Media FAQ

AUGUST 2022

1. Why have you chosen to build your facility in the Hunter region?

The Hunter region has all the right skills, natural resources, expertise and an abundance in solar energy to develop a successful battery manufacturing business. Less than twenty minutes from our facility, we have access to a constant stream of talent and innovation from Newcastle University and CSIRO, and nearby we can access the world-class facilities at the Port of Newcastle.

2. What is the size of your manufacturing facility?

The Renaissance One battery manufacturing facility is currently under construction. It is a 4,500m2 facility with a capacity of up to 1GWh per year. Renaissance One will begin manufacturing batteries in Q1 2023, and will add cell manufacturing in 2024.

3. What is the cost to build the Renaissance One battery manufacturing facility?

We don't have the cost of building the Renaissance One manufacturing facility as we have entered a 5+5-year lease agreement with ATB Morton, who is building and constructing the facility.

4. How will you power your manufacturing operations in Tomago?

We will be installing a 500kW rooftop solar system and Renaissance superStorage™ batteries at Renaissance One that will initially provide 100% of our energy requirements.

5. You had initially announced you were going to set up your facility in NT. Why has this changed?

Energy Renaissance and the NT Government spent almost 18 months working on the project, but in the end, an agreement at the time couldn't be reached that satisfied both parties. Our experience with the NT Government was excellent, and we remain strong supporters of the Territory. We do not discount the possibility of developing a Renaissance facility in the NT in the future.

6. Your location announcement in October 2020 said construction would commence in December 2020. Why has this been delayed? When will you start manufacturing batteries and battery cells?

The COVID-19 pandemic has impacted many businesses. For Energy Renaissance, this affected timing of investment funds, equipment and material supply constraints and travel restrictions, ultimately impacting the commencement date for the construction of our first facility.

Energy Renaissance plans to roll out its manufacturing facility in three phases.

In the first phase, we have been manufacturing our superStorage™ products from a temporary facility in Tomago, NSW since October 2021. This allowed us to service demand and finalise the manufacturing process and procedures to scale to our permanent facility.

The second phase is almost complete and involves constructing a 4,500 sqm purpose-built facility in Tomago, NSW ('Renaissance One'). We will be manufacturing batteries commercially from Renaissance One by January 2023.

We have commenced planning for the third phase of production which will add cell manufacturing into the Renaissance One facility. We hope that Renaissance Two will commence operations in 2024.

7. Why has the launch of Renaissance One been further delayed?

With the co-location of battery and cell manufacturing into the Renaissance One facility in Tomago, we have successfully secured an increased power supply opening more functionality to the operation of the building but due to supply shortages for HV substation kiosks this along with the extreme wet weather events has pushed handover of the facility from our developer ATB Morton out until January 2023. Despite these delays we continue to operate successfully from our temporary facility just around the corner with capacity up to 3MWh per month.

8. How much have you invested in the first stage of Renaissance One?

ER is an Australian, privately held company funded by founders and private investors.

9. Can you provide us with an update on your partnership with Cadenza?

Cadenza Innovation is an investor in Energy Renaissance.

10. Has Energy Renaissance received any funding from the Australian government for your manufacturing facility?

The funding for the development and operation of the Renaissance One manufacturing facility comes from our private investors. To date, we have not received any direct funding from the government to construct our manufacturing facility. However, we have received funding from government agencies that have supported the development of our manufacturing capabilities.

In July 2021, we received a $1.48 million co-funded grant from the Advanced Manufacturing Growth Centre (AMGC) to develop processes and workforce skills for our pilot manufacturing facility at Tomago, NSW. This is in addition to a $246k (dollar-matching) grant from the AMGC in July 2020 to accelerate the research and development for the manufacturing of our batteries. We have also contributed to jointly funding a $1.46 million project in March 2021 with CSIRO and IMCRC to develop a defence-grade cybersecure Battery Management System (BMS) for our Renaissance superStorage™ family of batteries. We also received a $140k grant from the Impact Investment Ready Growth Grant from Impact Investing Australia in November 2019.

11. Has COVID impacted your ability to secure new funding?

COVID has impacted how business is being done worldwide, including slowing the pace of capital raising. However, we continue to maintain strong investor interest and the pandemic has further demonstrated the importance of sovereign security and Advanced Manufacturing in Australia.

