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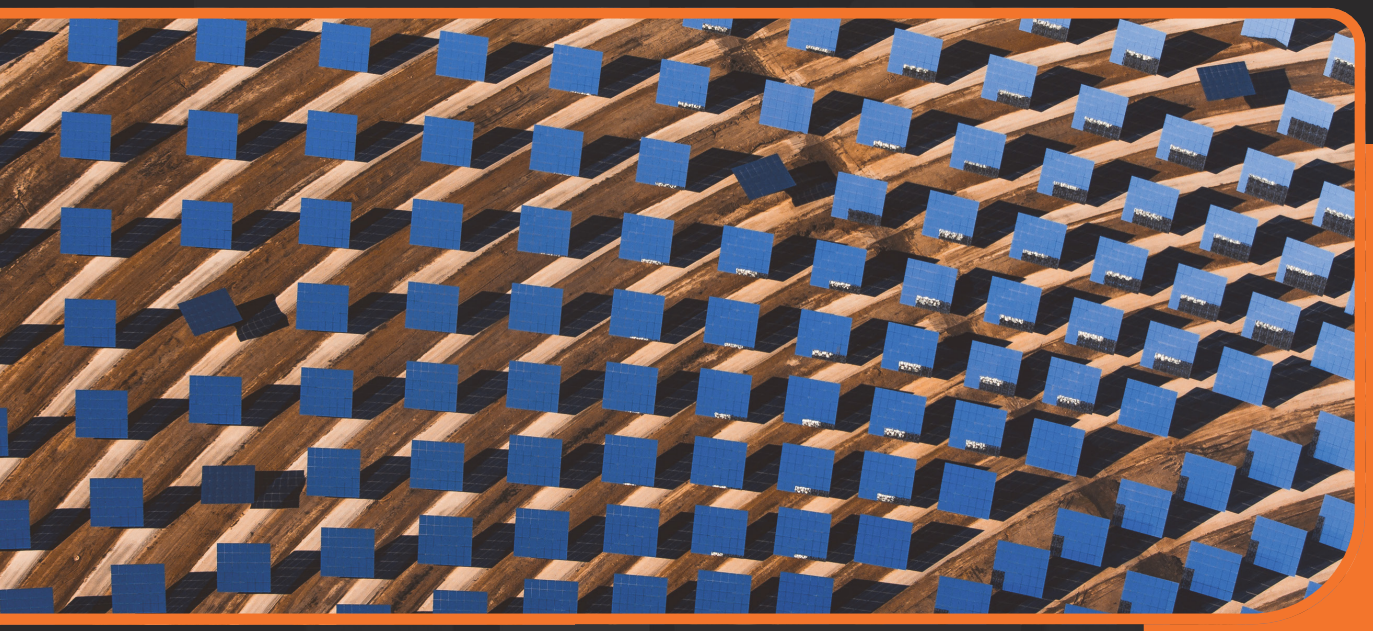

Practical cross-border insights into renewable energy law

Renewable Energy 2022

Second Edition

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1 Overview of the Renewable Energy Sector

1.1 What is the basis of renewable energy policy and regulation in your jurisdiction and is there a statutory definition of 'renewable energy', 'clean energy' or equivalent terminology?

At the federal level in Australia, the Mandatory Renewable Energy Target incentivises investment in 'small-scale' and 'large-scale' renewable facilities.

The Small-scale Renewable Energy Target Scheme (**SRET**) incentivises energy consumers to install:

- solar photovoltaic (**PV**) systems with a capacity of no more than 100kW and a total annual electricity output of less than 250MWh;
- wind turbines with a capacity of no more than 10kW and a total annual electricity output of less than 25MWh; and
- hydro systems with a capacity of no more than 6.4kW and a total annual electricity output of less than 25MWh.

The scheme legislates an annual target requiring a percentage of all power consumed on Australia's major grids to be met by small-scale renewable facilities. It does so by:

- permitting Small-scale Technology Certificates (**STCs**) to be created from eligible facilities upon installation for their deemed generation through to 2030; and
- obliging liable entities (e.g. retailers) to acquire and subsequently surrender STCs to the Clean Energy Regulator on a quarterly basis to progressively meet an annual target each year (through to 2030).

The small-scale renewable energy target for 2021 is 28.80%, which equates to approximately 50,600GWh *per annum* (i.e. 50.6 million small-scale technology certificates).

By contrast, the Large-scale Renewable Energy Target Scheme (**LRET**) incentivises investment in 'large-scale' renewable energy generation (including solar PV, wind and hydro facilities with capacities and annual outputs that exceed the kW or MWh ceilings under the SRET). It is enforced in a similar way to the SRET by imposing annual statutory targets on major wholesale purchasers of power (e.g. retailers). One Large-scale Generation Certificate (**LGC**) can be created for each MWh of electricity produced by accredited renewable facilities. Like the SRET, the LRET is legislated to remain in place until 2030.

There are 19 eligible categories of renewable energy sources under the LRET. They are hydro, wave, tide and ocean power, wind, solar, geothermal, hot dry rocks, energy crops, wood waste, agricultural waste, agricultural processing waste, food waste, food processing waste, bagasse (i.e. sugar cane waste), black liquor, municipal solid waste, landfill gas and gas & biomass from sewage.

