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## Application for authorisation of the proposed acquisition of Origin Energy Limited by Brookfield LP and MidOcean Energy

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Date: 5 June 2023

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14	Annexure 'LE-13', being an Australian Financial Review article titled 'IKEA invests in \$2b Victorian Wind Farm' dated 2 February 2023	76(d)	22
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16	Confidential Annexure 'LE-15', being market intelligence prepared by Brookfield on <b>Confidential to Brookfield</b> dated December 2022	100	29
17	Confidential Annexure 'LE-16', being a document prepared by Brookfield titled <b>Confidential to Brookfield</b> Supplier Visit Report – <b>Confidential to Brookfield</b> dated November 2022	100	29
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19	Confidential Annexure 'LE-18', being a copy of a Brookfield document titled 'Brookfield's Renewable Development Capabilities – Project Eos' dated January 2023	110	31
20	Confidential Annexure 'LE-19', being a copy of Brookfield's Investment Committee Presentation for BGTF's proposed acquisition of Origin dated March 2023	132	35

I, Luke David Edwards of Brookfield Place, Level 19, 10 Carrington Street, Sydney, NSW say on oath:

1 I am a Managing Director of Brookfield Asset Management ULC (**BAM**) and the Head of Australia – Renewable Power and Transition business unit at BAM.

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2 I am authorised to make this statement on behalf of BAM, as well as Brookfield Corporation and Brookfield Renewable Partners L.P. (**BEP**).

3 BAM is owned by Brookfield Corporation (75%) and Brookfield Asset Management Limited (25%). BAM and its subsidiaries provide asset management services including to affiliates of Brookfield Corporation. Brookfield Corporation, BAM, BEP and their affiliates are referred to in this statement as **Brookfield**.

4 I make this statement from my own knowledge, except where stated otherwise. The matters set out in this statement are based on my understanding of, and involvement in, Brookfield's operations, my role as the Head of BAM's Renewable Power and Transition business unit in Australia and my experience in the energy and investment industries both in Australia and overseas which I describe further in section 1 below. Where I make a statement based on a matter of information or belief, I state the source of that information or belief and believe the statement to be true.

5 Where I refer throughout this statement to any plans or proposals that I have developed, I am referring to plans or proposals that I have developed together with colleagues at, or advisors to, Brookfield.

6 Annexed to this statement are documents marked Annexures 'LE-1' to 'LE-19'. Certain annexures, being 'Confidential Annexure LE-1', 'Confidential Annexure LE-2', 'Confidential Annexure LE-9', 'Confidential Annexure LE-14', 'Confidential Annexure LE-15', 'Confidential Annexure LE-16', 'Confidential Annexure LE-17', 'Confidential Annexure LE-18' and 'Confidential Annexure LE-19' are confidential to Brookfield and, in some instances may contain information confidential to third parties. In this statement, I refer to each document by reference to the relevant annexure number.

7 Brookfield claims confidentiality over:

- (a) the parts of this statement highlighted in **Confidential to Brookfield**; and
- (b) the confidential annexures to this statement, marked 'Confidential Annexure LE-1', 'Confidential Annexure LE-2', 'Confidential Annexure LE-9', 'Confidential Annexure LE-14', 'Confidential Annexure LE-15', 'Confidential Annexure LE-16', 'Confidential Annexure LE-17', 'Confidential Annexure LE-18' and 'Confidential Annexure LE-19',

on the basis that they contain commercially sensitive and confidential information concerning the business of Brookfield (and in some cases, third parties).

8 This statement focuses on the proposed acquisition of Origin Energy Limited (**Origin**) by Brookfield and MidOcean Energy ie, the **Proposed Acquisition**, and specifically the acquisition of the Origin Energy Markets business by a consortium of Brookfield affiliates including BEP and the Brookfield Global Transition Fund I (**BGTF**), Brookfield managed co-investors and certain independent co-underwriters (collectively, the **BGTF Consortium**, as defined in paragraph 32). The Proposed Acquisition is further described in paragraph 32. This statement:

- (a) outlines my professional qualifications and experience (**Section 1**);

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- (b) provides an overview of BGTF and its objective to accelerate the net zero transition by investing in carbon-intensive businesses with the view to transforming them and decarbonising their operations (**Section 2**);
- (c) outlines the reasons for the proposed acquisition of Origin and how this aligns with BGTF's objectives (**Section 3**);
- (d) explains the constraints and challenges that Origin faces in decarbonising its business if it remained a standalone, listed entity (**Section 4**);
- (e) outlines the BGTF Consortium's business plans for Origin's Energy Markets business, specifically the 'green build-out' plan to develop internal renewable generation and storage capacity to transform it into a major electricity retailer supplying renewable energy to its customers (**Section 5**). In this section I also address the benefits to Australia of the 'green build-out' plan;
- (f) describes the experience and capabilities that Brookfield will bring to execute the 'green build-out' plan for Origin's Energy Markets business (**Section 6**);
- (g) gives an overview of other benefits of the Proposed Acquisition (**Section 7**);
- (h) explains the reasons why there is a high level of confidence that the BGTF Consortium will materially decarbonise Origin's Energy Markets business by 2033 (**Section 8**); and
- (i) describes what Brookfield would do if the Proposed Acquisition does not proceed (**Section 9**).

## 1 Professional qualifications and experience

9 I have a Bachelor of Engineering (Civil) and a Bachelor of Commerce (Finance) from the University of Sydney, which I obtained in 2010.

10 I began working in the energy industry in 2010 as a Graduate Geotechnical Engineer at BHP Group. In November 2010, I joined Schlumberger Limited (**SLB**) Brasil, one of the world's largest oil and gas services companies, as a Field Engineer. In this role, I was involved in offshore and onshore oil and gas exploration projects in numerous countries, including Brazil, Alaska and Russia. My day-to-day duties included the provision of critical real-time measurements and well logging data during drilling campaigns. This involved the physical configuration of down-hole drilling equipment and ongoing monitoring and reporting during drilling operations.

11 After working as a Field Engineer at SLB for around 2.5 years, I worked as an investment analyst for investment banks and an accounting firm in Australia. In these roles, I was able to draw on my technical experience as an engineer, as well as my previous experience working in the energy industry, to analyse investment opportunities for a variety of clients. In particular:

- (a) In March 2013, I commenced employment with Deloitte Australia as an investment analyst in the M&A Advisory team. In this role, I was involved in reviewing financial models and due diligence on behalf of the Australian Renewable Energy Agency (**ARENA**) for solar

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and biomass projects. ARENA was established on 1 July 2012 as an Australian Federal Government agency with the purpose of supporting the global transition to net zero emissions by accelerating the pace of innovative and ground-breaking projects. My work with ARENA included assessing the capital structure of the projects, as well as their viability and the prospects of obtaining ARENA grant funding and project finance prior to financial close. I also worked on a project involving the divestment of early-stage oil and gas permits in the Perth basin for a listed Australian oil and gas explorer and producer.

- (b) In March 2014, I commenced employment with Goldman Sachs Australia (**Goldman Sachs**) in the Natural Resources, Investment Banking Division, as an investment analyst. In this role, I was involved in analysing and completing a number of transactions involving companies and assets in the energy industry, including the sale of Macquarie Generation by the NSW Government to AGL, the sale of the Colongra gas power plant by the NSW Government to Snowy Hydro, the sale of the Vales Point coal power station by the NSW Government to Sunset Power International, the sale of the Green State Power hydro power station and wind farm assets by the NSW Government to TrustPower, the sale of WestConnex to Transurban Consortium (including a scoping study for the NSW government), and the APA Group's acquisition of the Queensland Curtis LNG (**QCLNG**) pipeline from the BG Group.
- (c) In December 2017, I commenced employment with Citi Corporate and Investment Bank Australia (**Citi**) as a Senior Associate. In this role, I was involved in analysing investments and working on mergers and acquisitions (**M&A**) involving natural resources, renewables, power and utilities, and transport infrastructure. In August 2018, I was promoted to the position of Vice President of the Infrastructure, Transport, Power and Utilities sector group at Citi. In January 2021, I was promoted to the position of Director at Citi. In my roles at Citi, I acted as an advisor to Government entities on a number of infrastructure transactions, including the NSW Government in respect of the sale of 49% of WestConnex, where I was involved in the scoping study and sale preparation phases of the transaction. In 2017, I advised a potential buy-side client on the proposed acquisition of Ecogen Energy (the owner of Jeeralang and Newport gas fired power stations in Victoria), which was ultimately acquired by EnergyAustralia. In 2018, I was also heavily involved in preparing Tilt's submission to the Victorian Renewable Energy Target (**VRET**) tender in relation to the Dundonnell wind farm. In connection with this work, Citi was also a joint lead manager for the equity raise that Tilt undertook to finance the Dundonnell project and I was also involved in this.

- 12 Due to my technical knowledge of engineering and finance acquired through my tertiary studies, together with my experience working in both the energy and investment industries (as outlined above), I have developed skills and expertise in analysing the profitability, feasibility and risk of a variety of investments and, in particular, investments in companies, assets and infrastructure projects associated with renewable and non-renewable energy resources. I also have gained an

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understanding of the factors which different types of investors have regard to when making decisions about whether to invest in companies, assets and projects associated with renewable and non-renewable energy resources. For example, through my roles as an investment analyst and associate at both Goldman Sachs and Citi, I gained specific experience in analysing investment opportunities in the energy industry (including renewable and non-renewable energy resources) for a variety of clients, including strategic, financial and institutional investors. Further, through my work experience in operating roles (such as through my role at SLB), I gained an understanding of how to assess risk in businesses that operate in challenging environments.

- 13 In May 2021, I commenced employment at BAM as a Vice President in the Investments team within Brookfield Infrastructure Group in Australia and was promoted to the position of Senior Vice President in March 2022 (effective 1 January 2022). Since October 2022, I have held the position of the Head of Australia – Renewable Power and Transition business unit. In March 2023, I was promoted to the position of Managing Director at BAM, effective 1 January 2023, such that my current position is Managing Director, Head of Australia – Renewable Power and Transition business unit.
- 14 In my current role at BAM, I lead the investment activities of Brookfield in Australia in respect of investments focused on renewable energy and the transition to clean energy. The main focus of my role is deploying the Brookfield Global Transition Fund (**BGTF**) in Australia, which I describe in section 2 below, although I am also responsible for deploying allocations from Brookfield Infrastructure Fund V and Brookfield Super Core Infrastructure Partners (**BSIP**) for operating renewables in Australia and New Zealand.
- 15 Where I express opinions in my statement, I have based these opinions on the knowledge and experience I have gained through the roles I have outlined above.

## 2 Brookfield Global Transition Fund

### 2.1 Overview of BGTF

- 16 A subsidiary of BAM, Brookfield Renewable Energy Group LLC, is the fund manager (also referred to as a general partner) of, and a large investor in, a series of Brookfield global, private transition funds, referred to collectively as BGTF. BGTF I is the first fund in this series. BGTF I is a US\$15 billion fund which was raised in 2021 for the primary purpose of investing in the transition to net zero globally.
- 17 The aim of BGTF is, and was explained to investors as being, to accelerate the net zero transition by investing primarily in the transformation of carbon intensive businesses and developing and increasing the accessibility of renewable energy sources, while seeking to deliver attractive risk adjusted returns for its investors (described in the initial Private Placement Memorandum circulated to potential investors in BGTF in September 2021 (**PPM**), a copy of which is included at **Confidential Annexure LE-1**).