12. How many jobs will you create?

An independent economic impact analysis undertaken by Energy Renaissance demonstrated that 720 jobs would be created by the Renaissance One (battery manufacturing) and Renaissance Two (cell manufacturing) facilities.

One indirect job will be created for every two direct jobs created, or approximately 475 direct and 245 indirect, with skilled workers and technical staff comprising the bulk of direct positions created.

Renaissance One is currently under construction, and we will commence operations at the new site in 2023. We are in the preliminary stages of planning for Renaissance Two, and we are currently expecting this to commence operations in 2024.

The analysis reveals the opportunity to catalyse an Australian battery industry that can supply and export battery-grade chemicals and materials to create over 100,000 construction and 80,000 active jobs. This will add $7.3 trillion in export revenue.

13. What is your battery production capacity?

At full capacity, the Renaissance One facility will produce 1GWh per year of batteries. Energy Renaissance's long-term plans are to develop additional facilities (Renaissance Two and Renaissance Three) to reach over 5GWh per year capacity.

14. Why have you chosen to manufacture in Australia?

Australia is the only country in the world with all the raw materials we need to make lithium- ion batteries. We will be able to engage with suppliers of nickel, cobalt, manganese, graphite, lithium, copper to use their materials and products in our superStorage™ family of products.

Through our commitment to manufacturing batteries locally, we can provide a pathway for battery raw material processing to take place here. Besides bringing greater certainty and investment to process raw materials locally, we can expect the cost of materials to be reduced, making energy storage more affordable and accessible.

We will be a catalyst for the growth of Australia's advanced manufacturing sector, providing a much-needed stimulus for jobs and economic growth in the Hunter Region and beyond.

As highlighted by the Future Battery Industry Cooperative Research Centre (FBICRC), the battery industry is a significant economic opportunity for Australia. It will bring us closer to our ambitions to be a secure and sustainable partner on the global battery stage.

A booming local battery manufacturing supply works to solve the problem of firming renewable energy storage with flexible, dispatchable capacity via large scale, community and household batteries and serving the transport demand for bus, train and particular purpose vehicles. Not only will this make our electricity supply reliable and affordable, but it will also re-establish Australia's advantage in advanced manufacturing.

15. Where will you source your raw materials from, and will you be using Australian raw materials?

Today over 90% of the components that make up a superStorage™ battery are produced in Australia, validating Energy Renaissance's commitment towards strengthening its local supply chain, creating local jobs and opportunities for all Australians. By 2024, we hope to be using all Australian raw materials to produce our batteries.

16. ER has claimed over 90% of components are Australian but with cells being imported what is the definition of 'Australian-made'? Assembled in Australia or created from the raw materials through to finished product?

We often get asked what makes a product "Australian-Made". Part 5-3 of the Australian Consumer Law (ACL) defines a product as "Australian Made" if as a result of one or more processes carried out in Australia, the end product is fundamentally different in identity, nature or essential character from all of its imported ingredients or components.

We manufacture our proprietary battery products using imported cells built into battery packs and racks using Australian labour and employing Australian metalwork, plastic work and populated boards. By ACL's definition, our superStorage™ products are Australian made.

But we agree that's not enough. That's why we aren't stopping there.

We've been clear our plan is to remove the need to import cells, and instead manufacture battery cells at scale from our purpose-built RENAISSANCE ONE facility in Tomago in 2024. We've designed the facility for this purpose, and work continues at pace to make this happen.

17. How does Energy Renaissance plan to transition from imported minerals and rare earths to Australian supplied, Australian resources that have been value-added in Australia?

Energy Renaissance began manufacturing batteries in October 2021, and initially this involves using imported Lithium-ion battery cells until we can begin manufacturing battery cells in Australia.

Australia currently does not have battery cell manufacturing or raw material processing capabilities. This is why Energy Renaissance has been working with CSIRO to develop a roadmap to support our business in manufacturing battery cells locally and from local battery-grade materials. In the future, when Energy Renaissance commences production of our battery cells, we will be able to engage with suppliers of Australian nickel, cobalt, manganese, graphite, lithium, aluminum and copper and to use their materials in our batteries.

18. What type of battery cell technology will you be using when you start manufacturing in Australia?

We delivering power (1C) and Energy (C/2, C/4) batteries for stationary and transport applications.

