

OFFICE OF ENERGY REPORT ON ELECTRICITY LICENCE EXEMPTIONS UNDER ELECTRICITY INDUSTRY ACT 2004: JULY 2008

ISSUE

Exemptions from licensing under the *Electricity Industry Act 2004* (the "Act"):

1. for distributors, distributing electricity from a generator to a connection point on a transmission network; and,
2. various distributors and transmitters of electricity.

RECOMMENDATION

That the Office of Energy (the "Office") recommends to the Minister for Energy that he:

1. Approves the briefing of Parliamentary Counsel to draft licence exemptions, as recommended in this report, for the approval of the Governor'
2. Approves the refusal to grant certain licence exemptions, as recommended in this report.

BACKGROUND OF CURRENT EXEMPTIONS UNDER CONSIDERATION

Electricity Distribution - Connection of Generators

Verve has submitted a request to the Office for an exemption for the proposed 20 kilometre distribution line from its proposed Grasmere wind farm to the connection point on the SWIS.

In the process of investigation and consultation, it became apparent that the distribution line connecting all licensed generators to transmission networks requires a licence. In most cases the generator is connected to the network by 10 to 50 meters of low, medium or high voltage distribution line to a step up transformer and transmission switch yard, which is the connection to the network or a subsequent transmission line. It seems that in some cases these connections are licensed and in other cases not.

It is the Office's view that such distribution lines (between the generator and the switch yard) are best handled within a generation licence. This will require a legislative amendment to the definition of generation works in the *Electricity Industry Act 2004*. In the meantime a licence exemption needs to be considered.

Electricity Transmission- Connection of Generators

The Secretariat of the Economic Regulation Authority (the "ERA") has identified nine licensees being those distributors and transmitters who might be exempted from the requirement to publish annual performance and audit reports under the Electricity Industry (Network Quality and Reliability of Supply) Code. The licensees in the attachment were selected on the basis

that they do not directly supply small use customers. The list has subsequently been used by the Office to identify licensees who might be considered for licence exemption. A copy of the Secretariat of the ERA's Schedule is attached.

In the main, they consist of mining and resource companies, but also include;

- Alinta Cogeneration (Pinjarra and Wagerup) and Alcoa (who use a transmission line to connect generators to the South West Interconnected System (SWIS) to service their operations or large use customers)
- Southern Cross Energy – a transmission and distribution system in the Eastern Goldfields, which connects in parts to the South West Interconnected System; and
- North Western Energy (Pacific Hydro) – a transmission system providing power to Argyle Diamonds and Horizon Power at Kununurra.

In addition to identification by the ERA, Pacific Hydro submitted a request for a licence exemption in October 2007.

PUBLIC CONSULTATIONS

In December 2007, the ERA Secretariat's advice, in addition to details of the licence exemptions under consideration was released by the Office for comment via its website.

Except for PacHydro, no public submissions were received. The Office has consulted with PacHydro, Western Power, Verve Energy, Horizon Power and the Secretariat of the ERA.

THE CONSIDERATION OF LICENCE EXEMPTIONS

The Act governs the operation and regulation of the Western Australian electricity industry. The Act provides that a person must not construct or operate generating works, a transmission system or a distribution system without a licence or an integrated regional licence.

Under section 8 of the Act, the Governor may exempt any person or class of persons from requiring a licence for such a purpose. Where granted, licence exemption orders are published in the *Government Gazette*. In some circumstances a licence exemption may be conditional.

Under the Act, in making an Order to grant a licence exemption the Governor (without limiting other matters that may be taken into account) must be satisfied that granting a licence exemption would not be contrary to the public interest on the following grounds: (section 8(5) of the Act)

- (a) Environmental considerations;
- (b) Social welfare and equity considerations, including community service obligations;

- (c) Economic and regional development, including employment and investment growth;
- (d) Interests of customers generally or of a class of customers;
- (e) Interests of any licensee, or applicant for a licence, in respect of the area or areas to which the order, if made, would apply;
- (f) Importance of competition in electricity industry markets; and,
- (g) Policy objectives of government in relation to the supply of electricity.

