generated by the olive oil industry. In the Mediterranean regions, olive oil farming is a significant feature of land use, covering over five million hectares in the EU Member States. The main areas of olive oil production are Spain (2.4 million ha) (65% in Andalusia), followed by Italy (1.4 million ha), Greece (1 million ha) and Portugal (0.5 million ha). In those countries, 97% of the world's olive oil is produced.

The olive oil industry generates large quantities of by-products. The main by-product is olive mill pomace (OMP). It is a potentially harmful by-product for the environment, because of the phytotoxic and antimicrobial properties, low pH, relatively high salinity and organic load, and the phenolic and lipid constituents. Some economic issues, primarily costs associated with disposal, and also environmental problems, arise from the disposal of OMP. Previous research has looked into the possibility of burning the wastewater with mixtures of solid waste from the olive oil mills or waste wood. These approaches have proven either too expensive or produced an excessive amount of air pollution.

It is estimated that around five million metric tons of olive pomace (the waste of the olive oil industry and the basis for the olive biomass fuel) is produced every year. Once the remaining oil is extracted, what is left is a clean biomass fuel with a high calorific value. A major preferred option for the disposal of this large amount of OMP is the generation of renewable energy, taking advantage of the relatively high calorific value of OMP.

The United States, and in particular California which needs immediate solutions for waste wood, offers great opportunities for the recovery of energy from biomass feedstocks. The most recent drought in California caused the die off in excess of 100 million trees. Dead trees pose a serious threat of wildfire, pushing government and private agents to take action for urgent remediation. The State of California has declared a state of emergency to immediately address the risk. However, fewer than half a dozen small scale biomass plants exist. It's estimated that more than 100 would be needed just in the Sierra Nevada.

The following are the main political and economic drivers influencing the Californian market.

### **Political Drivers**

- Senate Bill 705 forces curtailment of pile/burn due to air quality concerns.
- Assembly Bill 32 requires CA to reduce greenhouse gas emissions to 1990 levels, favoring biomass gasification over traditional combustion technology.
- Assembly Bill 1826 prohibits 'dumping' organic waste in landfill and recognizes biomass power generation as a suitable alternative.
- Senate Bill 1122 has led to the California BioMAT program, administered by the CPUC.

### **Economic Drivers**

- Nearly 40% of California's existing biomass power plants are idled or scheduled to close due to expiration of PPAs and end-of-life generating assets.
- California agriculture generates millions of tons orchard wood, nut shells, seed pits, rice hulls, and other non-food by-product every year.
- Population growth in California is contributing to increasing levels of construction & demolition wood waste as well as increasing load demand.
- CA Department of Transportation has awarded \$100 million for fuel reduction work to reduce to fire impacts

## Business Model, Strategy & Project Pipeline

EQTEC's business model is focused upon sourcing and providing assistance to clients in developing waste elimination projects, typically projects that have a local supply of waste which can be disposed of and turned into energy. The company works together with multiple partners involved in projects, including developers, waste owners, EPC contractors and funders, with a view to ultimately providing its gasification technology and associated engineering and design services. Additionally, operation & maintenance (O&M) services generate recurring revenues over the life of the projects once the initial services have been delivered.

**This approach creates a business with the opportunity to earn revenues from multiple sources.**

To summarise, these include: sales of equipment and services directly to plant owners; sales of services & equipment to plant owners within an EPC contractor offering; regular annual income from operating & maintenance (O&M) services to plant owners; and fee income from technology licensing in certain markets. Additionally, EQTEC has said that it will consider acquiring ownership positions in projects should they be compelling enough. This route will see income in the form of gate fees, the sale of electricity and heat, dividends, SPV management services and financing arrangement fees.

### 2018 strategic review

August 2018 saw EQTEC undertake a strategic review of Eqtec Iberia following the appointment of new CEO Ian Price. **The review concluded that the business should shift its near-term focus from business development to execution of its project pipeline to ensure delivery on customer requirements.** EQTEC Iberia would also continue to respond to Requests for Tender in order to identify core opportunities in the energy recovery from waste sector.

To help realise these opportunities it was decided to boost investment in the engineering function by increasing the number of skilled engineering staff. Chief Technology Officer, Yoel Aleman, was put in charge of heading the new engineering function, reporting directly to the Board. Additionally, a new strategic alliance was entered into with Spanish technical assistance and engineering services company CT3 Ingeniería to provide further support to delivering the new strategy. CT3 has an international presence and has extensive experience in the calculation and design of engineering and civil work on projects for large industrial plants and power stations.

## Recent Developments

### Phoenix Energy

On the 15<sup>th</sup> January this year EQTEC announced the signing of its first equipment purchase contract for the company's first power plant with US power company, Phoenix Energy. This follows on from the signing of an MOU with Phoenix, signed in September 2018, to supply EGT for two power plants in California, expected to be valued in the region of €10 million.

Phoenix Energy is a US based private label power company that builds, owns and operates on-site biomass gasification plants in partnership with businesses in the Agricultural and Forestry industries. It helps partners become their own energy provider, selling energy at retail rates, combining proven technologies to provide themselves, their partners and their customers with profitable on-site power. **Phoenix will be the first US customer to use EQTEC's technology, with the expectation being that this will act as a reference case and lead to further opportunities in the country.**

The deal outlined that EQTEC will provide its biomass gasification-to-energy technology and equipment to Phoenix, initially delivering the engineering design for Phoenix's first power plant. Phoenix and its client will then review the design to determine the equipment order for the plant. Initial revenues are expected during H1 2019, continuing through the second half and into 2020.