19. Can you elaborate on your relationship with CSIRO?

Energy Renaissance has worked with the CSIRO for the last 3 years , with the CSIRO acting as our research collaborator, and their work has been pivotal in our product development. Dr Adam Best is a principal researcher from CSIRO and was seconded to Energy Renaissance in 2021. He currently works on behalf of CSIRO with our business. Most recently, we appointed Dr Howard Lovatt as our Chief Technology Officer. Howard spent three decades at CSIRO and he was part of the team working with us on the development of our battery technology. We are delighted that our relationship with CSIRO continues with Howard on board we will continue to work with CSIRO on our commercialisation strategy.

20. What challenges do heat and humidity introduce when it comes to energy storage?

The hot climates in Australia and Southeast Asia place a great deal of stress on all cooling systems. The result is over-sized batteries to cater to the parasitic load of cooling systems, increasing the cost of hot-climate storage. Energy Renaissance's superStorage™ provides the best performance operating in hot climates.

21. What is your position on the safety and fire risk associated with lithium-ion batteries?

Energy Renaissance has spent the last five years preparing to manufacture batteries powered by Australian people and resources that are safe, affordable, and optimised for hot climates for a better economy and the environment. From the very start, our priority has been on safety and security.

Our work with CSIRO, supported by AMGC and IMCRC, has focused on a battery design that is both safe and secure. Our superStorage™ family of batteries and supercell batteries are designed to perform in hot climates. We've focused our product design and development on reinforcing the cooling systems of our batteries in a stressed environment. The Battery Management System that we've designed in partnership with CSIRO provides secure real-time data, analytics and remote management capabilities that will drive down the risk of battery failure for grid-scale energy storage users.

The ability of our batteries to operate safely is essential to us, and we continue to work with our partners and clients to ensure that this remains a priority.

22. What is the main difference between LiPo – commonly used for EV batteries - and LFP particularly in respect to safety considerations and fire risk?

Lithium ion pouch cells with polymer electrolytes that utilise Lithium Cobalt Oxide chemistry (commonly called LiPO) have a number of safety issues including: the pouch is easily damaged, the cells swell and burst, and the chemistry is highly volatile. Lithium ion prismatic (metal case) cells with liquid electrolyte that utilise Lithium Iron Phosphate chemistry (commonly called LFP) have none of these issues.

See more at wikipedia: https://en.wikipedia.org/wiki/Lithium_polymer_battery

"A lithium polymer battery, or more correctly lithium-ion polymer battery (abbreviated as LiPo, LIP, Li-poly, lithium-poly and others), is a rechargeable battery of lithium-ion technology using a polymer electrolyte instead of a liquid electrolyte."

"All Li-ion cells expand at high levels of state of charge (SOC) or over-charge, due to slight vaporisation of the electrolyte. This may result in delamination, and thus bad contact of the internal layers of the cell, which in turn brings diminished reliability and overall cycle life of the cell.[10] This is very noticeable for LiPos, which can visibly inflate due to lack of a hard case to contain their expansion. The safety characteristics of Lithium Polymer batteries are different from those of lithium iron phosphate batteries."

23. What applications can your batteries be used for?

Our batteries can be used for Stationary applications such as grid and microgrid, renewables, community storage (including remote communities), mining electrification, and Defence SilentWatch application. As well as Transport applications such as buses, light commercial and industrial vehicles.

24. How will you support the Hunter Renewable Energy Industrial Precinct?

Energy Renaissance supports the Hunter Renewable Energy Industry Precinct (REIP). Low-cost electricity is the key to sustaining and reviving our manufacturing sector.

Renewables offers the lowest-cost option for new electricity generation, which will soon be cheaper than relying on fossil fuel alternatives.

Increasing the adoption of renewable energy will support manufacturers in an REIP to be powered by 100% renewable energy. As a battery manufacturer based in Tomago, Energy

Renaissance's goal is to be energy independent by powering 100% of our operations with a 500kW rooftop solar system when our manufacturing facility is built.

We would look to collaborate with other stakeholders in the Hunter REIP to power the region with solar and stored energy if we can develop a Virtual Power Plant that will allow us to share any excess solar energy that our system generates with the Hunter community.