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- 18 BGTF is led by Mark Carney (the United Nations' Special Envoy on Climate Action & Finance, current Chair of BAM, and Head of Transition Investing at Brookfield) and Connor Teskey (Head of Brookfield's Renewable Power and Transition business and CEO of Brookfield Renewable Partners (**BEP**) (NYSE:BEP, TSX:BEP.UN)). BEP is a limited partner of BGTF. Brookfield's Renewable Power and Transition business unit comprises over 3,400 employees, including operating employees of BEP and employees of related operating businesses and portfolio companies.
- 19 Investments made through BGTF are expected to fall into two main categories, being:
- (a) large scale acquisitions of operating businesses and platforms (including partnerships and joint ventures); and
  - (b) greenfield developments (which are new developments of renewable energy infrastructure and resources).
- 20 The nature of investments by BGTF will align with at least one of the three key investment themes, which are referred to as the 'BGTF Investment Themes', being:
- (a) **Business transformation:** investments in utility, industrial and energy businesses that are currently classified as 'brown' energy businesses (for example, coal-fired power generation or have high emissions intensity), so that BGTF can invest in transforming those businesses into green energy businesses and / or lower their overall emissions intensity;
  - (b) **Clean energy:** investments that result in the development of clean energy assets (for example renewable power generation assets) across different technologies and in different countries; and
  - (c) **Sustainable solutions:** investments in businesses focused on scaling proven low carbon technology solutions and services that accelerate decarbonisation across sectors or for a broad range of customers.
- 21 The BGTF Investment Themes are aligned with the UN's Sustainable Development Goals. In particular, Goal 6 (ensure availability and sustainable management of water and sanitation for all), Goal 7 (ensure access to affordable, reliable, sustainable and modern energy for all), Goal 9 (build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation), Goal 11 (make cities and human settlements inclusive, safe, resilient and sustainable), Goal 12 (ensure sustainable consumption and production patterns) and Goal 13 (take urgent action to combat climate change and its impacts). A copy of a Brookfield document, including a slide at page 5, linking the BGTF investment themes with these UN Sustainable Development Goals is included at **Confidential Annexure LE-2**.
- 22 In addition, there are four criteria (referred to internally as the '4A Criteria') which the BGTF Investment Committee considers in deciding whether or not to approve any investment. The 4A Criteria are:
- (a) **Alignment:** for each investment made by BGTF, the Investment Committee must be satisfied that the asset can achieve alignment with the Paris Agreement over the life of

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BGTF's investment. The Paris Agreement is a global agreement signed by over 194 governments with the objective of achieving global net zero emissions by 2050.

- (b) **Additionality:** BGTF's investment in the asset / company must make a meaningful contribution to the transition of that asset / company to net zero. For example, if the Investment Committee considers that a company is already on track to achieve net zero emissions by 2050, or BGTF's investment will not meaningfully advance the impact outcomes over and above the status quo, this would not meet the 'additionality' criteria.
- (c) **Avoidance:** the Investment Committee needs to be satisfied that the investment in the asset / company would not give rise to other environmental, social and governance risks.
- (d) **Accountability:** the Investment Committee will ensure that the asset / company reports, and will continue to report, emissions and meets applicable standards regarding carbon disclosure.

23 Both the BGTF Investment Themes and the 4A Criteria are a critical component of BGTF's investment mandate.

## 2.2 BGTF's current approach to investments in Australia

24 I lead the Brookfield Renewable Power and Transition Group in Australia. My team is comprised of two parts: (i) a group of employees that are part of an 'Investments Team'; and (ii) a group of employees that are focused on greenfield developments known as the 'Operations and Assets Management Team'.

25 As to potential acquisitions by BGTF in Australia, the Investments Team that I lead (which includes four people including myself), focuses on identifying potential investment opportunities for BGTF by reference to the BGTF Investment Themes (described above at paragraph 20) as well as the four key elements that I consider energy businesses require in order to have the technical and financial capability to develop new, large scale renewable energy projects. Based on my experience working in the energy industry and analysing investments in renewable and non-renewable energy resources, these four key elements are:

- (a) **customer:** a customer or group of customers to commit to buying the renewable energy generated;
- (b) **platform and team:** systems and people to deliver renewable energy to the customer base. This includes expertise in identifying and sourcing new projects, structuring and documenting project agreements and managing the construction of new projects (renewables development activity);
- (c) **procurement capabilities:** procurement capabilities, together with experience and relationships with renewable energy technology providers (such as solar panel, wind turbine and battery manufacturers); and
- (d) **capital:** access to capital, both equity and debt, to invest in the acquisition or development of renewable energy resources.



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- 26 As to greenfield development investments, I lead a separate team of five people in Australia whose focus is to identify new greenfield development projects in which BGTF could potentially invest in and develop, manage those projects, and speak to commercial customers who could be potential offtake counterparties. My team and I, in assessing greenfield development investment opportunities, focus on projects which are at a stage where an investment from BGTF will provide optimal impact and create 'additionality', in line with BGTF's investment mandate (as described in paragraph 22). The greenfield projects identified by my team tend to include projects which can benefit from Brookfield's deep expertise at all stages of renewable energy development, and where long term capital commitment is required, by providing access to that capital.
- 27 For example, where a project is at the stage of receiving development application (**DA**) approval, or has just received DA approval (but has not yet reached financial close – that is, the equity and debt is not yet committed), BGTF can provide access to capital and draw on Brookfield's significant global development expertise to provide significant value to the project. In particular, BGTF can draw on Brookfield's specialist expertise in relation to the steps necessary to take the project from DA approval to financial investment decision (**FID**), being the stage where all contracts have been executed and financing is in place for the project. Our teams at Brookfield also have experience in taking a project from FID to the construction phase, and then from construction to the commercial operations stage.
- 28 As one of a small number of renewable energy developers globally with substantial capacity in terms of both generation and development pipeline, and with a current pipeline of approximately 126 GW of new projects worldwide, Brookfield (particularly through BEP) interacts on a regular basis with companies involved in the manufacture of renewable technologies (such as solar panels, wind turbines and storage technologies). As a result, Brookfield has established procurement relationships with these companies on which BGTF is able to draw.
- 29 In particular, Brookfield's business model is to centralise procurement of renewable technologies (such as wind turbines, solar panels, inverters and batteries), which means that Brookfield is able to achieve scale procurement benefits. For example, due to the size of Brookfield's estimated global future procurement needs, Brookfield is able to negotiate more favourable terms. Brookfield's global purchasing power also means it benefits from favourable treatment in accessing supply and securing renewable technologies that are in short supply and for which there can be long lead times. This is because Brookfield's centralised procurement model creates flexibility for Brookfield to direct supplies of critical technologies to where they are needed most in the world at any particular time. Brookfield's procurement capabilities are discussed further below in section 6.5. Accordingly, the involvement of BGTF in a greenfield development project can provide significant assistance and support to its procurement needs.
- 30 The Brookfield Renewable Power and Transition team in Australia does not actively pursue operating renewable projects on behalf of BGTF because these projects do not have a component of 'additionality'.

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31 Both the M&A and greenfield development teams which I lead are responsible for identifying potential investment opportunities for BGTF in Australia, and my role is to decide whether to recommend to the BGTF Investment Committee that the investment proceeds. The people that lead the underwriting activities (for example taking the project to the Investment Committee) in relation to new projects are employed by BAM and the members of the greenfield development team are employed by BEP.

## 3 Reasons for the Proposed Acquisition and alignment with BGTF's objectives

### 3.1 Background to the Proposed Acquisition

32 Throughout 2021 and 2022, in my role at Brookfield, I was involved in developing and pursuing an indicative, conditional and non-binding proposal by Brookfield and MidOcean Energy to acquire all the issued shares in Origin Energy Limited (**Origin**). In March 2023, the parties signed a Scheme Implementation Deed. In this statement, I refer to this transaction as the **Proposed Acquisition**. Under the Proposed Acquisition, subsidiaries (which are yet to be formed) of a limited partnership EOS Aggregator (Bermuda) LP (**Brookfield LP**) are to acquire Origin's Energy Markets business (including its energy retailing business, electricity generating assets, energy wholesale and trading business, its LPG business, domestic gas trading business and 20% stake in Octopus Energy) (**Origin Energy Markets**). The investors in Brookfield LP are BGTF I, BEP, other Brookfield-managed co-investors, and independent co-underwriters Buckland Investment Pte. Ltd. (which is managed by GIC Special Investments Private Limited, which is in turn wholly owned by GIC Private Limited) (**GIC**), Davis Investments Pte. Ltd. Wholly owned by Temasek Holdings (Private) Limited (**Temasek**) (collectively, the **BGTF Consortium**). Brookfield is also discussing the opportunity with Reliance Industries (**Reliance**) and other possible foundation investors that will be managed by Brookfield. In addition, MidOcean Energy will retain Origin's Integrated Gas division (including its 27.5% shareholding in Australia Pacific LNG and certain upstream gas interests). Given my role in developing the offer for the Proposed Acquisition on behalf of Brookfield, I am aware of, and was involved in, the development of the BGTF Consortium's plans for the Origin Energy Markets business, which I describe below.

33 If the Proposed Acquisition completes, a number of senior Brookfield personnel will manage the investment on behalf of BGTF and syndicated co-investors. The co-underwriters within the BGTF Consortium (being GIC and Temasek) will have certain governance rights in relation to the entity that will ultimately own the Origin Energy Markets business.

34 One of my key responsibilities will be to ensure that the business continues to set goals aligned with the aims of BGTF (which I described in paragraph 17 above) and the Paris Agreement (as described in sub-paragraph 36(b) below).

35 In my capacity as a senior executive of the Brookfield Renewable Group, I will also be involved in developing the business plans (for approval by the Brookfield LP board) and working with management to set the strategic direction for the Origin Energy Markets business. These proposed strategies and plans will ultimately be considered and approved by the Brookfield LP board. For

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example, if a significant new investment in a wind farm is being considered which will require further investment or reinvestment by the BGTF Consortium, I will:

- (a) assist the process by which the investment proposal is progressed within the Origin Energy Markets business, and considered by the Brookfield LP board;
- (b) oversee taking the proposal to the Brookfield Capital Committee and Brookfield Investment Committee for requisite approvals (where relevant); and
- (c) present relevant information to the other BGTF Consortium members to assist them in considering the proposal.

## 3.2 The potential opportunities provided by investing in the Origin Energy Markets business and alignment with BGTF investment mandate

36 I was part of the Brookfield team that analysed and identified the acquisition and privatisation of Origin as a potential investment for BGTF. There are numerous aspects of the Origin Energy Markets business which I and other members of Brookfield considered would make Origin a suitable investment opportunity for the BGTF Consortium, and an investment that is aligned with the BGTF investment mandate (described in section 2.1). These aspects are:

- (a) **Potential to secure the transformation of a carbon intensive business:** Origin currently owns and operates the Eraring Power Station, which is a coal fired power station. One of the aims of BGTF is to invest in carbon intensive businesses and secure the decarbonisation of those businesses to remove greenhouse gas emissions from the economy. Given Origin's carbon intensive assets and the opportunity to transition a large proportion of those generation assets to new technologies over time, I considered Origin a suitable target for achieving one of the aims of BGTF. Origin also has a portfolio of gas fired generation assets. Based on the Origin FY22 Annual Report, I understand that Origin owns and contracts approximately 3.17 GW (0.24 GW of this is contracted) of gas fired generation (a copy of the 2022 Annual Report is included at **Annexure LE-3**). While gas fired generation is more carbon intensive than renewable energy (such as wind and solar generation), it will be critical to providing reliable power during the transition to renewable electricity while other longer duration storage technologies are developed or become cost competitive.
- (b) **Potential to facilitate significant renewable development for Australia:** the Proposed Acquisition is particularly timely given Australia's recent action on climate change. In particular, as a signatory to the Paris Agreement, an international treaty for a global response to climate change, the Federal Labor government passed the *Climate Change Act 2022* (Cth), which I understand enshrined into law ambitious targets aligned with the Paris Agreement to reduce greenhouse gas emissions by 43% below 2005 levels by 2030 and achieve net zero by 2050. While I understand the Government is still developing many aspects of its climate policy, I am aware that the electricity generation sector is one of Australia's primary sources of carbon emissions. The BGTF Consortium considers that

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Australia can only achieve its net zero targets by retiring its existing coal fired generation fleet and replacing that capacity with significant new renewable generation.

In Australia's case, according to the Australian Energy Market Operator (**AEMO**), around 57 GW of additional renewable capacity is needed by 2030 to replace ageing coal fired power stations as well as meet Australia's growing demand. To put this into context, in my experience, a low amount of renewable generation capacity has been developed in the past 7 years, only approximately 2.2 GW per annum. This rate of change would be insufficient to meet Australia's needs. Over the next 7 years, we would need approximately 4.2 GW per annum to be developed (being a 91% increase on the historical rate of change over the same period). These figures are based on my team's internal analysis of AEMO's NEM Generation Information over the years as well as forecasted generation requirements from AEMO's 2022 Integrated System Plan, which is included at **Annexure LE-4**.