The large-scale renewable energy target for 2021 and each year through to 2030 is 33,000GWh *per annum* which, in 2021, equates to approximately 18.54% of electricity consumed on Australia's major grids.

There is already more than enough accredited renewable capacity in Australia to meet this target through to expiry of the scheme. However, the scheme is also becoming a *de facto* carbon offset mechanism. This is because the voluntary surrender of LGCs by electricity consumers is recognised as an offset to their scope 2 emissions under Australia's National Greenhouse & Energy Reporting Scheme.

1.2 Describe the main participants in the renewable energy sector and the roles which they each perform.

The main participants in the renewable energy sector in Australia are:

- **Utility-scale renewable energy generators** which, as discussed above, are able to be accredited under the LRET to derive revenue through the sale of LGCs.
- **Small-scale and distributed energy resources (DER)** owners/installers who, as discussed above, are able to be accredited under the SRET to derive revenue through the sale of STCs.
- The economically regulated **transmission and distribution networks** in each State and Territory of Australia, which deliver power from renewable energy generators (and traditional thermal generators) to end-users.
- The **Australian Energy Market Operator (AEMO)** which:
  - operates the National Electricity Market (**NEM**) and an associated ancillary services market in the Australian Capital Territory (**ACT**), New South Wales (**NSW**), Queensland, South Australia, Tasmania and Victoria and also operates and manages the interconnected electricity system within those jurisdictions;
  - operates the Wholesale Electricity Market (**WEM**) across the South-West Interconnected System (**SWIS**) in Southern-Western Australia;
  - undertakes network planning for, and coordinates access to, the transmission network in Victoria; and
  - has recently been appointed to be the 'Consumer Trustee' in NSW to, amongst other things, have oversight over the coordinated planning and investment in electricity generation, storage and transmission in that jurisdiction.
- **Energy retailers** who have renewable energy targets imposed upon them under the LRET and SRET, with penalties applying if they do not meet those targets. Energy retailers are also increasingly offering products

that are linked (contractually) to the output of upstream renewable facilities to allow consumers to purchase 'green' energy (over and above the requirements under the LRET and SRET).

- **Commercial and industrial customers** who, in order to reduce their carbon footprint, are increasingly entering into power purchase agreements with large-scale utility renewable projects either directly or indirectly under 'look-through' arrangements with their energy retailers.

In the Northern Territory, the power systems in Alice Springs, Darwin-Katherine and Tennant Creek are operated by the Northern Territory Electricity System & Market Operator. It is a division of the Power and Water Corporation, which is a Northern Territory government-owned corporation.

There are also a number of smaller 'stand-alone' electricity grids in the major minerals provinces in Queensland and Western Australia, and in remote townships throughout remote Australia. The electricity infrastructure in these grids is commonly (but not always) operated on an integrated basis by a single entity (or single corporate group). However, there is a growing trend to introduce renewable generation into these grids to replace (at least in part) existing thermal generation (e.g. diesel or gas-fired generation). These developments are being undertaken by the grid operator itself or by outsourcing the development to an independent power producer.

1.3 Describe the government's role in the ownership and development of renewable energy and any policy commitments towards renewable energy, including applicable renewable energy targets.

In addition to the LRET and SRET, the Federal Government has funded an 'Underwriting New Generation Investment' programme to support the development of up to six new pumped hydro projects (in addition to up to six new gasfired power stations). Up to $1 billion of funding has been committed to this programme and the shortlisted pumped hydro projects have been announced by the Federal Government.

The Federal Government also has two agencies that provide grants or funding to the renewable energy sector:

- the Australian Renewable Energy Agency, which played a key role in the last decade in the development of the utility-scale renewable sector, but is now focusing more on adjacent industries (e.g. 'green' hydrogen); and
- the Clean Energy Finance Corporation (**CEFC**), which is a dedicated financier to renewable and 'green' projects.

At the State-level, NSW has a policy to achieve net zero emissions in that jurisdiction by 2050, and has introduced enabling legislation to progressively implement its $32 billion Electricity Infrastructure Roadmap.

The other Australian States and Territories have their own renewable energy targets. However, only the ACT (which has already achieved 100% renewable-sourced energy), Tasmania and Victoria have enshrined those targets in legislation.

In Victoria, the *Renewable Energy (Jobs and Investment) Act 2017* (Vic) legislates renewable energy targets of 25% by 2020, 40% by 2025 and 50% by 2030 for that State. This Act imposes no obligations on industry participants or consumers; instead, the targets are used to drive the State Government's investment and procurement policies in the renewable energy sector. To that end, the Victoria Government ran a reverse auction in 2017/18 to purchase 928MW of renewable energy under offtake contracts from three wind projects and three solar projects. It has now announced that it will run a second auction process this year (2021) for at least 600MW of new renewable energy capacity to be located in Victoria.

In Tasmania, the State Government has passed legislation to enshrine a target of renewable generation equal to 150% of current consumption by 2030, and 200% by 2040. The government expects to achieve 100% renewable generation for domestic consumption by 2022; thus, the higher targets are intended to support the installation of new renewable generation for export to the mainland Australian states.

Other Australian jurisdictions have also previously run reverse auctions or have provided funding to their government-owned entities to do so. For example, Queensland has committed $2 billion to fund renewable developments by its state-owned entities. Other governments (including local governments) have gone out to tender to procure renewable-sourced power for the electricity load of their departments and agencies.

