Renewable Energy Communities

Renewable Energy Communities in the Law of the EU, Australia, and New Zealand*

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Abstract

The article juxtaposes the regulatory approach to small renewable energy sources and energy communities in the European Union, Australia, and New Zealand, highlighting such matters as the nature, character, and scope of the regulatory model of renewable energy sector. The paper also analyses energy communities in the past, current and drafted European law (as in the "Clean Energy for all Europeans" package) as well as discussing relevant legislation and policies on small renewable energy sources and energy communities in Australia and New Zealand. In this context, this article reviews the possibility of exporting the European model on energy communities outside the EU.

I. Introduction

Australia and New Zealand, due to their geographical proximity, are very often compared and contrasted. Using the traditional ANZAC relationship, the article aims to discuss the legal framework of renewable energy sector in Australia and New Zealand. The scope of analysis covers the regulatory model of the electricity sectors of both countries, taking into account the Australian and New Zealand energy law and policies on the small-scale renewable energy sources and energy communities.

The basic objective of the article is to juxtapose the European regulatory approach to small renewable energy sources and energy communities[1] with the models of regulating the renewable capacity of the small-scale and civic energy structures in Australia and New Zealand. On this basis, a possible European benchmark scenario of the electricity sector is offered. In this context, the article is aimed at discussing the nature, character, and scope of the regulatory model of renewable energy sectors in Australia and New Zealand.

The topic is discussed in a framework of three parts (on the European Union, Australia, and New Zealand), accompanied by the final summary. Each of these parts is divided into a short introduction, a brief section on energy sector – including data on renewable energy generation, and an examination of the legislation where major remarks on the small renewable energy sources and energy communities are made.

II. European Union

There is an ongoing discussion on the future shape of the European internal energy market – and it has many different dimensions. European policy makers see energy consumers as the key elements, as recognised here:

> [t]he new rules will allow anyone to generate, consume, store and sell self-generated electricity and thereby contribute actively to the energy transition. But even the name prosumers is not enough to describe the scope of consumer empowerment of our package because it also addresses consumers' protection and rights like never before; ensuring greater transparency, ease to change suppliers, etc. … the system is changing in terms of the sources of energy, the way in which it is traded, and also the traditional roles of the players. The most obvious ones are the empowered consumers. … Energy communities / cooperatives will enable tenants to actively participate in the energy transition and benefit from renewable energy production. We believe that this new framework should provide a solid legal basis for more consumers to invest in renewables generation and to increase acceptance …[2]

In these words, Maroš Šefčovič, Vice-President of the European Commission responsible for the Energy Union, addressed both issues discussed in this article renewable energy sources and active energy consumers. Let us juxtapose this policy perspective both with the statistics on the capacity in the EU and the European law on energy communities.

2.1 Renewable Electricity Sector in the EU

In 2016, gross electricity generation from renewable sources in the EU-28 reached almost 960 TWh[3] with

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[1] See Maciej M. Sokołowski, "European Law on the Energy Communities: a Long Way to a Direct Legal Framework", 27 (2) *European Energy & Environmental L.R*, 60, 60–70 (2018).

[2] European Commission, "Vice-President Šefčovič on the Future of the European Internal Energy Market", http://europa.eu/rapid/press-release_SPEECH-18-6410_en.htm (accessed 14 Nov. 2018).

[3] Eurostat, "Renewable Energy: Tables and Figures", https://ec.europa.eu/eurostat/statistics-explained/images/4/41/Renewable_energy_statistics-2018-v3.xlsx (accessed 8 Nov. 2018).

hydro power having the largest share (36.9% of the total). In comparison to 2006, its size rose by around 10% overall, whereas the electricity produced from solar and wind was respectively 44.4 times and 3.7 times higher in that period, reaching respectively 11.6% and 31.8% of total renewable electricity generated in 2016, in the EU-28.[4] The data on the production of electricity from renewable sources broken down by technology is aggregated in the table below:

Table 1. Generation of electricity from renewable energy sources in the EU-28

Renewable energy sources	2015	2016
	TWh	TWh
Total renewables[5]	927.0	959.2
Hydro power	341.6	350.6
Wood & other solid biomass	90.7	91.4
Biogas & bioliquids	66.5	68.0
Wind power	301.9	302.9
Solar power	107,9	110.8
Geothermal	6.5	6.6
Renewable wastes	20.5	21.0

The situation of electricity production from renewable energy sources varies among the EU Member States. Austria and Sweden are top in rank of consumption of electricity generated from renewable energy sources (2016), reaching respectively 72.6% and 64.9% in their energy mixes; other high scores are noticed in Portugal (54.1%), Denmark (53.7%), and Latvia (51.3%).[6] At the opposite end (as of 2016) are Cyprus (8.6%), Hungary (7.2%), Luxembourg (6.7%), and Malta (5.6%).[7]

2.2 Small-scale Renewable Energy Sources and Energy Cooperatives in the Law of the EU

The European Union has a long tradition of promoting the development of renewable energy. This includes various approaches: both policy actions, financial support, as well as legal tools aimed at increasing the amount of renewable energy sources in Europe.[8] Regarding the latter (i.e. the legal tools), as early as at the beginning of the 21st century, Directive 2001/77/EC was passed.[9] Despite being more general than specific, it addressed the issue of administrative burdens in the renewable sector and introduced the currently recognised legal institutions like support schemes or guarantees of origin.[10] The issue of energy cooperatives was not regulated by the Directive.[11] Although the category of "small and medium-sized [renewable] undertakings" was recognised in Directive 2001/77EC directly (recital 19) it was covered only in a very general way.

This approach changed in 2009 when a new Renewable Directive was adopted (Directive 2009/28/EC).[12] It introduced more developed legal solutions, including mandatory national renewable goals (in gross final consumption of energy and in transport), and rules on statistical transfers between Member States, joint projects with third countries, guarantees of origin, administrative procedures, information and training, access to electricity grid, and sustainability criteria for biofuels and bioliquids.[13] Regarding small renewable energy sources, the Directive called for the simplification of procedures for installing small decentralised renewable installations[14] as well as applied local approach but in a rather subtle way.[15]

[4] Eurostat, "Renewable Energy Statistics", https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics#Renewable_energy_produced_in_the_EU_increased_by_two_thirds_in_2006-2016 (accessed 8 Nov. 2018).

[5] Total electricity generation from renewable energy sources with normalised hydro and wind.

[6] Eurostat, *supra* 4.

[7] Eurostat, *supra* 3.

[8] Sokołowski, *supra* 1 at 61–65.

[9] Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market was passed, OJ L 283, 27.10.2001, 33–40

[10] Sokołowski, *supra* 1 at 62–63.

[11] As provided in the recital 19 of the preamble to Directive 2001/77/EC, "(19) When favouring the development of a market for renewable energy sources, it is necessary to take into account the positive impact on regional and local development opportunities, export prospects, social cohesion and employment opportunities, especially as concerns small and medium-sized undertakings as well as independent power producers". However, as the author explained in his previous paper, an open interpretation (*in favorem libertatis*) allows to notice the concept of local energy communities/cooperatives in the Directive, see Sokołowski, *supra* 1 at 63.