In making a decision whether to license an entity, the ERA has a similar test (Section 9 of the Act).

In making any recommendation to exempt, the Office must have cognisance of the principles of licensing and licence exemptions. Often the reason regulation is introduced in a market is because without it, the operation of that market would fail to produce outcomes desired by the general community. Regulation such as licensing may also seek to achieve social, environmental and other objectives that the Government wishes to pursue.

The guiding principles behind a regulatory regime governing an essential service include having regard for the need to:

- ensure supply;
- promote competitive and fair market conduct;
- prevent misuse of monopoly or market power;
- facilitate entry into relevant markets;
- promote economic efficiency;
- ensure consumers benefit from competition and efficiency;
- protect the interests of consumers with respect to reliability and quality of services and supply; and
- facilitate maintenance of the financial viability of the industry.,

The objects of regulation by licensing are therefore to:

- promote efficiency and competition in the electricity industry;
- promote the safe and efficient generation, transmission, distribution and selling of electricity;
- establish and enforce proper standards of safety, reliability and quality in the electricity supply industry;
- establish and enforce proper safety and technical standards for electrical installations;
- to facilitate the maintenance of a financially viable electricity supply industry; and,
- protect the interests of consumers of electricity.

In considering licence exemptions, the public interest test is considered, in addition to other specific questions. These include but are not limited to the following.

1. Is there a risk of market failure?
 - Is there a risk of the creation of a natural monopoly and abuse of monopoly power without licensing?
 - Generally independent regulation and licensing is used to control monopoly aspects of power generation and supply.
2. What are the costs and benefits of licensing?
 - Licensing may be costly to industry. Generally the cost of providing the regulatory oversight is borne by the Government at a cost to taxpayers, or by a direct impost on the consumer by the licensee that is regulated, or by direct charge on the licensed body or a combination of all of these.
 - A judgement needs to be made of whether the benefits derived from licensing outweigh the costs to the licensee, the industry, the consumer and State Government.
3. What is the principal business of the entity?
 - Are the entity's electricity operations its sole purpose or ancillary to its business?
 - For example, if a mining entity has a distribution system within its mining operations and fails to prudently manage the system, and as a consequence that entity fails, the direct negative impacts are contained primarily to that mine.
 - Generally there is less public benefit in licensing companies who are generating and distributing power for their own operations.
4. Is the generation, distribution and supply of electricity contained within a single site or operation?
 - Generally there is less public benefit in licensing entities that are generating and distributing power exclusively within a site over which they manage or have control, and where public access and impact is limited.
5. Is there likely to be an impact on small use customers?
 - Licensing and licence conditions such as the "Code of Conduct for the Supply of Electricity to Small Use Customers" provide protection to small use customers. Exemptions remove those licence conditions and protections. Would small use customers still be protected if there was a licence exemption in place? This can involve direct customers (as in a retail/distribution licence) or third parties for example where a generator or transmitter is supplying the retailer.

