THE NEW RENEWABLE ENERGY LEGISLATION

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INTRODUCTION

In November 1997, the Prime Minister's Statement "Safeguarding the Future: Australia's Response to Climate Change" indicated that by the year 2000 a mandatory requirement would be imposed on retailers and other large buyers of electricity to source an additional 2% of their electricity from renewable energy sources. The Prime Minister's Statement culminated in the *Renewable Energy* (*Electricity*) Act 2000 ("Act") which was passed by the Commonwealth Parliament on 8 December 2000 and commenced operation on 18 January 2001. The *Renewable Energy* (*Electricity*) Regulations 2000 ("Regulations") were issued under the Act and became effective on 6 February 2001.

The specific objective of the Act is to encourage additional generation of electricity from renewable sources. This is to be achieved through the issue of renewable energy certificates ("Certificates") for the generation of qualifying electricity and by requiring certain purchasers, called "liable entities", to surrender a specified number of Certificates, or pay a charge, in respect of the electricity that they acquire during a year.¹

The purpose of this article is to consider the provisions of the *Act* and *Regulations* in some detail and to comment on some of the practical implications thereof.

REGISTRATION OF OWNERS AND OPERATORS AND ACCREDITATION OF RENEWABLE POWER STATIONS

Only registered persons may apply for accreditation of a power station or issue Certificates under the Act. Therefore, owners and operators of renewable power stations who wish to avail themselves of the benefits of the Act will need to register under the *Act*. Any person may apply to the Renewable Energy Regulator ("Regulator") to be registered. The application must be in the form, contain the information and be accompanied by the documents required by the Regulator, and be accompanied by the fee prescribed in the *Regulations*. The Regulator must register a person who complies with these requirements.

Certificates are created by accredited renewable power stations. The owner of an eligible power station, who must be registered under the Act, may apply to the Regulator for accreditation of the power station.² A power station is eligible for accreditation if³:

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¹ Renewable Energy (Electricity) Act 2000 ("Act"), s3.

² ibid ss13(1).

³ ibid s14 and *Renewable Energy (Electricity) Regulations* 2000 ("Regulations") ss4(1)

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(a)	some or all of the power generated renewable energy source (see below)		on is generated from an eligible
(b)	if the power station is connected to the national grid, it uses metering that meets performance standard required by the National Electricity Code or, if not connected to national grid, it uses metering that enables the Regulator to determine the amount electricity generated by the power station; and		y Code or, if not connected to the

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(c) the power station is operated in accordance with any relevant Commonwealth, State, Territory or local government planning and approval requirements.

The Regulator must grant accreditation to the power station if satisfied of these matters.⁴

In reflection of the importance of regulatory compliance under the Act, the *Regulations* provide⁵ that the Regulator should revoke the accreditation of a power station if it is not operated in accordance with any relevant Commonwealth, State, Territory or local government planning and approval requirements.

ELIGIBLE RENEWABLE ENERGY SOURCES

The following energy sources are eligible renewable energy sources⁶:

- hydro
- wind
- solar
- bagasse co-generation
- black liquor
- wood waste
- energy crop
- crop waste
- food and agricultural wet waste
- landfill gas
- municipal solid waste combustion
- sewage gas
- geothermal-aquifer
- tidal
- photovoltaic and photovoltaic Renewable Stand Alone Power Supply systems
- wind and wind hybrid Renewable Stand Alone Power Supply Systems
- micro hydro Renewable Stand Alone Power Supply Systems
- solar hot water
- co-firing
- wave
- ocean
- fuel cells
- hot dry rocks
- 4 Act s15

6 Act ss17(1)

⁵ Regulations schedule 2

The Regulations provide that⁷ in order to qualify as an eligible renewable energy source for a power station:

- (a) all Commonwealth, State, Territory and local government approvals for the use of the eligible renewable energy source must have been obtained;
- (b) the use of the source must meet the requirements of any Commonwealth, State, Territory and local government planning and approval process; and
- (c) the use of the source must be ecologically sustainable.⁸

The Regulations⁹ also set out certain additional requirements for wood waste to be an eligible renewable energy source.