25. What are your thoughts on the planned gas-fired power plant at Kurri Kurri to replace the baseload generation when Liddell is closed? If this isn't the solution for baseload, what is?

Australia is the sunniest country globally, and enough solar energy is being generated to support the grid. According to the Clean Energy Council, renewable energy was responsible for 27.7 per cent of Australia's total electricity generation in 2020 - the first time where more than a quarter of our country's energy is coming from renewable sources.

We believe renewable energy can replace baseload generation, and it requires both policy and investment drivers to make this happen. Therefore, the planned closure for Liddell makes sense.

We understand the new gas-fired power plant at Kurri Kurri is only expected to run at 2 per cent of its capacity through the year. So instead of funding a gas-fired power plant, we should look at large scale energy storage or a combination of storage and distributed generation to provide the firming capacity we need on the grid.

26. One of your cornerstone Investors – UGL - is building Kurri Kurri?

UGL were the successful bidder in this project and are engaged as the EPC Contractor. They are very strong in renewables and large-scale battery storage solutions.

27. What are your thoughts on the Hunter Region becoming a Green Hydrogen Hub?

The Hunter Region has the right skills and resources to deliver a green hydrogen hub. It is an excellent project for NSW as it aligns with the state government's goals to achieve Net Zero Emissions by 2050. Along with batteries, hydrogen will support our transition to 100% renewable energy. In addition, the green hydrogen hub in the Hunter will create new jobs and support the region as it transitions away from its reliance on coal.

28. What are your plans to recycle Lithium-Ion batteries?

To date, recycling large lithium-ion batteries ('LIBs') has been much more complicated than smaller consumer electronic LIBs. Energy Renaissance' recycling and second-life strategy are to address the

recycling challenge up-front – in the design stage before the beginning of the batteries life. We will support existing and emerging battery stewardship programs as required for the recycling of LIBs..

29. What are your thoughts on the Federal Government's Modern Manufacturing Initiative regarding upstream minerals processing for Lithium-Ion batteries?

Australia must have an upstream minerals processing industry for minerals used in lithium-ion batteries. Australia can be a global battery superpower, and we support the Modern Manufacturing Initiative as it will encourage the development of a critical local industry.

An Australian advanced manufacturing industry supplying and exporting battery-grade chemicals and materials would create over 100,000 construction and 80,000 active jobs and add $7.3 trillion in export revenue.

30. Can you elaborate on the contractual value of the supplier agreements you have announced?

These agreements are commercial in confidence and we are unable to disclose the value or the duration of these agreements that we've made.

31. How many suppliers do you plan to work with in Australia and what type of suppliers are you looking for?

Our goal is to have 100 percent of our manufacturing completed in Australia and this will require us to partner with suppliers who can scale their business in line with our production requirements. Energy Renaissance will invest in strategic supplier relationships which will give them certainty to invest in their manufacturing operations to grow with the demand for our batteries.

32. How are you verifying that the Australian suppliers you are partnering are actually manufacturing/producing these components locally?

Energy Renaissance requires all suppliers to complete a questionnaire that allow us to assess this information. While it may be important for this to be independently verified, we recognise this is a costly and time-consuming process that could deter businesses from partnering with us. Instead of requesting for this information to be verified independently, our procurement team will conduct a visit to our potential partners' manufacturing facility to inspect their operations personally as part of our approach towards verification.

33. Do your suppliers need to be ISO certified?

As a principle we do not require our suppliers to have ISO certification however some of our clients will require the full supply chain to be certified so it is on a case by case basis.

Latest Media Releases

ENERGY RENAISSANCE BATTERIES PASS 90 PERCENT LOCAL CONTENT GOAL WITH NEW AUSTRALIAN SUPPLIERS

Sydney, AUSTRALIA – [12 May 2022] – Energy Renaissance, pioneer in the invention and manufacturing of Australian lithium battery technology, announced today that it has appointed three Australian companies to provide key components that will be used to manufacture its superStorage™ family of batteries.