The Origin Energy markets business can meaningfully contribute to that increase in renewable energy generating capacity. In considering the Proposed Acquisition, I formed the view that there was a substantial opportunity to facilitate significant renewable energy development in Australia given the large customer base of the Origin Energy Markets business. In particular, this eliminates the need for a committed, third party offtaker which may otherwise be needed for new renewable developments. Instead, the existing customer base of the Origin Energy Markets business uses the clean energy and effectively acts as the offtaker. This has the potential to increase the certainty of the Origin Energy Market business's renewable build-out in Australia.

- (c) **Increasing the uptake of renewable energy:** the capability of a project to increase the use of renewable energy is another factor that makes the Origin Energy Markets business a suitable investment opportunity for the BGTF Consortium. I consider that there is a real opportunity to achieve this in circumstances where Australia must replace its ageing coal fired power station fleet (which is no longer fit for purpose in an industry that is transitioning to renewables) with renewable generation. At the same time, AEMO estimates Australia will need to double its electricity output to ~320 TWh per year by 2050 to service demand for electricity as a result of the increasing electrification of transport, industry, office and home. This will be the driver for increased uptake of renewable energy by end users, in preference to carbon intensive energy resources. This is on top of existing demand which is coming from businesses committing to net zero as a result of consumers becoming more conscious of their carbon footprint and the country's legislated net zero targets.

This means that not only is it necessary to build large scale renewable energy resources to replace fossil fuel-based energy generation, but it is also necessary to change the way in which customers consume energy, to reduce the emissions footprint of the population. I considered that the acquisition of the Origin Energy Markets business would provide the BGTF Consortium with access to a customer base which would allow the BGTF Consortium to tap into customer demand for distributed energy resources (**DER**) and help customers

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convert from using fossil fuel based energy sources to clean energy sources. I considered it would also provide Brookfield with the opportunity to invest in a business that fits with our overall investment thematic of demand side decarbonisation, for example, by the Origin Energy Markets business investing in infrastructure that is located 'behind the meter' for commercial and residential customers. 'Behind the meter' refers to any solutions which are located on the energy user's site rather than the grid, such as installing solar panels on the roof of a warehouse and batteries in adjacent land next to the same warehouse. Such solutions are important to increasing both the supply of, and demand for, renewable energy resources in Australia. I discuss this further below in section 7.1.

37 In addition, as part of the Proposed Acquisition, Brookfield is bringing its global scale to the Australian market. Brookfield is on track to commission 5 GW of renewable capacity globally in 2023. Based on internal analysis shown in Annexure LE-4, this 5 GW is around 1.7 times and 1.9 times more than the large scale renewables commissioned in Australia in 2022 (around 2.9 GW) and 2021 (around 2.6 GW), respectively.

## 4 Constraints and challenges Origin faces in decarbonising if it remains a standalone listed company

38 As I described at paragraph 25 above, I consider there to be four key elements which energy businesses require in order to have the technical and financial capability to develop new, large scale renewable energy projects (ie, customer, procurement capabilities, platform and team, and capital). As mentioned at various points throughout this statement, Origin currently has the customer component. The principal constraint for Origin is capital, which I address in this section.

39 Origin's constraints and challenges in relation to platform and team and procurement are discussed in further detail in paragraphs 89 and 104, respectively.

### 4.1 Capital constraints

40 Based on my experience in analysing investments, I consider that, as Origin is currently a listed company on the Australian Stock Exchange (**ASX**), it likely faces constraints in raising capital for projects with long construction periods and developing or acquiring renewable resources and associated assets. For the reasons outlined below, I consider that the Proposed Acquisition will reduce these constraints considerably.

41 I have reviewed the Origin 'Climate Transition Action Plan' (**CTAP**) released on 26 August 2022 (a copy of which is included at **Annexure LE-5**). In respect of the majority of the renewable energy projects in the Origin pipeline which are described in this document, based on my review of publicly available material, I can see no announced pathway as to how these projects will be equity funded.

42 Origin has multiple options to obtain equity funding but each will require a level of interaction with third parties (either existing shareholders through an equity raise or a third party private capital partner). Possible sources of funds for these projects could be to use a combination of cash flow from Origin's businesses, equity capital and debt. However, in terms of capital, I consider that as a listed company, Origin will face significant constraints in raising sufficient capital to fund these

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projects. This is because as a listed company, Origin will be under pressure to primarily make investments in renewables projects that are accretive to Origin's earnings for the next 1-2 years (typically referencing an earnings per share metric) so that regular dividends are not impacted.

43 Given that renewable energy resources (such as wind and solar farms, and large scale storage assets) generally require a large upfront capital investment, but do not result in investment returns until the medium to longer term (that is, beyond the next 2-3 years), I consider that Origin will have difficulty raising sufficient capital from its shareholders for these types of investments (eg, in the form of capital raising by issuing new shares in Origin).

44 My understanding that Origin, as a listed company, faces difficulty in raising capital for long term renewable projects is also based on case studies that have been prepared by analysts at Citi assisting me throughout my work on the Proposed Acquisition. These case studies are examples of where a listed company's stock has started to trade down almost immediately following the announcement of a large capital project. A document setting out details of these examples, including relevant share price data and broker commentary, which I asked Citi to prepare for the purposes of supporting these examples, is shown at **Annexure LE-6**.

(a) **AusNet:** On 12 May 2020, AusNet announced its preferred partner status for the Western Victoria Transmission Network project alongside a 10% cut to distribution guidance on the percentage point in FY20 results. Broker commentary at the time noted that one of the reasons for this cut was the upcoming capex spend for the Western Renewables Link project. The next day, the share price declined by around 3%. That is, on 12 May 2020, it was \$2 per share and, by 13 May 2022, it was \$1.94 per share. By 27 May 2020 (15 days later), the share price had declined by around 13% (ie, from \$2 per share to \$1.74 per share). Over the next 10 days, the S&P / ASX Infrastructure Index grew by 4%. This index is compiled by S&P to measure performance of the largest and most liquid publicly listed Australian infrastructure companies. In this case, given that AusNet's share price declined while the S&P / ASX Infrastructure Index grew by 4%, this is likely an indication that there were no general market factors that were impacting AusNet's share price over the period analysed (although not definitive).

(b) **Spark Infrastructure:** On 27 February 2019, Spark Infrastructure announced its Project EnergyConnect, a 800 MW interconnector to be delivered by TransGrid and ElectraNet at a cost of \$1.5 billion. The next day, the share price declined by around 2%. That is, on 27 February 2019 it was \$2.35 per share and by 28 February 2019, it was \$2.33 per share. By 20 March 2019 (21 days later), the share price had declined by around 7% since the date of the announcement (ie, from \$2.35 per share to \$2.20 per share). The S&P / ASX Infrastructure Index was relatively flat over the two week period following the announcement, indicating that there were likely no general market factors that were impacting Spark Infrastructure's share price over the period analysed (although not definitive).

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(c) **Auckland Airport:** On 7 June 2017, Auckland Airport announced that it would be investing NZ\$1.8 billion (A\$1.68 billion) over 2018-2022 as part of various infrastructure projects to accommodate growing passenger and flight demand, as well as expanding capacity at the airport. The next day, the share price (ASX listed stock as opposed to the NZX listed stock) declined by around 2%. That is, on 7 June 2017, it was \$6.98 per share and by 8 June 2017, it was \$6.83 per share. By 15 June 2017 (8 days later), the share price had declined by around 5% since the date of the announcement (ie, from \$6.98 per share to \$6.63 per share). Over the week following the announcement, the S&P / ASX Infrastructure Index was relatively flat indicating that there were likely no general market factors that were impacting Auckland Airport's share price over the period analysed (although not definitive).

45 In addition, institutional investors are reluctant to invest in businesses that cannot credibly be classified as green assets. Over the last few years, institutional investors have either exited or ceased investment in companies with high carbon emissions. Investor reluctance can arise in a number of ways: **first**, it may decrease the pool of investors interested in investing in renewables development as some do not wish to be exposed to fossil fuels, and **second**, price risk associated with oil and other fossil fuels may also deter investment. As a result, it may become increasingly more difficult for companies like Origin to raise significant amounts of capital. I also base this understanding on research prepared by Citi, on my instruction, into negative market sentiment toward high emissions companies. Citi's research showed that there are a number of examples where institutional investors have exited high carbon companies, like UniSuper selling down its stake in Aurizon due to Aurizon's engagement with Adani. A copy of Citi's research is included at **Annexure LE-7**.

46 While funding a project through 100% debt might be possible, given Origin's corporate debt facilities, there are limits to what Origin can borrow to fund investments in renewable energy projects before these borrowings have the potential to impact Origin's corporate debt rating. There is a maximum level of debt that businesses like Origin can support (based on various metrics, including leverage multiples). This means that funding a large volume of renewable energy projects over a long term investment horizon will need a mix of debt (including asset-specific debt) and equity. That is, Origin will be spending money on capital expenditure and will therefore need to wait 18-24 months before it starts receiving cash flows from these projects.

47 By contrast, the BGTF Consortium focuses on total return over a longer timeframe. Investors in BGTF have committed capital to the fund for a period of at least 12 years (with the option for two one-year extensions) without any expectation of regular distributions during the 12 year life of the fund. BGTF is a closed-end fund, which means that after commencement of the fund there is a period of approximately 12 years before the fund needs to realise its assets. This makes investing in capital-intensive projects which run for a number of years before generating a return more feasible for BGTF. BGTF can therefore provide greater certainty as to the funding of up to 14 GW of new renewable projects that the Origin Energy Markets business requires to materially

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decarbonise its business (I elaborate on this in the context of the 'green build-out' plan in section 5.2.1 below), and in turn, accelerate renewable development.

## 4.2 Stockyard Hill Wind Farm case study demonstrates the challenges Origin faces in developing large scale energy projects

48 Some of the constraints faced by Origin described above appeared to me to be demonstrated by Origin's approach to the development of the Stockyard Hill Wind Farm.

49 The Stockyard Hill Wind Farm has a nameplate capacity of 456 MW, according to AEMO's NEM Generation Information for May 2023. Based on my analysis of this project, Origin invested in the initial development of the Stockyard Hill Wind Farm but sold its interest in the project to Goldwind Australia at the stage prior to finalising the wind farm's connection agreement (sale was announced in May 2017 with the connection agreement finalised in May 2018). As part of that sale, Origin committed to a contract to acquire 100% of the project's future offtake once the project reached the 'commencement of operations' phase. I think it is likely that the reason Origin sold its investment in the Stockyard Hill Wind Farm prior to completion is because Origin did not have sufficient capital to complete the project. This initial investment fits with Origin's goal of procuring electricity that is generated by renewable energy sources to sell to its customers. However, Origin's participation in this project would have required Origin to continue funding the project without impacting its available cash. Origin would have had to: (i) raise incremental debt; and/or (ii) raise equity, to proceed with the project. According to media reports, the construction of this asset took two and a half years, from construction commencing in May 2018 up to the final turbine being installed in December 2020. Assuming the funds were not used to retire debt, this would have meant that Origin's dividends over that period would have been reduced as a result of the cash (equity) Origin was re-investing in the project.

50 My view is reinforced by a statement released by Origin regarding the sale of the Stockyard Hill Wind Farm in May 2017, which noted that: 'the sale of Stockyard Hill Wind Farm formed part of Origin's asset divestment program. The proceeds from the sale will be used to reduce debt, which is a key focus of the company' (a copy of this statement is included at **Annexure LE-8**). I understand that Origin hit peak debt levels around this time (with APLNG coming online), and Origin undertook a significant cost cutting exercise at APLNG to address this. The sale of the Stockyard Hill Wind Farm was one way in which it sought to cut costs and debt.

