REMOTE AREA ENERGY SUPPLY (RAES)

Customer Connection and Supply Contract

April 2016

Doc Ref: DA312368

PART A: CUSTOMER SALE CONTRACT
& CONDITIONS OF SUPPLY

This contract relates to electricity consumers under the Remote Area Energy Supply (RAES) Scheme including remote Aboriginal Communities (RAES AC). This contract sets out the terms on which we connect and sell electricity to you as a customer at your current supply address in accordance with the RAES Tariff Schedule.

These standard terms and conditions are published in accordance with section 36 of the South Australian Electricity Act 1996 (the "Act"). These standard terms and conditions will come into force on 14 February 2012 and, when in force, the terms will, by law, be binding on us and you. The document does not have to be signed to be binding.

1. THE PARTIES

1.1 This contract is between:

Department for Energy and Mining (DEM) (ABN 83 768 683 934) of 11 Waymouth St, Adelaide (referred to in this contract as ***we***, ***our***, or ***us***); and

You, the ***Customer*** as defined in the ***Act*** and to whom this contract applies (referred to in this contract as ***you*** or ***your***).

2. SERVICES PROVIDED UNDER THIS CONTRACT

2.1 This contract sets out the terms on which ***we*** sell and supply electricity at that ***supply address***.

2.2 The services ***we*** will provide under this contract are:

(a) the ***sale and supply*** of electricity; and

(b) other services set out in ***our price list***.

2.3 In return ***you*** are required to pay the amounts due to ***us***. ***You*** are also required to perform ***your*** other obligations under this contract.

3. DEFINITIONS

3.1 Words appearing in bold type like ***this*** have the following meaning:

Act	means the *Electricity Act 1996 (SA).*
Best endeavours	means to act in good faith and use all reasonable efforts, skill and resources.
Billing cycle	means the period covered by each bill.

Business day	means a day on which banks are open for general banking business in Adelaide, other than a Saturday or a Sunday.
Commission	means the Essential Services Commission of South Australia (ESCOSA), established by the *Essential Services Commission Act 2002*.
Customer	means a ***customer*** as defined in the ***Act***.
Licenced Distributor (LD)	means the Distribution Network Service Provider (as licenced by ESCOSA), engaged by the Principal as Contractor for Operation and Maintenance services on Government-owned Distribution Assets serving RAES Communities.
Licenced Retailer (LR)	means the Retailer (as licenced by ESCOSA), engaged by the Principal as Contractor for retail services for RAES Communities.
Our equipment	means the electricity supply and equipment owned by, or in the custody of, the Principal and operated by the ***LD*** and includes but is not limited to, meters, circuit breakers, service fuses, mains, transformers, service lines and ***our*** RAES infrastructure.
Price list	means ***our*** list of current tariffs and charges applying to ***you*** from time to time.
Retail licence	means the licence issued to the ***LR*** by the Commission under the ***Act***, authorising the retailing of electricity. A copy of the retail licence may be viewed on the Commission's website at www.escosa.sa.gov.au.
Sale and supply services	selling electricity to ***you*** at ***your*** supply address.
Service point	means the connection point between ***our*** equipment and ***your*** equipment.
Supply address	means the address at which ***we*** supply ***you*** with electricity.
The Principal	is asset owner/custodian and administrator of the RAES Scheme, being Energy Markets & Programs Division within the SA Department of State Development (DSD).

We**, **our** and **us	means DSD or the ***LD*** engaged by the Principal to provide a supply of electricity and administer that supply, and the ***LD***'s Personnel.
You** and **your	means the person or other legal entity recorded by the ***LR*** as a Customer both in its own records and on accounts issued by it.
Your equipment	means the equipment at the customers premises for the distribution and use of electricity, which is not ***our*** equipment.

4. DOES THIS CONTRACT APPLY TO YOU?

4.1 This document applies to ***you*** if ***your supply address*** is connected or becomes connected to ***our*** Distribution Network and, in either case, ***you*** have not agreed to different terms and conditions with ***us***.

5. WHEN DOES THIS CONTRACT START?

5.1 If ***we*** are already selling electricity to ***you*** at ***your supply address*** this contract will start on the day this document comes into force. This contract will take over ***our*** previous arrangement with ***you*** for ***sale and supply services***.

