Renewable Energy Feed-in Tariff (REFiT WA) Bill 2010

EXPLANATORY MEMORANDUM

Part 1 – Preliminary

Clause 1 Sets out the short title of the Bill.

Clause 2 Provides that the Bill becomes an Act 28 days after the day on which it receives the Royal Assent.

Part 2 – A Renewable Energy Feed-in Tariff for WA

Clause 3 Sets out that the object of the Bill is to support the commercialisation of renewable energy technologies in order to minimise WA's contribution to human-induced climate change, and to enhance energy security through energy diversity by –

(a) granting operators of both small and large scale qualifying generators the right to connect their qualifying generators to the electricity network and to supply the electricity network with electricity generated from renewable energy sources; and

(b) requiring electricity network operators to provide a reasonable return on investment to operators of qualifying generators for the electricity which they produce from renewable energy sources.

Clause 4 Provides definitions for the terms used in the Bill.

certificate means a renewable energy certificate created under Division 4 of Part 2 of the *Renewable Energy (Electricity) Act 2000* (Cth). That Commonwealth Act is the legislation that introduced the Mandatory Renewable Energy Target, or MRET (now simply called Renewable Energy Target, or RET).

kWh means kilowatt hour.

network means a transmission system as defined in section 3 of the *Electricity Industry Act 2004* or distribution system as defined in the same section.

network operator means an operator of a network, namely the Electricity Networks Corporation as defined in section 3 of the *Electricity Industry Act 2004* or the Regional Power Corporation as defined in the same section. The Electricity Networks Corporation is Western Power and the Regional Power Corporation is Horizon Power.

qualifying generator means an accredited power station under the *Renewable Energy (Electricity) Act 2000* (Cth), provided that power station generates electricity from a source listed in clause 5 of this Bill.

retailer means a person that holds a retail licence under the *Electricity Industry Act 2004*.

Division 1 – Feed-in Tariff Scheme

Clause 5 Specifies the scope of the eligible renewable energy sources for the purposes of this Bill.

Clause 5(1) Sets out that the following energy sources are potentially (see clause 5(2)) eligible renewable energy sources for the purposes of this Bill:

(a) hydro;
(b) wave;
(c) tide;
(d) ocean;
(e) wind;
(f) solar;
(g) geothermal-aquifer;
(h) hot dry rock;
(i) energy crops;
(j) wood waste;
(k) agricultural waste;
(l) waste from processing of agricultural products;
(m) food waste;
(n) food processing waste;
(o) bagasse;
(p) black liquor;
(q) biomass-based components of municipal solid waste;
(r) landfill gas; and
(s) sewage gas and biomass-based components of sewage.

The above categories are based very closely on section 17(1) of the *Renewable Energy Electricity Act 2000* (Cth), with the one difference being that that Commonwealth Act includes an additional category:

> "(t) any other energy source prescribed by the regulations."

Clause 5(2) Provides that notwithstanding the categories in clause 5(1), the following energy sources are not eligible renewable energy sources for the purposes of this Bill:

(a) fossil fuels;
(b) materials or waste products derived from fossil fuels; or
(c) biomass sourced from clearing or harvesting of native vegetation.

The above categories are based on section 17(2) of the *Renewable Energy Electricity Act 2000* (Cth), with the one difference being that paragraph (c) is a new category for the purposes of this Bill.

It should be noted that (c) is not intended to have any impact on proposals for renewable energy generation based on planted oil mallees, or other similar plantation-based industries that happen to use native species.

Clause 5(3) Means that regulations may be made to provide definitions for any of the energy sources referred to in clauses 5(1) or 5(2).

This clause is based on section 17(3) of the *Renewable Energy Electricity Act 2000* (Cth).

Clause 5(4) Sets out that regulations may provide for "reasonable limits" to the meaning of an energy source referred to in clause 5(1).

This clause is based on section 17(4) of the *Renewable Energy Electricity Act 2000* (Cth). Section 17(4) however adopts the following formulation:

> "the regulations may make provision for and in relation to limiting the meaning..."