In addition, NSW, Queensland and Victoria have committed funding for, and are consulting on, the development of Renewable Energy Zones (**REZ**) for the most prospective renewable regions in each of those jurisdictions. At a minimum, these developments involve the commitment of government funding for the extension or upgrade of the transmission network in the identified zones. In some cases, that funding may be recovered by auctioning off access rights to the new or upgraded sections of the networks. However, the structures under which that will occur are still being developed (as at the date of writing).

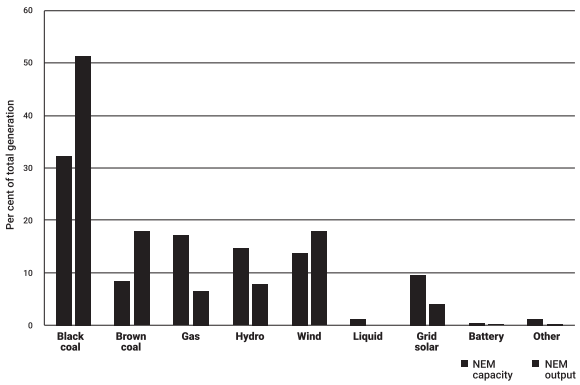
Lastly, there are battery and rooftop solar grants, loans or rebates in the ACT, Queensland, South Australia and Victoria.

2 Renewable Energy Market

2.1 Describe the market for renewable energy in your jurisdiction. What are the main types of renewable energy deployed and what are the trends in terms of technology preference and size of facility?

Australia saw a large wave of utility-scale renewable developments in the second half of the 2010s. This was driven (in the most part) by developers rushing to meet the annual targets under the LRET before those targets 'capped out' at the current level (i.e. 33,000GWh *per annum*). Attention is now increasingly turning to the incentives and targets of the States and Territories to drive further investment in utility-scale renewable energy.

According to the Australian Energy Regulator (**AER**), the utility-scale generation capacity in the NEM as at 30 June 2021 was:



At the other end of the market, Australia is a world leader in the installation of rooftop solar. In its '*State of the energy market 2021*', the AER reports that the total combined capacity of the rooftop solar fleet in the NEM in June 2021 was 11.4GW, which equated to around 17% of the NEM's total generation capacity.

However, the success of DER (particularly rooftop solar) has created its own challenges for AEMO (in its role as the system

operator for the NEM). This is because AEMO has little control over the dispatchability of exported power from the rooftop solar fleet. Instead, export from rooftop solar comes into the system (and the wholesale market) ahead of utility-scale generation, to meet system demand. This is proving to be unsustainable as the grid increasingly operates on a 'two-way' basis, and significant reforms are under development to give AEMO (and the distribution networks) greater oversight, insight and control of DER.

2.2 What role does the energy transition have in the level of commitment to, and investment in, renewables? What are the main drivers for change?

On 13 July 2021, AEMO's CEO & Managing Director announced in a public forum that:

> '*Under my leadership, AEMO will work closely and collaboratively with governments, industry and communities to design the affordable, reliable energy system that Australia needs … an energy system that's capable of handling 100% renewable energy, at any moment of the day, by 2025.*'

This marked a significant increase in planning by AEMO for the integration and penetration of renewable energy in the NEM.

However, this does not mean that the generation fleet in the NEM will be wholly renewable by 2025, or that renewable energy will dominate dispatch at all times in each day in 2025. Instead, it is a recognition that, like what actually occurred in South Australia in October 2020, by 2025 there will be increasing instances whereby some regions in the NEM will be wholly supplied by renewable energy.

This reflects the impact that the energy transition is having on investment in renewables in Australia. That transition is being driven by, amongst other things:

- sustained demand for the installation of rooftop solar/DER by consumers (in the residential, commercial and industrial sectors);
- the decreasing capital cost for renewable energy, batteries and associated technology;
- the progressive retirement of coal-fired power stations at the end of their technical or economic life; and
- jurisdictional policies supporting the development of renewable energy projects (see question 1.3, above).

2.3 What role, if any, has civil society played in the promotion of renewable energy?

Civil society in Australia has played a significant role in the promotion of renewable energy through:

- the very high popularity and take-up rate of DER (particularly rooftop solar) amongst households and the business community; and
- in the commercial and industrial sector, an increased appetite to reduce their carbon footprint. This is being achieved through, amongst other things, the acquisition of renewable energy under power purchase agreements or renewable-linked retail contracts.

2.4 What is the legal and regulatory framework for the generation, transmission and distribution of renewable energy?

Generation

In the NEM, generation facilities of 5MW or higher capacity are generally required to be registered with AEMO as a 'market generator' if they export power into the power system. Conversely, generation below 5MW capacity is exempt from registration. However, to derive spot market revenue, the small-scale facility must be exported into the NEM by a registered market customer (e.g. a retailer) or a registered small generation aggregator.

Generation (including renewable generation) at or above 30MW capacity must be registered with AEMO as either 'scheduled' (i.e. dispatchable) generation or as 'semischeduled' (i.e. semidispatchable) generation with AEMO. Scheduled generators compete on a lowest-price basis to be dispatched into the wholesale market. Similarly, semischeduled generation (which is the category that applies to variable renewable energy generation) also competes to be dispatched into the market. However, semi-scheduled generation is excused under the market rules if it does not meet its dispatch targets due to a lack of renewable resources (e.g. wind, solar, etc.).