5.2 If ***we*** are not already selling ***you*** electricity at ***your supply address*** this contract will start on the earlier of:

(a) the day on which ***you*** start using electricity at that ***supply address***; and

(b) the day on which ***we*** advise ***you*** that ***we*** have approved ***your*** application under Clause 7.

6. WHEN DOES THIS CONTRACT END?

6.1 This contract will come to an end on the day:

(a) ***we*** disconnect ***your supply address*** under Clause 27 and ***you*** are no longer entitled to be reconnected; or

(b) ***we*** issue ***you*** with a final account and ***you*** have paid that amount.

7. WHAT YOU HAVE TO DO TO RECEIVE CONNECTION

7.1 You need to apply for a new connection by completing an 'Application for Supply of Electricity' form and submitting to the ***LD*** for approval.

7.2 When ***you*** apply for ***sale and supply services*** at ***your supply address we*** may require ***you*** to satisfy some pre-conditions***. We*** will explain any pre-conditions that may apply to ***you*** when ***you*** apply to ***us*** to sell ***you*** electricity.

7.3 Our obligation to sell electricity to ***you*** at ***your supply address*** does not start until ***you*** satisfy ***our*** pre-conditions.

8. QUALITY OF ELECTRICITY SUPPLIED TO YOUR SUPPLY ADDRESS

8.1 We cannot regulate the quality or reliability of electricity supplied to ***your*** supply ***address****.*

8.2 ***You*** should be aware that the quality and reliability of electricity supplied at ***your supply address*** may be affected by fluctuations and interruptions from time to time for a number of reasons, including:

(a) the location of ***your supply address***;

(b) whether ***your supply address*** is served by underground or overhead mains;

(c) the weather conditions;

(d) animals, vegetation, the actions of vandals and other people;

(e) the existence of emergency or dangerous conditions;

(f) damage to the electricity network;

(g) the design and technical limitations of ***our*** network;

(h) normal and operational switching by ***us***; and

(i) the demand for electricity at any point in time.

8.3 ***You*** should understand that unexpected fluctuations or interruptions may cause damage to ***your equipment*** or cause it to malfunction. ***We*** recommend that ***you*** give careful consideration to taking out insurance or installing devices to protect ***your equipment*** and property when these fluctuations or interruptions occur.

9. OUR LIABILITY

9.1 The *Trade Practices Act 1974* and other laws imply certain conditions, warranties and rights into contracts that cannot be excluded or limited.

9.2 Unless one of these laws requires it, ***we*** give no condition, warranty or undertaking, and ***we*** make no representation to ***you*** about the condition or suitability of electricity, its quality, fitness or safety, other than those set out in this contract.

9.3 Any liability ***we*** have to ***you*** under these laws that cannot be excluded but that can be limited is (at ***our*** option) limited to:

(a) providing equivalent goods or services provided under this contract to ***your supply address***; or

(b) paying ***you*** the cost of replacing the goods or services provided under this contract to ***your supply address***, or acquiring equivalent goods or services.

9.4 ***We*** are not otherwise liable to ***you*** for any loss ***you*** suffer as a result of:

(a) the supply of electricity by ***us***;

(b) any restrictions imposed upon ***your*** consumption of electricity;

(c) the failure or the discontinuance of the supply of electricity from ***our equipment*** for any reason or cause whatsoever; or

(d) any loss, or damage or injury resulting from the restoration of supply after any period of loss of supply arising from any cause, if we have not been negligent or have not acted in bad faith.

9.5 ***You*** will indemnify ***us*** against any claims for loss or damage made by any person arising from:

(a) the supply of electricity by ***us*** to ***your*** premises;

(b) any restriction imposed upon the consumption of electricity;

(c) the failure or discontinuance of the supply of electricity from ***our equipment*** to ***your*** premises.

9.6 You are responsible for safeguarding ***your*** equipment from loss or damage that may arise from the supply of electricity by ***us***.

10. PRICE FOR SERVICES PROVIDED

10.1 Our current tariffs and charges for the ***sale and supply services*** and other services are set out in the ***price list*** published from time to time and available on the RAES website -energymining.sa.gov.au/raes.

10.2 Our ***price list*** explains the conditions that need to be satisfied for each particular tariff.

10.3 If, at the time this contract is published, ***we*** are already selling ***you*** electricity at ***your supply address***, the tariff and other charges currently applying to ***you*** for ***sale and supply services*** at the ***supply address*** will continue to apply, until ***we*** inform ***you*** in accordance with Clause 12.