[12] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16-62.

[13] Sokołowski, *supra* 1 at 63.

[14] According to recital 41, "[i]n order to stimulate the contribution by individual citizens to the objectives set out in this Directive, the relevant authorities should consider the possibility of replacing authorisations by simple notifications to the competent body when installing small decentralised devices for producing energy from renewable sources".

[15] E.g. as declared in the preamble to the Directive, the Commission and the Member States should support national and regional development measures in regional and local production of energy from renewable sources, encouraging the exchange of best practices between local and regional initiatives as well as promoting the use of structural funding regarding renewables, see Sokołowski, *supra* 1 at 63.

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Apart from the Renewable Directives these are also the Electricity Directives[16] that have been influencing the renewable dispersed energy sources by providing them with a regulatory framework. This especially concerns the Second and Third Electricity Directive enabling a less-regulated treatment of small energy systems (both Directives), or facilitating access to the energy market and the grid (Third Electricity Directive).[17] Nevertheless, the Electricity Directives address the issue of energy cooperation in civic structures in an indirect way. The same applies to the already-mentioned Renewable Directives.

In November 2016, a new legislative package[18] was proposed by the European Commission.[19] Named ''Clean Energy for all Europeans'',[20] it is based on three pillars (''energy efficiency first'', ''global leadership in renewable energies'', and ''a fair deal for consumers''). The package is designed to reform the European Union's energy sector, where active energy consumers are placed in the centre of the future energy market.[21] This approach creates new opportunities for energy communities, although the idea of establishing them and promoting local renewable energy sources is deeply rooted in the European internal energy market.[22]

With respect to energy communities, the proposed revision of the Electricity Directive is significant to the new legal order.[23] In spite of the ongoing legislative process there are many indications that the proposal of this new legislation, after over two years of deliberations, is more and more well-defined.[24] Nevertheless, the matter of energy communities (in fields such as price regulation, energy poverty, smart meters, transmission and distribution system operators) is still to be discussed,[25] so the negotiations will be continued during the incoming trilogues. Taking the above into consideration let us discuss some of the drafted provisions which address the energy communities and local renewable electricity generators.

In the proposal for Electricity Directive (as of November 2018) up to five recitals of the preamble cover the issue of energy communities, ranging from recital (30) to (30d). Their key points express ''the spirit of energy communities'' or ''a rationale for civic energy structures''.[26] Among them, one can list the argumentation for establishing energy communities,[27] their chances,[28] and features.[29] Aimed at ''recognizing certain categories of citizen energy initiatives at the European level as 'energy communities' to provide them with an enabling framework, fair treatment, a level playing field and a well-defined catalogue of rights and obligations'', the proposed Directive offers a future EU regime on the energy communities, providing them with recognition and protection.

[16] Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity, OJ L 27, 30.01.1997, 20–29, Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, OJ L 176, 15.7.2003, 37–56, and Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, OJ L 211, 14.8.2009, 55–93.

[17] Sokołowski, *supra* 1 at 65–69.

[18] Maciej M. Sokołowski, *Regulation in the European Electricity Sector*, 37–39 (Routledge 2016).

[19] Sokołowski, *supra* 1 at 60.

[20] *Commission Proposes New Rules for Consumer Centred Clean Energy Transition*, https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition (accessed 8 Nov. 2018).

[21] Sokołowski, *supra* 1 at 60.

[22] See *ibid.*, 60–70.

[23] Proposal for a Directive of the European Parliament and of the Council on Common Rules for the Internal Market in Electricity (Recast), COM (2016) 864 final, Brussels, 30.11.2016.

[24] Until November 2018, there have been 28 rounds of discussions within the Council or its preparatory bodies, along with passing opinions on the European Economic and Social Committee and the Committee of Regions, and the European Parliament's works, see EUR-Lex, ''Procedure 2016_380'', https://eur-lex.europa.eu/procedure/EN/2016_380 (accessed 8 Nov. 2018).

[25] Note from General Secretariat of the Council to Permanent Representatives Committee, Proposal for a Directive of the European Parliament and of the Council on Common Rules for the Internal Market in Electricity (Recast), 15150/1/16 REV 1 + ADD 1 REV 1, 7506/5/18 REV 5, Brussels, 5 November 2018.

[26] Sokołowski, *supra* 1 at 60.

[27] ''Community energy offers an inclusive option for all consumers to have a direct stake in producing, consuming or sharing energy between each other ... By directly engaging with consumers community energy initiatives are demonstrating their potential in facilitating the up-take of new technologies and consumption patterns, including smart distribution grids and demand response, in an integrated manner. Community energy can also advance energy efficiency at household level and help fight energy poverty through reduced consumption and lower supply tariffs. Community energy also enables certain groups of household consumers to participate in the energy market who otherwise might not have been able to do so ... Where they have been successfully operated such initiatives have delivered economic, social and environmental value to the community that goes beyond the mere benefits derived from the provision of energy services'', Note from General Secretariat, *supra* 25, recital 30 as in the Council general approach (15886/17 + ADD 1).

[28] ''Distributed energy technologies and consumer empowerment have made community energy an effective and cost-efficient way to meet citizens' needs and expectations regarding energy sources, services and local participation'', *ibid.*

[29] ''Community energy initiatives focus primarily on providing affordable energy of a specific kind, such as renewable energy, for their members or shareholders rather than prioritising profit-making like a traditional energy company'', *ibid.*

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Table 2. Energy communities in the drafted European law[30]

Field	Scope	Reference[31]
legal form	legal entity for which Member States may choose any form of civic energy cooperation, ranging from association, cooperatives, non-profit organizations to SMEs, insofar as such entities can act on their own behalf, exercise rights, be subject to obligations	recital 30a article 2(7)
lack of exclusivity	other civic initiatives, including those based on the private law of Member States, may operate alongside the energy communities, as the proposed definition of energy communities does not exclude other civic structures;	recital 30a
aims	providing environmental, economic or social benefits to its members or local areas where it operates is the main goal of the energy community; this goal is superior to potential financial profits of the energy community	article 2(7)
fields of activity	a broad range of energy actions in which the energy community may be involved, including generation, distribution and supply of electricity, consumption, aggregation, storage or services in the field of energy efficiency, production of electricity from renewable energy sources, and electro-mobility or other energy services provided to its shareholders or members	article 2(7)
participation	participation in energy communities is voluntary; energy consumers (individual) should be given the right to join and leave the energy community; leaving this structure does not affect the access to the grid or their consumer rights	recital 30 article 2(7) article 16(1)(a)–(c)
membership	citizens' or local actors' may become members of the energy community; membership is open to all categories of entities (natural persons, local authorities and municipalities, small enterprises, or micro-enterprises)	recital 30a article 2(7)
decision-making	the energy communities are effectively controlled by members and shareholders; those involved in commercial activities on a large scale as well as those for whom the energy sector is the main field of economic activity are excluded from the management of energy community	recital 30a
rights and obligations	rights and obligations depend on the role played (final customers, generators, suppliers, distribution system operators); communities are exempted from regulatory restrictions when using ICT technologies (existing or future) by the members or shareholders within the community to share generated electricity between them, basing on market principles; sharing should be facilitated in line with the obligations and time frames for balancing, metering and settlement; network charges, tariffs, taxes and levies related to electricity flows are collected irrespective of the sharing of electricity	recital 30c articles 16(1)(d), 16(2)(c)–(ea)
procedures, charges, treatment	procedures and charges, including registration and licensing of the energy communities are non-discriminatory and fair, including transparent, non-discriminatory, and cost reflective network charges for energy communities; which can access all electricity markets and should be treated in a non-discriminatory manner	recital 30c articles 16(1)(f), 16(2a)(a)–(b)
status of a system operator	Member States may allow the energy community to become a distribution system operator, either having a general status or being a closed distribution system operator	recital 30d article 16(2b)
access to the community's	only fair and cost-reflective conditions may determine access to the energy community's grid; rules on third-party access apply to the energy communities which	recital 30 article 6(2a)