6. How much risk is involved and how can it be mitigated?
- The risk could be to small use customers, or to other businesses if the licensed entity was to fail or leave the market.
 - There is also the risk from weather factors that could determine, for example, how much attention is paid to a long transmission line above ground versus a short, underground distribution line.
 - Another element of risk is the location of the business. For example, does a generator/distributor/transmitter of electricity have its whole operations on its own land or whether it has transmission/distribution lines that are adjacent or cross over public or privately owned land or land primarily under the control of other persons or entities such as mining leases? Monitoring should be more rigorous where third parties and their land are involved than in situations where a generator/distributor/transmitter owns all the land it operates on.
 - Thought must be given to the security of supply and ability for alternative supply to be found.
 - Regulatory risk can result in a “chilling” of investment. Regulatory risk relates to any regulatory uncertainty, and also to any changes in the regulatory environment once the investment has been made.
7. Is there a potential for Third Party Access?
- In the case of transmission and distribution lines, is there a need or potential need for this asset to have third party access? That is, will more users than just those currently using the asset appear in the future and should that be a consideration. This issue is not currently dealt with through licensing as access arrangements and the *Electricity Networks Access Code* (the “Code”) are the instruments which regulate access. Although the licence does not directly address this issue, the existence of a license and the ability to use this instrument as an adjunct to the Access Code is a consideration. Transparency of the condition of the asset and the publicly available reporting of asset management and performance auditing ensures that any future third party that wishes to access the line will be fully apprised of the nature and condition of the asset.
 - Short distribution lines within a mining operation/lease or private property have less potential for third party access.
 - Conversely long distribution/transmission lines passing near or over public lands, or lands the public or businesses may gain access to have more potential for third party access.
 - A corollary to the last point is whether there is a public interest in the condition and reliability of a private (or government trading enterprise) transmission or distribution asset. For example, long transmission lines should probably be well maintained as it would be too costly for another business to run a line in parallel or have to re-build the asset if it were left to run down. Poor reliability of a line may impact on a range of

stakeholders. Licensing provides a compliance and reporting framework that enables transparency by allowing the public to see if the asset is in good order and well maintained.

Therefore, in coming to a decision as to whether to exempt an entity or require it to be licensed, the Office has had consideration of not only the public interest test outlined above, but all the principles that guide a regulatory regime such as licensing and of what the licensing system is attempting to achieve. The Act however, only requires that the exemption not be contrary to the public interest

Electricity Distribution – General Connection of Generators

The definition of distribution in the Act is quite broad and as a consequence the distribution line connecting the generator to a network is required to hold a distribution licence.

The Office believes the requirement for a generator to hold an additional licence for the distribution line connecting its generator to a transmission or distribution network may be onerous in some cases.

It is the opinion of the Office, that in general, the connection of the generator to the network, if it is to be regulated, it is best done within a generation licence.

The Office intends at an appropriate time to recommend that the Act be amended so that the short distribution line physically connecting a generator to a transmission or distribution network be included in the definition of generation, where there is little likelihood that third parties will be connected to that piece of distribution line.

In the meantime, it is the assessment of the Office that it would not be contrary to the public interest for a distribution line connecting a generator to a transmission or distribution network to be exempted from the requirement to be licensed, where there is little likelihood that third parties will be connected to that piece of distribution line.

Recommendation

A general exemption from the need to hold a distribution licence be provided to generators for the distribution line connecting a generator to a transmission or distribution network, where there is little likelihood that third parties will be connected to that piece of distribution line.

The distribution line to be exempted is the low voltage distribution line that transports electricity from the generator to a step up transformer located within or adjacent to a transmission or distribution switch yard from which electricity is then transported to a transmission or distribution network.

Electricity Distribution and Transmission - General Connection of Generators to the SWIS

In the process of investigating:

- the Verve request for the Office to recommend exemption for the proposed 20 kilometre distribution line from its proposed Grasmere wind farm to the connection point on the SWIS; and
- the ERA Secretariat's identification of distributors/transmitter without small use customers to the Office,

it became apparent that there were a group of licensees that were required to hold distribution or transmission licence for the connection of their generation to the SWIS.

These distribution and transmission lines are of varying lengths but generally do not exceed 20kms. In some cases, with respect to the SWIS these connecting distribution and transmission lines are the property of Western Power and are independently regulated by the ERA. These Western Power connections are covered under its licence.

However, in the case of the proposed connection of Verve's Grasmere windfarm, Verve will construct, own and operate the connection to the SWIS, and therefore the connection line will not be covered by the Western Power licence.

Other energy mining and resource companies own and operate distribution and transmission lines connecting generators to the SWIS. They generally connect individual generators which:

- in themselves do not have monopoly power in the market; or
- are wheeling power through the SWIS for their own use; or
- the generation and distribution of power is ancillary to its business.

The SWIS is a relatively large and robust network that has:

- a well established and independently regulated network;
- a well functioning electricity market; and
- well established network connection standards and rules regulated through the third party access regime.