An operations update in April (see below) confirmed that the engineering design work for the first plant had been successfully delivered and invoiced. Phoenix is awaiting the final granting of permits for the project, which have been delayed largely as a result of last autumn's forest fires in California. Construction, commissioning and installation at the project is expected to begin immediately once the permitting process has been completed.

**Subject to the outcome of the first two projects, Phoenix has indicated its desire to use EQTEC technology and equipment on other projects in the US that use gasification technology, with a commercial proposal for a third project having recently been presented to Phoenix.**

### **April 2019 project update**

A statement in April 2019 updated investors with further details on recent operational and project developments. The headline news was that the company has seen a "significant increase" in the level of international interest in EGT from both existing and potential new customers, developers and EPC contractors.

In Spain, the company is said to be in advanced talks with an existing client to enter into a collaboration agreement to promote and develop a number of projects in the industrial and agricultural waste sector including a second plant at one of its locations. From the information given we can assume that the client is Movialsa.

In the UK, EQTEC is said to be at an advanced stage of negotiations over a "significant" RDF project where it is proposed that the company will provide EGT and could act as lead developer. A letter of intent has also been signed with a developer of renewable projects in the UK to identify new project opportunities.

### **Pipeline**

**EQTEC currently has a significant pipeline of potential project opportunities which range in total capex value from €10-€100 million. It is estimated by the company that it could earn c.25%-35% of the total estimated project values.** Major opportunities announced to the market include:

#### **Usk Project**

The Usk Project (previously the Zebec Energy project), located in the municipality of Usk, Wales, is a facility which is planned to have the capacity to process ca. 42,000 tonnes of wood waste per year and a power output of 6.4 MWe. In March 2018 EQTEC signed an MOU with a consortium (which at the time was led by developer Brooke Energy UK) under which the company would sell its gasifier technology to RAFAKO, the EPC contractor for the power plant, which will exclusively use the technology for the gasification and gas cleaning process.

However, in April this year EQTEC announced that Brooke Energy is no longer involved in the project. The company has been working with the site and project owner and has made a commercial proposal to the project owners to become the developer of the project and provide the technology and EPC services.

The financial close of the Usk project was initially expected in H1 2018 but this was delayed until Q1 of 2019 with the purchase contract expected shortly thereafter. While Q1 has passed with no updates on the financial close, EQTEC has previously said that EQTEC revenues from the Usk Project are expected to be **c.€11 million**, to be invoiced over a period of two years. However, this will likely have changed following the departure of Brooke and we await further updates.

### **PT CITRA Vietnam**

In June 2018 EQTEC announced the signing of an MOU with PT. Citra Metro Jaya Energi, part of the Energy division of the Citra Metro Group, a leading group of companies headquartered in Indonesia involved in Energy, Technology and Telecommunications, to supply it EGT for a 12 MWe power plant in Hanoi, Vietnam. Under the deal Citra considers EQTEC as the exclusive technology supplier of the plant for the 12 months from the date of the MOU. The scope of supply will include two complete gasification lines with 4.5 tonnes per hour feeding rate each, four GE Jenbacher syngas engines, ancillary equipment, as well as commissioning and start-up services.

The latest update in April this year reported that EQTEC has been informed that the client has changed the RDF production technology needed to prepare the fuel for EQTEC's gasifier technology and the company is awaiting further information on how the EGT could be implemented with this modification.

The customer initially expected the signature of the Power Purchase Agreement (PPA) and issue of permits by authorities in Q3 2018 but the latest expectations are for Q2 2019, with the purchase contract executed shortly thereafter. **Expected turnover for EQTEC is in the range of €20 million – €22 million for the gasification plant from an estimated €70 million total capex investment.**

### **Polygen Consortium**

The Polygen project is a waste gasification project located in Łaziska Górne, Poland, being executed through a consortium of seven European companies, with EQTEC providing its gasifier technology. Construction of the project is expected shortly and the company currently expects to produce bio – Synthetic Natural Gas (bio-SNG) in 2019 from a feedstock of waste sludge, municipal solid waste and biomass. This is expected to open a significant new market opportunity for the company's technology which will be used not only to produce syngas on a power and heat basis but to produce clean and renewable fuels as bio-SNG which will be supplied to a nearby industrial user.

### **Other**

Elsewhere, the company has been approached with proposals for a number of projects in Serbia and together with a local partner in the region has developed an advanced project pipeline in Croatia. These projects are currently being developed at a slower pace in order to focus on more immediate opportunities. In Asia, the company is developing a pipeline of projects in Thailand and has recently expanded its vision to include all of South East Asia. Finally, the so called Catfoss projects are two early stage ventures, Catfoss Newcastle and Renewables (Catfoss) Hull, being developed in conjunction with Energy China (see page 12).

Alongside these opportunities we understand EQTEC has a number of other projects in the pipeline, specific details of which have not yet been announced to the market.