Although still being negotiated, the Directive's main elements are gathered in the table above:

The proposed provisions will establish a new type of energy entity; although the European idea of energy community in many aspects uses already-known EU solutions (rules on switching supplier, responsibilities of the distribution system operator, balancing obligation, network charges, etc.) and those solutions

[30] The previously-discussed provisions represent either the Council General Approach (15886/17 + ADD 1) or the compromise proposals, if such a proposal was made, see *ibid.*

[31] As in the revision of Electricity Directive, see *ibid.*

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solutions existing in the national legislation on energy law (energy cooperatives have a long tradition in some Member States, such as Denmark, Germany, or the Netherlands)[32], or law in general, like the traditional legal concept of a cooperative.

Apart from the revision of the Electricity Directive, the new Renewable Directive is included as an element of the new legislative package (in December 2018 the package was divided, and some of its parts, together with Directive (EU) 2018/2001 were formally passed).[33] The Directive assumes the establishment of a new legal category – "renewable energy communities". As defined in article 22, it should be "entitled to produce, consume, store and sell renewable energy, including through renewables power purchase agreements", having the possibility to share within the community self-produced energy, granted a non-discriminatory access to all suitable energy markets, both directly or through aggregation.

To obtain this status, a legal entity has to meet the definition of "renewable energy community" (article 2 (16) of the new Renewable Directive). It must be "based on open and voluntary participation" and have autonomy, being "effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity". A category of its shareholders/members covers natural persons, micro, small and medium-sized enterprises, as well as local authorities. Additionally, such legal entity must be aimed at providing "environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits".

The new legislation calls for Member States to ensure renewable energy communities a possibility to participate in support schemes. This should be done "on an equal footing with large participants". Apart from it, Directive (EU) 2018/2001 with respect to renewable energy communities allows Member States to take such measures like "providing information, ... technical and financial support, reducing administrative requirements, ... creating tailored bidding windows ..., or allowing ... [these communities] to be remunerated through direct support where they comply with requirements of small installations". Seen in this light, the Renewable Directive sets main elements of a framework that Member States should use for the needs of promotion and development of renewable energy communities.

III. Australia

Australia has quite a large potential for development of various renewable energy sources: wind in the south; tidal in the north, geothermal in the centre and in the southeast; and solar in the whole of its territory.[34] According to some studies, renewable energy can provide one half of Australian electricity in 2025, while in the longer term (the 2030s) the country can consume 100% of electricity produced by renewable energy sources.[35] The country has had its National Renewable Energy Target effective since 2001 but plans to cease it in 2030 under the Renewable Energy (Electricity) Act 2000. The present target is 23.5% share for renewables in Australia's electricity mix by 2020; the Renewable Energy Target legislation includes legislated annual Large-Scale Renewable Generation Targets, rising to 33,000 GWh of renewable energy by 2020, while the Small-Scale Renewable Energy Scheme is uncapped.[36]

It is a challenge that requires numerous actions – including providing cost-effective and reliable energy storage installations but also changing the structure of energy infrastructure – to approach a distributed model of electricity generation. This also reflects the position of energy consumers, gathered in the civic energy structures like energy communities or cooperatives. As provided in the National Community Energy Strategy:

> in seeking to develop scalable and replicable or adaptable models of community energy, some of the potential diversity of community energy models may be lost. If the community energy sector is to achieve its full potential, both in terms of scale and deep benefits to the Australian community, a focus on fostering an environment where new models of community energy can be developed must be retained. That is, the sector must be able to scale and replicate, but also maintain a commitment to innovation.[37]

[32] See Anna Schreuer & Daniela Weismeier-Sammer, *Energy Cooperatives and Local Ownership in the Field of Renewable Energy Technologies: a Literature Review*, 4 Research Institute for Co-operation and Co-operatives R.R. (2010), 1, 3, http://epub.wu.ac.at/2897/1/Literature_Overview_energy_cooperatives_final_(2).pdf (accessed 8 Nov. 2018).

[33] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82–209.

[34] Parliament of Australia, "Renewable Energy", https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Browse_by_Topic/ClimateChangeold/responses/mitigation/emissions/renewable (accessed 8 Nov. 2018).

[35] Ken Baldwin, Andrew Blakers & Matthew Stocks, "Australia's Renewable Energy Industry is Delivering Rapid and Deep Emissions Cuts", 5, http://energy.anu.edu.au/files/Australia%27s%20renewable%20energy%20industry%20is%20delivering%20rapid%20and%20deep%20emissions%20cuts.pdf (accessed 8 Nov. 2018).

[36] Department of the Environment and Energy, "The Renewable Energy Target (RET) Scheme", http://www.environment.gov.au/climate-change/government/renewable-energy-target-scheme (accessed 8 Nov. 2018).

[37] Institute for Sustainable Futures of the University of Technology, Sydney, "National Community Energy Strategy", 21, http://c4ce.net.au/nces/wp-content/uploads/2015/04/NCES_2015_Final01.pdf (accessed 8 Nov. 2018).

As the authors of the Strategy argue, the model for development of energy communities in Australia needs changes. So, first of all let us present the situation of the renewable energy sector in Australia, and then discuss the law on small renewable energy sources and energy communities in the country.

3.1 Renewable Electricity Sector in Australia

Electricity generation in Australia in 2017 accounted for 259 TWh (an increase of approximately 1% compared with 2016), where renewable energy generated more than 15%.[38] Hydro energy is still the major renewable energy source; nevertheless, it is not as dominant as it used to be at the beginning of the 2000s, when almost all electricity generated from the renewable energy sources (95%) came from hydro power.[39] Hydro sources are followed by wind capacity that exceeds 31%, and the third major renewable technology covers solar sources that account for 20% (see Table 3). It is also the solar industry that noted the highest growth throughout a ten-year period, reaching almost 60%. These tendencies are further confirmed by the statistics from the end of 2017. In comparison to 2016 – 2017, the hydro generation is decreasing (however, with the construction of Snowy 2.0 the hydro capacity can increase by up to 2000 MW),[40] whereas the shares of the production of electricity from wind, bio, and solar sources are growing (although the wind and bio only slightly while the PV more so) reaching an increase of 776 GWh of electricity produced in 2017 (see Table 3).