In addition, the SWIS is predominately owned and centrally operated by Western Power; a government owned trading concern subject to independent regulation and some degree of direction by the Government.

Currently the SWIS is the only covered network in Western Australia.

In many cases, it is unlikely that failure of a licensee's distribution or transmission line connecting its generator to the SWIS will have a significant impact on the electricity market. The same can be said (but to a far lesser

degree) of the North West Interconnected System. However, this cannot not be said of any of the regional non-interconnected networks which are captive to a single generator and its distribution/transmission connection to the network (usually distribution).

In addition, the Technical Rules applied through the Code on the SWIS arguably provides sufficient regulatory protection, in terms of technical standards for the distribution and/or transmission of electricity for connection to the SWIS.

The Technical Rules applied through the Code stand separately from the licensing system. However, the Office of Energy has released a proposal for public comment to amend the Code so that compliance with the Technical Rules is a condition of a distribution or transmission licence.

If a licence exemption is granted, there is a potential risk of circumventing a legitimate Technical Rules requirement. To some extent, this is mitigated by Western Power's requirement that any connections to its SWIS must comply with Western Power's Technical Rules.

Recommendation

A general exemption from the need to hold a distribution or transmission licence be provided to generators of electricity for the sole purpose of transporting through a distribution/transmission line to connecting a generator to the South West Interconnected System.

This exemption is recommended to be conditional on the connection to the SWIS complying with Western Power Technical Rules for connection to the SWIS.

Individual Distribution/Transmission Exemptions

Alinta Cogen (Wagerup) Licence ETL 1

14.3 km of transmission line joining a generator to the South West Interconnected System.

Recommendation

This is proposed to be exempt through the conditional general exemption for generators connected to the South West Interconnected System.

Alinta Cogen (Pinjarra) Licence ETL 3.

7.4 km of transmission line joining the generator to the SWIS.

Recommendation

This is proposed to be exempt through the conditional general exemption for generators connected to the SWIS.

Southern Cross Energy Licence ETL 4

285km of transmission and distribution line for mining operations at Mt Keith, Kalgoorlie and Kambalda. The northern system is isolated and the southern system is connected to the SWIS. Only a small number of large customers are connected, however Synergy has access for the purposes of supplying the Town of Kambalda.

Recommendation

Other than parts of this network which will be covered by the conditional general exemption for generators connected to the SWIS, it is not proposed to provide an exemption.

BHP Billiton (Nickel West) Licence EDL2

72km of distribution line in aggregate. The northern system is connected to the Southern Cross system and supplies Nickel West sites plus other mining customers and for distribution to the town of Leinster. The Southern system is connected to Southern Cross system and supplies several mining customers. There is a connection to the SWIS.

Recommendation

Other than parts of this network which will be covered by the conditional general exemption for generators connected to the SWIS, it is not proposed to provide an exemption.

Southern Cross Energy Licence EDL3.

187km of distribution line for mining operations at Mt Keith, Leinster, Kalgoorlie and Kambalda.

Only a small number of large customers are connected, however Synergy has access (through agreement with Western Power which has an access agreement with Southern Cross) for the purposes of supplying residential customers in the Town of Kambalda.

Recommendation

Other than parts of this network which will be covered by the conditional general exemption for generators connected to the SWIS, it is not proposed to provide an exemption.

Newmont Power Licence EDL4

20km of line around the Parkeston Power Station east of Kalgoorlie. Two large customers are connected to the distribution network. The network contains no metering equipment and no circuit breakers. The contracts between the customers and Newmont Power Pty Ltd contain provisions relating to the quality of supply and interruptions.

The Newmont Power line is characterised by:

- An above ground transmission line, which is relatively remote and exposed to the elements;
- The supply of energy is not ancillary to its business; and
- The potential for 3rd party access issues is present due to its proximity to other mining operations.

Recommendation

A licence exemption is not recommended at this time.