51 The example of Stockyard Hill Wind Farm demonstrated to me that Origin's current approach to building its renewable energy portfolio would be restricted by not having access to the amount of capital required to invest in, and hold, renewable assets on its books until project completion and beyond. If Origin had access to sufficient capital to hold its interest in renewable energy projects until after completion (which includes significant spend during construction), this would increase Origin's ability to invest in a greater number of renewable projects, because it could re-coup its initial investment as well as a development margin in the relevant project by selling it after the project was operating. Completion of a project also means it is 'de-risked' for a long term investor who invests in operating renewables assets. Origin could use the returned capital and development



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margin to invest in new renewable projects (thereby, in effect, 'recycling' at least the initial capital investment to build new projects).

52 By selling down a project prior to completion, instead of making the capital investment up to the point of completion, Origin would have also lost the opportunity to manage the construction process, complete the commissioning process and set the operating and maintenance regime.

53 In addition, I formed the view that Origin has resourced its development team (including the skill sets held by the relevant members of the team) to be consistent with its 'capital light' development strategy. **Confidential to Brookfield.**

54 Through the analysis I conducted in respect of the Origin Energy Markets business (including consideration of the Stockyard Hill Wind Farm case study), I confirmed my view that there was a significant opportunity for the BGTF Consortium to invest in the Origin Energy Markets business. In particular, the BGTF Consortium would be able to:

- (a) provide the capital required to decarbonise the Origin Energy Markets business; and
- (b) draw on, as part of the Brookfield global network, a significant degree of experience in developing large scale renewable projects, including but not limited to investment, procurement benefits and operational capabilities to support the Origin Energy Markets business in developing new renewables (which I explain further in section 6),

thereby de-risking and providing greater certainty to the energy transition for the Origin Energy Markets business.

55 I explain this further below by reference to the BGTF Consortium's plans for the Origin Energy Markets business.

## **5 BGTF Consortium's plans for Origin's Energy Markets business including the 'green build-out'**

56 In this section, I summarise the BGTF Consortium's plans for the Origin Energy Markets business if the Proposed Acquisition proceeds, and the potential benefits this will provide.

57 The primary reason that the acquisition of the Origin Energy Markets business by the BGTF Consortium will increase the certainty of achieving the material decarbonisation of the Origin Energy Markets business is the capital that will become available to the Origin Energy Markets business. As part of the acquisition, the BGTF Consortium plans to invest \$20 to \$30 billion (comprising a mix of debt and equity), in addition to the initial cost of acquiring the business, in the renewable projects required to achieve the material decarbonisation of the Origin Energy Markets business.

58 In addition, as BGTF is part of the Brookfield global network, the BGTF Consortium will be able to draw on Brookfield's significant global renewable platform not available to Origin in developing large scale renewable projects, including but not limited to procurement benefits and operational expertise (in respect of multiple technologies, such as wind, solar and storage). This will ensure

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that the material decarbonisation of the Origin Energy Markets business is de-risked and occurs as planned.

59 I elaborate on this as part of the BGTF Consortium's 'green build-out' plan in section 5.2 below.

## 5.1 Background: Origin's net zero plans according to its CTAP

60 As I explained above, as part of my analysis of the BGTF Consortium's proposed investment in the Origin Energy Markets business for the Proposed Acquisition, I reviewed and considered Origin's CTAP (which is included at Annexure LE-5). The CTAP is Origin's plan to achieve its ambition of net zero emissions by 2050. Based on my review and consideration of the CTAP, I understand that the key aspects of Origin's decarbonisation pipeline are:

- (a) the proposed closure of the coal-fired Eraring Power Station, which Origin has brought forward 'by up to seven years to as early as August 2025' (see page 5 of Annexure LE-5);
- (b) the investment and development of numerous solar farms, including the Carisbrook Solar Farm in Victoria and the Yanco Solar Farm and Dapper Solar Farm in NSW, with the first two projects, as I understand it, currently on pause as at May 2023; and
- (c) the investment and development of grid-scale batteries, including at the site of the Eraring Power Station in NSW.

61 One of the most immediate challenges which Origin will face in its decarbonisation process is the closure of the coal-fired Eraring Power Station which has a current generating capacity of 2.9 GW (as reported in the Origin Energy FY22 Annual Report, which is at Annexure LE-3). Based on the announcements made by Origin to date (such as the statement quoted at paragraph 60(a) above), Origin is able to close the Eraring Power Station as early as August 2025, although the closure could be extended if Origin chooses to do so. One factor in Origin's decision to extend the life of the Eraring Power Station will be the extent to which replacement generation is available. In particular, if Origin does not have sufficient replacement capacity in place by 2025 or the market has not developed enough replacement capacity in that timeframe, there are various scenarios where Eraring's closure could be delayed to ensure the security of supply for NSW businesses and residents. This is because withdrawing substantial amounts of generating capacity from the National Electricity Market (**NEM**) without sufficient renewable replacement capacity and firming poses risks to system stability and reliability. By this I mean the ability of the grid to withstand shocks and disruptions in the face of greater reliance on intermittent power sources (that is, system stability) and also to generate enough electricity supply to meet demand (that is, system reliability). Relevantly, Origin's CTAP states '[t]here is the potential that Eraring and other generation could be required to run at higher output levels in the near term to meet customer demand and provide reliability to the market, which would make [Origin's] short-term target difficult to meet'.

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## 5.2 The BGTF Consortium's 'green build-out' plan

### 5.2.1 What the 'green build-out' plan involves

62 As I explained above, given my role in developing the offer for the Proposed Acquisition on behalf of Brookfield, I am aware of and was involved in the development of the BGTF Consortium's plans for the Origin Energy Markets business.

63 Consistent with the BGTF investment mandate, a key goal of the BGTF Consortium's plans for the Origin Energy Markets business is to transform it into a major electricity retailer supplying renewable energy to its customers. In order to achieve this, the BGTF Consortium plans to develop internal renewable generation and storage capacity within the Origin Energy Markets business to meet the significant majority of its total customer load requirements by 2033. This will allow the Origin Energy Markets business to satisfy its wholesale electricity requirements via renewable generation and storage assets that are owned and managed by the Origin Energy Markets business, instead of relying on a combination of owned generation, electricity supply contracts, and NEM wholesale market purchases (as it currently does).

64 Based on the analysis of the Origin Energy Markets business that I and others at Brookfield have conducted for the purpose of the Proposed Acquisition, we have developed models of that business. These models estimate that by 30 June 2033, the Origin customer load (being the amount of electricity required to meet the demands of Origin's projected customers) will be, in aggregate, approximately **Confidential to Brookfield: 33 - 36** TWh. Based on the same analysis, I understand that this would require Origin to access approximately 17 GW of generation and storage capacity (owned and managed) by 2033. The BGTF Consortium plans that it would build out Origin's internal generation to **Confidential to Brookfield: the significant majority** of Origin Energy Markets' aggregate customer load requirements by 2033, which would mean up to approximately 14 GW of new renewable generation and storage capacity being developed.

65 Origin's CTAP sets a target for Origin to have up to 4 GW of renewable generation and storage capacity by 2030 (including both owned and contracted generation and storage). Based on Origin's current portfolio, Origin would need to develop up to 2,332 MW of new renewable generation and storage (both owned and contracted) by 2030. Using a slightly accelerated annual build-out rate, the BGTF Consortium has assumed that Origin may be able to achieve a build-out of 4 GW between now and 2033. The BGTF Consortium's 'green build-out' plan for Origin goes far beyond this, providing support for around an additional 10 GW of renewables (compared to Origin's likely development path absent the Proposed Acquisition) to develop up to 14 GW of new generation and storage capacity by 2033.

66 As noted at paragraph 57, the BGTF Consortium's plan for the Origin Energy Markets business contemplates between \$20 to \$30 billion of investment over the next decade to construct up to 14 GW of new renewable generation and storage facilities in Australia as part of the 'green build-out' plan.

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67 The BGTF Consortium's business plan for this development of up to 14 GW under the 'green build-out' plan assumes at least the following composition of new renewable assets (noting the figures will not sum to 14 GW due to rounding):

- (a) Utility scale wind with approximately **Confidential to Brookfield** GW of capacity;
- (b) Utility scale storage (including batteries and storage co-located with wind farms) with over **Confidential to Brookfield** GW of capacity; and
- (c) Utility scale solar with around **Confidential to Brookfield** MW of capacity.

68 A presentation prepared by the team at Brookfield in relation to the 'green build-out' plan for the Origin Energy Markets business is included at **Confidential Annexure LE-9**.

## 5.2.2 Key benefits to Australia from the 'green build-out' plan

69 There are a number of significant benefits which I consider arise from the 'green build-out' plan.

70 **First**, the 'green build-out' plan will make a material contribution to Australia's targets to reduce greenhouse gas emissions by 43% below 2005 levels by 2030 and achieve net zero by 2050, in addition to the goal of reaching 82% of renewables by 2030. As discussed above, the Proposed Acquisition is expected to result in the Origin Energy Markets business developing 14 GW by 2033, around 10 GW more than what it would likely achieve absent the Proposed Acquisition.

71 To put these figures into context, based on my team's internal analysis (included at Annexure LE-4), around 57 GW of additional renewable capacity is needed by 2030 to replace the ageing coal fired power stations as well as meet Australia's growing demand. Based on current capacity of around 27 GW (as at May 2023), this means that around 30 GW of new renewable generation and storage capacity is required to 2030. In other words, around 4.2 GW of new renewables are needed each year to 2030.

72 The rate at which Australia has been developing renewable generation and storage capacity over the past 10 years (ie, 1.7 GW per year) versus what needs to be achieved by 2030 (ie, 4.2 GW per year) is not anywhere close to the rate it needs to be to meet Australia's 2030 climate targets. There will need to be a step up of around 2.5 GW of renewables development each year up to June 2030 to meet the required 4.2 GW needed each year.

73 As such, achieving the 'green build-out' for the Origin Energy Markets business means that up to around 1.4 GW of new renewables and storage will be developed each year by 2033 (ie 14 GW over 10 years). This annual rate of development is significant taking into account the annual rate of 4.2 GW required each year to meet the Government's targets for 2030. Accordingly, I consider that the Proposed Acquisition provides the pathway for a faster and more certain transition for Australia.

74 **Second**, the funding strategy for the 'green build-out' plan will enable the Origin Energy Markets business to significantly streamline the financing process for renewable generation projects, facilitating faster, de-risked renewable development for Australia. As discussed in section 4, as a

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publicly listed company, Origin is constrained in its ability to access capital to fund renewable projects.

75 At this stage, the BGTF Consortium plans to fund the \$20 to \$30 billion for the up to 14 GW of new renewable generation and storage projects needed to materially decarbonise the Origin Energy Markets business which will, in turn, decarbonise the Australian energy market, through a combination of cash generated by the Origin Energy Markets business, project finance debt facilities and capital recycling initiatives. In relation to each of these sources of capital, I note:

- (a) **Cash generation:** the BGTF Consortium's analysis suggests that the Origin Energy Markets business is self-funding. As such, the Origin Energy Markets business under the BGTF Consortium ownership will have a greater ability to use the cash generated from its retail businesses and other business units such as wholesale gas, Community Energy Services and Liquefied Petroleum Gas to fund the development of new renewable energy projects, as it will not be required to return profits to investors in the short term. Origin would have to do this if it remained a listed company, and there is an expectation from its shareholders that it will continue to pay regular dividends as it has done so in the past. Where there are years that have lower cash flows and require the investors to contribute capital, the BGTF Consortium will do so.
- (b) **Project finance debt facilities:** based on my experience in the finance and investment industries, I understand that one of the key barriers to obtaining project finance in relation to renewable energy projects is having a party committed to taking the electricity generated from the project in the future (ie, an 'offtaker'). Often lenders will require a committed offtaker to be in place before they provide project finance, as this provides certainty of payment for the lenders for the debt investment they make in the project. One of the key benefits of the BGTF Consortium's 'green build-out' plan is that the Origin Energy Markets business's customers will often be the 'offtaker' in relation to projects and in any case, it will be in a position to set the contractual position or framework for the PPA at the time the project needs to be financed. This will allow the Origin Energy Markets business to obtain the project finance which is required to get the project to FID faster without the need to incur the time and cost of complex negotiations with multiple (often third) parties in relation to, risk allocation, legal documentation, construction contracts and Operations and Management agreements.
- (c) **Capital recycling initiatives:** as the Origin Energy Markets business (under BGTF Consortium ownership) will be in control of the full development process, this will provide it with greater flexibility regarding its ability to sell down an interest in the project after the construction period to an investor that is unwilling or unable to take construction risk. As the project will be operating and de-risked at this stage, the BGTF Consortium expects that it will be able to sell the interest in its projects at a premium to re-coup the initial investment as well as a development margin. This would allow the BGTF Consortium to recycle at least the returned capital, and use that capital, as well as the development margin, for new

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renewable energy projects. In addition, the Origin Energy Markets business will have greater flexibility to pursue alternative funding structures if it is managing the full project lifecycle, which could include funding parts or all of the early stage development activities on its balance sheet where relevant and assessed on a project by project basis. 'On balance sheet' funding gives greater flexibility including managing the construction documentation suite, the stages of the broader development project, and also allows for capital recycling.