In some jurisdictions in the NEM, additional State or Territory generation licences/authorities also need to be obtained from the jurisdictional energy regulator or government department.

Transmission and distribution

The major transmission and distribution networks in the NEM are regulated monopolies. They are economically regulated by the AER and their annual revenue entitlements are determined, in advance, in five-year cycles.

In addition, the owner, operator or controller of the transmission or distribution network must also be registered as a 'network service provider' with AEMO. Also, the operators of the major network businesses are usually required to hold a distribution authority or network licence from the energy regulator or government department in the jurisdiction (i.e. the State or Territory) in which they are located.

An open access policy applies to the interconnected grid that underpins the NEM. The process for renewable projects to obtain access to the network under that principle is set out in the National Electricity Rules.

The construction of connecting lines into the regulated network is not restricted to the regulated network entity. However, if the line is 30km or longer, it must be built to the design standard of the regulated network and, once built, must be handed over to be operated and maintained by the regulated network entity (under contract). The owner of these large connecting assets must also publish an access policy outlining the basis on which it will enable others to connect into the line.

As mentioned above, some jurisdictions in the NEM are developing their own frameworks for REZ, and the open access model might be disapplied to those zones. Instead, a finite amount of access to the REZ might be auctioned to renewable developers.

The above discussion relates only to the NEM. System-specific requirements apply to the other major transmission or distribution systems in Australia (e.g. the WEM in Western Australia and the power systems in the Northern Territory).

2.5 What are the main challenges that limit investment in, and development of, renewable energy projects?

Australia's transmission grids, particularly those in the NEM, were built on a 'hub and spoke' model to bring electricity from large-scale thermal generation into major cities and other demand centres. However, increasingly, generation in the NEM is becoming decentralised as thermal generation is being replaced or displaced by dispersed renewable generation across the grid.

This means that:

- the transmission networks are in need of substantial upgrades to accommodate new renewable generation; and

- the distribution networks are being called on to operate in a 'two-way' fashion, both to distribute powers to end-use consumers and take back and re-distribute power from their on-site generation and battery facilities.

At the utility-scale end of the sector, securing timely access to the grid is an ongoing challenge. Each connection is subject to detailed consideration by the regulated network entity and by AEMO, particularly in relation to the impact that new variable renewable generation will have on the dispatch of other generation facilities in the system, and more broadly on system security.

These impacts are difficult to assess and may result in:

- new projects having to commit additional capital to install equipment to alleviate any system security impacts arising from their project, or to ensure that they do not adversely impact the output of generators already connected to the system; and/or
- delays in achieving commissioning and energisation of a new project at its connection point into the power system.

Even once connection is achieved, the output from some utility-scale renewable plants has, at times, been partly constrained (i.e. reduced) by AEMO to allow it to manage system security requirements (e.g. voltage or frequency fluctuations, low inertia, low system strength, etc.) in the applicable section of the grid.

At the DER side of the sector, a number of pending reforms are proposed to:

- provide AEMO with the ability to disconnect and reconnect DER to better manage system stability and reliability in the power system. Initial reforms apply in South Australia but are under broader consideration for the rest of the NEM;
- permit distribution networks to price for the 'two-way' services they are increasingly providing to the market (i.e. 'import services' for power consumed by consumers and 'export services' for power exported by consumers back into the grid from DER); and
- permit distribution networks to create network pricing structures that reward customers for exporting energy at times of high demand and charge customers when the network is congested.

2.6 How are large utility-scale renewable power projects typically tendered?

Project proponents typically engage merchant banks to run an auction process for the sale of all or part of a renewable project (or equity in the project). This can occur at different points in the development of a project. However, at a minimum, projects commonly need to have agreed the generator performances standards for the project with AEMO, hold applicable development approvals and, ideally, have a power purchase agreement with a credible buyer for all or some of the projected output of the project.

If the project is fully financed or, even better, fully constructed and connected to the grid, this generally improves the chances of securing a buyer (or buyers). In addition, the further developed a project is, the higher the purchase price (on a $/MWh basis) is likely to be.

For most sale processes, the asset is initially widely marketed to receive indicative bids. Key financial information and an information memorandum is generally provided at this stage.

Once indicative offers are received, a smaller number of bidders are usually shortlisted to receive further information to undertake due diligence on the project and submit a final and best offer. After that, negotiations ideally are finalised quickly with a final preferred bidder through to signing of a sale and purchase agreement (and any related documentation). Completion of the transaction would occur sometime after signing, depending on the amount of time required for the parties to undertake pre-completion requirements.

2.7 To what extent is your jurisdiction's energy demand met through domestic renewable power generation?

As per question 2.1 above, in its '*State of the energy market 2021*', the AER reported that the total combined capacity of domestic renewable power generation in June 2021 was 11.4GW, which equated to around 17% of the NEM's total generation capacity.

In Western Australia, in October 2020, the Western Australian Minister for Energy noted that 300,000 households in the SWIS had rooftop solar, which accounted for over 20% of the annual electricity generated in that power system. A further 1MW of DER was continuing to be added to the system on a week-on-week basis.