10.4 If ***we*** are not already selling ***you*** electricity at ***your supply address***, the tariff and other charges applying to ***you*** will be as set out in ***our price list.***

10.5 In some cases, ***you*** will be able to select a tariff to apply to ***you***. In those cases, if ***you*** do not choose a tariff, ***we*** will assign one to ***you***.

11. FEES AND CHARGES

11.1 Upon request, ***we*** will supply a copy of the fees and charges associated with the following services. Any new fees and charges will operate from the day stated by ***us***.

11.2 Application and connection fees may apply.

(a) Upon application by ***you*** for the supply of electricity, ***we*** may charge ***you*** an application fee. There may also be a fee to connect ***your*** premises to ***our*** equipment.

11.3 Consumption (tariff) charges may apply.

(a) We will issue ***you*** with periodic accounts. These accounts must be paid by the due-dates specified on the accounts. ***You*** will be liable to pay ***us*** an amount based on the meter reading or ***our*** estimate of the meter reading where access to the meter has not been obtained.

11.4 Supply charges may apply.

(a) As well as charges based on consumption, ***you*** will be required to pay a supply charge which will be shown on the periodic account.

11.5 A final meter reading fee may be payable.

(a) In order to conduct a final meter reading, ***we*** may need to attend ***your*** premises.

(b) If ***you*** return to ***your*** premises after a final reading has been carried out, ***we*** may charge ***you*** a further application fee for the re-establishment of ***your*** account.

11.6 Security for payment may apply.

(a) ***We*** may require ***you*** to provide a security deposit at the time ***you*** make an application for connection, or an application for reconnection after being disconnected, or before selling electricity to ***you***.

(b) We will determine the amount of the deposit in line with the ***Commission's*** determinations for average quarterly and monthly bills.

11.7 Personal call fees may apply.

(a) If ***we*** visit ***your*** premises to collect any money owed by ***you*** to ***us***, or to disconnect the supply of electricity, ***we*** may charge a call fee.

11.8 Special meter reading fees may apply.

(a) Special meter reading fees may be charged by ***us*** if ***you*** challenge the accuracy of ***our*** meter readings or if ***we*** are unable to read the meter as part of ***our*** normal routine. We may charge ***you*** a fee, if, at ***your*** request, ***we*** visit ***your*** premises to carry out a special reading.

11.9 Disconnection fees may apply.

(a) Charges will apply for the disconnection, and subsequent reconnection of supply for any transgression of ***your*** responsibilities as detailed in Clause 29.

11.10 Meter accuracy test charges may apply.

(a) Where ***you*** request a check of the meter accuracy ***you*** must pay the reasonable charge of testing the meter in advance. If ***we*** determined that the meter accuracy is outside of limits of industry standards (i.e. >3% of actual usage) then ***we*** will render ***you*** an account based on ***our*** best estimates of the amount of electricity that ***you*** would have used if ***your*** meter had been accurate.

(b) Any such adjustment will be limited to the 3 previous account periods.

(c) Any amount overcharged will be credited to ***your*** next account. If overcharging has occurred, the advanced payment for the meter check will be deducted from ***your*** next account.

12. VARIATIONS TO THE TARIFFS AND CHARGES

12.1 When ***we*** vary the tariffs and charges ***we*** will notify ***you*** of these changes by giving ***you*** at least 20 ***business days*** prior notice.

12.2 If the conditions applying to ***your*** tariffs and charges change, so that the previous tariffs and charges no longer apply to ***you***, ***we*** can decide which tariffs and charges will apply.

13. SWITCHING TARIFFS

13.1 ***You*** must tell ***us*** if ***your*** circumstances relating to ***your*** tariff or charge change. If ***you*** think ***you*** satisfy all of the conditions applying to another tariff or charge, ***you*** can ask ***us*** to review ***your*** current circumstances to see whether that tariff or charge can apply to ***you***.