76 In the course of exploring how the 'green build-out' plan will streamline the financing process for renewable projects, I have reviewed the following documents (copies of which are included at **Annexures LE-10, LE-11, LE-12 and LE-13**):

- (a) Case study, Golden Plains Wind Farm supports grid decarbonisation dated December 2022, accessed at the Clean Energy Finance Corporation website (<https://www.cefc.com.au/where-we-invest/case-studies/golden-plains-wind-farm-supports-grid-decarbonisation/>);
- (b) Summary of PFI Asia-Pacific Awards 2022 dated 20 December 2022, accessed via the PFI website (<https://www.pfie.com/story/3650262/asia-pacific-awards-r8v86kd2hn>), which includes a section entitled, Renewables Deal of the Year – Golden Plains;
- (c) Bloomberg News Article, Impala's TagEnergy Plans to Sell Stake in Australian Wind Farm dated 11 May 2021, accessed at the Financial Post website (<https://financialpost.com/pm/business-pmn/impalas-tagenergy-plans-to-sell-stake-in-australian-wind-farm>); and
- (d) AFR Article, IKEA invests in \$2b Victorian Wind Farm, dated 2 February 2023, accessed via the AFR website (<https://www.afr.com/companies/energy/ikea-invests-in-2b-victorian-wind-farm-20230131-p5cgre>),

(the **Exhibits**).

77 I understand from these Exhibits that the Golden Plains Wind Farm is a proposed 1,300 MW renewable generator located in Rokewood, a rural town in the Shire of Golden Plains which is north-west of Geelong. Stage one of the wind farm will include 122 wind turbines and have a 756 MW capacity. Stage one of the project has reached financial close. Construction is expected to commence in early 2023, and will likely be completed in the second half of 2025.

78 This is a noteworthy greenfield project as it reached financial close in 2022 on a fully merchant basis. That is, the revenue for the project is not currently underpinned by a long-term power purchase agreement (**PPA**) with one or more customers but will instead be derived from selling energy from the project into the wholesale energy market (ie, the NEM) on a merchant basis, thereby taking on merchant risk.

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- 79 From my review of publicly available material, I understand that the commercial rationale behind the arrangement is to fast-track the path to construction, and therefore facilitate the transition to clean energy, without the need for protracted contract negotiations with long-term customers.
- 80 Based on my experience working in the energy industry, I consider that it is typically uncommon for a project financed renewable generation project of this size in Australia to reach financial close without a long-term PPA. The Exhibits suggest it is one of the first wind farm projects of scale to reach financial close on a fully merchant basis in Australia since 2011.
- 81 Based on my review of the Exhibits, it appears that the overall capital cost of Stage one of the project is approximately \$1.975 billion, to be funded from the following sources (in addition to the ~**Confidential to Brookfield**% stake held by the developer, Westwind):
- (a) The project finance debt package for the project is \$725 million with tenors of five and eight years. The financiers include Asian and Australian commercial banks, including Westpac, Bank of China, Commonwealth Bank, Mizuho Bank, as well as German state-owned investment bank KfW IPEX-Bank, and Danish Credit Export Agency Eksport Kredit Fonden. Of the \$725 million, the Clean Energy Finance Corporation has committed up to \$175 million.
  - (b) TagEnergy is the majority equity provider of \$1.25 billion.
  - (c) IKEA, who purchased a 15% equity in the project; I understand that IKEA has not entered into an offtake arrangement in respect of the electricity generated by the Golden Plains Wind Farm.
- 82 The Exhibits state that this project has a debt to capital ratio of 37%; that is, the debt constitutes 37% of the total capital cost. Taking into account capitalised overheads and other charges during the development phase, the debt would constitute a lower percentage of total project costs and therefore the gearing for the project is likely to be not greater than 37%. Based on my experience:
- (a) this a very low gearing; in contrast, gearing of around 70% is more typical for projects of this type that have long term contracts. Given this unique gearing level during the construction phase of the project, once the project reaches commercial operations – and is therefore de-risked significantly – I would expect the gearing level to change to account for a higher portion of debt, as the project is recapitalised and offtake agreements are entered into; and
  - (b) a debt size of this level at the construction phase of the project is consistent with financier concerns about the risk in the project in the absence of a long-term PPA (or several PPAs); I would expect the typical debt size at the current stage of a project to be larger, which would make the overall financing of the project much easier for the sponsor (and there would be less need for large amounts of equity during construction).
- 83 Based on the Exhibits, it appears that the equity and debt funding process for this project took at least 18 months, possibly considerably longer. In my experience, this is much longer than the

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typical 6 to 8 month period required to complete a project financing for a renewable generator with a PPA.

84 Finally I note that, consistent with its mandate as a 'policy lender', the CEFC website highlights the challenge in progressing renewable projects without a PPA. The website suggests that the Golden Plains financing is part of a wider CEFC strategy of supporting clean energy projects ahead of securing PPAs and states that '[b]y offering a financial bridge between development and contracting, CEFC can fast track the construction of these vital assets and make a meaningful contribution to emissions reduction.'

## 5.3 Other benefits of the 'green build-out' plan: development of new technologies

85 Another benefit of the 'green build-out' plan that I foresee is that under ownership by the BGTF Consortium, the Origin Energy Markets business will have greater opportunities to invest in new and proven technologies at a commercially viable scale. The BGTF Consortium will be able to draw on Brookfield's expansive market reach and current involvement in a diverse range of projects focused on scaling new renewable technologies. In particular, Brookfield is involved in projects where it invests alongside new technologies, like the development of clean (and green energy) to power hydrogen electrolyzers (as opposed to investing in the hydrogen manufacturing process itself), as well as projects where it invests in new and emerging transition focused technologies, like carbon capture and storage where Brookfield is a critical scaling partner for the relevant businesses it invests in.

86 Brookfield dedicates resources to tracking new renewable technologies. Once these technologies are proven and commercially viable, Brookfield has capital available to immediately invest. By way of example, in the US last year, Brookfield invested in biofuels and three carbon capture businesses. These are not large scale projects, but Brookfield is providing the scaling capital to help them grow. Brookfield's 'sustainable solutions' asset class includes opportunities to invest in up to 8 million metric tonnes per annum of carbon capture and storage projects, 19 materials recovery facilities that would result in 2 million tonnes of recycled materials, 70 anaerobic digesters that would produce more than 3 million British thermal units of renewable natural gas production annually, and a solar manufacturing facility capable of producing 5 GW of solar panels annually.

87 Brookfield also has a global pipeline of close to 2 GW of early stage hydrogen opportunities. All necessary early stage approvals have been obtained so that, when the technology becomes commercially viable, Brookfield will be in a position to immediately introduce this technology into its portfolio. More recently, Brookfield, through BGTF, entered into a binding agreement to provide US\$1 billion in finance to Avaada Ventures Private Limited to fund the development of their energy transition projects, including the **Confidential to Brookfield** for its green ammonia plans which will produce up to 1 million tonnes per hour of green ammonia.

88 As I describe below, I also consider that the BGTF Consortium will be able to achieve the 'green build-out' plan, resulting in more, new renewable capacity being built in the NEM and within Origin



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Energy Markets, with a greater degree of certainty than if Origin remained publicly listed, given the significant development capabilities of Brookfield upon which the BGTF Consortium can draw.

## 6 Brookfield's significant experience and development capabilities to execute the 'green build-out' plan

89 As mentioned in paragraph 25, one of the key four key elements I consider that energy businesses require to develop large new, large scale renewable energy projects is a **platform and team**, particularly in respect of large scale wind-power electricity projects. At the time of analysing the potential investment in the Origin Energy Markets business, I understood Origin's workforce, as compared with Brookfield, appeared to align with its 'capital light' approach to renewables and **Confidential to Brookfield**. I considered that this made Origin a logical candidate to benefit from Brookfield's expertise, and therefore had significant potential, to be a platform for large scale renewables development.

90 The BGTF Consortium will be able to draw on Brookfield's experience as one of the world's largest investors in renewable power and climate transition assets, with around 26 GW of generating capacity globally, both in the form of onsite, behind-the-meter solutions and large scale offsite generation, and a further development pipeline of around 126 GW of renewable projects globally.

91 In this section I explain the experience and capabilities, based on Brookfield's global portfolio of renewable energy projects, which Brookfield will be able to draw on for the benefit of the BGTF Consortium's execution of the 'green build-out' plan for the Origin Energy markets business.

### 6.1 Global experience in renewable development

92 I understand that a key challenge in relation to achieving the closure of Eraring Power Station by its earliest possible closure date of August 2025 is the delivery of sufficient replacement generation capacity. One of the benefits of the Proposed Acquisition is that Brookfield has extensive experience in both the investment in, and delivery of, new renewable projects on a large scale and under an expedited timeframe. This increases the likelihood of the Eraring closure occurring by or as close to August 2025 as possible (for the avoidance of doubt, August 2025 is Eraring's earliest possible closure date).

93 In particular, Brookfield developed a portfolio of approximately **Confidential to Brookfield** GW of operating assets and over **Confidential to Brookfield** GW of development pipeline across Europe over the eight year period from 2014 to 2022. I have a general understanding through my work of Brookfield's track record in the development of renewable energy projects worldwide. However, for the purpose of preparing this statement, I have obtained more specific information from a group of people comprising **Confidential to Brookfield** about individual renewable projects in order to enhance my general understanding, which information I have summarised as follows:

- (a) **Irish and Portuguese wind assets:** in 2014, Brookfield acquired one of Ireland's largest wind portfolios from the Irish government. This portfolio comprised 440 MW of operating capacity, 140 MW of wind projects under construction and a significant development portfolio. Under Brookfield's ownership and over an eight year hold period, Brookfield:

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- (i) doubled its operating capacity to 700 MW (prior to asset sales); (ii) expanded the development pipeline and invested around €100 million in growth capex; (iii) increased headcount to build out a fully integrated platform with operating, development, commercial and power marketing capabilities; (iv) started exporting green energy to Europe; and (v) became a leading Irish renewable corporate PPA provider, enabling corporate customers to secure over 1 TWh of renewable power. The Irish wind portfolio was ultimately sold in 2021. In 2015, Brookfield acquired a further wind portfolio in Portugal comprising ~120 MW of operating capacity, which was ultimately sold for capital recycling in 2019.
- (b) **Scottish wind assets:** in 2015, Brookfield acquired a 1,200 MW Scottish wind development pipeline. Brookfield initially hoped to qualify for the Scottish Government's Contracts For Difference (**CFD**) tariff program, which supported new investment in low-carbon electricity generation. However shortly after making the acquisition, the CFD tariff program was terminated. Notwithstanding this, Brookfield was committed to a renewable build out in Scotland. By drawing on the support and expertise of its global renewables functions, over the next seven years, Brookfield continued to develop the pipeline and brought approximately **Confidential to Brookfield** MW to 'ready to build' (**RTB**) stage. This included entering into direct renewable corporate offtake agreements with a range of C&I customers, like **Confidential to Brookfield**. These assets have subsequently been sold.
- (c) **X-Elio:** in 2019, Brookfield acquired a 50% stake in X-Elio through a joint venture with KKR. X-Elio is a Spanish global solar developer with operations in 7 countries around the world, including key countries for solar generation in Europe such as Spain and Italy. At the time of the joint venture, X-Elio's global portfolio comprised approximately **Confidential to Brookfield** MW of operating solar, approximately 1 GW of assets under construction and a 5 GW development pipeline with a focus on Spain, Mexico, U.S. and Japan. Since making its investment, by combining Brookfield's global scale and contracting capabilities with X-Elio's experienced management team, X-Elio has significantly increased its solar capacity globally. This included commencing construction of around **Confidential to Brookfield** GW of new solar capacity, increasing the development pipeline to around **Confidential to Brookfield** GW (from around 5 GW), and increasing the annual RTB run-rate from **Confidential to Brookfield** MW to **Confidential to Brookfield** GW expected for 2023. X-Elio was also able to contract new capacity and connect C&I customers to newly built clean energy through dedicated PPAs and enter markets for new technologies beyond solar photo voltaic (**PV**), eg, battery storage.
- (d) **Polenergia:** Brookfield currently owns a 31.2% stake in Polenergia, the largest wind business in Poland, which has 472 MW of onshore wind and solar PV assets in operation (435 MW of which is onshore wind capacity), **Confidential to Brookfield** MW under development (**Confidential to Brookfield** MW of which is wind), and a long term pipeline of **Confidential to Brookfield** GW across onshore wind and solar PV. Polenergia is also

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developing 3 GW of offshore wind projects in the Baltic Sea together with Equinor and is active in both hydrogen and DG solar.