3 Sale of Renewable Energy and Financial Incentives

3.1 What is the legal and regulatory framework for the sale of utility-scale renewable power?

The energy regulatory framework for the sale of utility-scale renewable power into the NEM (and major Australian power systems) on a merchant basis is described in question 2.4, above.

However, in order to secure the revenue streams for a new project, the developer will commonly look to enter into a power purchase agreement with one or more offtakers from the project. These contracts are commonly referred to as 'contracts for differences' (i.e. financial derivatives) and, before entering into such arrangements, the developer should consider whether they will need to hold an Australian financial services licence in order to lawfully do so.

The sale of utility-scale renewable power in off-grid scenarios, remote locations and isolated grids is subject to lower levels of regulation; however, the owner or operator of the facility may be required to hold a State- or Territory-specific generation or retail licence or authority.

3.2 Are there financial or regulatory incentives available to promote investment in/sale of utility-scale renewable power?

A number of financial or regulatory incentives have been offered by the Federal, State and Territory Governments. See question 1.3 above for more details.

3.3 What are the main sources of financing for the development of utility-scale renewable power projects?

Australia has a mature market for the financing of utility-scale renewable power projects. Participants in the market include the major Australian banks, as well as local branches of international financiers.

In addition, the CEFC (a Federal Government agency) has a specific mandate to finance renewable and 'green' projects.

3.4 What is the legal and regulatory framework applicable to distributed/C&I renewable energy?

In the NEM, the market rules permit retailers and small generation aggregators to:

- purchase 'excess' generation from DER facilities for a fixed price; and
- subsequently export (i.e. on-sell) that power into the NEM at the prevailing wholesale market spot price.

In addition, some energy retailers have developed offerings under trial conditions to centrally manage DER facilities to provide grid support and derive revenue in the ancillary services markets associated with the NEM. A significant reform package is under consideration by the Australian Energy Market Commission (**AEMC**) to streamline the participation of DER in these markets.

3.5 Are there financial or regulatory incentives available to promote investment in distributed/C&I renewable energy facilities?

There are battery and rooftop solar grants, loans or rebates available in the ACT, Queensland, South Australia and Victoria.

3.6 What are the main sources of financing for the development of distributed/C&I renewable energy facilities?

A number of equipment manufacturers, installers, retailers and third-party financiers provide finance (or deferred payment contracts) for the installation of distributed/C&I renewable energy facilities.

3.7 What is the legal and regulatory framework that applies for clean energy certificates/environmental attributes from renewable energy projects?

See the response to question 1.1 above.

3.8 Are there financial or regulatory incentives or mechanisms in place to promote the purchase of renewable energy by the private sector?

If private sector participants purchase LGCs and voluntarily surrender them to the Clean Energy Regulator, they can claim an offset to their carbon emissions under the National Greenhouse and Energy Reporting Scheme.

In addition, under the 'GreenPower' accreditation programme, consumers can elect to pay a premium to their retailer for 'green' power. The retailer must then acquire and surrender LGCs (in addition to their surrender requirements under the LRET to meet their annual targets) equal to the amount of 'green' power that their customers have paid a premium to acquire.

4 Consents and Permits

4.1 What are the primary consents and permits required to construct, commission and operate utility-scale renewable energy facilities?

The permissions that are required to construct, commission and operate utility-scale renewable energy facilities largely vary based upon the type, size and location of the facility.

Some forms of renewable energy generation are required to operate under specific legislative frameworks (such as geothermal generation sources in some States) which include titling requirements for both exploration and production phases of the project.

Other forms of renewable energy generation (such as utility-scale solar farms and wind farms) are typically regulated under general frameworks that control the use and development of land, as well as the environmental impacts of developments. In particular, a proponent of a utility-scale renewable energy facility will usually require a planning permit or development consent for the use and development of land for the purpose of the renewable energy facility. Such a permission may also cover associated infrastructure (such as a substation and power lines) and authorise ancillary matters (such as native vegetation removal). In some cases, proponents may be exempt from permit or consent requirements, or have access to alternative approval pathways (for instance, the facility may be specifically authorised and regulated under the relevant planning scheme).

Various studies and assessments are typically required to support the application for a planning permit or development consent for a utility-scale renewable energy facility. For example, for a wind farm, a proponent typically must provide expert reports that assess impacts such as noise, shadow flicker and electromagnetic interference. As part of the application process, notifications to adjacent owners and occupiers and referrals to relevant authorities, who can provide comments or objections in respect of the application, may also be required. In some jurisdictions, the application will be subject to review by independent assessment bodies, and a public inquiry or hearing process may be required as part of the decision-making process. Permits or approvals are typically granted subject to a range of conditions, relating to matters such as noise, blade glint, shadow flicker and electromagnetic impact.

In addition to the requirement for a planning permit or development consent, there may be a range of other permit or consent requirements under State laws. For example, a proponent may be required to obtain approvals from network operators for transmission lines, an environmental protection licence may be required for the construction and operation of the facility (addressing issues such as noise pollution), and approvals or consents may be required relating to matters such as aboriginal heritage, water, national parks and wildlife.

Where a proposed utility-scale renewable energy facility has, will have or is likely to have a significant impact on any of the matters of national environmental significance (such as threatened species or ecological communities), the project is required to be referred to the Commonwealth Minister for Environment to assess whether federal environmental approval is required under the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth). If approval is required, the project must go through an assessment and approval process in accordance with said Act, which in many cases can be undertaken in parallel with State approval processes.