Our alternative approach is designed to avoid the apparent potential in the *Renewable Energy Electricity Act 2000* (Cth) for the regulations to 'unnaturally' (our term) limit the definition one or more energy sources.

Clause 5(5) Means that regulations may provide for "reasonable extensions" to the meaning of an energy source referred to in clause 5(2).

This clause is based on section 17(5) of the *Renewable Energy Electricity Act 2000* (Cth). Section 17(5) however adopts the following formulation:

> "the regulations may make provision for and in relation to extending the meaning..."

Our alternative approach is designed to avoid the apparent potential in the *Renewable Energy Electricity Act 2000* (Cth) for the regulations to 'unnaturally' (our term) expand the scope of one or more energy sources that are to be excluded under this Bill.

Clause 6 This critical clause in the Bill sets out the responsibilities of the network operator and the operator of a qualifying generator with regard to connecting to the relevant network. Provides an obligation for network operators to connect compliant qualifying generators and to pay the relevant feed-in tariff for the relevant electricity. Provides for the operators of qualifying generators to surrender their certificates to the Western Australian REFiT scheme in order to prevent double counting and in order that that Western Australian market participant can comply with the national RET obligations.

Clause 6(1) Provides for an additional condition on the licence of the network operator, that the network operator must, on application by an operator of a qualifying generator:

(a) with priority over all alternative sources of electricity that do not wholly involve eligible renewable energy sources, connect the qualifying generator to their network;

(b) with priority over all alternative sources of electricity that do not wholly involve eligible renewable energy sources, transmit the electricity generated by the qualifying generator into their network; and

(c) pay, for the electricity generated into their network, the relevant feed-in tariff in accordance with this Act.

It is intended, therefore, that this provision will override existing Queuing and Applications policies.

Clause 6(2) Sets out an exception to clause 6(1), namely that a network operator may refuse to connect the qualifying generator and transmit the electricity if the network operator proves that the qualifying generator does not comply with any relevant technical, safety or other requirement, whether prescribed for the purposes of this Act or imposed by any other law.

It should be noted that while this provision seeks to protect network operators and the public in relation to the operation of the network, it is in no way intended for this clause to be used to erect inappropriate hurdles to access by qualifying generators.

Clause 6(3) Provides some additional, legitimate situations where a network operator may refuse to pay the relevant feed-in tariff, namely where the network operator proves that the operator of the relevant qualifying generator has not:

(a) provided its registration number and the unique identification code of the qualifying generator according to sections 12 and 16 of the *Renewable Energy (Electricity) Act 2000* (Cth); or

(b) either transferred to a network operator the relevant certificates, or authorised a network operator to create the relevant certificates.

Once again, it is in no way intended for this clause to be used to erect inappropriate hurdles to access.

Clause 6(4) Sets out a final exception to clause 6(1), namely that a network operator may refuse to connect the qualifying generator and transmit the electricity if the network operator proves that an operator of a qualifying generator has not installed a meter of a type prescribed by the regulations for the purposes of this subsection, to measure the total amount of electricity generated by the qualifying generator.

As above, it is in no way intended for this clause to be used to erect inappropriate hurdles to access.

Clause 7 Establishes the feed-in tariff rate scheme, which provides a guaranteed price for all energy produced by the qualifying generators for 20 years. The feed-in tariff rate covers the full costs of generation, and provides for a reasonable return on investment that is designed also to avoiding windfall profits.

Setting a fixed price for production over the nominal economic life of the generation asset provides investment security for the operator of the qualifying generator, but it also supports reliability of supply because it performance-based. The feed-in tariffs are paid on the metered production for the qualifying generator, which must be optimally sited and optimally maintained in order to attract a rate of return comparable to the prescribed reasonable return on investment.

This is different to upfront grants schemes such as the original domestic photovoltaic $8000 payment, or the current 5 for 1 Solar Credits scheme which can and often do result in under-performing installations because there is a much

reduced imperative to produce efficiently once the benefit of the grant money is received.

Clause 7(1) States that this clause (namely clause 7 in its entirety) establishes the feed-in tariff rate scheme.