Through long term framework agreements and preferred supplier relationships, this forms part of the company's move towards achieving 100 percent onshoring of its manufacturing of batteries in Australia and contributes to 92 percent of components in their batteries sourced from Australian companies:

- Academy Sheetmetal, a family owned sheetmetal manufacturer in Newcastle, NSW, will supply the steel cabinetry that is used for the Renaissance superRack™ and superPak™.
- GPC Electronics, one of Australia's largest contract electronics manufacturers in Penrith, NSW, will supply the printed circuit boards that are used in the Battery Management Systems (BMS).
- B&C Plastics, an Australian plastic moulding injection manufacturer in Brisbane, QLD, will supply the plastic components that are used in the packs.

32 of the 35 components that make up a superStorage™ battery are produced in Australia, validating Energy Renaissance's commitment towards strengthening its local supply chain, creating local jobs and opportunities for all Australians.

Mark Chilcote, Managing Director of Energy Renaissance said, "Energy Renaissance is dedicated to onshoring manufacturing in Australia so we can protect our customers against global supply chain constraints and unexpected price increases that come with increased freight costs.

We started our business with a target to have 100 percent of our manufacturing completed in Australia. However, this target can only be achieved with a long-term partnership with local suppliers who will invest in business to grow in line with our production requirements.

Energy Renaissance is strengthening local manufacturing and, in the future, securing our supply chain for critical battery minerals when we commence the manufacturing of battery cells in Australia."

Energy Renaissance's procurement strategy includes:

- Supporting both small and medium businesses to large corporations.
- Partnering with values-based organisations who are committed to their customers, workforce safety, diversity and a quality assurance process.
- Working closely with Australian companies to reduce the cost of producing components needed for superStorage™ batteries. In the longer term, this will make it more cost competitive for components to be manufactured locally as Australia competes with global manufacturers.

Mark added, "While negotiating for supplier agreements, we found local manufacturers who are price competitive with similar components made with a higher quality standard than what we would

have to import. This has challenged our views on sourcing for components globally and highlighted that we do have many local companies who share our passion of onshoring manufacturing."

Energy Renaissance continues to negotiate local supply agreements as it ramps up the production of Australian-made batteries.

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ENERGY RENAISSANCE RECEIVES ADDITIONAL FUNDING FROM AMGC FOR ADVANCED LITHIUM-ION BATTERY MANUFACTURING

Sydney, AUSTRALIA – 20 July 2021 – Energy Renaissance, Australia's first lithium-ion battery manufacturer in New South Wales, announced today that it had received an additional

$525,072 grant from the Advanced Manufacturing Growth Centre (AMGC) to develop processes and workforce skills for its pilot manufacturing facility at Tomago, NSW that will be used to build its superStorageTM batteries.

This co-funded grant includes financial and in-kind contributions matched by Energy Renaissance for a total project value of $1.48 million. With the additional funding, Energy Renaissance will accelerate the scalable process and procedures from a 2,700 square metre pilot facility in Tomago.

Funding from this grant will allow rapid testing and the development of a scalable, manufacturing line and trained workforce that will inform the technology, systems and processes for Renaissance One, Energy Renaissance's permanent, purpose-built, 4,400 square metres battery manufacturing facility in Tomago that is slated for completion in February 2022.

Brian Craighead, Technology and Development Director of Energy Renaissance, said, "AMGC has played a strategic role by supporting Energy Renaissance with a seed funding round last year that went towards the design and prototyping of our superStorage battery. The new funding injection from AMGC will now help us scale up towards commercial production and accelerate our ability to manufacture batteries faster. This is a win for Australia, our economy and workforce as we ascend the stage to become a global battery manufacturing powerhouse."

AMGC's Managing Director, Dr Jens Goennemann, said, "Australia relies heavily on imported batteries, a reliance Energy Renaissance is committed to changing. By investing in local manufacturing, upskilling a new workforce for manufacturing and developing an innovative battery solution, Energy Renaissance will showcase how Australia can and will have a global competitive edge in battery manufacturing."

This pilot project will validate Australia's sovereign capabilities for manufacturing energy storage systems and demonstrate a more robust and more integrated Australian supply chain for crucial battery components and battery management systems that captures a more significant share of supply-chain value-adding.

With its scalable, automated manufacturing line, Energy Renaissance will support an upskilled Australian workforce across the supply chain to support accelerating domestic and export market growth. Through this pilot, the company will look to refine its product technology platform to manufacture superStorage batteries securely and safely and secure the ongoing development of Australian-led IP in battery storage technology and supply chain collaboration.