4.2 What are the primary consents and permits required to construct, commission and operate distributed/C&I renewable energy facilities?

Building and construction registration requirements, both for corporations and individuals, apply in all States and Territories of Australia. In addition, electrical safety licensing and compliance requirements apply on a per-jurisdiction basis.

The Clean Energy Council also operates and administers a well-regarded industry accreditation programme for solar and

battery installers, which has been approved by the Australian Competition and Consumer Commission (**ACCC**). DER facilities must be installed by accredited installers in order to qualify to generate STCs under the SRET.

All distributed/C&I renewable energy facilities must be approved by the applicable regulated distribution entity in order to connect to the distribution grid. See question 4.4 below for more details.

4.3 What are the requirements for renewable energy facilities to be connected to and access the transmission network(s)?

In the NEM, in order to be connected to and access the transmission network, renewable energy facilities must have:

- agreed the 'generator performance standards' for the facility with AEMO;
- negotiated a connection and access agreement with the regulated transmission entity; and
- completed a commissioning and energisation programme with AEMO and the regulated transmission entity.

These aspects of the 'open access' regime are outlined and regulated under the National Electricity Law and National Electricity Rules.

A slightly different process applies in Victoria due to AEMO having a greater role in planning and managing the augmentation of the transmission network than in other jurisdictions in the NEM.

Furthermore, going forward, the Renewable Energy Zone programmes being considered and implemented in Queensland, NSW and Victoria might see different rules being applied for renewable projects to connect to the transmission network via those zones. See question 2.4 for a further discussion of this.

4.4 What are the requirements for renewable energy facilities to be connected to and access the distribution network(s)?

In the NEM, a similar 'open access' process to that which currently applies to the transmission grid also generally applies for the connection of utility-scale renewable generation to the distribution network.

For DER, connection to the distribution grid in the NEM is, except in Victoria, mostly governed by the National Energy Retail Law, the National Energy Retail Rules and related provisions in the National Electricity Rules. In Victoria, State-specific requirements apply.

4.5 Are microgrids able to operate? If so, what is the legislative basis and are there any financial or regulatory incentives available to promote investment in microgrids?

In Australia, a microgrid is generally understood as being either:

- a stand-alone power system which generates, delivers and supplies electricity to multiple customers, and is not physically connected to the national grid/NEM; or
- an embedded network that is connected to the NEM through a single connection point, but which is capable of operating independently from the NEM. This type of microgrid arrangement can be distinguished from a regular embedded network by having generation and storage capabilities that enable it to operate autonomously (without having to import power from the NEM) under standard operation.

There are examples of both types of microgrids in the NEM; however, the regulatory framework is in need of clarification and refinement. A regulatory reform package is being considered by the AEMC and is expected to be rolled out in the next one to two years.

4.6 Are there health, safety and environment laws/regulations which should be considered in relation to specific types of renewable energy or which may limit the deployment of specific types of renewable energy?

Health and safety

Most States and Territories in Australia have implemented the model Commonwealth Work Health and Safety legislation. Although Victoria and Western Australia have a separate framework, similar health and safety duties apply in these jurisdictions.

Under these health and safety frameworks, persons conducting a business or undertaking, such as a business that is developing a renewable energy facility, are under a general duty to ensure the health and safety of workers so far as is reasonably practicable. In addition, specific duties apply to a development involving the design, installation, construction or commission of a plant or structures (such as a renewable energy facility) in order to minimise risks of health and safety at a workplace.

For example, a proponent designing a windfarm or installing a renewable energy facility may be required to identify, assess and reduce the risk of hazards as far as is reasonably practicable, as well as maintain records of relevant actions. This could include developing systems and activities for ignition source control, security requirements and implementing a safety management plan that includes safe work guidelines and processes such as permits to work, incident management and access to site.

In addition, specific regulatory framework relating to electrical safety may apply and regulate the safe development and operation of the facility.

Environment

The environmental protection regulatory framework similarly varies between Australian States and Territories. However, most States and Territories have adopted a similar duties-based framework, modelled on occupational health and safety legislation, that focuses on preventing impacts to the environment from pollution and waste.

In particular, individuals and organisations involved in the deployment of a renewable energy facility may be subject to the general environmental duty. At a high level, this typically requires a person who is engaging in an activity to eliminate or otherwise minimise risks of harm to human health and the environment from pollution and waste so far as is reasonably practicable.

In some jurisdictions, specific renewable energy generation types will require authorisation under environmental protection regulatory frameworks. For example, some jurisdictions require that a proponent also hold an environmental protection licence (or similar) for a wind farm or a 'green' hydrogen facility.

5 Storage

5.1 What is the legal and regulatory framework which applies to energy storage and specifically the storage of renewable energy?

At the date of writing, stand-alone (e.g. utility-scale) energy storage in the NEM is required to be registered with AEMO as both a market load (for power imported from the grid for

charging) and a market generator or equivalent (to allow wholesale market revenue to be derived from the sale of excess power exported into the NEM).

This has seen batteries incur:

- network, market and system security costs in their capacity as a load; and
- market and system security costs, but not network costs, in their capacity as a market generator,

whereas other generation facilities have been able to net-off their imports from, and exports to, the NEM to reduce their exposure to such costs.