Table 3. Generation of electricity from renewable energy sources in Australia[41]

Renewable energy sources	2017 generation		2016–17 generation		Average annual growth	
	GWh	%	GWh	%	2016–17 %	10 years %
Total renewables	**39,087**	**100**	**40,455**	**100**	**6.1**	**8.2**
hydro	13,933	35.6	16,285	40.3	6.3	3.4
wind	12,668	32.4	12,597	31.1	3.3	16.9
bioenergy	3,637	9.3	3,501	8.7	–7.6	–3.0
– bagasse	na	na	1,435	41.0	–20.7	na
– wood, wood waste	na	na	355	10.1	42.7	na
– municipal, industrial waste	na	na	76	2.2	76.9	na
– sulphite lyes, biofuels	na	na	442	12.6	6.2	na
– landfill biogas	na	na	970	27.7	–8.6	na
– sludge biogas	na	na	223	6.4	5.6	na
solar PV	8,848	22.6	8,071	20.0	18.0	59.2
– small scale	8,082	91.3	7,399	91.7	16.0	57.7
– large scale	766	8.7	672	8.3	47.1	na
geothermal	1	< 0.0	1	< 0.0	133.3	na

However, as previously mentioned, renewable capacity is in a significant minority regarding the electricity production in Australia, where almost 85% of the final electricity mix consist of conventional generation of 220 TWh in 2017, mainly coal (61%, more than 159 TWh) and gas (21%, almost 55 TWh).[42] Moreover, the production of electricity from renewable energy sources decreased by 7% in 2017, in contrast to 42 TWh in 2016.[43] The highest share of renewable electricity generation in Australia was noted in 2017 in Tasmania, reaching a clear majority of 87% (almost 100% hydro), and in South Australia, 43% (of which 35% was generated from wind sources).[44] Additionally, South Australia was the top national wind generator in 2017, producing just over one-third of electricity of a wind origin, followed by Victoria with nearly 30% of total wind electricity generation in Australia.[45]

[38] Department of the Environment and Energy, ''Australian Energy Update 2018'', 24, https://www.energy.gov.au/sites/g/files/net3411/f/australian_energy_update_2018.pdf (accessed 8 Nov. 2018).
[39] Australian Bureau of Statistics, ''Energy Statistics, Australia, 2001-02'', http://www.abs.gov.au/ausstats/abs@.nsf/cat/4649.0.55.001 (accessed 8 Nov. 2018).
[40] Snowy Hydro, ''Snowy 2.0'', https://www.snowyhydro.com.au/our-scheme/snowy20/ (accessed 8 Nov. 2018).
[41] Data derived from Department of the Environment and Energy, *supra* 38 at 23, 25.
[42] *Ibid.*, 24.
[43] *Ibid.*
[44] *Ibid.*, 25.
[45] *Ibid.*

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3.2 Small-scale Renewable Energy Sources and Energy Cooperatives in the Law of Australia

Australia provides quite an extended regulatory framework for the development of small-scale renewable energy sources. The Renewable Energy (Electricity) Act 2000[46] together with the Renewable Energy (Electricity) Regulations 2001[47] are crucial in this legal regime. Both the Act and the Regulations distinguish a category of "small generation unit", jointly establishing its definition. As stated in the Act such unit is "a device that generates electricity that is specified by the regulations to be a small generation unit" (subsection 5(1)). In this context, the Regulations define it as (subregulation 3(2)):

(a) a device whose energy source is hydro is a small generation unit if:
    (i) it has a kW rating of no more than 6.4 kW; and
    (ii) it generates no more than 25 MWh of electricity each year; and
(b) a device whose energy source is wind is a small generation unit if:
    (i) it has a kW rating of no more than 10 kW; and
    (ii) it generates no more than 25 MWh of electricity each year; and
(c) a device whose energy source is solar (photovoltaic) is a small generation unit if:
    (i) it has a kW rating of no more than 100 kW; and
    (ii) it generates no more than 250 MWh of electricity each year.

For this type of generators, supplemented by solar water heaters, the Australian energy law provides a separate framework for creation, trading, and extinguishing renewable energy certificates,[48] distinct from the provisions on large-scale generation certificates (Part 2 of the Act). Certificates granted after installing a small generation unit represent a set volume of electricity produced from a renewable energy source. Despite the previously-mentioned division into small- and large-scale, the provisions of Australian legislation on small-scale technology certificates are not especially favourable, and the certificate system is highly regulated.[49] Among those simplifying the operation of small renewable units, one may mention the subsection 23C(2) of the Act. On this basis, the owner of a small generation unit may assign the right to create the certificate to another person. This right may be assigned to one of the registered agents. Their role in the system of small-scale technology certificates is to support individuals and small entrepreneurs in obtaining financial benefits associated with the certificates.[50]

With respect to energy communities, one may notice that such category is not distinguished in Australian law. However, this does not change the fact that individuals can associate in order to generate energy with the use of already existing legal organisational forms.[51] The authors of a guidebook on the community-owned renewable energy in Australia discuss some of those organisational forms, indicating the recommended options for energy communities.[52] The list of organisational forms includes, among others, (i) public company limited by shares, (ii) cooperative, (iii) incorporated association, and (iv) trust. The argumentation on the legal forms offered in the guidebook is presented in the following table, where it was divided into chances and issues related to each form:

[46] No. 174, 2000, Compilation No. 26, in force on 19 June 2018.

[47] Statutory Rules No. 2, 2001, Compilation No. 67, in force on 1 July 2018.

[48] As explained in section 8 of the Act, "[t]he certificates are used to avoid or reduce the amount of renewable energy shortfall charge that liable entities who acquire electricity have to pay. The liable entities will generally acquire the certificates by purchasing them. The certificates are created by people who generate power from accredited power stations using eligible energy sources where the amount generated exceeds the relevant 1997 eligible renewable power base line. The certificates are also created for approved installations of solar water heaters or small generation units".

[49] E.g. on the basis of subregulation 37(1), "[f]or the purpose of conducting an inspection ..., an inspector may: (a) at any reasonable time of the day, enter any premises on which a small generation unit has been installed; and (b) conduct an inspection of the unit and premises in order to determine if the requirements in regulation 39 have been satisfied [matters for inspection]". Among the matters for inspection, one may find numerous fields being scrutinised, *inter alia*, the ability to produce and deliver electricity, the capacity of the unit, all State or Territory and local government requirements for the siting of the unit and grid connection, the compliance with technical standards, or the statements and documentation for the unit.