## Key Partnership Agreements

Supporting its role in the overall project ecosystem, EQTEC has signed a number of partnership agreements with key industry players. **These strategic partnerships, combined with the company's technology led offering and sector experience, give EQTEC a significant competitive advantage in the marketplace.**

### COBRA Instalaciones Y Servicios

In February 2018 EQTEC signed a strategic alliance with Cobra Instalaciones Y Servicios , a company engaged in the engineering, construction, operation, installation and maintenance of industrial & energy infrastructures for clients in the Americas, Europe, Africa, Asia & Oceania. The deal is to identify and collaborate on waste-to-energy projects that will use the company's gasifier technology. **The agreement came after extensive technical due diligence was carried out on the EGT by Cobra, which confirmed its ability to outperform comparative technologies.**

Cobra is an excellent partner to have on board given its significant experience of renewable energies. Founded in 1944 and based in Madrid, Cobra has a presence in 70 countries worldwide, more than 35,000 employees and revenues of just over €3 billion in 2017. Its main business areas are renewable energies and the environment; industrial engineering and plants (EPC projects); electric networks and infrastructures, installations, assemblies and services; and technologies and services.

Under the deal the two firms will seek to jointly construct and operate large scale commercial waste-to-energy projects. Cobra will be the EPC contractor for the whole power plant of the projects and will exclusively use EGT for the gasification and gas cleaning process. Opportunities will be identified on a project-by-project basis to assess the best use of EGT for the project, which could include electricity generation, heat supply and/or Combined Cooling, Heat and Power (CCHP).

EQTEC will provide the basic and detailed engineering and technical design for the EGT gasification package, performance warranties on generated gas, together with the equipment agreed, dependent on the particular project. If required, Cobra will also seek to attract external financing resources to develop and implement the Projects.

### Energy China

In May 2016 EBIOS and Eqtec Iberia signed a collaboration framework agreement with Hong Kong listed China Energy Engineering Corporation (Energy China) to develop a pipeline of energy-from-waste projects in the UK. Energy China is a Chinese state-owned enterprise with more than 160,000 employees, specialising in engineering and construction. The company developed the 22.5 GW Three Gorges Dam, the largest hydroelectric power plant in the world, which became operational in 2012. In the year to December 2017 the company made revenues of £26.7 billion (at current exchange rates) and a pre-tax profit of £1.36 billion so is clearly a heavyweight partner to have on board.

Under the agreement, EBIOS and Eqtec Iberia are to provide technology, engineering and technical design for the power plant facilities. Energy China is responsible for the EPC of the power plants and is required to provide assistance with respect to finance arrangements (75% minimum of total project costs). The remaining 25% will be funded by an equity subscription, with each of Energy China and EBIOS subscribing for shares which represent 12.5% of the share capital of the project company.

In every project, Energy China will be the primary EPC contractor to the project SPV, with Eqtec Iberia designated as an engineering and design subcontractor and gasification equipment supplier. Once the project is commissioned Eqtec Iberia will then be appointed as the O&M provider for 8-10 years

## Urbaser

In March this year EQTEC revealed that EBIOSS has signed an exclusive collaboration agreement with Urbaser S.A.U., a Spain based integrated waste and resource management company, to identify and secure opportunities for the collection, treatment and, where suitable, the conversion of waste into energy.

Urbaser is the third largest environmental services provider in Europe, providing waste treatment, waste and recycling collection, street cleansing and grounds maintenance services in cities including Barcelona, Madrid, Paris, Porto and London. Urbaser also operates comparable operations across Asia, North Africa and South America.

The parties have agreed, subject to Urbaser completing satisfactory technical due diligence, to use EQTEC's gasification technology for waste to energy gasification projects in Bulgaria, Greece, Macedonia and potentially Romania. EQTEC itself is not party to the agreement and has no-binding commitment for the provision of its technology to the parties under the deal.

Providing further clarification on the deal, EBIOSS has confirmed that in respect of waste treatment and disposal projects, the parties will use EQTEC's gasification technology, subject to successful completion of Urbaser technical due diligence and all parties, including EQTEC, agreeing terms, including the commercial basis of any contract. EQTEC will conduct due diligence on any potential opportunities presented to it.



EQTEC's role in the project ecosystem. Source: Company

## Financials

### 2017 Finals

Final results for the six months to December 2017 were shortened from the usual 12 months, reflecting a change of financial year end from June to December to harmonise accounting periods within the group following the reverse takeover of Eqtec Iberia. A loss for the year of €6 million was posted, with most of this however reflecting an impairment provision of €4.985 million on equipment and assets held in the Newry project. The decision was made during the period to sell the Newry assets for approximately €4 million as part of the equipment for the proposed PT CITRA project in Vietnam discussed on page 12. Other elements of the loss included €0.778 million of administrative expenses and €0.27 million of net finance costs.

### 2018 Interims

Interims to 30<sup>th</sup> June 2018 covered the first full reporting period following the December 2017 acquisition of Eqtec Iberia.

#### P&L

Revenues from continuing operations for the period were modest at €0.55 million. Of these, €0.526 million came from the company's Technology segment, created following the acquisition of Eqtec Iberia. The income relates to ongoing contracts relating to O&M services to several cogeneration power plants in Spain and gasification plants in Continental Europe. Remaining income of €20,697 was made from the legacy Power Generation segment on consultancy fees associated with the generation of heat. After a cost of sales of €0.43 million the gross profit for the year rose from €0.02 million in the six months to June 2017 to €0.11 million.

Total administrative expenses for the period grew from €0.61 million to €1.43 million, offset by central admin costs and director salaries falling from €0.52 million to €0.48 million. That gave a total operating loss for the half of €1.22 million, up from €0.78 million. Adding in interest costs of €0.68 million which were largely non-cash (€0.28 million in H1 2017) and the pre-tax loss for the period was €1.9 million, up from €1.06 million. Adding in a €23,233 profit from discontinued operations (relating to the held for resale Pluckanes Windfarm Limited which is involved in the generation of electricity through wind) and the net loss was €1.87 million.