Central Norseman Gold Licence EDL 6

190 metres of underground distribution line connecting the output side of an independent generator to a switchboard and sub station for distribution within the mine site.

The generator servicing Central Norseman has a capacity of about 6MW and is not required to be licensed.

Horizon Power connects to the sub-station and takes 1MW of power through its own licensed distribution line to supply the Town of Norseman. Therefore, Central Norseman cannot be defined as using the distribution line connecting a generator to its sub-station “purely for its own purposes”, which is required under the current Electricity Industry Exemption Order 2005. As such, Central Norseman requires a distribution licence unless exempted.

The licensed distribution line in question is:

- underground and therefore not subject to environmental risks;
- contained within Central Norseman’s mine site;
- Supplies energy as ancillary to Central Norseman’s core business; and,
- Characterised by the indirect connection of very few small use customers.

Recommendation

A licence exemption for the distribution of electricity within its mine site is recommended for Central Norseman Gold.

EDL Licence EIRL1

4.5km of underground distribution cable connecting Broome power station to the Horizon sub-station in Broome.

EDL's generator servicing Broome has an installed capacity of about 47 MW. In addition, EDL has an agreement with Horizon Power that provides EDL with access to Horizon Power's redundant diesel generator to provide back up power in an emergency. The original distribution line connecting the diesel generator to the Horizon Power sub station is to be removed and a connection to EDL's underground distribution line utilised if the diesel generator is required. In the event that both the EDL generator and distribution line fail, a temporary distribution line replacing the original distribution line can be constructed relatively quickly.

The licensed distribution line in question;

- is relatively short;
- is underground;
- poses little risk to customers being subjected to prolonged outages in the event of a distribution line failure; and
- has low potential to provide 3rd party access opportunities.

Recommendation

It is proposed to provide EDL with a distribution exemption for the underground distribution line connecting its generator to the Horizon sub station.

North Western Energy Licence EIRL4

North Western Energy (Pacific Hydro) has 140 km of transmission lines consisting of two transmission lines connecting its hydro-electric power station at Lake Argyle to Argyle Diamonds and to Horizon Power's sub-station at Kununurra.

Pacific Hydro's hydro-electric power station has an installed capacity of 30MW and is licensed.

Pacific Hydro made submissions to the Office in support of a licence exemption. A copy of the submission can be found on the Office web site at http://www.energy.wa.gov.au/2/3245/64/electricity_ind.pm

The contention of Pacific Hydro is that it should be exempted from the requirement to hold any licence under the *Electricity Industry Act 2004* because:

- granting such an exemption would not be contrary to the public interest;
- its entitlement to an exemption from the requirement to hold a licence under its State Agreement should not be affected by the introduction of the *Electricity Industry Act*, and

- the particular nature of the power station makes it unsuitable to be regulated in the manner imposed by the licences granted under the *Electricity Industry Act*.

The Office provided a copy of the Pacific Hydro submission to the State Solicitor's Office and sought its advice on the legal questions raised by the Pacific Hydro submission. The State Solicitor's Office has advised that Pacific Hydro was and is required to be licensed under the *Electricity Industry Act 2004* unless a section 8 exemption is granted.

Pacific Hydro is an integrated energy utility holding a regional integrated licence. It is the opinion of the Office that the intent of the *Electricity Industry Act 2004* is for such entities to be licensed.

The Office is aware of the need to balance the benefits of licensing with the costs to the licensee and has attempted to offset the costs of regulatory compliance by amending the *Electricity Industry (Network Quality and Reliability of Supply) Code 2007* thereby ensuring that transmitters and distributors that do not have small use customers no longer have a requirement to prepare annual public network performance reports and associated audit reports under the Code. This decision was made as it was recognised that where there are no small use customers, the audit and reporting requirements provide little if any benefit to offset the costs involved. In such cases, contractual arrangements can adequately address reliability and quality issues.

With the excision of reporting requirements under licence relating to network quality and reliability, the most onerous obligation upon Pacific Hydro is the requirement to lodge a biennial Performance Audit and a biennial report as to the effectiveness of its asset management system.