[50] Clean Energy Regulator, "Agents and Installers", http://www.cleanenergyregulator.gov.au/RET/Scheme-participants-and-industry/Agents-and-installers (accessed 8 Nov. 2018).

[51] E.g. the myriad of off the grid solar communities exist in the Northern Territory, see Australian Renewable Energy Agency, "Solar Rolling out in Northern Territory Off-grid Communities", https://arena.gov.au/news/solar-rolling-out-in-northern-territory-off-grid-communities/ (accessed 8 Nov. 2018).

[52] Jarra Hicks, Nicky Ison, Jack Gilding & Franziska Mey, *Community-owned Renewable Energy: a How to Guide*, 30–33 (Community Power Agency 2014), http://cpagency.org.au/wp-content/uploads/2014/06/CPAgency_HowtoGuide2014-web.pdf (accessed 8 Nov. 2018).

Table 4. Legal organisational forms for establishing a community-owned renewable energy project in Australia[53]

Legal organisational form	Chances	Issues
public company limited by shares	• shares to the public may be issued to raise funds • an unlimited number of investors may join it • this structure limiting the liability of investors is possible • the corporate or institutional investors prefer this type of structure as it focuses on generating a return on the share capital • this form is helpful when fundraising is based on the corporate or institutional investors	• is a business structure aimed at generating profit for the shareholders, which may clash with community's goals • the documentation prepared for this form (the offer documents) is much more expensive and complicated than the equivalent documentation (cooperative documents)
cooperative	• is aimed at benefiting its members • is autonomous and independent • shares information and concern for the community • membership in this structure is open and voluntary • the form is run in a democratic way, each member has one vote, regardless of the amount of held shares • no limit to the number of members • each member is liable only for the amount of shares owned	• requires economic participation of its members and their activity • in Australia cooperatives are governed by the state-based law (lack of the federal legislation) • until all states and territories have adopted the national law, accepting investment from some of them is impractical • the structure is subject to very similar reporting and accountability requirements as companies it is obliged to submit audited financial statements and annual reports • a board of directors must be established
incorporated association	• a commonly used legal structure for community groups of different kinds • the easiest, cheapest, and quickest legal structure to set up • good structure for the early phase of a community energy project • a not-for-profit entity able to apply for the Charity Tax Concession status (access tax exemptions and other tax benefits) as well as the Deductibility Gift Recipient status (allowing third parties to make tax-deductible donations)	• reporting and compliance requirements are minimal and inexpensive, although the form has legal responsibilities concerning submitting annual reports with financial statements • all earnings must return to this structure and be used to fulfil its goals • these forms are governed by the Australian state-based law which requires that the majority of association's actions are carried out in one state
trust	• this form can be established by beneficiaries (e.g. members of the community) to manage assets • the structure can distribute its profits to its beneficiaries • participation in a trust does not require the community members to play a particularly active role in its operation (appointed trustees manage this structure)	• the trustees are appointed by the beneficiaries to run the trust. • they are given specific powers, including the control and management of the structure, under the trust deed • after appointment the beneficiaries have a limited direct impact on how this structure works and how profits are distributed

Naturally, each of the discussed forms enables the members to conclude and enforce contracts, to hold, acquire and deal with property and to get bank loans and make investments, etc.[54] Due to the scope of this article, it is the cooperative as a structure for community-owned renewable energy that kindles special attention. The first cooperatives started appearing in Australia as early as 1859 and continue to operate across the country's key sectors.[55] Cooperatives are most prominently found in agriculture,[56] and since the commencement of deregulation in Australia in the 1980's, many cooperatives have been

[53] *Ibid.*
[54] *Ibid.*
[55] Troy Sarina, ''Australia'', in Antonio Fici, Dante Cracogna & Hagen Henrÿ (eds), *International Handbook of Cooperative Law*, 207 (Springer 2013). In the 19th century cooperatives were widespread legal form in the Australian mining sector, when it was smaller scale industry, see Phillip Lipton, ''History of Company Law in Colonial Australia: Economic Development and Legal Evolution'', 31 *Melbourne Uni.L.R.,* 805, 817 (2007).
[56] See Madeline Taylor, ''Trends in Current Australian Agricultural Policy and Land Resource Management'', 33 *Corporate Governance eJ*, 1, 6 2015).

privatised. Despite the lack of federal legislation,[57] the main legal framework for operation of cooperatives in Australia is established on the basis of a uniform set of national laws for co-operatives, with the New South Wales' legislation as the lead (host) jurisdiction for the national project.[58] In May 2012 the Parliament of New South Wales passed the Co-operatives Act,[59] having the template Co-operatives National Law appended to it.[60]

As stated in subsection 17(2) of the Co-operatives National Law, a cooperative may be registered as a distributing being "not-prohibited from giving returns or distributions on surplus or share capital or non-distributing one" or a non-distributing one, which is "prohibited from giving returns or distributions on surplus or share capital to members, other than the nominal value of shares (if any) at winding up". Having the possibilities to distribute the surplus to its members, the distributing cooperative may be useful for community renewable energy projects, as the authors of the previously-mentioned guidebook recommend.[61]

Australian law obliges people participating in a cooperative to be "active members". As stated in section 145 of the Co-operatives National Law, this covers, *inter alia*, using or supporting, or maintaining a relationship or an arrangement with the cooperative for carrying on its primary activity. Regarding the primary activities in the renewable energy cooperative, it may be owning a renewable installation and selling the generated electricity or even raising awareness about renewable energy.[62] The way for members to do it (and its extent) is determined by the board of a cooperative under section 149 of the Law. The board is also obliged to cancel the membership of inactive members so that must be taken into consideration when deciding which model to adopt for a small scale local renewable energy project.[63]

Lastly, when it comes to numbers, the community energy sector in Australia has evolved from not much more than an abstract concept (as in 2006), to the scale where many projects have been carried out.[64] Just as an example to prove this: in 2015 there were at least nineteen community energy projects, with at least sixty community energy groups developing, delivering and/or operating their energy initiatives.[65] On the other hand, is it important to note the lack of a firm renewable energy policy in Australia (i.e. the abolishment of the National Energy Guarantee by PM Scott Morrison in a recent change to the government),[66] combined with a misalignment of policies and support schemes within and between the states and territories.[67]

IV. New Zealand

New Zealand is one of the leading countries when it comes to the development of renewable energy sources, with more than 80% of electricity generated from renewables. According to the governmental plans the energy mix of New Zealand will be fully renewable; PM Jacinda Ardern confirmed it in her speech in September 2018 during the United Nations General Assembly:

> [i]n New Zealand we are determined to play our part. We will not issue any further offshore oil and gas exploration permits. We have set a goal of 100% renewable energy generation by 2035, established a green infrastructure fund to encourage innovation, and rolled out an initiative to plant one billion trees over the next 10 years.[68]

It seems that this direction gives the opportunity to develop local and civic energy structures.[69] By referring to the country's energy portfolio, let us address the issue of development of small and local energy sources in New Zealand's legislation.