#### Balance sheet & cash flow

At the period end EQTEC's net assets stood at €15.29 million, down from €16.63 million six months previously mainly due to the losses posted over the period. Notable balance sheet items included intangible fixed assets of €15.94 million which mainly relate to goodwill which arose on the acquisition of Eqtec Iberia. Assets classified as held for resale amounted to €1.28 million, with associated liabilities of €0.96 million, and relate to Pluckanes Windfarm, which we believe should be sold in the current financial year.

Cash at the period end stood at €185,152, with total borrowings (discussed in further detail on page 16) amounting to €5.29 million. The net cash outflow from operations for the period was €1.5 million, with (amongst other things) proceeds of €1.62 million raised from borrowings taking the net cash outflow for the period to €1.59 million. EQTEC's retained deficit at the period end stood at €47.13 million, reflecting losses made over the years as various strategies have been pursued.

## Financing

During its history EQTEC and its predecessors have been funded by a mixture of various equity fundraises and debt instruments. The company currently has access to several potential funding routes including venture debt facilities, loans and equity.

### Debt

EQTEC currently has access to two primary debt facilities, the terms of which have been agreed over recent months.

#### Combined Secured Loan Facility - Altair Group

In July 2015 the company, as REACT Energy, organised a £1 million Secured Loan Facility (SLF) with an interest rate of 15% with EcoFinance GLI Limited, secured by mortgage debentures, cross guarantees and share pledges over EQTEC and its subsidiary companies, to fund on-going working capital requirements. As at 31<sup>st</sup> December 2017 the carrying amount of the facility was €924,123, with EQTEC making a partial repayment of £378,882 in January 2018, earlier than scheduled, to reduce its cost of debt. This left a remaining balance of £621,118 repayable in 2020. As a result of the early repayment on the SLF, Altair Group (see below) became the sole beneficiary of the SLF.

Also in July 2015, REACT refinanced existing loans due to Altair Group Investment Limited by way of a new 7.5% £2 million Convertible Secured Loan Note (CSLN), secured by the same security package granted in favour of EcoFinance governed by an inter creditor deed. Under the original terms of the loan Altair had the right to convert up to £1 million into new ordinary shares at a price of 10p per share but this was subsequently amended to 0.585p per share as part of an extension agreement. As at 31<sup>st</sup> December 2017 the carrying amount of the loan was €2,693,276.

These arrangements were simplified in January 2019 when it was agreed that the two loans were to be consolidated into one facility to be referred to as the Combined Secured Loan Facility. EQTEC also achieved the following favourable amendments. The facility was increased to a total of £3.5 million, an increase of £0.879 million from the previous loans taking into account the early repayment of the SLF, and is available for drawdown at the company's request for a period of 12 months. In addition, the interest rate was reduced from 15% to 10% and the maturity date extended from 14<sup>th</sup> July 2020 to 20<sup>th</sup> December 2020. It remains secured by way of the debentures and guarantees granted to Ecofinance in 2015.

## Secured Loan Facility - Cuart Investments Fund

In July 2018 EQTEC announced it had agreed a new secured loan facility of up to \$3.2 million (£2.4 million) to be provided by Cuart Investments Fund and associates, a consortium put together by Origen Capital LLP. The facility was to be drawn down in two equal instalments, with the first instalment of the loan facility (c.\$1.48 million net) primarily used to redeem an outstanding Unsecured Convertible Loan Note agreed earlier in the year with Bercheva Opportunities Limited. An initial drawdown of £1.35 million was made on the UCLN but in March it was decided not to proceed with any further draw down amounts, with the loan now redeemed in full.

Interest on the Cuart facility is 10% per annum, with each instalment having a maturity date of 12 months from the date of advance. No repayments will be made in the first three months following the advance date, with a repayment of \$67,500 due at the end of the fourth month, 70% of the principal and interest repaid over the following seven months and the balance paid at maturity date. Obligations under the loan agreement are subject to the existing security granted by the company in favour of Altair and Ecofinance.

On 3<sup>rd</sup> October 2018 EQTEC and the lenders agreed to increase the facility to up to **\$10 million (£7.6 million)**. EQTEC also granted warrants to Cuart over 33,350,318 shares at an exercise price of 1.57p which are exercisable within three years from the date of grant. As at 5<sup>th</sup> January 2019 the outstanding balance was \$3,328,000 of principal, plus accrued and unpaid interest.

On 11<sup>th</sup> January it was announced that, to allow the company to focus its financial resources on delivering projects within the pipeline in the near future, the terms of the facility had been further amended. It was agreed that repayment amounts due after 5<sup>th</sup> January 2019 will commence on 5<sup>th</sup> April 2019, with a monthly fee of \$6,667 paid on the 5<sup>th</sup> day of each month beginning on 5<sup>th</sup> April 2019 for 15 months. A minimum cash payment of \$100,000 was agreed to be made by 31<sup>st</sup> January 2019 in relation to the \$486,893 capital and interest due and outstanding, with the balance of \$386,893 being paid no later than 28<sup>th</sup> February 2019.