14. CHANGES TO THE TARIFF RATES AND CHARGES DURING A BILLING CYCLE

14.1 If a tariff or charge applying to ***you*** changes during a ***billing cycle***, ***your*** bill for that ***billing cycle*** will be calculated on a pro-rata basis using:

(a) the old tariff or charge up to and including the date of change; and

(b) the new tariff or charge from that date to the end of the ***billing cycle.***

15. CHANGES TO THE TARIFF TYPE DURING A BILLING CYCLE

15.1 If the type of tariff or charge applying to ***you*** changes during a ***billing cycle***, ***your*** bill for that ***billing cycle*** will be calculated using:

(a) the old tariff or charge up to and including the date of change; and

(b) the new tariff or charge from that date to the end of the ***billing cycle***.

16. GOODS AND SERVICES TAX (GST)

16.1 The amounts specified in the ***price list*** from time to time are (or will be) stated to be inclusive of GST. Apart from these amounts there may be other amounts paid by ***you*** or by ***us*** under this contract that are payments for "taxable supplies" as defined for GST purposes. To the extent permitted by law, these other payments will be increased so that the GST payable on the taxable supply is passed on to the recipient of that taxable supply.

16.2 Any adjustments for GST under this clause will be made in accordance with the requirements of the *Trade Practices Act 1974.*

17. BILLING

17.1 ***We*** will send a bill to ***you*** as soon as possible after the end of each ***billing cycle***.

17.2 The bill will be in a form and contain such information as is required by the ***Retail licence***.

17.3 ***We*** must send a bill:

(a) to ***you*** at the address nominated by ***you***; or

(b) to a person authorised in writing by ***you*** to act on ***your*** behalf at the address specified by ***you***.

17.4 If ***we*** fail to issue a bill following the end of a ***billing cycle***, ***we*** will offer ***you*** the option of paying for any electricity used during the relevant ***billing cycle*** under an instalment plan. The maximum period of that instalment plan will be the greater of the period during which ***we*** did not bill ***you*** or twelve months.

18. CALCULATING THE BILL

18.1 The amounts ***you*** owe under this contract at the end of each ***billing cycle*** will be calculated based on the application of the prices set out in ***our price list*** to:

(a) information obtained from reading ***your*** meter or from using an approved estimating system; and

(b) the amount for any other services supplied under this contract during the ***billing cycle.***

19. ESTIMATING THE ELECTRICITY USAGE

19.1 If ***your*** meter is unable to be read for any reason (for example, access to the meter cannot be gained, or the meter breaks down or is faulty), ***we*** can estimate how much electricity was supplied to ***your supply address*** by using other information (such as ***your*** previous bills or ***your*** electricity usage history).

19.2 If ***your*** meter is subsequently able to be read, the bill will be adjusted for the difference between ***our*** estimate and the actual amount of electricity used, based on the reading of the meter.

19.3 If ***your*** meter was unable to be read due to ***your*** actions, ***we*** may impose the charge in the ***price list*** for arranging for ***your*** meter to be read at a subsequent time.

20. PAYING YOUR BILL

20.1 The amount ***you*** must pay, the due date and the method of payment for the services ***we*** provide under this contract will be set out in the bill sent to ***you***.

20.2 **You** can pay the bill using any of the payment methods listed on the bill. If a payment ***you*** make is dishonoured (e.g. where a cheque or credit card

payment is not honoured), and ***we*** incur a fee as a result, ***you*** must reimburse ***us*** the amount of that fee.

21. LATE PAYMENTS

21.1 If ***you*** do not pay ***your*** account on time, ***you*** may be required to pay ***our*** reasonable costs of recovering that amount from ***you***. ***You*** may also be required to pay interest on the outstanding amounts.

22. DIFFICULTIES IN PAYING

22.1 If ***you*** have difficulties paying ***your*** bill, ***you*** should contact ***us*** as soon as possible. ***We*** will provide ***you*** with information about various payment options and, where applicable, payment assistance.

22.2 ***We*** are required to identify situations where ***you*** may be experiencing difficulties in paying ***your*** bill. In such cases, ***we*** will offer ***you*** the opportunity to pay ***your*** bill under an instalment plan and provide ***you*** with information about various payment options and, where applicable, payment assistance.

23. UNDERCHARGING

23.1 Where ***you*** have been undercharged ***we*** will inform ***you*** and ***we*** may recover from ***you*** any amount ***you*** have been undercharged.

23.2 ***We*** must offer ***you*** the opportunity to pay this amount in instalments over the same period of time during which ***you*** were undercharged.

24. OVERCHARGING

24.1 Where ***you*** have been overcharged, ***we*** will inform ***you*** and follow the required procedures for repaying the money.