Prior to reaching a decision as to whether Pacific Hydro should receive a licence exemption, which would effectively amount to an exemption from the requirement to provide an asset management system effectiveness report and performance audit, an analysis was conducted on the merits of receiving the required information. It became clear that in considering the public interest test with respect to Pacific Hydro's energy operations in the West Kimberley, the following issues became apparent.

The Pacific Hydro integrated system is characterised by:

- Long transmission lines which are exposed to the elements and which are relatively remote thus exposing the infrastructure to risk of damage. The Office notes that Pacific Hydro's power station is located in a region with an extremely high lightning ground flash density (source: Commonwealth Bureau of Meteorology) and consequently is subject to a high rate of lightning strikes mainly during the wet season months of November through February. Although the transmission line design does incorporate a number of features intended to minimise the impact of this phenomena, the risk was realised in March 2005 when part of the transmission line

between the Ord switchyard and the Argyle Diamond Mine was destroyed by cyclone Ingrid. This caused an outage of 180 hours duration. This highlights the necessity of receiving an asset management system effectiveness report and a performance audit which will allow confirmation that the asset is effectively managed and maintained;

- Potential 3rd party access issues (mines and remote communities such as Panoramic Resources –formerly Sally Malay). Although the licence does not directly address this issue, the existence of a licence and the ability to use this instrument as an adjunct to the Access Code is a consideration. Transparency of the condition of the asset and the publicly available reporting of asset auditing ensures that any future third party that wishes to access the line will be fully apprised of the nature and condition of the asset.
- The supply of energy is not ancillary to its business; and
- A relatively large number of small use customers are indirectly connected to the asset.

While the Office of Energy recognises there is a compliance cost for Pacific Hydro in meeting its regulatory obligations under licence, it is also noted that this cost:

- can be offset through its commercial arrangements with its customers; and
- is a normal part of prudent business management with respect to an asset management plan.

It should also be noted that licensing regulatory compliance requirements are not peculiar to Western Australia, and are in fact in line with recognised regulatory practice in other jurisdictions.

Recommendation

A licence exemption is not recommended at this time.

ERA Schedule of Review of Distribution Licensees

Licence Number	Licensee Name	Type of Licence	Details	Comments
ETL1	Alinta Cogen (Wagerup)	Transmission	14.3km of line from Wagerup Refinery to Western Power Transmission Station at Landwehr	
ETL3	Alinta Cogen (Pinjarra)	Transmission	7.4km of line from Pinjarra Refinery to Western Power Sub-Station at Oakley	
ETL4	Southern Cross Energy	Transmission	285km of line for mining operations at Mt Keith, Kalgoorlie and Kambalda. The 2006 NQ&R Report states there are only two customers – BHP Billiton and Barrick Gold.	The northern system is isolated and the southern system is connected to the SWIS.
EDL2	BHP Billiton (Nickel West)	Distribution	72km of line in aggregate.	Northern system is connected to the Southern Cross system and supplies Nickel West sites plus one other mining customer and the Leinster town site Southern system is connected to Southern Cross system and supplies 6 mining customers. Has a connection to the SWIS.
EDL3	Southern Cross Energy	Distribution	187km of line for mining operations at Mt Keith, Leinster, Kalgoorlie and Kambalda. The 2006 NQ&R Report states there are only two customers – BHP Billiton and Barrick Gold.	
EDL4	Newmont Power	Distribution	20km of line around the Parkeston Power Station.	Supplies two large industrial customers with a total load of just over 45MVA
EDL6	Central Norseman Gold	Distribution	190m of line connecting output side of generator to switchboard within mine site	Horizon pick up 1MVA from the mine site to supply Norseman town site
EIRL1	EDL	Distribution	4.5km of cable connecting Broome power station to Horizon sub-station in Broome	
EIRL4	North Western Energy	Transmission	140km of line connecting Ord hydro generation station to Argyle Diamond mine site and Horizon sub-station in Kununurra.	