The following fuel sources are specifically identified as not being eligible renewable energy sources:¹⁰

- (a) fossil fuels and waste products derived from fossil fuels;
- (b) coal seam methane, waste coal mine gas and other products derived from coal or natural gas;
- (c) waste heat from co-generation if the waste heat is not used for electricity generation and the primary fuel source is not an eligible renewable energy source;
- (d) radioactive material; and
- (e) any component of co-firing or waste that is not bio-energy.

ISSUE OF CERTIFICATES

The operator, and not the owner, of an accredited power station, who must be registered under the Act, may create one Certificate for each MWh of electricity generated from eligible renewable energy sources by the power station during a year that is in excess of the power station's 1997 eligible renewable power baseline ("Baseline")¹¹.

The amount of electricity generated by an accredited power station from eligible renewable energy sources during a year is to be worked out in accordance with the formula set out in the Regulations. The formula deducts from the total electricity generated by the power station during the year, the amount of electricity generated from fossil fuels (determined from their energy content), the amount of electricity used in the generation process and transmission losses (determined from the marginal loss factor applied by NEMMCO if connected to the national grid or by an authority of

⁷ Regulations s7

⁸ For the definition of "ecologically sustainable" see Act s5

⁹ Regulations s8

¹⁰ Act ss17(2) and Regulations s12

¹¹ Act s18

the relevant State or Territory if not so connected). If all of the electricity generated by the power station is used in the local distribution network, there will be no deduction for transmission losses.¹²

The Baseline is to be determined by the Regulator at the time the power station is accredited by the Regulator and in accordance with guidelines set out in the *Regulations*¹³. For a power station which generates electricity for the first time after 1 January 1997, the Baseline is nil. For a power station which generated electricity before 1 January 1997, the Baseline is the average of the annual electricity generated from eligible renewable energy sources in 1994, 1995 and 1996. However, the *Regulations* make provision for the situation where the power station did not generate continuously or sold electricity intermittently between 1994 and 1996. The Regulator also has the discretion to determine a Baseline over a more statistically representative period for the power station or in a manner different to the average of the 1994 to 1996 years, particularly where it would cause hardship for the owner of the power station.¹⁴

A Certificate may be created immediately after generation of the electricity in relation to which it is created.¹⁵ However, as the amount of electricity generated from eligible renewable energy sources during a year, and thus the amount of Certificates which can be created in relation to the electricity generated in that year, will not be determined until after the year has expired, operators of accredited power stations will need to take care in relation to the number of Certificates they issue during a year. This is particularly so as a Certificate must be created before the end of the relevant year for it to be able to be surrendered in respect of that year (see Surrender of Certificates section below) and operators of power stations will wish to create all Certificates that they are entitled to before the end of the year.

It is an offence under the *Act* to create a Certificate when not entitled to.¹⁶ If a person is convicted of an offence, the Regulator may suspend that person's registration,¹⁷ thus preventing that person from creating Certificates during the period of suspension.

The Act also provides for Certificates to be created in respect of solar hot water systems and small generation units which are installed after 1 April 2001.¹⁸ A small generation unit is a hydro, solar or wind sourced generator which has a generation capacity of less than 10 kW and which generates up to 25 MWh of electricity each year.¹⁹

GENERATION RETURN

The operator of a power station who generates renewable electricity during a year must give an electricity return for the year to the Regulator before 14 February in the following year. The return must include details of:

- the amount of electricity generated during the year;
- the amount of that electricity that was generated using eligible renewable energy sources; and

¹² ibid ss18(3) and Regulations s14

¹³ Act ss14(3) and (4) and Regulations schedule 3

¹⁴ *Regulations* schedule 3

¹⁵ Act s19

¹⁶ ibid s24

¹⁷ ibid s30

¹⁸ ibid part 2, division 4, subdivisions B and BA

¹⁹ Regulations ss3(2)

• the number of Certificates created in respect of the electricity generated.²⁰

The return will allow the Regulator to check whether more Certificates have been issued than should have been. The failure to lodge a return may result in the accreditation of the power station being revoked.²¹

CERTIFICATES

Form and Validity of Certificates

Certificates are to be created in an electronic form approved by the Regulator. Each Certificate is to contain:

- a unique identification code;
- the electronic signature of the person who created the certificate;
- the date on which the electricity in relation to which the certificate was created was generated; and
- the date on which the certificate was created.²²

A Certificate is not valid until it has been registered by the Regulator.²³ The Regulator must be advised of the creation of a Certificate by electronic transmission (in the manner determined by the Regulator) and be paid a registration fee (8 cents per Certificate) before a Certificate is able to be registered. The Regulator may also require further information from the creator of the Certificate. If the Regulator determines that a Certificate is eligible for registration, the Regulator must create an entry in the Register of Certificates for that Certificate and record the creator of that Certificate as its owner.