Clause 7(2) This important clause provides that the feed-in tariffs in this Act are to cover the prescribed costs of generation of the electricity plus a prescribed reasonable return on investment for any given technology of any given installed capacity and for any given site.

Indicatively, regulations to define the elements of the prescribed costs of generation might include:

- investment costs for the plant, including materials and the costs of raising the capital;
- grid-related costs including grid connection and costs of licencing;
- operation and maintenance costs;
- fuel costs, if relevant; and
- decommissioning costs, if relevant.

It should be noted here, in relation to grid connection costs, that this Bill's model is the so-called "shallow" approach where operators have to pay the costs of connecting their new qualifying generators to the nearest grid connection point, and the relevant network operator is then obliged to do any optimising, boosting and expanding that their grid might then require. We support those network operator costs being on-charged to consumers as part of the ERA's tariff-setting role. Where this approach leaves some key renewable energy resource areas too far from the existing grid to be economic, the Greens support the use of Infrastructure Australia money to pay for the necessary linkages.

Clause 7(3) This critical clause states that the prescribed reasonable return on investment is to be calculated having regard to the interest rates for fixed long term deposits, thereby minimising the prospect of windfall profits.

The Bill seeks to strike a balance between providing stimulus to the renewable energy industry on one hand, and cost-effective delivery of greenhouse emissions gains on the other, and this clause is vital to that balance. This is the ingenuity of this type of scheme; reduced risks for industry while minimising potential costs for consumers.

It should be emphasized that the prescribed reasonable rate of return will be derived "having regard" to the interest rates for fixed long term deposits, and will not equal that rate. This reflects the fact that the payments are a relatively low risk proposition, with a guaranteed long-term stream of payments required under

an Act of Parliament. However while investing in renewable energy generation infrastructure will be a significantly de-risked investment, it will be by no means a risk-free one.

Clause 7(4) Provides that each feed-in tariff is for all of the electricity generated into the network by the qualifying generator (that is, the 'gross' electricity generation), not just the difference between the electricity produced and the electricity consumed by the operator of the qualifying generator.

This is an important aspect of the Bill's architecture, but only in relation to situations where power is both generated and used in relatively comparable quantities. Certainly in the case of domestic renewable electricity generation, a gross tariff provides significantly more investment certainty and will make a large difference to the uptake of such plant.

Clause 7(5) States that the feed-in tariff rates that apply from time to time are guaranteed for a period of 20 years from the date when the qualifying generator first produced electricity from renewable sources, and those rates are not subject to degression (see the degression rates in the "Annual degression" column in clause 8(1), and clause 9 more generally) for that particular qualifying generator during that 20 year period.

Clause 7(6) Sets out that the 20 year period in clause 7(5) does not restart if the installed capacity of that qualifying generator is increased at any time after that qualifying generator is first commissioned.

If the new capacity represents the expansion of the installed capacity of the same qualifying generator, the feed-in tariff is derived by reference to clauses 7(6), 8(1) and 8(2). If the new capacity is instead a new qualifying generator, the new qualifying generator must be considered separately for the purposes of ascertaining a feed-in tariff, unless of course clause 8(3) applies.

Clause 7(7) Provides that the feed-in tariff rates in section 8 do not include any GST.

Clause 7(8) States that the feed-in tariff rates in section 8 include an assumed inflation rate.

In other words, an assumed inflation rate is factored into both the prescribed costs of generation, and the prescribed reasonable return on investment.

As set out in our comments on clause 7(3) above, the risk of inflation varying from the assumed rate of inflation is one of the ways in which investment in renewable energy plant will be de-risked, but not risk free. But as the note immediately below clause 7(8) clarifies that a significant and unexpected difference between assumed and actual rates of inflation can potentially be dealt with the processes in clause 11, and in particular clause 11(2).

Clause 7(9) Provides that the feed-in tariff rates in section 8 are inclusive of both certificates and capacity credits.

Clause 8 Sets out a schedule of feed-in tariff rates for different categories of qualifying generators. This schedule specifies the tariff rate to be paid in cents per kW hour, and importantly specifies the degression rate (see the "Annual degression" column) to be applied to the tariff payment in subsequent years (see further clause 9).