## Equity

Since the last reported balance sheet date (30<sup>th</sup> June 2018) EQTEC has also received funding via the issue of equity. On 5<sup>th</sup> July, in association with the Cuart debt facility, Origen Capital agreed to invest **£1.15 million** in EQTEC via an equity issue at a price of 0.6p per share. A modest subscription by four directors in October at 0.93p per share raised £18,848.

Given the loan facilities put in place, at the time of the interim results the company commented, ***"...we believe that we are well capitalized and do not foresee a need for a placing in the near future"***. In addition, previous discussions regarding further funding from major shareholder EBIOS Energy AD were terminated, with the company now believing that it is "adequately independently financed".

## Warrants & Options

EQTEC has a number of potentially dilutive instruments in issue, including warrants, share options and convertible loan notes, which have been issued over the years mainly to various financiers and corporate advisers. The current schedule of dilutive instruments is presented in the table below.

Warrants	No of shares	Strike Price (£)	Value	In/Out of the money
Alchemy Capital Limited 2022	35,300,000	0.10	£3,530,000	Out
Origen Capital Partners LLP 2022	3,150,000	0.10	£315,000	Out
Strand Hanson 2022	1,533,505	0.0553	£84,803	Out
Michael Joseph 2019	76,923,077	0.022	£1,692,308	Out
Resource Reserve Recovery plc 2019	3,846,154	0.022	£84,615	Out
Origen Capital LLP 2020 Warrants	95,833,333	0.0075	£718,750	In
Riverfort 2023 Warrants	81,296,134	0.0119	£967,424	Out
Riverfort 2022 Warrants	33,350,318	0.0157	£523,600	Out
<b>Number of Ordinary Shares under warrant</b>	<b>331,232,521</b>		<b>£7,916,500</b>	
<b>Options</b>				
IJP Options	30,000,000	0.010	£300,000	Out
GM Options 2021	67,304,542	0.0065	£437,480	In
<b>TOTAL</b>	<b>97,304,542</b>		<b>£737,480</b>	
<b>Conversions</b>				
Altair loan note conversion rights 2020	170,940,171	0.00585	£1,000,000	In
<b>TOTAL</b>	<b>599,477,234</b>			

The total number of shares which could be issued under these instruments is 599,477,234. This would see a 30.5% increase in the total number of shares in issue if all are exercised. However, we note that only 334,078,046 worth of shares are in the money at the current share price of 0.845p.

In early March this year Altair exercised warrants over 105,263,158 shares at a price of 0.975p, with Ecofinance exercising warrants over a further 50 million and 7,764,000 shares respectively at a price of 0.75p. This raised a total of **£1,459,546** for the company, with Altair and Ecofinance having exercised all warrants issued to them in 2017 and 2018 as part of the previous loan agreements. The newly issued shares are subject to a 90 day lock in from their admission on 13<sup>th</sup> March 2019 and an orderly market agreement for a further 90 days.

## **Management**

### **Ian Price - Chief Executive Officer**

Ian Price is a science graduate from the University of Manchester and holds an MBA from the University of Bath. He comes from a background in waste and renewables and the development of low carbon energy assets using refuse derived fuels where he has a successful track record of managing and executing transactions. He has had a career spanning over 20 years, mainly in the waste and renewables sectors. His career has included being Director of Commercial Services for Covanta Energy and a Director of KSP Renewables Limited a company which specialises in the development of merchant energy from waste (EfW) plants in the UK focusing on using refuse derived fuel (RDF) from commercial and industrial waste sources. He also held management and operations roles at Biffa, FCC Environment, Veolia and Sita (Suez). He currently serves as a Non-Executive Director of West Wind Ventures Limited which is also involved in waste and renewables in an advisory capacity. He is a member of the Chartered Management Institute.

### **Gerry Madden - Finance Director**

Gerry Madden joined EQTEC plc in May 2007 as Finance Director, and was Chief Executive from 2011 to 2017. He previously founded and operated a corporate finance practice between 1998 and 2007, advising UK and Irish companies on corporate finance activities and business strategy. During this period he also acted as a Non-Executive director for companies in the technology, healthcare, retail and renewable energy sectors. He originally worked for 16 years with international accountants KPMG and was auditor and adviser to listed companies, multinationals and private companies operating in Ireland and internationally. He is a Fellow of the Institute of Chartered Accountants in Ireland, a graduate of University College Cork and a Member of the Institute of Directors.

### **Ian Pearson - Non-Executive Chairman**

Ian was for five years the chairman of AIM listed OVCT2, a company which invested in a variety of renewal energy companies and was successfully merged into Apollo VCT plc last year. He is currently a Non-Executive Director of Thames Water Utilities Limited, the UK's biggest water company with 15 million customers, and is Chairman of CODE Investing Ltd. He is also a senior adviser to BAI Communications plc and has previously been a member of the UK Advisory Board of the accountants, PwC. During a distinguished Ministerial career from 2001-10 Ian Pearson held a number of positions, including Minister for Trade & Foreign Affairs, Minister of State for Climate Change and the Environment, Minister for Science, and Economic Secretary to the Treasury. He graduated from Balliol College, Oxford and has a Master's degree and a Doctorate in Industrial and Business Studies from the University of Warwick.

### **Óscar Leiva - Non-Executive Director**

Óscar Leiva is currently the President and founder of EBIOSS, a technology group operating in the waste sector, and listed on the Spanish Stock Exchange. The group has during the last ten years invested in new technologies and companies that allow municipalities to solve their waste problem using smart waste collection and waste elimination technologies provided by EBIOSS. He studied a Bachelor's degree in Management and Master's degree in Financial Markets at the University of Barcelona. Oscar has held executive positions in private banking in different financial entities such as Credit Suisse Group and Banco Finantia. His international experience also comes from his role as Vice President of the Marina D'Or Group, a real estate developer and property company.