A significant reform proposal has been released by the AEMC which proposes to, among other things:

- enable storage to participate in the NEM and related ancillary services/system security markets under a singled 'integrated resource provider' registration category; and
- ensure that all NEM market participants bear their share of system and network costs on gross rather than netted energy streams in the same way that batteries currently do.

5.2 Are there any financial or regulatory incentives available to promote the storage of renewable energy?

There are solar and battery grants, loans or rebates available in the ACT, Queensland, South Australia and Victoria.

6 Foreign Investment and International Obligations

6.1 Are there any special requirements or limitations on foreign investors investing in renewable energy projects?

Under Australia's foreign investment regime, 'foreign persons' are required to notify the Australian Treasurer, advised by the Foreign Investment and Review Board (**FIRB**), of certain transactions and obtain clearance before proceeding with the transaction. This includes investment in renewable energy projects and related acquisitions (such as any acquisition of interests in Australian land required for such projects).

Australia's foreign investment regime consists of the *Foreign Acquisitions and Takeovers Act 1975* (Cth) (**FATA**), associated legislation and various regulations. The regime is also supported by Australia's Foreign Investment Policy and guidance notes released by FIRB (**Guidance Notes**), which are updated from time to time. The Australian Treasurer administers the FATA with the advice and assistance of FIRB. The regime aims to ensure that foreign direct investment is not 'contrary to Australia's national interest'. The Treasurer can:

- provide unconditional clearance for the transaction, on the basis it is not contrary to Australia's national interest;
- prohibit the transaction from proceeding, on the basis it is contrary to Australia's national interest; or
- impose conditions on the transaction, so that the transaction will not be contrary to Australia's national interest.

The Australian energy sector is considered a sensitive sector for foreign investments. As renewable energy plays a greater role in Australia's energy mix, FIRB considers that investments in this sector may affect Australia's national interest (including with regard to national security). Accordingly, where mandatory FIRB clearance is not required, voluntary notification can be made and is recommended by FIRB to be made for certain investments relating to renewable energy projects. For example, under FIRB's Guidance Note 8 as last updated 9 July 2021, foreign investors are encouraged to seek voluntary FIRB clearance for a range of relevant transactions including:

- investments in businesses or entities with a contractual relationship with the Australian Department of Defence in the energy sector (including renewable energy);
- investments in a business or entity that owns or operates an electricity generation station (including storage) with a generation capacity (or proposed capacity) of at least 50MW (noting that mandatory filing requirements apply at certain levels higher than this); and
- investments in an energy retailer (gas or electricity) where the foreign person would subsequently hold interests in energy retailers with more than 100,000 customers (noting that mandatory filing requirements apply for networks, systems and interconnectors that ultimately service more than 100,000 customers).

Seeking and obtaining clearance on a voluntary basis precludes the Treasurer of Australia from calling in a transaction for review if there are national security concerns. Without a mandatory or voluntary notification and associated clearance, the Treasurer has the ability to call in a transaction for up to 10 years (with very limited exceptions). For completeness, please note that even with a mandatory or voluntary clearance in hand, the Treasurer retains a 'last resort' power to review the decision and make certain orders if there are national security risks.

6.2 Are there any currency exchange restrictions or restrictions on the transfer of funds derived from investment in renewable energy projects?

General laws, including banking, anti-money laundering and counter-terrorism financing and sanctions laws apply. As above, specific conditions may be imposed on any clearance issued under the FATA.

6.3 Are there any employment limitations or requirements which may impact on foreign investment in renewable energy projects?

General employment laws in Australia apply. As above, specific conditions may be imposed on any clearance issued under the FATA.

6.4 Are there any limitations or requirements related to equipment and materials which may impact on foreign investment in renewable energy projects?

There are customs rulings, including trade measures, that may apply for major projects, depending on the goods and their country of origin.

7 Competition and Antitrust

7.1 Which governmental authority or regulator is responsible for the regulation of competition and antitrust in the renewable energy sector?

The ACCC is responsible for the regulation of competition and antitrust in the renewable energy sector.

7.2 What power or authority does the relevant governmental authority or regulator have to prohibit or take action in relation to anti-competitive practices?

The ACCC does not have the power to prohibit anti-competitive practices without a court order.

It has broad powers to investigate and take action in relation to anti-competitive practices, including to require production of documents and information, to obtain a search warrant to enter premises, seize documents and items, and to undertake telephone surveillance.

7.3 What are the key criteria applied by the relevant governmental authority or regulator to determine whether a practice is anti-competitive?

The prohibitions on anti-competitive practices are set out in Part IV of the *Competition and Consumer Act 2010* (Cth).

The key criteria the ACCC has regard to when determining whether a practice is anti-competitive are the prohibitions themselves. In summary terms, the following is prohibited: (A) agreements between competitors or potential competitors with the purpose, effect or likely effect of fixing prices or with the purpose of sharing markets, preventing, restricting or limiting the volume or type of particular goods or services available or rigging bids (known as 'cartel conduct'); (B) agreements or cooperative behaviour between competitors with the purpose, effect or likely effect of substantially lessening competition; (C) unilateral conduct by a firm with a substantial degree of market power which has the purpose, effect or likely effect of substantially lessening competition; and (D) exclusive dealing with the purpose, effect or likely effect of substantially lessening competition.