- (e) **Sunovis:** in 2021/22, Brookfield acquired Sunovis, a German solar developer. At the time of the acquisition, Sunovis had a development pipeline of around 1.7 GW, 600 MW of which was advanced or in mid-stage development. Under Brookfield ownership, as at March 2023, **Confidential to Brookfield** MW was constructed and sold in Q4 of 2022 and the development portfolio comprises around **Confidential to Brookfield** GW of utility scale generation capacity, of which around **Confidential to Brookfield** GW is in the mid to late stage of development.
- (f) **Powen:** in 2022, Brookfield invested in Powen, a Spanish rooftop solar provider with global 'business to consumer' and 'business to business' operations. At the time of the investment, Powen had installed **Confidential to Brookfield** MW of rooftop solar, and had a development pipeline of **Confidential to Brookfield** MW. Under Brookfield ownership, by January 2023, Powen had installed an additional **Confidential to Brookfield** MW of distributed generation capacity and continues to have a pipeline of **Confidential to Brookfield** MW.
- (g) **Cambridge Power:** in 2022, Brookfield entered into a framework agreement with Cambridge Power, a battery energy storage developer to support the build out of one of the largest battery energy storage systems (**BESS**) pipelines in the UK. This build out comprises more than 800 MW of fully consented BESS assets and 185 MW of co-located solar for investment over five years.

## 6.2 Grid-scale wind expertise

94 Under BGTF Consortium ownership, the Origin Energy Markets business would be able to draw on institutional knowledge within Brookfield's existing leading and substantial global wind portfolio to build out the business's capabilities in wind. Brookfield's portfolio consists of **Confidential to Brookfield** MW in operational capacity and **Confidential to Brookfield** MW under development across 105 facilities in North America, South America, Europe and Asia.

95 Specifically, I consider that Brookfield's expertise in the development and operation of wind-powered energy projects is demonstrated by the following investments:

- (a) **Shepherds Flat:** I understand, based on page 44 of a presentation prepared by Brookfield for the purposes of an investor presentation (included at **Confidential Annexure LE-14**), that in 2021, Brookfield acquired the Shepherds Flat wind farm, a 845 MW fully contracted wind generation facility located in Oregon, USA. This project is fully contracted with a high-quality off-taker and is one of the largest onshore wind projects in the US, and includes an attractive repowering (ie, refurbishing). The repowering opportunity is expected to increase total generation by approximately 25%, increasing the clean energy produced by approximately 400 GWh annually and delivering returns to investors.

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(b) **Terraform acquisition in China and India:** I am informed by Daniel Cheng, a Managing Director of Brookfield in the area of Renewable Power and Transition, that:

- (i) **China:** in 2017, Brookfield acquired a **Confidential to Brookfield** MW operating wind asset as part of Brookfield's acquisition of Terraform Global. Since 2017, Brookfield has significantly scaled Terraform Global's renewable capacity in China to achieve around **Confidential to Brookfield** GW of operating and development assets. Of the approximately **Confidential to Brookfield** GW of assets that Brookfield added to Terraform Global's China portfolio, there is **Confidential to Brookfield** GW of wind assets which are currently operational and **Confidential to Brookfield** MW of distributed rooftop solar generation in the form of solar panels on commercial industrial rooftops. The balance of the capacity is in the development pipeline, with **Confidential to Brookfield** GW of assets currently under construction. At this stage, all new wind assets are expected to be constructed by the end of 2024 (as they are currently construction-ready or under construction). Through this acquisition and expansion, Brookfield developed full renewables capabilities in China across all functions in the asset management life cycle, including development, procurement, maintenance, etc; and
- (ii) **India:** in 2017, Brookfield also acquired an approximately 300 MW operating wind asset as part of Brookfield's acquisition of Terraform Global. Since 2017, Brookfield expanded the operating capacity by around 12 times to achieve 3.7 GW of operating capacity with around 0.3 GW in development. Through this acquisition and expansion, Brookfield further developed its in-house expertise to deliver on large-scale growth through greenfield, brownfield and M&A opportunities.

(c) **European Wind Business in Ireland and Portugal:** as set out at paragraph 93(a) above.

96 Through these developments around the world, Brookfield has developed strong relationships with global suppliers of wind turbines and associated wind development equipment.

## 6.3 Grid-scale battery expertise

97 As set out above at paragraph 60, I understand that the development of the grid-scale battery at the Earing Power Station (700 MW) (which has been taken FID) is a key element of the Origin Energy Markets business's decarbonisation plan, in addition to the battery at Mortlake Power Station. Based on my experience in the energy industry, I understand the importance that large scale storage plays in the transition to renewable energy resources and to the security of the electricity network. Accordingly, investment of the capital needed for the Earing and Mortlake batteries is included in the BGTF Consortium's business plan as part of the Proposed Acquisition.

98 The BGTF Consortium will be able to draw on Brookfield's experience in developing battery storage. This experience is relatively significant, particularly given the market for big batteries is relatively new (emerging only some five years ago). In particular, as described at paragraph 93(g), Brookfield has invested in the build out of one of the largest BESS pipelines in the UK. Further, by

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June 2023 Brookfield will have taken four utility-scale battery storage projects totalling **Confidential to Brookfield** MW / **Confidential to Brookfield** MWh AC co-located with existing Brookfield hydro facilities in the north east of the USA to their commercial operating date (**COD**), namely, the point at which the projects become fully operational. These projects are set out below:

- (a) **Confidential to Brookfield** MW / **Confidential to Brookfield** MWh) – operational;
- (b) **Confidential to Brookfield** MW / **Confidential to Brookfield** MWh) – operational;
- (c) **Confidential to Brookfield** MW / **Confidential to Brookfield** MWh) – operational; and
- (d) **Confidential to Brookfield** MW / **Confidential to Brookfield** MWh) – being commissioned.

99 I am aware that Brookfield has plans to continue constructing battery storage projects globally, including in the **Confidential to Brookfield**. In relation to Australia, these projects are described below in section 9.1.1. As a result of this work, Brookfield has existing relationships with leading battery cell suppliers and integrators globally, and is in regular dialogue with them to discuss supply chain conditions, product development and Brookfield's procurement requirements.

100 I am also aware that Brookfield is exploring long-term, strategic partnerships to facilitate further competitiveness in the supply of inputs to battery storage projects and security of supply for those inputs. In particular, the BGTF Consortium is exploring potential relationships with a range of global suppliers of **Confidential to Brookfield**, a long duration storage technology, as part of Brookfield's broader research into new technologies that could provide the NEM with cost effective long duration storage opportunities. A copy of Brookfield's findings on **Confidential to Brookfield** and potential suppliers as at December 2022 is included at **Confidential Annexure LE-15**. I am also aware that late last year, a team at Brookfield conducted site visits at numerous **Confidential to Brookfield** suppliers, like **Confidential to Brookfield**. A copy of reports from each of these site visits are included at **Confidential Annexure LE-16** and **Confidential Annexure LE-17**, respectively.

## 6.4 Distributed generation expertise

101 As part of the Proposed Acquisition, the BGTF Consortium will be able to draw on Brookfield's global capabilities in distributed generation to meet growing demand in this sector in Australia. According to the AEMO ISP, between 2023 and 2030, distributed PV (rooftop solar) in the NEM is forecast to grow by nearly 65%.

102 Brookfield's global distributed generation portfolio comprises **Confidential to Brookfield** GW of operating assets and **Confidential to Brookfield** GW in development, having first invested in distributed generation in 2017. In particular, as part of a series of acquisitions between 2017 and 2020, Brookfield owns one of the largest commercial and industrial distributed generation portfolios in the United States with around **Confidential to Brookfield** GW of operating and development solar capacity, around **Confidential to Brookfield** solar distributed generation sites and **Confidential to Brookfield** investment grade customers. As part of this portfolio, Brookfield

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provides corporate customers with direct access to onsite renewable power, reducing their carbon emissions, as well as an opportunity to transition to clean energy.

103 Further, in 2019, Brookfield developed **Confidential to Brookfield** MW of new solar capacity in China to grow its distributed generation portfolio. One of its key projects in this regard was for **Confidential to Brookfield**. **Confidential to Brookfield** was looking for decarbonisation solutions for its data centres. Brookfield's solution was to develop **Confidential to Brookfield** MW of rooftop solar on **Confidential to Brookfield** data centres, with a net metering model (95% self-consumption with the surplus to the grid). Brookfield had a credible track record of project development and construction in this space, having commissioned over **Confidential to Brookfield** assets at this time. It had mature operations and asset management teams, as well as systems and processes in place to deliver on such projects. Brookfield was able to execute quickly to deliver the project within **Confidential to Brookfield** timelines, including providing special bracket technology to meet **Confidential to Brookfield** waterproofing and fire protection standards.

## 6.5 Centralised global procurement capabilities

104 As mentioned in paragraph 25, at the time of analysing the potential investment in the Origin Energy Markets business, it appeared to me that it was unlikely that Origin would have the breadth and sophistication of a global **procurement** network to develop the scale of renewable generation and storage capacity it needs to materially decarbonise its business, as compared with that to which Brookfield has access, and could be drawn upon to execute the 'green build-out' plan.

105 Specifically, the BGTF Consortium will be able to call on Brookfield's global centralised procurement capabilities, and strong, strategic relationships with Tier-1 wind, solar, hydro and storage suppliers to deliver on the development and operation of renewable development in a timely and cost efficient manner. Given the centralised nature of these functions and the size of Brookfield's global future procurement needs, Brookfield is able to benefit, in particular, from scale procurement benefits and security or flexibility of supply so that inputs may be allocated to wherever in the world a Brookfield project needs them most. In particular, Brookfield's global relationships with key suppliers have delivered a range of benefits including access to more favourable terms and responsive after-market support, as well as improved quality control. Particularly in respect of price, Brookfield's APAC procurement teams have been able to realise on average a **Confidential to Brookfield** discount to market prices over the past two years across approximately **Confidential to Brookfield** GW worth of projects. For the purpose of preparing this statement, I have reviewed the case studies set out in Confidential Annexure LE-14). These case studies are examples of where Brookfield has been able to secure procurement benefits for renewable projects and obtain supply at times when the market was constrained, which I have summarised below:

- (a) **Confidential to Brookfield**.
- (b) **Confidential to Brookfield**.

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## 7 Other benefits of the Proposed Acquisition

106 In this section I explain the other benefits of the Proposed Acquisition which flow from the plans that the BGTF Consortium has for the Origin Energy Markets business.

### 7.1 A broader range of behind the meter solutions for C&I and residential customers

107 By drawing on Brookfield's expertise in distributed generation as described at paragraphs 101 to 103, the BGTF Consortium also has plans to accelerate the growth of Origin's distributed energy platform (*Origin Zero*), thereby accelerating the decarbonisation of the Origin Energy Markets business.