### Tom Quigley - Non-Executive Director

Tom Quigley has had an executive career spanning over 25 years, mainly at board level, as Managing Director, CFO and CIO. This included being a Managing Director of Close Brothers Corporate Finance, a Managing Director and Head of the Retail, Hospitality and Leisure sector investment banking at ING Barings, London, and a Director of Terra Firma Capital Partners. Tom originally qualified as a Chartered Accountant at Price Waterhouse in London and has amassed considerable financial and management experience across multiple sectors. Through his executive and non-executive positions, Tom has worked in real estate, financial services, healthcare and banking, and across a number of jurisdictions.

### Major Shareholders

Shareholder	Number of shares	% held
EBIOSS Energy SE	742,381,371	37.73%
Inava Ingenieria de Análisis SL	250,159,360	12.71%
Khalid Choksy	175,000,000	8.89%
Altair Group Investment Limited	164,532,102	8.36%
Mike Joseph	83,832,421	4.26%
Monecor (London) Limited	65,023,078	3.30%

As at 5<sup>th</sup> March 2019. Source: Company

## **Key Risks**

### **Project timing**

The projects that EQTEC works on are relatively complex in terms of planning and development, involving a number of partners and third-parties. As such, there are many factors which are out of the company's direct control including the timing of commissioning, receipt of relevant planning permissions and the conclusion of financing packages. Projects can therefore be subject to delays, making the timing of revenues received uncertain.

### **Financing related risks**

EQTEC is at present making only modest revenues and remains loss making at the bottom line. In order to fund working capital and the development of its pipeline it requires access to adequate levels of financing. This risk is mitigated by the company having access to the loan facilities discussed on pages 16 & 17. EQTEC also has a number of warrants and options in issue which could raise modest funds and access to the equity markets should the need arise. There is the potential for equity dilution should further funds be raised by any of the latter two methods, with dilution also a possibility should loans be converted into equity.

### **Technology risk**

Many projects in the waste-to-energy market have been unsuccessful due to the failure of the underlying gasifier technology – as seen in EQTEC's case at the Newry project. This risk is mitigated by EQTEC's gasification technology having been developed over a 20-year period and having over 90,000 operating hours in commercial plants. Nevertheless, there are a number of competing waste-to-energy technologies on the market that may become more widely accepted by commercial clients.

### **Partnership risk**

EQTEC's current strategy involves entering into strategic partnerships with third-parties including engineering consultants, energy investors, and EPC contractors. As such the company will have a lower degree of control over certain aspects of projects it works on and could be exposed to additional operational, financial, legal and compliance risks.

### **Currency risk**

Being domiciled in Ireland, EQTEC presents its accounts in euros, which is also the company's functional currency. Being listed in the UK, the valuation that investors award to the shares may be exposed to changes in the euro/sterling exchange rate. Exposure to exchange rates will increase should, as expected, the company successfully increase revenues received in the form of sterling, the US dollar and others.

## Forecasts

Working with management we have put together forecasts for the three financial years to 2021 and used these as a basis for providing a valuation for the company. We have used the following main assumptions:

### Revenues & gross margin

As discussed, EQTEC currently has a large pipeline of potential projects in the UK, Europe, the US and Asia. We expect that the contract with Phoenix will be the first of many to be signed and delivered over the coming months and years in the areas of biomass energy plants, large RDF plants and industry specific energy recovery. A typical project will see EQTEC receive c.25% of the total contract cost up front, with various milestone payments made during the lifetime of the contract and a final payment on commissioning.

We forecast revenues on an individual project basis, with the vast majority coming from design, build and technology sales upon which gross margins of between 15% - 20% (typically 20%) are earned. We also forecast modest income from O&M services upon which a margin of 15% is earned. At this stage we assume that the company earns revenues only from these services and does not take up equity participation in any projects (which would provide long-term upside potential).

### Admin expenses

We assume that group admin costs (directors costs, listing costs et al) rise to €2 million in 2019 in line with expected increases in activity. These grow at 5% per annum over the forecast period.

### Finance costs, borrowings & tax

Interest costs on the Altair loan are capitalised to June 2019, with the loan assumed to be paid back in December 2020 as per the current terms, with £1 million converted into equity and the rest paid back in cash. The Cuart loan is treated as per the announced conditions and we assume the current tranches are paid back in full by the end of 2019 as the latest maturity date of the three tranches comes in December. However, due to working capital needs we forecast an additional drawdown of €750,000 in 2019 which is paid back in 2020. Cash interest payments are made on other bank borrowings owned by Eqtec Iberia, we assume at a blended average rate of 3%. For tax, we assume the standard Spanish corporation tax rate of 25% is payable on profits.

### Balance sheet

For simplicity we assume no major change in PPE or intangibles on the balance sheet as the revenue assumptions above are based on a capex light model. However, we are looking for Pluckanes Windfarm Limited to be sold during 2019 for net asset value, thus removing fixed assets of c.€1.1 million, along with c. €0.9 million of bank borrowings, from the balance sheet.