The ACCC's focus is on maintaining and promoting competition and remedying market failure, as well as protecting the interests and safety of consumers and supporting fair trading in markets. It is more likely to investigate and take action in relation to conduct that is of significant public interest, results in substantial consumer or small business detriment, or involving significant new market issues.

8 Dispute Resolution

8.1 Provide a short summary of the dispute resolution framework (statutory or contractual) that typically applies in the renewable energy sector, including procedures applying in the context of disputes between any applicable government authority/regulator and the private sector.

Participants in the renewable energy sector are commonly parties to a variety of contracts under which disputes are determined pursuant to the relevant contractual terms.

There are also statutory dispute resolution procedures for participants in the energy market that may be of particular relevance to emerging renewable projects.

Chapter 8, Part B of the NER imposes a framework for disputes between registered participants (including AEMO and connection applicants), which applies to:

- the application or interpretation of the NER;
- failure to reach agreement or negotiate in good faith on certain required matters;
- access arrangements for an intending participant or connection applicant;
- payment of moneys and obligations under the NER; and
- where participants have agreed for the disputes framework to apply.

These provisions provide for a staged system which can lead to final resolution by a Dispute Resolution Panel, which is subject to certain procedural and review provisions of the uniform *Commercial Arbitration Acts*.

The NEL also provides for determination of access disputes by the AER between renewable projects and regulated network entities.

8.2 Are alternative dispute resolution or tiered dispute resolution clauses common in the renewable energy sector?

It is common for contracts in the renewable energy sector to use alternative dispute resolution mechanisms. Tiered dispute resolution provisions are also common.

These mechanisms can have particular advantages in the energy sector, including the renewable energy sector. Parties may prefer all disputes, or at least technical disputes, to be determined by an appropriate subject-matter expert, rather than in the courts. Similarly, there can be a perception that commercial arbitration provides for greater speed, flexibility and confidentiality for the resolution of a contractual dispute.

8.3 What interim or emergency relief can the courts grant?

Australian courts have broad and often discretionary powers to grant interlocutory and interim injunctions.

In order to obtain interim or emergency relief, a party typically needs to demonstrate to the court that they have a '*prima facie* case' or that there is a 'serious question to be tried', and that the balance of convenience favours granting the relief. A party applying for interim relief will usually be required to give an undertaking to pay any damages the other party suffers as a result of the interim relief if the other party is ultimately successful in the overarching dispute.

8.4 Is your jurisdiction a party to and has it ratified the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards and/or the Convention on the Settlement of Investment Disputes between States and Nationals of Other States and/or any significant regional treaty for the recognition and enforcement of judgments and/or arbitral awards?

Australia is a party to and has ratified both the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards and the Convention on the Settlement of Investment Disputes between States and Nationals of Other States, to which the *International Arbitration Act 1974* (Cth) gives effect.

Foreign judgments may be enforced in Australia under the *Foreign Judgements Act* (the **FJA**). The FJA is limited to 'final and conclusive' monetary judgments in certain jurisdictions (listed in the regulations to the FJA) determined on the basis of 'substantial reciprocity' for Australian judgments (usually on the basis of a bilateral or multilateral agreement, of which there are currently 35 listed in the regulations). Australia is also party to the *Agreement between the Government of Australia and the Government of New Zealand on Trans-Tasman Court Proceedings and Regulatory Enforcement*. Pursuant to the *Trans-Tasman Proceedings Act 2010* (Cth), this provides a separate regime for the enforcement of judgments of New Zealand courts.

8.5 Are there any specific difficulties (whether as a matter of law or practice) in litigating, or seeking to enforce judgments or awards, against government authorities or the state?

Although a doctrine of Crown (or State) immunity applies in Australia, government authorities and State bodies are usually not subject to sovereign immunity in Australia. Commercial parties regularly seek and obtain civil relief against State parties.

8.6 Are there examples where foreign investors in the renewable energy sector have successfully obtained domestic judgments or arbitral awards seated in your jurisdiction against government authorities or the state?

Foreign investors have access to the same dispute and enforcement mechanisms against government authorities as any commercial actor in Australia. Investor confidence in the Australian renewable energy sector indicates that there is no perception from the market that there is a risk that foreign investors will be unable to obtain domestic judgments or arbitral awards against Australian government authorities.

9 Updates and Recent Developments

9.1 Please provide a summary of any recent cases, new legislation and regulations, policy announcements, trends and developments in renewables in your jurisdiction.

The Australian Energy Security Board (**ESB**) has made a range of policy recommendations to the Federal Government to outline a major reform agenda for the NEM for the period of 2021–2025. Those recommendations are, in due course, proposed to be considered by the National Energy Cabinet comprising all of the Energy Ministers in the Australian jurisdictions.

At the date of writing, the details of those recommendations are not known, but are not expected to differ materially from a range of proposals opened to industry consultation by the ESB in April 2021.

This Consultation Paper outlined a shortlist of reform options for the re-design of the NEM. Specifically, the ESB has proposed the following four reform pathways to address Australia's energy transition needs beyond 2025 in relation to:

- resource adequacy mechanisms and ageing thermal retirement;
- essential system services and scheduling and ahead mechanisms;
- integration of DER and demand-side participation; and
- access to the transmission network, including the development of REZ.

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