[57] Australian cooperative law is fragmented; some tensions between federal and state law exist, see *ibid.* 208–211.
[58] New South Wales Government, "Co-operatives National Law", https://www.fairtrading.nsw.gov.au/associations-and-co-operatives/co-operatives/about-co-operatives/co-operatives-national-law (accessed 8 Nov. 2018)
[59] Co-operatives (Adoption of National Law) Act 2012 No 29, current version for 15 January 2016.
[60] NSW Government, *supra* 58.
[61] "It is much easier to source the required investment in a ... project if you are allowed to distribute the surplus to those investors", Hicks *et al.*, *supra* 52 at 31.
[62] *Ibid.*
[63] See *ibid.*
[64] Institute for Sustainable Futures, *supra* 37 at 6.
[65] *Ibid.*
[66] Nature, "Australia Has No Climate-change Policy – Again", https://www.nature.com/articles/d41586-018-06675-9 (accessed 8 Nov. 2018).
[67] See Stephen Jones, "The Future of Renewable Energy in Australia: A Test for Cooperative Federalism?", 68(1) *Australian J of Public Administration*, 1 (2009)
[68] Newsroom, "Full text: PM's speech to the United Nation", https://www.newsroom.co.nz/2018/09/27/256105/full-text-pms-speech-to-the-united-nations (accessed 8 Nov. 2018).
[69] In the past (1970s and 1980s) New Zealand reached a 90% or greater contribution to electricity production from renewable sources, although as Kenneth Palmer and David Grinlinton write, achieving this level again can be difficult because of offsetting much of the renewable electricity generation from the mid-1990s by increased fossil fuel capacity to meet higher demand, Kenneth Palmer & David Grinlinton, "Developments in Renewable Energy Law and Policy in New Zealand", 32(3) *J. of Energy & Natural Resources L.*, 245, 247 (2014).

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4.1 New Zealand

In contrast to Australia, hydro sources in Aotearoa New Zealand are not only a leading renewable technology, but they also produce the majority of electricity in the country. Hydro power usually covers 55–60% of New Zealand's electricity demand, producing around 25 out of 40 TWh annually.[70] In comparison, all other renewable energy sources account for more than 10 TWh (see Table 5) – that is still bigger volume than the conventional generation from gas, coal, and oil which at the end of 2017 produced 7.7 TWh of electricity, mainly from gas (more than 6.5 TWh).[71]

Table 5. Generation of electricity from renewable energy sources in New Zealand[72]

Renewable energy sources	End of 2016 (GWh)		End of 2017		2017 to 2016 GWh	Change %
	GWh	%	GWh	%		
Total renewables	**36,062**	**100**	**35,190**	**100**	**–872**	**–2.4**
hydro	25,664	71.2	24,933	70.9	–731	–2.8
geothermal	7,436	20.6	7,469	21.2	33	0.4
wind	2,283	6.3	2,119	6.0	–164	–7.2
wood	331	0.9	303	0.9	–28	–8.5
biogas	242	0.7	244	0.7	2	0.8
solar	56	0.2	75	0.2	19	33.9
waste heat	50	0.1	47	0.1	–3	–6.0

The biggest hydro installations are located on the South Island; these are the Manapouri Hydro (800 MW), the Benmore Hydro (540 MW), and the Clyde Hydro (464 MW).[73] The electricity from geothermal sources is generated on the North Island, in fields located in the Taupō Volcanic Zone (five fields) and one field at Ngāwhā.[74] Regarding wind power, New Zealand has a capacity of 690 MW installed in 17 wind parks.[75]

4.2 Small-scale Renewable Energy Sources and Energy Cooperatives in the Law of New Zealand

The Electricity Industry Act of 2010[76] is the backbone of New Zealand's legal system on the power sector. The Act regulates various fields in the electricity sector, including the classic energy activities, i.e. generation, transmission, distribution, and consumption of electricity. Although, when regarding renewable energy, one may not find a direct reference to this type of sources. The Electricity Industry Act neither provides a definition of renewable energy, nor establishes a general legal approach to renewable capacity.

However, renewable energy issues are covered by some specific provisions of this legislation. It concerns geothermal energy, which is treated in a special way under schedule 2 point 3 (b) of the Electricity Industry Act. As stated there, geothermal power plants commissioned between 1 January 1998 and 1 January 2009 which are currently owned by the person who commissioned them, and geothermal power plants of capacity smaller than 12 MW, are not covered by the rules on unbundling, set in Part 3 of the Electricity Industry Act as being too small to be bound by the obligation to separate distribution from generation and retailing (the Act also allows certain local distribution companies to provide some generation and retail operations).[77] Other provisions regarding the possible non-application of unbundling rules may cover renewable installations; however, in these cases it is not the type of source that matters, but the purpose of its usage (irrigation), or the scale of nominal electricity production (total annual generation less than 5 GWh). However, in both agriculture and when a small-scale unit is needed renewable energy sources could be successfully used, as proved by numerous examples in New Zealand and around the world. Furthermore, smaller generators (10 MW of less) are exempted from some trading rules set in the

[70] Ministry of Business, Innovation & Employment, "Energy in New Zealand 2018", 44, https://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand/documents-images/energy-in-nz-2018.pdf (accessed 8 Nov. 2018).
[71] *Ibid.*, 50.
[72] See *ibid.*, converted from PJ to GWh.
[73] Electricity Authority, "Electricity in New Zealand", 28, https://www.ea.govt.nz/dmsdocument/20410-electricity-in-new-zealand (accessed 8 Nov. 2018).
[74] *Ibid.*, 30.
[75] Ministry of Business, *supra* 70 at 49.
[76] Electricity Industry Act 2010, No 116, 5 October 2010, reprint as at 1 September 2017.
[77] Barry Barton, "Law and Regulation for Energy Networks in New Zealand", in Martha M. Roggenkamp, Lila Barrera-Hernández, Donald N. Zillman & Iñigo del Guayo (eds), *Energy Networks and the Law: Innovative Solutions in Changing Markets*, 284 (Oxford University Press 2012).

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Electricity Industry Participation Code 2010.[78] As stated there (clause 13.25), such producers are not obliged to submit their offers for each scheduled electricity trading period to the system operator.

Apart from the Electricity Industry Act, the previously-mentioned Code has a great significance for the electricity sector in New Zealand. This is evidenced not only by the Code's status (as in section 33, being a disallowable, non-legislative instrument under the Electricity Industry Act and the regulations passed on the basis of the Act or other legislation) but also by its volume (over one thousand pages). The wide content covers many regulatory issues like the regime for dealing with undesirable trading situations, the connection of distributed generation, security of supply, metering, trading arrangements, or audits. Each industry participant is obliged to comply with the Code.[79] As the category of "industry participants" is very broad,[80] one may apply it to all participants of the electricity market. Just as the Electricity Industry Act, the Code does not distinguish the category of renewable energy and no preference is given to small capacity of non-conventional character. However, under section 11 of the Act, the industrial participant may be exempt from the requirements of the Code, either all of it or selected provisions – on the basis of a group (a class of industry participants) or individual exemption (a concrete industry participant). The relief given by the Electricity Authority must refer to a case being irrelevant from the point of view of promotion of competition, reliability of supply, as well as the efficient operation of the electricity industry for the benefits of consumers. Additionally, the exemption should have positive influence on administrative procedures and reduce administrative costs. In November 2018, there were 32 exemptions from the Code granted to 21 entities.[81] Among the entities covered by this special treatment one may find not only a rail company or steel industry but renewable generators too.[82] As seen in the above example, under the New Zealand's energy law it is possible – both in theory and in practice – to provide special treatment for small renewable capacity of a local character. Nevertheless, this needs the consent of the Electricity Authority which may – after assessment – provide renewable entities with exemptions from regulatory regime established by the Code.