Transfer of Certificates

Registered Certificates may be transferred to any person.²⁴ The Regulator must be notified of each transfer of a Certificate by electronic transmission (in the manner determined by the Regulator) and be paid the prescribed registration fee (nil at present), whereupon the Regulator must alter the Register to show the transferee as the owner of the Certificate.²⁵

Given that Certificates are required to be in electronic form, the drafting of agreements for the sale and purchase of Certificates will need to consider an appropriate means of delivery of Certificates which are sold.

Register of Certificates

The Register of Certificates is to contain:

- 23 ibid s26
- 24 ibid s27
- 25 ibid s28

²⁰ Act s20

²¹ Regulations schedule 2

²² Act s25

- the number of each valid Certificate;
- the year in which the Certificate was created;
- the name of the person who created the Certificate;
- the name of the current registered owner, and each previous registered owner, of each Certificate; and
- the eligible renewable energy source or sources of the electricity covered by the Certificate.²⁶

The Register is to be maintained by electronic means and is to be made available for inspection on the Internet.²⁷

Whilst the Act requires that any addition of a Certificate to the Register must be published on the internet within 30 days after the Regulator registers the Certificate,²⁸ it does not place any time limits on when transfers of ownership are to be recorded nor make provision for inaccuracies in the Register. Therefore, while buyers of Certificates can have access to the Register, there is no guarantee that it will be accurate, and appropriate warranties as to title will need to be included in the sale documentation.

Liable Entities and Relevant Acquisitions

The Act imposes obligations and liabilities upon "liable entities". A liable entity is defined as a person who makes a relevant acquisition of electricity.²⁹

There are two types of relevant acquisitions – a wholesale acquisition and a notional wholesale acquisition.³⁰ If an acquisition constitutes both a wholesale acquisition and a notional wholesale acquisition, it shall be considered a notional wholesale acquisition.³¹ A wholesale acquisition is an acquisition of electricity from NEMMCO or a generator.³² The acquirer of the electricity is the liable entity. A notional wholesale acquisition occurs where the end user of the electricity acquires the electricity from the generator of the electricity and the end user is not registered under the National Electricity Code. In this case, the generator is the liable entity.³³ Such an acquisition will generally, but not necessarily, occur where the generator and consumer are not part of the national grid. If the generator has previously sold the electricity to another person (including NEMMCO) there will be no notional wholesale acquisition³⁴ and the acquisition will be a wholesale acquisition (ie. an acquisition from a generator) unless one of the relevant acquisition exemptions discussed below applies.

A notional wholesale acquisition also occurs where the end user of the electricity generated the electricity and neither of the following conditions are satisfied:

- 26 ibid s140
- 27 ibid s141
- 28 ibid s141
- 29 ibid s35
- 30 ibid ss31(1)
- 31 ibid ss32(2)
- 32 ibid ss32(1)
- 33 ibid ss33(2)
 34 ibid ss33(2A)

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- (a) the point at which the electricity is generated is less than 1 kilometre from the point at which the electricity is used;
- (b) the electricity is transmitted or distributed between the point of generation and the point of use on a line which is used solely for the transmission or distribution of electricity between those two points.

In other words, it will be a notional wholesale acquisition where the point of consumption is more than 1 kilometre from the point of generation and the transmission line is not dedicated to supplying electricity between those two 2 points. In this case, the self-generator is the liable entity.³⁵

The Act specifies three exemptions³⁶ to what would otherwise constitute a relevant acquisition of electricity:

- 1. Where the electricity was delivered on a grid that has a capacity of less than 100 MW and is not directly or indirectly connected to a grid that has a capacity of 100 MW or more. The Regulations³⁷ provide that the capacity of a grid is the sum of all installed electricity generation capacity of the grid other than privately owned domestic generators and standby plant (ie. plant which for each of the immediately preceding 3 years produced less than 50 GWh or had a load factor of less than 5%);
- 2. The electricity is later required by NEMMCO;
- 3. Any acquisition of electricity by NEMMCO.