24.2 Where the amount overcharged is $100 or less, and ***you*** have already paid that amount, the amount will be credited to ***your*** next bill. Where the amount overcharged is more than $100, and ***you*** have already paid that amount, ***we*** must ask ***you*** whether the amount should be credited to ***your*** account, repaid to ***you*** or paid to another person, as directed by ***you***.

25. REVIEWING YOUR BILL

25.1 If ***you*** disagree with the amount ***you*** have been charged, ***you*** can ask ***us*** to review ***your*** bill. The review will be undertaken in accordance with the requirements of the ***Retail licence***.

25.2 If ***your*** bill is being reviewed, ***you*** are still required to pay the greater of:

(a) the portion of the bill which ***you*** do not dispute; or

(b) an amount equal to the average of ***your*** bills in the last 12 months.

25.3 ***You*** must also pay any future bills.

26. SECURITY DEPOSITS

26.1 Where ***you*** have paid a security deposit, ***we*** must pay ***you*** interest on the deposit at a rate and on terms required by the ***Retail licence***.

26.2 ***We*** may use ***your*** security deposit, and any interest earned on the security deposit, to offset any amount ***you*** owe under this contract:

(a) if ***you*** fail to pay a bill and, as a result, ***we*** arrange for the disconnection of ***your supply address***; or

(b) in relation to a final bill (i.e. the bill ***we*** issue when ***you*** stop buying electricity from ***us*** at ***your supply address***).

26.3 If ***you*** are purchasing electricity for business use, ***we*** may request that ***you*** increase the amount of ***your*** security deposit in accordance with the ***Retail licence***.

27. DISCONNECTION OF SUPPLY

27.1 Subject to the requirements of the ***Retail licence***, ***we*** can arrange for the disconnection of ***your supply address*** if:

(a) ***you*** do not pay ***your*** bill by the last day for payment and, in the case of residential ***Customers***, ***you*** refuse to agree to an instalment plan or payment option offered by ***us***;

(b) ***you*** fail to comply with the terms of an agreed instalment plan or payment option;

(c) ***you*** use electricity illegally or breach Clause 30;

(d) ***you*** otherwise do not comply with the Customer Sale Contract or Conditions of Supply;

(e) ***you*** prevent the exercise by ***us*** of ***our*** rights under this contract or any legislation;

(f) ***you*** make or have made any false statement to ***us*** in connection with the supply of electricity to ***you***;

(g) ***you*** deal with the electricity supplied in such a manner that ***you*** interfere with the supply of electricity to others;

(h) in ***our*** opinion, ***your equipment*** is in a dangerous condition;

(i) in ***our*** opinion, for any reason, it is unsafe or impractical to continue supply;

(j) ***you*** fraudulently obtain a supply of electricity from ***us***; or

(k) ***we*** are entitled or required to do so under the conditions of the ***Retail licence*** or by law (such as in the case of an emergency or for health and safety reasons).

27.2 ***You*** may request ***us*** to disconnect ***your supply address***, provided ***you*** have given ***us*** at least 3 ***business days*** prior notice. This request must be made in writing, in person at one of ***our*** offices or by telephone.

27.3 ***We*** must comply with the conditions of the ***Retail licence*** (such as giving ***you*** the required notices and warnings) before arranging for the disconnection of ***your supply address***.

28. RECONNECTION AFTER DISCONNECTION

28.1 Where ***we*** have disconnected ***your*** supply address in accordance with the ***Retail licence***, ***we*** must use ***our*** best endeavours to reconnect ***you*** within a time agreed with ***you***, subject to (where relevant):

(a) the reasons for disconnection being rectified; and

(b) ***you*** agreeing to pay ***our*** reasonable charges for reconnection.

29. WHAT YOU ARE RESPONSIBLE FOR

29.1 ***You*** are responsible for:

(a) ensuring safe and convenient access for ***our*** electricity officers to ***your supply address*** for the purposes expressed in Clause 32.1, and responding promptly to any request made by ***us*** regarding such access;

(b) maintaining the electrical installation at ***your supply address*** in a safe condition;

(c) ensuring that any changes to the electrical installation at ***your supply address*** are performed by an electrician lawfully permitted to do the work and that ***you*** keep a Certificate of Compliance issued in respect of any of the changes;

(d) ensuring that the electrical installation at ***your supply address*** complies at all times with the requirements of Service Rules (Part B attached);