Energy Renaissance manufactures Australian made batteries that are safe, secure, affordable and optimised to perform in hot climates. These batteries will power stationary (grid and microgrid, renewables, community storage, mining electrification, Defence SilentWatch applications) and transport (buses, light commercial and industrial vehicles) applications.

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ENERGY RENAISSANCE TO DELIVER DEFENCE-GRADE CYBERSECURE BATTERY MANAGEMENT SYSTEM WITH CSIRO AND IMCRC

Sydney, AUSTRALIA – 25 March 2021 – Energy Renaissance, an Australian lithium-ion battery manufacturer, announced today that it would develop a defence-grade cybersecure Battery Management System (BMS) for its superStorage™ family of batteries that are to be manufactured in Tomago, NSW.

The A$1.46 million BMS project is jointly funded and developed by Energy Renaissance with Australia's national science agency, CSIRO and the Innovative Manufacturing CRC (IMCRC). The BMS will monitor and report the battery's usage, lifespan, and faults to Energy Renaissance and their customers through a mobile network. Communicating through an inverter, the system will enable secure real-time data, analytics and remote management to drive down the risk of battery failure and operating costs for grid-scale energy storage users.

Brian Craighead, Technology and Development Director of Energy Renaissance, said, "The collaboration between Energy Renaissance, CSIRO, and IMCRC will promote an Australian Battery Management System instead of relying on an overseas technology platform.

Working together with CSIRO will ensure we can create a world-class defence-grade cybersecure Battery Management System that is fully developed and managed in Australia for critical energy storage infrastructures."

"Software designed and developed in Australia has a strong global reputation, and we've built a history and track record as an industry. Through this project, we will demonstrate the advantage that Australian intellectual property can bring to a highly competitive energy storage market where a superior Battery Management System is critical for the operating efficiency of a battery."

Dr Adam Best, Principal Research Scientist at CSIRO, said, "CSIRO is delighted to be working with Energy Renaissance to develop a Battery Management System that is the 'nerve centre' of a battery, and will make batteries safer, more affordable and optimised to operate in high-temperature environments. Our partnership with Energy Renaissance validates CSIRO's capabilities to collaborate, train and transfer skills for the advanced manufacturing of batteries."

David Chuter, CEO and Managing Director at IMCRC, sees the research collaboration between Energy Renaissance and CSIRO as a catalyst for further establishing an Australian battery manufacturing sector.

"The growing interest in renewable energy and thus demand for lithium-ion batteries provide an excellent opportunity for Australia. Through accessing local knowledge and expertise, this project will demonstrate how we can utilise Industry 4.0 technologies and principles to establish a viable Australian battery manufacturing sector for the benefit of all Australians and as a national manufacturing priority.

The commitment from all involved in this project will help position and strengthen the value and influence of Australia's role as a strategic partner in the global lithium-ion battery value chain."

Minister for Industry, Science and Technology Karen Andrews, who launched Australia's Resources Technology and Critical Minerals Processing manufacturing road map at Energy Renaissance's site earlier this month, welcomed the research collaboration.

"This project is a great example of how local industry and research organisations can work together to turn an innovative idea into a high-value product that strengthens Australia's competitive advantage and secures greater investment and market share."

Energy Renaissance's 4,500 sqm purpose-built facility in Tomago, NSW, will manufacture Australian made batteries that are safe, secure, affordable and optimised to perform in hot climates. These batteries will power stationary (grid and microgrid, renewables, community storage, mining electrification, Defence SilentWatch applications) and transport (buses, light commercial and industrial vehicles) applications.

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ENERGY RENAISSANCE WELCOMES COMMONWEALTH GOVERNMENT'S RESOURCES TECHNOLOGY AND CRITICAL MINERALS ROAD MAP

Sydney, AUSTRALIA – 4 March 2021 – Energy Renaissance, an Australian lithium-ion battery manufacturer, has welcomed the Resources Technology and Critical Minerals Processing road map in the Commonwealth Government's Modern Manufacturing Strategy announced today.

The announcement was made by Karen Andrews, the Minister for Industry, Science and Technology and the Prime Minister, Scott Morrison, at a media event held at the future location of Energy Renaissance's manufacturing facility at Tomago, NSW.

Australia is the only country in the world sitting on all the raw materials needed to make lithium-ion batteries.