The *Regulations* provide that the amount of electricity acquired under a relevant acquisition is to be measured:

- (a) for an acquisition on the national grid, by metering that meets the performance standard required by the National Electricity Code and which is located at a point required for the liable entity to determine the amount of relevant acquisitions, adjusted by the distribution network loss factor assigned to the metering point under the National Electricity Code; or
- (b) for an acquisition not on the national grid, by metering that enables the Regulator to determine the amount of electricity acquired at a point equivalent to that mentioned in paragraph (a).³⁸

Acquisitions

In order to have a relevant acquisition there must be an acquisition of electricity, however, the term "acquisition" is not defined in the *Act*. Usually an "acquisition" connotes the taking of title or physical possession. The *Act* contemplates electricity being acquired by and from NEMMCO which, given the operation of the National Electricity Code, involves NEMMCO paying or

³⁵ ibid ss33(3)

³⁶ ibid ss31(2) and s34

³⁷ Regulations s22

³⁸ ibid s21

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receiving money for electricity without title or physical possession of the electricity passing to or from NEMMCO. Accordingly, it would seem that an acquisition of electricity will occur whenever one person has an obligation to pay money to another person for a quantity of electricity.

Unfortunately, such an interpretation raises the concern of "double counting", ie. there being more than one relevant acquisition in respect of the same quantity of electricity. The second exemption referred to above eliminates double counting where a generator sells its output to a third party who on-sells it to NEMMCO. However, there may be other instances of double counting which have not been eliminated by the legislation.

Liability on liable entities

It is a common misconception that liable entities are obliged under the *Act* to surrender a certain number of Certificates each year and pay a charge if they fail to. This is not the case, even though the objects of the Act, set out in section 3 of the *Act*, specifically contemplate a liable entity being obliged to surrender Certificates. Liable entities are liable to pay a renewable energy shortfall charge ("RES Charge") which can be reduced or eliminated by the surrender of Certificates to the Regulator. They are under no obligation to surrender Certificates but will presumably choose to do so where the cost of a Certificate is less than the RES Charge payable if that Certificate is not surrendered.

A liable entity's RES Charge for a year is determined by³⁹ multiplying the liable entity's renewable energy certificate shortfall ("REC Shortfall") for the year by the rate of charge specified under the *Renewable Energy (Electricity) (Charge) Act* 2000 (ie. \$40/MWh). An RES Charge is not deductible for taxation purposes.⁴⁰

The REC Shortfall for a year is determined using the following procedure:⁴¹

Step 1 Calculate the total amount (in MWh) of electricity acquired by the liable entity during the year under relevant acquisitions.

Step 2 Multiply that total by the Renewable Power Percentage (see below) for the year (rounded to the nearest MWh). Add to the result any carried forward shortfall from the previous year or subtract any carried forward surplus from the previous year. The result is the liable entity's Required Renewable Energy for the year.

Step 3 Subtract the total value (in MWh) of the Renewable Energy Certificates surrendered to the Regulator for that year by the liable entity from the Required Renewable Energy for the year (determined under Step 2).

Result If the result from Step 3 is greater than zero, the liable entity has a REC Shortfall for the year equal to the result.

If the result is zero, the liable person does not have a REC Shortfall for the year.

³⁹ Act s37

⁴⁰ ibid s7A

⁴¹ ibid s38

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If the result is less than zero, the liable entity has a carried forward surplus for the year, which is carried forward and used in Step 2 of the calculation for the following year.