#### 7.1.1 Commercial and industrial customers

108 A key aspect of this plan is proactive engagement with Origin's commercial and industrial (*C&I*) customers, which are large customers that have high electricity demands typically for long durations due to the nature of their businesses (for example, manufacturing businesses). C&I customers are particularly important for the Origin Energy Markets business as their demand is flat, unlike residential customers whose demand fluctuates based on cooling and heating needs (both during the day and across the different seasons). A C&I customer will generally have energy requirements which remain fairly constant 24 hours per day, 7 days a week. In practice, this energy would typically be acquired by the Origin Energy Markets business through a 'baseload' swap contract for baseload power, which has historically been provided by coal fired power stations. **Confidential to Brookfield.**

109 Origin has recently introduced a platform business called 'Origin Zero', whereby Origin offers large businesses tailored renewable energy solutions to support them in achieving their renewable energy targets. This can involve a range of different products including DER. **Confidential to Brookfield.** There are also opportunities today that Origin may not progress as part of this business because these opportunities require Origin to commit to capital expenditure up front (for example ordering batteries and solar panels for an industrial user and installing that equipment). This restricts Origin's opportunities with its Origin Zero business while Origin is a publicly listed company.

110 As part of its plans for the Origin Energy Markets business, the BGTF Consortium plans to **Confidential to Brookfield.** This approach would be feasible for the Origin Energy Markets business to take under BGTF Consortium ownership, because it will have access to capital to fund new renewable energy solutions. This approach aligns with BGTF's mandate to invest in the transformation of carbon intensive businesses, and Brookfield has experience doing this globally, particularly in China. An overview of Brookfield's business in China is shown in an internal Brookfield presentation dated January 2023, which is included at **Confidential Annexure LE-18.** Further, the Origin Energy Markets business is well placed to provide such solutions for its customers given the diversity of Origin's electricity portfolio, enabling it to provide 'firming' capacity to its C&I customers through the electricity generated by the other assets in its portfolio.

111 Firming refers to the provision of electricity by other means when there is insufficient renewable electricity being generated at particular times of the day. For example, gas fired generation provides

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firming capacity. Firming is an essential component of the energy mix when the majority of generation comes from intermittent sources of energy supply, as the generation of renewable electricity is often dependent on particular times of the day (eg, when the sun is shining for solar electricity and when the wind is blowing for wind-generated electricity). The BGTF Consortium has plans for firming to be provided to C&I customers through **Confidential to Brookfield**.

112 As such, I consider that the Origin Zero business model will have greater potential with the backing of the BGTF Consortium.

## 7.1.2 Residential customers

113 According to the AEMO ISP, between 2023 and 2030, it is expected that rooftop solar will be present in 65% of homes in the NEM. I also understand, based on AEMO's estimates, that the supply of DER or services provided 'behind the meter' are expected to grow by 10% each year.

114 The BGTF Consortium plans to support the growth of the Origin Energy Market business's 'Loop' offering, which is Origin's Virtual Power Plant (**VPP**). A VPP is a network of homes or small businesses whose 'behind the meter' energy assets are aggregated and controlled by a software platform that reduces electricity demand in coordinated ways to avert shortages and blackouts. Origin's VPP is one of the largest of its kind in Australia with around 615 MW under management and over 230,000 connected services. According to Origin's CTAP, Origin aims to grow the volume of energy managed by its VPP to 2 GW.

115 The BGTF Consortium aims to accelerate and realise the full potential of Origin's VPP and meet growing customer demand for distributed energy solutions through the investment of capital in this offering. It plans to grow the amount of energy under management in Origin's VPP by:

- (a) accelerating the roll out of smart meters with Origin's multiple vendors to ensure more customers are capable of connecting to the VPP;
- (b) offering **Confidential to Brookfield**; and
- (c) exploring **Confidential to Brookfield: innovative new energy products and services**.

**Confidential to Brookfield** requires upfront capital which Origin does not have. If Origin used operating cash flow, this would reduce Origin's potential to pay dividends.

116 I also understand that alongside the 'Loop' offering, Origin provides customer with a range of digital products, for example, the Spike product, which is an application that incentivises consumers to reduce or manage their energy load during peak periods of the day by offering rewards like movie tickets. The BGTF Consortium plans to continue offering these digital products, while also investing further capital to grow the potential of such digital products so that customers are able to more actively manage their energy needs.

117 Another key aspect of the BGTF Consortium's plan to expand the 'Loop' offering involves **Confidential to Brookfield**.



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118 Based on the research my team and I did to develop the BGTF Consortium's plans to expand Loop, I understand that **Confidential to Brookfield**.

119 Through the existing customer relationships the Origin Energy Markets business has there is substantial opportunity for it to satisfy this growing demand. However, despite these ambitions, I understand that Origin is capital constrained, and would be unlikely to be able to fully deliver on these ambitions. As a listed company, Origin has dividend obligations to its shareholders, and faces pressure not to over-leverage its balance sheet (ie, by incurring too much debt in comparison to the assets it holds as well as the cashflows those assets produce).

120 By contrast, Brookfield has access to capital and extensive experience in owning and operating residential energy infrastructure businesses around the world. The BGTF Consortium would be able to draw on this experience to successfully expand the Origin 'Loop' offering and meet customer demand. For example, Brookfield owns Canadian-based Enercare, North America's largest home and commercial services and energy solutions company. Enercare sells, rents, repairs and maintains a range of energy products, serving 1.9 million customers throughout Canada and the US.

121 Enercare was a publicly listed entity with three distinct businesses (Enercare, Metergy and Service Experts). Like Origin, its capital was constrained by its obligations to its shareholders. I am informed by Matthew Grimes, Managing Director, Investments – Infrastructure at Brookfield, and believe that post-acquisition, Brookfield made a number of significant changes to Enercare's operating model, including:

- (a) the business was separated into three distinct components, which established standalone management teams, funding and securitisation for each of Enercare, Metergy and Service Experts;
- (b) the cost of capital was reduced through a securitisation financing structure in 2018 (allowing Enercare to raise incremental debt at low rates), a first for this type of business in Canada;
- (c) a long-term leasing model (10 to 15 years) was introduced, leading to lower upfront costs and therefore increased affordability for households wanting to access renewable technology and appliances; and
- (d) in-home repair and maintenance solutions were expanded.

122 I am further informed by Mr Grimes that as a direct result of Brookfield's investment in Enercare, since 2017, the business has:

- (a) expanded from previously being based only in Ontario, to now covering over 75% of Canada;
- (b) expanded its product and service offering to include heating, ventilation and air conditioning, water treatment, rooftop solar, batteries, EV, and generators (as opposed to only hot water heaters);

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- (c) successfully increased the rate of rental conversion from 10% to approximately 50% in the United States;
- (d) increased its rental portfolio from 1.2 million to 1.6 million units (approximately 30% over five years), with a further 0.5 million protection plans added;
- (e) added 110,000 new long-term contracts (an increase of 8%).

## 7.2 Onshoring

123 The BGTF Consortium is also exploring opportunities to support a local manufacturing industry related to solar, wind and battery development in Australia. This might include components manufacturing, assembly, servicing or other downstream activities.

124 Onshoring is an important aspect of Brookfield's investment strategy. Most recently, in August 2022, Brookfield's infrastructure affiliate, BIF V, entered into an agreement with Intel Corporation (*Intel*) to jointly fund Intel's under-construction semiconductor fabrication facility in Chandler, Arizona. As part of the co-investment program, Brookfield and Intel will jointly invest up to US\$30 billion in the manufacturing facility with Brookfield investing up to US\$15 billion for a 49% stake in Intel's manufacturing facility with the balance to be held by Intel.

125 In March 2023, **Confidential to Brookfield**:

- (a) **Confidential to Brookfield**
- (b) **Confidential to Brookfield**.

126 As part of this onshoring initiative, I have been involved in conversations with Reliance to understand the technology solutions (and timing of those potential solutions) it could potentially bring to Australia to support a local manufacturing industry of solar panels and battery storage technologies. My colleague, **Confidential to Brookfield**, is also discussing a potential memorandum of understanding with **Confidential to Brookfield** to bring **Confidential to Brookfield** local manufacturing operations to Australia. **Confidential to Brookfield** is a world-leading green technology company that **Confidential to Brookfield**.

## 7.3 **Confidential to Brookfield**

127 **Confidential to Brookfield**

128 In addition, in my experience at BAM, I have seen that skilled personnel are often attracted to working for Brookfield's renewable energy portfolio companies because of the environmental goals of those businesses and the benefits of being part of the global Brookfield network, including access to associated expertise. Therefore, it is likely that under BGTF Consortium ownership, the Origin Energy Markets business will have greater prospects of attracting highly skilled personnel from all over the world to join the new development team and other parts of the business. This will be particularly critical in supplementing Origin's wind-power generation capabilities, as discussed at paragraph 53 above, as well in supporting the demand for skilled labour in large-scale renewable energy, which according to the AEMO, is forecasted to double from around 12,500 in 2022 to

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25,000 in 2027. In addition, Brookfield also has the advantage of being able to second skilled workers from other companies within the Brookfield network to the extent that there are shortages in particular areas. This ability to expand the skilled workforce of the Origin Energy Markets business will also be of critical importance to achieving Origin Energy Markets' decarbonisation goals.

129 Based on my experience in the energy industry, I consider these proposed changes **Confidential to Brookfield Confidential to Brookfield**, facilitating the acceleration and expansion of the Origin Energy Markets business's decarbonisation pipeline. This will also allow Origin Energy Markets to develop a portfolio of different options for development, which is critical to developing a portfolio at speed and scale. This is because it diversifies risks that developers face, such as connection delays, for specific areas in the grid or environmental approvals in one State or the other. If one project is delayed for a reason, the others can be progressed in parallel.

## 8 Reasons why there can be a high level of confidence that the BGTF Consortium will materially decarbonise the Origin Energy Markets business by 2033

130 There is a high degree of certainty that the BGTF Consortium will make the \$20 to \$30 billion investment to develop up to 14 GW of renewables and storage capacity for the Origin Energy Markets business by 2033. I consider that there are a number of reasons why Brookfield will ensure the BGTF Consortium achieves this over the life of its investment in the Origin Energy Markets business.

131 The four key reasons are set out below.

132 **First**, Origin Energy Markets is an investment opportunity which is aligned with the BGTF investment mandate and will provide an opportunity for large scale decarbonisation, including 'additionality' through the 'green build-out' plan. This plan is built into the financial model used to analyse the suitability of the investment in the Origin Energy Markets business and related materials, which have been approved by BGTF's Investment Committee. A copy of the BGTF Investment Committee presentation for the Proposed Acquisition is included at **Confidential Annexure LE-19**. As such, there is an expectation that the 'green build-out' investment will be made. I also understand that GIC's and Temasek's investment was based on analysis from the same financial model. All parties comprising the BGTF Consortium are therefore aligned on the investments to be made in the Origin Energy Markets business to achieve the targeted returns that have been approved by each members' respective investment committee.

133 **Second**, as a dual objective fund, BGTF targets both attractive financial returns and measurable positive environmental impact. In terms of financial returns, BGTF as a fund has an investment mandate of achieving an internal rate of return (*equity IRR*) for individual investments of no less than **Confidential to Brookfield**%. This investment mandate is set out in the BGTF PPM, a copy of which is included at Confidential Annexure LE-1. In relation to the BGTF Consortium's investment in the Origin Energy Markets business, meeting the equity IRR threshold of **Confidential to Brookfield**% is heavily dependent on the investment of capital and renewables build-out, as set

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out on page 15 of the BGTF Investment Committee presentation included at Confidential Annexure LE-19. **Confidential to Brookfield**. It follows that, Brookfield, including BGTF, is highly incentivised to materially decarbonise Origin Energy Markets, replacing its dependence on NEM purchases, electricity contracts and generation from Eraring.

134 **Third**, Brookfield is incentivised to deliver as high a return above the **Confidential to Brookfield**% hurdle rate as possible as it earns a fund manager incentive, known as a 'carry', over and above any equity IRR which exceeds **Confidential to Brookfield**%. The carry is **Confidential to Brookfield**% of any profit. This means that if the BGTF Consortium executes the 'green build-out' plan, delivering a base case equity IRR of **Confidential to Brookfield**%, Brookfield would receive a carry that is calculated having regard to the difference between **Confidential to Brookfield**% and **Confidential to Brookfield**% (**Confidential to Brookfield**%). As the equity IRR increases, the quantum of the carry also increases, such that Brookfield has a significant financial incentive to execute the business plan for Origin Energy Markets, thereby increasing the equity IRR of that investment and the potential carry.