Although somewhat forgotten in the previously-discussed legislation,[83] the small and community-scale renewable energy sources are addressed in the National Policy Statement for Renewable Electricity Generation 2011.[84] As stated there, "[s]mall and community-scale distributed electricity generation means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network". Among the Statement's policies, under Policy F one may find a call to include the provisions (objectives, policies, methods, and rules within plans) on these types of renewable energy sources in the regional policy statements as well as in the regional and district plans to develop, operate, maintain, and upgrade them to the extent applicable to a region or district.[85] However, both regional and district local authorities should include such an approach in their planning instruments,[86] as underlined in the case *Blueskin v. Dundein*.[87] Therefore, individuals cannot raise such types of claims based on the local planning tools when challenging administrative decisions. Moreover, the evaluation of the National Policy Statement conducted in 2016 showed that some renewable energy projects were approved under planning regimes which have not yet been amended to implement the National Policy Statement and the Statement itself "does not appear to have had a significant impact on the way final decisions on the resource consents are made".[88] Finally, one should mention that some renewable projects in New Zealand faced localization claims posed by the Maori and other groups based on their argumentation of ancestral relationship to the land.[89]

The present regulatory framework, discussed here,

[78] Electricity Industry Participation Code 2010, 1 November 2018 version.
[79] Barton, *supra* 77 at 283.
[80] As defined in subsection 7(1), the category of industry participant includes, *inter alia*, generators, transmitters, distributors, retailers, any other person who owns lines, person other than a generator, who generates electricity that is fed into a network, or person buying electricity from the clearing manager.
[81] Electricity Authority, "Consolidated List of All Current Exemptions – August 2018", https://www.ea.govt.nz/dms document/23864-consolidated-list-of-all-current-exemptions-august-2018 (accessed 8 Nov. 2018).
[82] E.g. Norske Skog Tasman Limited is a paper producer based in Kawerau (Bay of Plenty), apart from having access to hydro power for the needs of producing pulp and drying the paper uses steam power coming from geothermal sources, Norske Skog, "Everything We Do Counts: Notes on Sustainability and the Paper You Print on", 10–11 http://www.norskeskog.com/Admin/Public/DWSDownload.aspx?File=%2fFiles%2fFiler%2fAlbury%2fNS_EnvBooklet_facingpages_1sm2.pdf (accessed 8 Nov. 2018).
[83] Same concerns Energy Efficiency and Conservation Act of 2000, as well as adopted on its basis strategies, see Energy Efficiency and Conservation Act of 2000, No 14, 15 May 2000, reprint as at 30 May 2017.
[84] Issued by notice in the Gazette on 14 April 2011.
[85] *Ibid.*, 7.
[86] See Palmer & Grinlinton, *supra* 69 at 251.
[87] *Blueskin Energy Limited v. Dundein City Council*, Decision No. 150 1, 17 (NZEnvC 2017).
[88] Ministry for the Environment, "Report of the Outcome Evaluation of the National Policy Statement for Renewable Electricity Generation", 6, http://www.mfe.govt.nz/sites/default/files/media/RMA/npsreg-evaluation-report-final_0_0.pdf (accessed 8 Nov. 2018).
[89] See Palmer & Grinlinton, *supra* 69 at 261.

shows that in New Zealand neither small renewable energy sources of a local character nor energy communities are given a special priority. Even though the legislation does not grant special treatment for these types of energy sources and structures, the issue of establishing legislation promoting renewable capacity has been discussed in New Zealand. In August 2015, it even reached the parliament of New Zealand with the Electricity Industry (Small-Scale Renewable Distributed Generation) Amendment Bill 2015;[90] although, it was finally rejected. Moreover, one should not overlook the Resource Management Act of 1991[91] which provides a legal framework for promoting the sustainable management of natural and physical resources in New Zealand. As stated in its subsection 7(j),[92] ''benefits to be derived from the use and development of renewable energy'', shall be considered by all those involved in the management of the use, development, and protection of these resources. The already-analysed National Policy Statement of 2011 is anchored in the Resource Management Act and represents a practical application of this approach.

Regarding the community energy, these are the trusts that play the main role in New Zealand; the energy cooperatives are not as popular.[93] Trusts are as flexible in form as cooperatives; however, instead of acting for the needs of their members (who are at the same time co-owners) they act on behalf of a specified group of beneficiaries and are easy to establish and enjoy tax preferences.[94] As a result, in comparison to other countries, New Zealand has a high number of trusts per head of population (although many of them are family arrangements).[95] Furthermore, the Trustee Act of 1956[96] is outdated, difficult to understand, and supplemented by extended case law, as the Ministry of Justice in New Zealand admits.[97] In this context, in August 2017, a new bill on trusts was brought to the New Zealand Parliament, aimed at making trust law more accessible and clear, *inter alia*, with respect to trust principles and obligations for trustees.[98] However, it does not change the fact that trusts in New Zealand are widely used in the energy sector. Many of the community energy trusts appeared in the 1990s as a result of the Electricity Companies Act of 1992,[99] where trusts were used to change the local distribution companies' structure by taking over their shares.[100] Nowadays, trusts own fewer, if any, of the shares of local distribution companies.[101] They have a fairly passive role, except for appointing the trust's management and receiving the dividends.

Apart from the Trustee Act, a trust, as a legal institution, is recognised by the New Zealand's energy law in relation to a distributor or retailer. As defined in the Electricity Industry Act's section 5, ''community trust'' is a trust in which at least 90% of the income

[90] Electricity Industry (Small-Scale Renewable Distributed Generation) Amendment Bill 2015 (Member's Bill – Gareth Hughes), Digest No. 2257, date of introduction: 13 August 2015. The bill was aimed at tackling the barriers for development of small-scale renewable electricity producers by providing a regime for dispersed renewable generation, it covered an idea to establish a kWh payment rate for surplus electricity produced in small renewable installations (less than 10 kW). The proposed provisions included elaborating on an extended electricity purchase agreement being in favour of pro-small-scale renewable distributed generation; compliance with the agreement was to be monitored by the Electricity Authority. The contract had to last at least ten years, setting a minimum rate, and providing a simple and standard connection for small renewable installations.

[91] Resource Management Act 1991, No 69, 22 July 1991, reprint as at 14 September 2018.