If a liable entity's REC Shortfall for a year is less than 10% of its Required Renewable Energy (determined under Step 2) for the year, no RES Charge is payable by the liable entity for that year. However, the REC Shortfall is carried forward and used in Step 2 of the calculation for the following year.⁴²

The Renewable Power Percentage for a year is the percentage which is specified in the *Regulations*. Any regulation specifying the Renewable Power Percentage for a year must be made on or before 31 March in that year.⁴³ If the *Regulations* do not specify a percentage for a year, the Act contains a mechanism for setting the Renewable Power Percentage for the year.⁴⁴ The Renewable Power Percentage for 2001 is 0.24%.⁴⁵

SURRENDER OF CERTIFICATES

A liable entity who acquired electricity under a relevant acquisition during a year is required to lodge an energy acquisition statement ("EA Statement") for the year on or before 14 February in the following year or such later date allowed by the Regulator. Amongst other things, the EA Statement must set out the amount of the liable entity's relevant acquisitions during the year, the value (in MWh) of the Certificates being surrendered for that year and be accompanied by details of such Certificates.⁴⁶

A Certificate cannot be surrendered unless:⁴⁷

- (a) the Certificate is valid, i.e. it has been registered by the Regulator and has not been previously surrendered to and cancelled by the Regulator;
- (b) the Certificate was created before the end of the year to which the EA Statement relates; and
- (c) the liable entity is recorded in the Register of Certificates as the owner of that Certificate at the time the EA Statement is lodged. Given that there is no prescribed time in which transfers of Certificates must be recorded in the Register of Certificates, buyers of Certificates will need to allow adequate time for registration of transfers to ensure they avoid late registration and unexpected liability for a RES Charge.

The EA Statement must also be accompanied by the surrender fee (8 cents) for each Certificate being surrendered. A Certificate, once surrendered, ceases to be valid and the Regulator must record this in the Register of Certificates.⁴⁸

- 45 Regulations s23
- 46 Act s44
- 47 ibid s45
- 48 ibid s29

⁴² ibid ss36(2)

⁴³ ibid s39

⁴⁴ ibid s39

ASSESSMENT AND PAYMENT OF RES CHARGE

A liable entity that has a REC Shortfall for a year must lodge a renewable energy shortfall statement ("RES Statement") for the year on or before 14 February in the following year or such later date allowed by the Regulator. Amongst other things, the RES Statement must set out the amount of the liable entity's RES Charge for the year.⁴⁹

The RES Statement has effect as an assessment of the RES Charge payable by the liable entity as if it were a notice of assessment by the Regulator given to the liable entity on 14 February in the year following the charge year or the date on which the statement was lodged, whichever is the later.⁵⁰ The *Act* provides that⁵¹ the RES Charge for a year is payable on 14 February in the year following the charge year or, if the RES Statement is lodged after that date, on the date of lodgment of the RES Statement. Interest is payable on late payments.⁵² The Regulator has the ability to issue an assessment of a liable entity's RES Charge for a year if the liable entity fails to lodge a RES Statement by 14 February in the following year. The RES Charge assessed by the Regulator is taken to have become payable on 14 February even though the Regulator cannot make an assessment until after 14 February.⁵³

The Regulator also has the power to amend any assessment.⁵⁴ A liable entity has the right to object to an assessment and, if dissatisfied with the Regulator's decision thereon, may apply to the Administrative Appeals Tribunal for review of the decision or appeal to the Federal Court against the decision.⁵⁵

The Regulator has extensive powers to collect moneys owed by a liable entity from a debtor, liquidator, receiver or executor of a liable entity.⁵⁶

WORKED EXAMPLE

If, after adjustment for distribution loss factors, an electricity retailer has made relevant acquisitions of 800,000 MWh of electricity from NEMMCO between 1 April 2001 and 31 December 2001 (see discussion below as to why the *Act* does not apply to all of 2001) and has made no other relevant acquisitions of electricity during this period, this will be its total relevant acquisitions for 2001 (Step 1). If you multiply this amount by the Renewable Power Percentage for 2001 (0.24%), the result of 1920 MWh is the Required Renewable Energy for 2001 for that retailer (Step 2). Note, no carried forward shortfall or surplus from the previous year is taken into account in arriving at this figure as 2001 is the first year of the scheme.

The retailer must by no later than 14 February 2002 (unless a later date is allowed by the Regulator) lodge with the Regulator an EA Statement and, if the retailer has an REC Shortfall, a RES Statement. The EA Statement and the RES Statement must respectively set out, amongst

- 49 ibid s46
- 50 ibid s47
- 51 ibid s67
- 52 ibid s70
- 53 ibid s48
- 54 ibid s49
- 55 ibid part 6
- 56 ibid part 7

other things, the Certificates being surrendered by the retailer for 2001 and the amount of the retailer's RES Charge for 2001. If in this case:

- the retailer has acquired 2000 Certificates either directly from operators of accredited power stations or from other traders of Certificates;
- those Certificates were created before the end of 2001 and are registered in the name of that retailer on the Register of Certificates by the date of lodgement of the EA Statement; and
- the retailer specifies in its EA Statement that it surrenders 1920 of those Certificates and pays the surrender fee of 8 cents per Certificate,

the retailer will have a nil REC Shortfall for 2001 (Step 3) and thus no RES Charge will be payable.