In terms of working capital we expect inventories to remain flat as they are not relevant to the technology sale business which is project specific, with only modest amounts held for existing O&M contracts. For debtors, we assume that 25% of revenues due for projects are paid upfront and with milestone payments due on presentation we assume it takes an average of 30 days for the remaining payments to be received. Similarly for creditors we assume average days payable of 30.

Our overall findings are presented below.

## P&L forecast table

Year to Dec	€	2019	2020	2021
REVENUES		13,799,500	74,846,334	123,270,171
COGS		-11,456,417	-62,148,716	-102,385,961
<b>GROSS PROFIT</b>		<b>2,343,084</b>	<b>12,697,618</b>	<b>20,884,209</b>
Admin expenses		-2,000,000	-2,100,000	-2,205,000
<b>OPERATING PROFIT/(LOSS)</b>		<b>343,084</b>	<b>10,597,618</b>	<b>18,679,209</b>
Finance costs		-543,310	-374,458	-15,877
<b>PRE-TAX PROFIT/(LOSS)</b>		<b>-200,227</b>	<b>10,223,159</b>	<b>18,663,332</b>
Tax		0	-2,555,790	-4,665,833
<b>NET PROFIT/(LOSS)</b>		<b>-200,227</b>	<b>7,667,370</b>	<b>13,997,499</b>
Weighted shares in issue		1,948,118,792	1,978,314,157	2,138,711,552
Earnings per share (cents)		-0.01	0.39	0.65
Earnings per share (p)		-0.01	0.34	0.58

At the top line we expect revenues to grow markedly over the forecast period as EQTEC delivers on its project pipeline. Notable is the company's strong operational gearing, with administration costs at the group level being relatively low and fixed. We expect finance costs to shrink over the forecast period as the various loans discussed above are either converted into equity or paid back in cash.

## Cash flow

Year to Dec	€	2019	2020	2021
<b>CASH FLOW FROM OPERATIONS</b>				
Net profit		-200,227	7,667,370	13,997,499
(Increase)/decrease in debtors		1,266,133	-3,763,161	-2,985,031
Increase/(decrease) in trade payables		-1,809,846	4,166,490	3,307,171
Interest		543,310	374,458	15,877
<b>NET CASH FROM OPERATIONS</b>		<b>-200,630</b>	<b>8,445,157</b>	<b>14,335,516</b>
<b>CASH FLOW FROM INVESTING</b>				
Disposal of property (net of cash)		189,608	0	0
<b>NET CASH FLOW FROM INVESTING</b>		<b>189,608</b>	<b>0</b>	<b>0</b>
<b>CASH FLOW FROM FINANCING</b>				
Repayments of borrowings		-2,582,705	-3,150,817	0
Proceeds from borrowings		750,000	0	0
Proceeds from issue of ordinary shares		1,694,246	0	0
Interest paid		-251,418	-53,377	-15,877
<b>NET CASH FLOW FROM FINANCING</b>		<b>-389,877</b>	<b>-3,204,194</b>	<b>-15,877</b>
<b>NET CASH INCREASE/(DECREASE)</b>		<b>-400,899</b>	<b>5,240,963</b>	<b>14,319,639</b>
<b>OPENING CASH</b>		<b>590,132</b>	<b>189,233</b>	<b>5,430,196</b>
<b>CLOSING CASH</b>		<b>189,233</b>	<b>5,430,196</b>	<b>19,749,835</b>

## Balance sheet

Year to Dec	€	2019	2020	2021
<b>ASSETS</b>				
<b>NON-CURRENT ASSETS</b>				
Property, plant & equipment		4,402,416	4,402,416	4,402,416
Intangible assets		550,649	550,649	550,649
Financial Investments		18,934	18,934	18,934
Deferred Tax Assets		1,148,863	1,148,863	1,148,863
Goodwill		15,247,434	15,247,434	15,247,434
<b>TOTAL NON-CURRENT ASSETS</b>		<b>21,368,296</b>	<b>21,368,296</b>	<b>21,368,296</b>
<b>CURRENT ASSETS</b>				
Inventories		98,851	98,851	98,851
Trade and Other Receivables		850,654	4,613,815	7,598,846
Cash and Cash Equivalents		189,233	5,430,196	19,749,835
<b>TOTAL CURRENT ASSETS</b>		<b>1,138,738</b>	<b>10,142,862</b>	<b>27,447,532</b>
<b>TOTAL ASSETS</b>		<b>22,507,034</b>	<b>31,511,158</b>	<b>48,815,828</b>
<b>LIABILITIES</b>				
<b>NON-CURRENT LIABILITIES</b>				
Altair loan		3,210,815	0	0
Ecofinance loan		0	0	0
Bank borrowings		313,952	313,952	313,952
Other financial liabilities:		2,000	2,000	2,000
Deferred tax		33	33	33
<b>TOTAL NON-CURRENT LIABILITIES</b>		<b>3,526,800</b>	<b>315,985</b>	<b>315,985</b>
<b>CURRENT LIABILITIES</b>				
Cuart loan		750,000	0	0
EQTEC Plc - Bank Overdraft		2,563	2,563	2,563
Pluckanes Bank Borrowings		0	0	0
Eqtec Iberia - Bank Borrowings		207,037	207,037	207,037
Eqtec Iberia - Other borrowings		5,691	5,691	5,691
Trade and Other Payables		941,623	5,108,114	8,415,284
<b>TOTAL CURRENT LIABILITIES</b>		<b>1,906,914</b>	<b>5,323,405</b>	<b>8,630,575</b>
<b>TOTAL LIABILITIES</b>		<b>5,433,714</b>	<b>5,639,389</b>	<b>8,946,560</b>
<b>NET ASSETS</b>		<b>17,073,320</b>	<b>25,871,769</b>	<b>39,869,268</b>
<b>EQUITY</b>				
Share Capital		19,337,527	19,508,467	19,508,467
Share Premium		48,232,774	49,192,914	49,192,914
Retained Losses		-49,008,288	-41,340,918	-27,343,419
Equity attributable to owners		18,562,013	27,360,463	41,357,962
Non-controlling interests		-1,488,694	-1,488,694	-1,488,694
<b>TOTAL EQUITY</b>		<b>17,073,319</b>	<b>25,871,769</b>	<b>39,869,268</b>