In the case of wind and solar PV, different rates are paid for large and small scale installations in order to account for economies of scale. A separate scale is also paid for high and low wind speed areas. This provision ensures that windfarms in high wind areas, which are more profitable, do not get overpaid, and more importantly that developers are encouraged to install facilities across a wide geographical area. It will for example encourage investment in local generation in small inland communities where transmission and distribution networks are limited.

The degression rates reduce the FiT payment annually, in order to account for falling costs of production that result from 'technical learning' and economies of scale resulting from increased installed capacity across the globe. The degression value is based on experience across the world, and in the case of Western Australia accounts for growth in capacity to develop, manage and install in the local renewable energy market.

Clause 8(1) Establishes the feed-in tariff rates derived from the application of the principles in clause 7.

We should at this point recognise the critical role played in the development of this Bill by former Greens MP Paul Llewellyn and also Dr Volker Oschmann, and who is the "legal father", as the Germans quaintly describe it, of their feed-in tariff laws.

When it comes to our tariff rates, Mr Llewellyn in particular took the lead. He canvassed well-informed, experienced consultants and renewable energy developers who 'know' the market to establish the indicative feed-in tariffs for each technology in the Bill. He also looked extensively at the tariffs paid in almost every jurisdiction in the world that has a feed-in tariff framework in place.

The feed-in tariff rates thus derived were then further discussed in the small "working group" of industry representatives we set up to advise on the preparation of the Bill.

Clause 8(2) Provides that where clause 8(1) requires that the electricity generated by that type of qualifying generator is purchased at a rate that depends on the installed capacity of the qualifying generator, the qualifying generator is paid rates that assume the output in the lowest installed capacity threshold is generated first, and then output in the next highest threshold, and so on until that generator's actual output for the relevant time period is reached.

In other words, this clause is designed to deal with a potential loophole. Without this clause, in the case of rooftop PV for example, a potential operator of a qualifying generator might prefer to install a 29 kW system rather than a 35 kW system if that operator was comparing 29 kW at 30 cents / kWh on one hand, with 35 kW at 25 cents / kWh on the other. Clause 8(2), however, results in the operator being paid at 30 cents / kWh for the first 30 kW of capacity, and 25 cents / kWh for the remainder, so there would be no "perverse incentive" to prefer smaller over larger systems.

Clause 8(3) Sets out another clause to deal with a potential loophole, also related to clause 8(2).

The clause deems a group of qualifying generators to be one qualifying generator, and therefore clause 8(2) applies accordingly, if:

(a) the group of qualifying generators is located on the same plot of land, or is all otherwise in close spatial proximity;
(b) the group of qualifying generators generate electricity from the same kind of renewable energy source;
(c) subsection (1) requires that the electricity generated by that type of qualifying generator is purchased at a rate that depends on the installed capacity of the qualifying generator; and
(d) all qualifying generators in the group were commissioned within a period of twelve consecutive months

even if the group of qualifying generators in question are owned or operated by more than one person.

By way of example, a group of windfarms in close spatial proximity will not, for the purposes of this Bill, be treated as separate for the purposes of ascertaining feed-in tariff rates. Without clause 8(3), it would be possible to have a collection of machines each entitled to the top wind feed-in tariff, but which are properly considered as a group which is only entitled to a lower rate reflecting the economies of scale of a single connection to the network etc.

Clause 9 Specifies that qualifying generators commissioned between 1 January 2011 and 31 December 2011 will receive the tariff rate specified in clause 8. This establishes the nominal starting date of the scheme to be 1 January 2011. Qualifying generators commissioned in subsequent calendar years will receive a tariff rate that has been reduced each year by the percentage indicated in the "Annual

degression" column in clause 8(1). The purpose of the degression is to both reflect and encourage technological innovation and associated lowering of costs for new renewable energy systems.

This clause effectively makes the difficult policy decision to exclude "early adopters" from the reach of this scheme. The Bill instead seeks to stimulate new investment in the renewable energy sector. This clause effectively also brings down what might otherwise be the costs to electricity consumers by reducing the scope of eligible recipients of the premium tariffs.