135 Further, as an asset manager, Brookfield's ability to raise capital for future funds relies heavily on past performance and whether or not it achieves the targeted return that is advertised to investors in Brookfield's funds. In the case of BGTF, targeted returns have been advertised as at least **Confidential to Brookfield**%.

136 **Fourth**, BGTF's co-underwriters, Temasek and GIC, will hold Brookfield accountable. As co-underwriters with interests of 9.9% and 22.5% in the Origin Energy Markets business respectively, Temasek and GIC will obtain certain governance rights, including in respect of the business plan and budget and any deviation by greater than 10% from the aggregate operating expenditure or aggregate capital expenditure budgeted in the applicable financial year.

## 9 Brookfield's plans if the Proposed Acquisition does not proceed

137 If the Proposed Acquisition does not go ahead, Brookfield (including BGTF) would continue to explore renewables opportunities in Australia on a project-by-project basis. However, such investments would be on a much smaller scale and at a slower pace, and there would be greater risk compared to if the investments were being made under the Proposed Acquisition. It is highly uncertain what quantity of renewables and storage Brookfield may be able to construct absent the Proposed Acquisition, if any.

### 9.1 The Brookfield Renewable Power and Transition's current business in Australia

138 The Brookfield Renewable Power and Transition's central business plan in Australia is to access a large direct customer load to underpin a rapid build out of renewable electricity generation and storage, and transition those customers to net zero. I believe that the fastest way to carry out such a rapid build out is to acquire a significant Australian gentailer. That is, an energy business which has both generation and retail operations.

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139 Brookfield has been present in Australia since 2007 and has been considering investments in renewables since at least 2012, in particular a small interest of ~9% in Infigen (via Brookfield's infrastructure affiliate BIF III) in 2018, although the stake was sold in 2020. Since BGTF was established in 2021, BGTF has been the primary arm through which Brookfield has explored renewables and transition investment opportunities in Australia. As discussed at paragraph 24 of my statement, Brookfield established a team in Australia to look at both renewable and transition M&A opportunities and single project development opportunities, which I lead. The intention is for any development opportunities to be contributed to any gentailer or retail business that might be acquired or, failing that, developed on a standalone basis.

## 9.1.1 Renewable opportunities being explored

140 My team and I are currently pursuing two opportunities in new renewables generation and storage. These projects are summarised below.

- (a) **Moonlight Range, QLD** (up to 420 MW): Brookfield entered into an agreement with Greenleaf Renewables in April 2023 to develop, build and take ownership of the up to 315 MW Moonlight Range Wind Farm in central Queensland. The Moonlight Range Wind Farm is in the development phase and is expected to be ready for construction in 2025, subject to approvals being received and ready for grid connection and operation in around 2028. Moonlight Range will also include up to 105 MW of storage (BESS), which is expected to follow a similar timeframe to the wind farm. The project is currently at the development and 'land negotiation' stage.

**Confidential to Brookfield.**

- (b) **Greenleaf Renewables, QLD** (up to **Confidential to Brookfield: 600 - 850** MW): Brookfield is also working in partnership with Greenleaf Renewables to explore additional development opportunities in Queensland, which could provide an additional 600 MW of wind generation, and an additional **Confidential to Brookfield: 150 - 250** MW of storage. These projects are currently at the 'land negotiation' stage, **Confidential to Brookfield.**

141 Absent the Proposed Acquisition, the development of the above opportunities are dependent on securing an offtake agreement with retailers or industrial customers (and final approval by the Brookfield Investment Committee).

## 9.1.2 Renewable opportunities which have not progressed

142 Over the last approximately 18 months, Brookfield has assessed over **Confidential to Brookfield** GW of potential renewables and storage opportunities across Australia. Of those:

- (a) Brookfield screened and chose not to pursue projects totalling **Confidential to Brookfield** GW for various reasons. Of this total capacity, around **Confidential to Brookfield** GW of operating assets were not pursued as they did not fit BGTF's investment mandate for 'additionality' (ie, they were operating assets).

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- (b) Brookfield is currently assessing potential opportunities totalling **Confidential to Brookfield** GW which are at a very early stage.
- (c) Brookfield has actively pursued **Confidential to Brookfield** GW of projects, of which Brookfield –
- (i) was unsuccessful in bidding for **Confidential to Brookfield** GW;
  - (ii) is actively pursuing **Confidential to Brookfield** MW (see Greenleaf Renewables above); and
  - (iii) has ~420 MW under development (see Moonlight Range discussed above).
- 143 A key project which my team and I were considering, but which did not progress, related to an opportunity to partner with **Confidential to Brookfield**, a specialist solar developer based in **Confidential to Brookfield**. My team spent considerable time and money (approximately **Confidential to Brookfield** since January 2022) assessing the viability of the project.
- 144 I ultimately came to the decision **Confidential to Brookfield**.
- 145 This project and its outcome is an example of why the acquisition of a platform such as Origin can be decisive in the determination of the viability of individual projects. I consider that offtake arrangements are the most critical input to a greenfield development. When these are negotiated piecemeal and bespoke to an individual investment, the time taken to negotiate, and the risks involved in reaching agreement, significantly add to the cost and risk that must be factored into a new project. Owning a large platform, such as Origin which has around 2.733 million electricity customers, provides a ready-made offtaker, substantially eliminating this aspect of the development risk, increasing the certainty and speed of the development ultimately proceeding.
- 146 Further, as noted at paragraph 129, I consider it to be important for renewables developers like Brookfield to have multiple options for new projects that can be developed based on market conditions at the time. If Brookfield owned Origin at the time of looking at the **Confidential to Brookfield** opportunity, the assessment of the project would have included consideration of whether it would be a good potential future option for Origin's broader development portfolio, as opposed to making this assessment on a standalone basis.
- 147 Other opportunities which have been considered by my team and I or others at Brookfield but were not progressed include:
- (a) **Confidential to Brookfield** This was a **Confidential to Brookfield** MW **Confidential to Brookfield**. Brookfield first approached **Confidential to Brookfield**. At that time, the project was ready to proceed to construction, but did not have an offtake agreement. Based on the information available to Brookfield at the time, I understand Brookfield **Confidential to Brookfield**. In December 2022, Brookfield approached **Confidential to Brookfield** again to consider a possible investment in the project. My team and I were in the process of putting together a business plan for Origin's potential renewables build-out should the Proposed Acquisition proceed, and we thought the **Confidential to Brookfield** opportunity

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may be worth revisiting as actionable opportunity for the Origin pipeline. **Confidential to Brookfield.**

- (b) **Confidential to Brookfield** In parallel with its Moonlight Range project, Greenleaf Renewables was developing a wind farm in **Confidential to Brookfield** Greenleaf Renewables had obtained land options and state approvals for the project. I ultimately decided not to pursue this opportunity for Brookfield as **Confidential to Brookfield**

148 At the time of assessing **Confidential to Brookfield**, I considered that Brookfield's risk criteria for the project might have been lower if it was being pursued through the Origin Energy Markets business. **Confidential to Brookfield.**

## 9.2 The challenge of developing renewables in Australia for Brookfield

149 As described below, if the Proposed Acquisition does not proceed, I consider that one of the key challenges Brookfield (including BGTF) will face when developing renewables in Australia is finding, and negotiating with, offtakers to sign long term PPAs. I elaborate on this below.

150 Finding an offtaker that is willing to sign a long term PPA for the project offtake is a key challenge for renewable developers. A long term PPA will underwrite the project revenues and is typically both:

- (a) a requirement of project finance lenders; and  
(b) a strong preference for equity investors in making a final investment decision.

151 While there have been some reports of renewables projects reaching financial close without a PPA, these are less common and it is unclear what additional protections have been provided to the financiers in order to proceed.

152 I describe below what I consider to be the key challenges with identifying and negotiating long term PPAs for renewable projects from the perspective of a developer and specifically, Brookfield.

153 **First**, there is generally a delay between pricing negotiations and contracting (more specifically the time when a customer gets the production from the project). In my experience, it is common for Brookfield to have a discussion with a potential C&I offtaker now but, by the time the project is ready to take FID (ie, when the contract can be executed for the future delivery of electricity) or the project comes online, at least 18 to 24 months has passed. During that time, the C&I customer's needs might have changed, the cost of the build-out might have increased, pricing might have changed, etc. All of these factors affect the viability of the PPA, **Confidential to Brookfield.**

154 **Second**, it is not uncommon for negotiations to take place with relatively unsophisticated counterparties. In my experience, not all potential customers will have a dedicated team with the specialised expertise in power procurement required to negotiate a PPA. This can lead to a delay in negotiations and sub-optimal outcomes, particularly if a customer does not fully appreciate the implications of a PPA for their energy requirements or how PPA prices may differ across markets. This can lead to mistrust towards the developer. As such, it is important for a developer to not only

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identify a long term offtaker, but one that is sufficiently credible and preferably one with which the developer has an existing relationship, including in other markets.

155 **Third**, price expectations of the parties are not always aligned. In the case of negotiating offtake agreements with C&I customers, in my experience, the prices customers are generally seeking tend to be too low from the developer's perspective and do not always take into account the costs associated with the developer providing a firm power supply to that customer. Having long term relationships with large C&I customers, especially where the developer can demonstrate a track record of on time delivery, can mitigate this issue. When the developer's costs rise or the developer is procuring equipment at higher prices (for example, due to the price of steel which is largely correlated with natural gas prices, especially more recently) and the market expects lower relative PPA prices, this puts downward pressure on the developer's margin and therefore its return.  
**Confidential to Brookfield.**

156 I expect these challenges that Brookfield has encountered procuring long term offtake for its current projects will continue absent the Proposed Acquisition.

## 9.3 Conclusion

157 By contrast, if the Proposed Acquisition proceeds, Brookfield will have a guaranteed offtaker in the form of the existing customer base of the Origin Energy Markets business. This feature of the Proposed Acquisition is crucial to de-risking renewables projects and making it more commercially viable for Brookfield to underwrite the investments. Developing renewables under the Proposed Acquisition is a very different prospect to doing so on a project-by-project basis (as Brookfield has been doing). Under the Proposed Acquisition, the BGTF Consortium would be building new clean energy capacity so that **Confidential to Brookfieldthe significant majority** of Origin Energy Markets' aggregate customer load requirements by 2033 can be provided by internally sourced generation, whereas without the Origin Energy Markets business, it would have to find users to take up the energy for each project. It is only the Proposed Acquisition that creates the platform for the BGTF Consortium to pursue an up to 14 GW build out of new renewable generation and storage capacity.

158 The Origin Energy Markets business also provides the BGTF Consortium with the confidence to aggressively pursue renewable generation because any source of revenue on the generation side of the business will be a cost on the retail side of the business, making it easier to manage a portfolio of investments compared to having a single group of assets that are assessed and managed individually.

159 As such, the Proposed Acquisition removes a key impediment that Brookfield would face absent the Proposed Acquisition, namely, securing a long term offtaker on a project-by-project basis. Given this challenge, and Brookfield's recent renewables experience in Australia, I consider it highly uncertain what renewable capacity, if any, Brookfield will have built in Australia by 2033 absent the Proposed Acquisition. While my team and I have discussed a target of developing 5 GW of renewables and storage in Australia in the medium term absent the Proposed Acquisition, this is



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not based on any specific opportunities and there is no specific plan in place to achieve this. It is difficult to predict with any degree of confidence what would be possible absent the Proposed Acquisition. All that can realistically be said with confidence is that Brookfield has one project in development which, if it proceeds, would see 315 MW of wind generation and 105 MW of storage built by 2028, and 5 GW overall is likely the maximum Brookfield might develop in Australia absent the Proposed Acquisition.

- 160 The Proposed Acquisition means that Brookfield will be able to establish a leading decarbonisation platform in Australia through the Origin Energy Markets business that makes it possible for BGTF to invest in renewable generation assets at scale which, absent the Proposed Acquisition, it would only be able to do in a piecemeal fashion at a much smaller scale.

Signed by Luke David Edwards

on 5 June 2023

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Signature of Luke David Edwards