Mark Chilcote, Managing Director of Energy Renaissance, said, "The Commonwealth Government's Resources Technology and Critical Minerals Processing road map will increase the value and influence Australia's battery industry in the global lithium value chain."

On 24 February 2021, the United States announced that it would prioritise the domestic consumption and production of critical and rare earth minerals. Chilcote added, "Australia cannot afford to be at the end of a queue for these minerals. There is currently no commercial production of battery-grade materials and chemicals in Australia."

"But we will change this in the very near future when Energy Renaissance commences production of its batteries. Then, we will be able to engage with suppliers of Australian nickel, cobalt, manganese, graphite, lithium, aluminium and copper and to use their materials in our batteries."

Energy Renaissance's commitment to manufacturing batteries locally will provide a pathway for battery raw material processing in Australia. Besides bringing greater certainty and investment to process raw materials locally, it expects the cost of materials to be reduced, making energy storage more affordable and accessible for everyone.

According to an independent economic impact analysis undertaken by CIS Solutions, an Australian advanced manufacturing industry supplying and exporting battery-grade chemicals and materials would create over 100,000 construction and 80,000 active jobs and add $7.3 trillion in export revenue.

The investment that Energy Renaissance has made for the battery manufacturing facility can be a catalyst for the growth of Australia's advanced manufacturing sector, providing a much-needed stimulus for jobs, economic growth in the Hunter Region and beyond.

Energy Renaissance's 4,500 sqm purpose-built facility will manufacture Australian made batteries that are safe, secure, affordable and optimised to perform in hot climates. These batteries will power stationary (grid and microgrid, renewables, community storage, mining electrification, Defence SilentWatch applications) and transport (buses, light commercial and industrial vehicles) applications.

Construction of the facility will commence in April 2021, with small-scale batteries to start by July 2021, with the full-scale expected in October 2021.

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AMGC BACKS AUSTRALIAN BATTERY MANUFACTURER HEADING FOR EXPORT MARKETS

Sydney, AUSTRALIA – 31 July 2020 - Australia's capabilities to produce lithium-ion (Li-ion) batteries for hot-climate operating environments has been strengthened by a co-funding grant from the Advanced Manufacturing Growth Centre (AMGC) that was awarded to Australia's first utility-scale Li-ion battery manufacturer, Energy Renaissance.

The co-funded grant includes matched financial contributions from the AMGC of $246,625 and Energy Renaissance each for the project. The project funding will accelerate research and development and design that will lay the foundation for the company to advance Australia's lithium-ion battery materials industry as it starts to manufacture batteries for Australia and export to Southeast Asia.

Energy Renaissance will work with research collaborator CSIRO and Cadenza Innovation, and Wuxi LEAD on these design projects. This includes research and development to re- design components used by Energy Renaissance for its battery energy storage systems. The grant will also be used to design an automated production line using robotics and automated quality control systems to increase efficiencies across Energy Renaissance's manufacturing facility.

Mark Chilcote, Managing Director of Energy Renaissance, said, "The cleantech manufacturing industry has the potential to lead Australia's economic recovery post- COVID-19. By partnering with AMGC, Energy Renaissance will advance local battery manufacturing capabilities, create jobs in Australia and build significant economic benefits for our lithium-ion battery materials industry through a local supply chain."

When Energy Renaissance's manufacturing facility operates at total capacity, it is expected to employ 1,300 workers. Sixty per cent of its batteries produced will be exported with an expected contribution of A$3 billion per annum to Australia's Gross Domestic Product (GDP). In addition, modelling conducted by Energy Renaissance has revealed it has the potential to create five jobs in upstream industries such as mining for every new employee hired.

AMGC's Managing Director, Dr Jens Goennemann, said, "Australia has an opportunity to lead the world when it comes to energy transition while adding value to our abundant natural resources. It was this ability we identified some time ago with Energy Renaissance and its manufacturing aspirations.

"Energy Renaissance's hot-climate battery technology has numerous applications across multiple sectors including energy, defence, commercial and industrial – both domestically and abroad. They are an example of how Australia's advanced manufacturing industry is developing world-leading solutions."

The location for Energy Renaissance's first manufacturing facility in Australia will be announced in the second half of 2020.

Further details of the project can be found: https://www.amgc.org.au/project/lithium-ion- battery-module/

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