Clause 10 Sets out provisions requiring that the operator of a qualifying generator must lodge yearly or monthly returns with the network operator indicating the metered electricity produced by the qualifying generator for the return period. Makes it a further new condition on the licence of a network operator that the network operator must then pay for that metered electricity at the relevant feed-in tariff rate.

Alternatively, network and qualifying generator operators may agree on monthly advance payments based on expected payment for the whole year. In such a scenario, annual reconciliation adjustments will be required.

Clause 11 Establishes that the Minister must review the feed-in tariff rates five years after the Act comes into operation (or five years after the last review, as the case may be) and analyse in particular to what extent the rates are providing a reasonable return, but not windfall profits.

The Minister is also empowered by this clause to carry out a review of feed-in tariff rates at any other time if, and only if, there has been an unexpected and major change to the prescribed costs of generation of one or more of the types of qualifying generator in clause 8(1) such that the feed-in tariff or tariffs for those qualifying generator or generators have become seriously at variance with the tariffs that would result in a prescribed reasonable return on investment.

In both of the above cases, the clause seeks to strike the difficult balance between providing very high levels of certainty to the industry in order to support investment decisions, on one hand, and the need to keep the costs to consumers as reasonable as possible on the other.

The Minister must report on the review to each House of Parliament. Importantly, and again in order to provide the very high levels of certainty to industry, the review itself cannot generate new feed-in tariff rates – they can only be achieved via amending the Act establishing this REFiT scheme.

Division 2 – Equalisation Scheme

Clause 12 Provides that the purpose of the Division is for the financing of feed-in tariff payments to be distributed equally among all retailers in WA, even those not on the South West interconnected system. This ensures that the costs of financing the REFiT scheme is fairly met by all electricity consumers across all transactions in the electricity market.

Clause 13 Sets out that network operators must keep account of the electricity for which feed-in tariff rates were paid under this Act. By 31 March each year the network operators must determine:

- the quantity of electricity which they transmitted and paid for; and
- the number of certificates they received or created in accordance with section 6(3)(b)

for the previous calendar year, and must determine the percentage share of these quantities in relation to the total quantity of electricity which was delivered to the final consumers in the area served by their network in the previous calendar year.

Clause 14 Establishes the method of equalisation by which network operators who had to pay higher feed-in tariffs than the average share shall be entitled to receive financial compensation from the other network operators in exchange for the respective number of certificates until all network operators have contributed equally to the average share, taking into account the economic value of the electricity that was fed into their respective networks by qualifying generators at the reference price ("reference price being defined in clause 15).

Clause 15 The Electricity Networks Corporation, as defined in section 3 of the *Electricity Industry Act 2004* (Western Power), must sell the electricity fed into its network in accordance with this Act in transparent and non-discriminatory way, and at the best achievable price. This price becomes the reference price for the equalisation in clause 14.

Clause 16 This critical final equalisation clause provides that retailers shall reimburse their network operators for their contribution in financing the feed-in tariffs according to section 14, in exchange for the respective number of certificates until all retailers have contributed their equal share. The share is to be calculated in relation to their respective shares of the total electricity sold. Importantly, notwithstanding any other Act, the retailers are then entitled to pass on to their consumers the retailers' contribution to their network operators, relative to the consumers' electricity consumption.

It should be noted that the clause provides for on-charging consumers 'relative' to their electricity consumption but does not require there to be a direct, proportional

relationship between the share paid by a specific consumer and that customer's specific consumption level. In this context it should be noted that the Greens support the Government's current consideration of the possibility of inclining block tariffs.

Part 3 – Miscellaneous

Clause 17 Establishes the power to make regulations for the purposes of this Bill, and especially in relation to clauses 6(3)(b) [either transfer of certificates to a network operator, or authorisation of the network operator to create same], clause 6(4) [prescribed meters] and Part 2 Division 2 [equalisation scheme]. The clause also makes clear that regulations cannot alter the feed-in tariff rates in clause 8(1); that may only be achieved by amending legislation (see again clause 11(5)).