However, if transfers of 200 of those Certificates are still in the process of registration with the Regulator and are not recorded in the retailer's name on the Register of Certificates at the time the EA Statement is lodged, the retailer can only surrender 1800 Certificates. If it does so, the retailer will have an REC Shortfall of 120 MWh and, as this is less than 10% of the retailer's Required Renewable Energy of 1920 MWh (ie less than 192 MWh), no RES Charge will be payable by the retailer but the Shortfall of 120 MWh will be carried forward to the 2002 year.

Had the REC Shortfall been more than 10% of the Required Renewable Energy (ie. more than 192 MWh), an RES Charge equal to the amount of the Shortfall multiplied by \$40/MWh, would be payable by the retailer. The RES Charge would be payable on 14 February 2002, if the RES Statement is lodged on or before that date, or on the date of lodgement of the RES Statement, if lodged after 14 February 2002.

REFUND OF CHARGE

Where a liable entity has paid a RES Charge for a year, the liable entity may within 3 years of paying that Charge, surrender Certificates in respect of the year to which that Charge relates. If so, the liable entity will be entitled to a refund of the amount of the RES Charge paid as relates to the Certificates surrendered less an administration fee specified in the Regulations. However, a liable entity may only surrender Certificates if in the year prior to the year in which the Certificates are to be surrendered, the liable entity did not have a REC Shortfall.⁵⁷ The Act does not specify whether the Certificates which may be surrendered to obtain a refund must have been created before the end of the charge year in respect of which the refund is sought, as would have been the case had the Certificates initially been surrendered in respect of that charge year to avoid the RES Charge.

PENALTIES

A liable entity is liable to pay a penalty⁵⁸ equal to double the amount of the RES Charge payable by the liable entity for the year, as well as the RES Charge itself, if:

⁵⁷ ibid part 8

⁵⁸ ibid s99

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- the liable entity fails to provide an EA Statement, a RES Statement or any other information relevant to assessing its RES Charge for the year, as required under the Act;
- the liable entity fails to keep a record of the basis of calculation of the various amounts specified in its EA Statement for the year which are relevant to calculating the RES Charge for the year; or
- the liable entity fails to produce to the Regulator as required by the Regulator a copy of the record referred to in paragraph (b).

Government bodies, being the Commonwealth, a State or an authority of the Commonwealth or a State, are exempt from a penalty under paragraph (a) above.

Similar penalties may be payable where a liable entity, other than a government body, makes a false or misleading statement or an omission from a statement which is made to a person for a purpose connected to the Act.

REGISTERS

Apart from the Register of Certificates discussed above, the Regulator is required to maintain the following registers:

- the register of registered persons;
- the register of accredited power stations; and
- the register of applications for accredited power stations.⁵⁹

All registers are to be maintained electronically and be available for inspection on the internet.

APPLICATION OF ACT TO 2001 AND LIFE OF SCHEME

The Act applies in relation to 2001 only in respect of the 9 month period commencing on 1 April 2001. For each subsequent year it applies to the whole year. Hence it applies only to relevant acquisitions from 1 April 2001 and electricity generated from that date. Also, the Baseline for a power station for the 2001 year shall be $\frac{3}{4}$ of the normal Baseline for that power station. Currently, the Act provides⁶⁰ that the scheme under the Act ceases to operate at the end of 2020 so that no Certificates can be created and no liability for charges will arise after that time.

CONCLUSION

While imposing obligations and charges, particularly on retailers of electricity, the Act also creates significant opportunities for developers of renewable power stations. The introduction of the concept of Renewable Energy Certificates and of the trading of such Certificates will give rise to

⁵⁹ ibid s135

⁶⁰ ibid s4

on-going trading and contractual arrangements which will need to adequately provide for the intricacies and vagaries of the Act.