[92] Introduced in 2004, being an element of the climate change and energy policy package of 2002, see Barry Barton, ''Renewable Energy in New Zealand'', 23(2) *J. of Energy & Natural Resources L.*, 141, 149–150 (2005).

[93] Julie L. MacArthur, ''Community Energy Transitions in Aotearoa New Zealand'', in Lars Holstenkamp & Jörg Radtke (eds) *Handbuch Energiewende und Partizipation*, 941 (Springer 2017).

[94] *Ibid.*

[95] Janet November, Marion Clifford & Susan Hall, ''Some Issues with the Use of Trusts in New Zealand: Review of the Law of Trusts Second Issues Paper'', 20 *Law Commission I.P.* (2010), 1, 7–8, https://www.lawcom.govt.nz/sites/default/files/projectAvailableFormats/NZLC%20IP20.pdf (accessed 8 Nov. 2018). The issue of the number of trusts in New Zealand was discussed during a parliamentary debate on Trust Bill, as previously mentioned ''[t]he Law Commission, in 2013, issued a report that estimated that there are between 300,000 and half a million trusts in Aotearoa. ... that's one trust for every 12 people in this country. In the 2013 census, 215,000 households reported that their home was owned by a trust ... those are only the people who are self-reporting. Around a quarter of a million income tax returns were filed for trusts or estates in the last tax year, but, again, none of this captures those who do not submit tax returns'', New Zealand Parliament, ''Trusts Bill – First Reading'', https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansDeb_20171205_20171205_36 (accessed 8 Nov. 2018).

[96] Trustee Act 1956, No 61, 25 October 1956, reprint as at 1 January 2018.

[97] ''This means that the core principles are often not easy for people who have no legal training to access. Many trustees don't fully understand the nature of their trust arrangements or indeed their obligations'', as assessed by the Minister of Justice Andrew Little, New Zealand Parliament, *supra* 96.

[98] Trusts Bill, 2017, No 290-1, Explanatory note, 1, https://www.parliament.nz/resource/en-NZ/51PLLaw25181/b871657bafa5bdbcf8137dee642475f052cdfa24 (accessed 8 Nov. 2018).

[99] Energy Companies Act 1992, No 56, 25 June 1992.

[100] See Barry Barton, ''From Public Service to Market Commodity: Electricity and Gas Law in New Zealand'', 16(4) *J. of Energy & Natural Resources L.* 351, 360 (1998).

[101] E.g. Vector is majority-owned by Entrust, previously called the Auckland Energy Consumer Trust, a private trust established in 1993 representing 320,000 beneficiaries, see Entrust, ''About Us'', https://www.entrustnz.co.nz/about-us/ (accessed 8 Nov. 2018).

beneficiaries comprise persons who are based or operate within the geographic area of operation of distribution or retailer and at least 90% of its income distributions are paid to those beneficiaries or for purposes related to that geographic area. On the other end of the scale we have "customer trust", in which at least 90% of the income beneficiaries comprise persons who are in effect connected to the distributor's grid or supplied by the retailer connected to the distributor's grid and least 90% of its income distributions are paid to those beneficiaries. Moreover, the Act also distinguishes a "customer co-operative", although to regulate these entities it uses the provisions on trusts. Despite distinguishing these types of community energy structures, as in the case of small renewable energy sources, the New Zealand's law does not provide any special treatment for them.[102]

Nevertheless, more than two thirds of the country's distribution networks are owned by community electricity trusts, fully or partially owned by local government or municipalities.[103] Some community energy projects in a trust-model are also owned by the Maori population; in general however, the Maori trusts are not especially active in the energy sector except those controlled by them as land owners. Based on their claims as the indigenous people of Aotearoa, the Maori own particular territories, often with renewable resources, managing energy projects such as small solar installations or sources like Mokai geothermal power plant.[104] Apart from these initiatives, some new solar projects based on the cooperative model have recently emerged in New Zealand.[105]

V. Summary: A Benchmark Scenario

The European regulatory framework on the renewable and civic energy structures an interesting approach which can lead to broader access of energy consumers to energy sector. Nevertheless, there are many indications that addressing energy communities at the European forum in direct way is just the first step, and surprisingly, the second step is needed. This may happen during the ongoing legislative process on the new Electricity Directive – or looking further into the future – in the next phase of energy legislation.

The open question is: what kind of solutions does the European Union want to create – trial, transitional or final? Some of the provisions of the new Electricity Directive could be clearer and more detailed (e.g. what about the potential conflicts of the energy communities and distribution system operators?); matters such as a contract of energy community – grid operator or network charges – should be regulated in detail, while smaller energy communities could be exempted from some of the network charges and the imbalances costs.[106] In addition, the provisions of the proposed Electricity Directive must be coordinated with the Renewable Directive established in December 2018, especially with respect to renewable energy communities.

In this context, it is rather hard to think about exporting the European legal model on energy communities outside the EU. Firstly, the European legislative framework is still being discussed; although some of its parts (Renewable Directive) were passed. Secondly, its shape could be improved, especially in terms of small-scale renewable energy sources, however, certain pro-renewable legal solutions has been included in Directive (EU) 2018/2001 (*inter alia*, a possible exemption from tendering procedures, a simple-notification procedure for grid connections, or maintaining the feed-in tariffs for small-scale renewable installations). Regardless of the final shape of the full energy package, a direction for the future of the EU's energy market is quite clear: more space will be given to energy consumers as well as to their energy structures. In addition, much depends on the Member States and their national law implementing the European legislation timely and adequately.

With respect to Australia and New Zealand, both countries have a vast experience in the development of renewable energy sources. It is accompanied by the tradition in establishing the legal and policy initiatives to steer it. Nevertheless, in the analysed issue their legal regimes generally provide special, different from large-scale, treatment neither for the renewable installations of the small-scale, nor energy communities. However, in both countries local energy sources emerge with the use of available legal constructions, mainly trusts and cooperatives.

Can the European Union offer Australia and New Zealand any solution supporting the actions for renewable citizens' energy? If properly adapted, the package can be an interesting vehicle spreading out the energy community model established in some Member States over the whole of the EU. As a result, it can bring the European Union closer to its objectives on renewable energy and climate agenda, where citizens will be one of its main elements. The Australian National Community Energy Strategy and the proposal for amending the Trustee Act in New Zealand show that both countries are looking for some improvements regarding the civic legal structures used in their legislations. The EU's model may be their benchmark – even though not completely finished, it is ready to be discussed globally.

[102] In contrast, the Electricity Industry Act establishes rules for controlling these structures by providing the rules on trusts' finances and auditing.
[103] MacArthur, *supra* 93.
[104] *Ibid.*, 943.
[105] E.g. Energy Democracy Co-op, see Coop News, "Co-ops can make New Zealand the world's most sustainable nation", https://www.thenews.coop/130109/topic/environment/co-ops-can-make-new-zealand-worlds-sustainable-nation/ (accessed 8 Nov. 2018).
[106] Sokołowski, *supra* 1 at 70.