## Valuation

Our forecasts above may look ambitious in the context of recent years' results but look achievable to us given the pipeline of opportunities built up, new strategy created under CEO Ian Price and the financial backing provided by the two debt facilities. **While we forecast a small further drawdown on the Cuart loan this year we point out that the business model is strongly cash generative, EQTEC seeing a proportion of upfront payments made on contracts followed by regular milestone payments.** However, we note our forecasts are highly sensitive to timing issues, with this being a major risk to the investment case, as discussed on page 21.

The table below shows that EQTEC shares look very cheap on a number of valuation measures at the current price of 0.845p per share should our forecasts be met.

	2019	2020	2021
Price/sales	1.36	0.25	0.15
EV/EBITDA	67.4	1.31	-0.02
P/E	N/A	2.5	1.5

*EQTEC valuations. Source: Align Research*

Our preferred valuation measures for the shares are the EV/EBITDA and price to earnings multiples. For 2020, the first year forecast to see material profits, our forecasts suggest respective figures of just 1.31 times and 2.5 times. In 2021 the EV/EBITDA measure turns negative as net cash is forecast to exceed the market cap, with the PE falling to just 1.5.

At this point we would typically apply a peer average multiple to our forecasts to determine a target price for the shares. However, within the London listed alternative energy sub-sector there are very few companies which are currently making a profit. Perhaps the closest company to EQTEC in terms of operations is the waste-to-energy/hydrogen firm **Powerhouse Energy (PHE)**. Powerhouse is also under our coverage but in contrast to EQTEC is expected to adopt a technology licensing based business model and we do not expect the company to become profitable until 2021.

We consider the best (although not perfect) comparator at present to be the renewable energy supplier **Good Energy (GOOD)**. Again the business model is different to EQTEC's, with Good Energy making revenues from the sale of power and gas from its own and third-party plants, but the company is at least currently making decent levels of profit.

From results just released for the 2018 financial year we calculate an EBITDA of £9.9 million. With net debt of £40.1 million and a current market cap of £18 million Good Energy's historic EV/EBITDA multiple is 5.89 times. Applying the multiple, which we consider reasonable, to EQTEC's 2020 forecasts suggests a market cap of €67.3 million (£59.48 million). **Accounting for warrants and options up to 2.2p being converted, that equates to a value of 2.293p per share, a figure which we choose to set as our end 2020 target price.**

We note that should EQTEC go on to meet forecasts for 2021 then, using the same valuation method, our target price would be 4.4p for the year end. We do not consider this for now given the execution risks involved but hope to implement it should the company go on to meet our expected figures.

## Conclusion

EQTEC goes into the remainder of 2019 in very good shape. The first major contract under its new growth plan has already been signed and work delivered this year with the pipeline announced to the market providing many more opportunities for near-term revenue growth. New CEO Ian Price has a clear, commercially focused and well-funded growth strategy now in place, supported by proven gasification technology, a strengthened engineering team and a very conducive backdrop for the waste-to-energy market.

As discussed, there is substantial execution risk involved in meeting our forecast figures, with the potential for projects to be delayed being a major constituent of this. However, as we have seen in the past, EQTEC shares have been responsive to positive announcements to the market. With the potential for a strong flow of news over the coming months we therefore see a number of possible catalysts for the shares.

**With our end 2020 target price of 2.293p suggesting upside of 171% from the current price of 0.845p we initiate coverage of EQTEC with a stance of Conviction Buy.**

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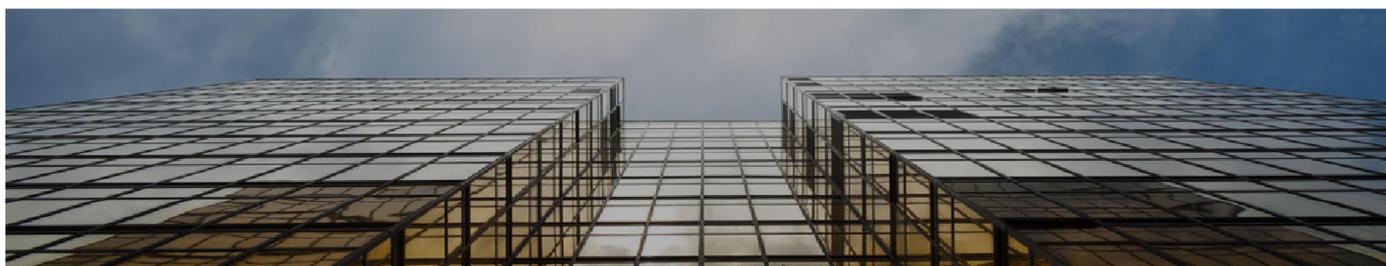
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