(e) the protection and safekeeping of ***our equipment*** located at ***your supply address***;

(f) ensuring that any structures and vehicles are kept clear of ***our equipment***;

(g) ensuring a Notice of Alteration form is forwarded to ***us*** or the ***LD*** by ***you*** or ***your*** electrician when ***you*** increase ***your*** electricity supply requirements by installing additional electrical appliances or equipment of capacity 2.5kW or greater;

(h) seeking ***our*** approval prior to installing any additional appliances or equipment of total capacity 5 kW or greater, so that ***we*** can assess the ability of ***our*** network and ***your*** connection to the network to meet ***your*** additional requirements and advise ***you*** of the connection conditions and if any additional work is required and the associated costs (if any);

(i) providing sufficient information to ***us***, on request, so that ***we*** can calculate the electricity used by any un-metered loads that ***you*** have; and

(j) where information on ***your*** un-metered load has been provided to ***us*** advising ***us*** whenever there is a change to this un-metered load.

30. WHAT YOU MUST NOT DO

30.1 ***You*** must not:

(a) allow electricity supplied by ***us*** to be used other than at the ***supply address*** and in accordance with this contract;

(b) use at the ***supply address*** electricity supplied for use at another ***supply address***;

(c) sell electricity to any other person except in accordance with a licence issued by the ***Commission*** or with an exemption granted under the ***Act***;

(d) tamper with, or permit tampering with, the meter or associated equipment;

(e) allow electricity supplied to the ***supply address*** to bypass the meter;

(f) damage or interfere in any way with ***our*** equipment;

(g) make a connection to ***our*** distribution network or increase the capacity of an existing service point;

(h) allow a person who is not an electrician lawfully permitted to do the work to perform any work on the electrical installation;

(i) give ***us*** false information about which tariff and charges should apply to ***you***;

(j) use electricity supplied under a specific tariff for a purpose other than as contemplated by that tariff;

(k) otherwise use electricity or tamper with ***your*** electrical installation in a way contemplated as improper or illegal under current legislation;

(l) install appliances or equipment of total capacity 5kW or greater without receiving ***our*** approval, to allow ***us*** to determine if additional works are required and the associated costs (if any); or

(m) use, or cause to be used, electricity in a manner that:

- interferes with ***our*** distribution network;
- interferes with the supply or quality of supply, to other ***Customers***; or
- causes damage or interference to any third party.

31. ILLEGAL USE

31.1 If ***you*** have breached Clause 30 of this contact, ***we*** may, in accordance with the ***Retail licence***:

(a) estimate the amount of electricity so obtained and bill ***you*** for that amount;

(b) recover that amount from ***you***, as well as costs and interest; and

(c) disconnect ***your supply address*** immediately.

32. ACCESS TO YOUR SUPPLY ADDRESS

32.1 ***We*** may enter and remain in ***your supply address*** to:

(a) inspect electrical installations to ensure that it is safe to connect or reconnect electricity supply;

(b) take action to prevent or minimise an electrical hazard;

(c) investigate a suspected theft of electricity;

(d) read or check the accuracy of the electricity meter;

(e) examine electrical installations to determine load classifications;

(f) install, repair, replace or remove electricity meters, control apparatus and other electrical installations;

(g) reinstate supply following a supply interruption; and

(h) disconnect electricity supply for safety or non-payment reasons.

32.2 Only ***our*** electricity officers who are appointed in accordance with Part 4 of the ***Act*** may enter into or remain on ***your supply address*** for the purposes set out in Clause 32.1.

32.3 ***You*** do not have to give access under Clause 32.1 to someone who does not, when ***you*** ask:

(a) identify himself or herself as one of ***our*** employees or agents;

(b) identify himself or herself as ***our*** electricity officer appointed in accordance with Part 4 of the ***Act***; and

(c) produce a proper identity card issued by the ***LD***.

32.4 ***We*** must give ***you*** reasonable notice before coming onto ***your supply address*** unless:

(a) it is an emergency; or

(b) an occupier of the ***supply address*** has agreed.

32.5 Where ***your supply address*** contains a hazard ***you*** must provide ***our*** authorised officers with safe access to ***your supply address*** including any necessary protective clothing.

33. VACATING A SUPPLY ADDRESS

33.1 ***You*** must give ***us*** at least 3 ***business days*** notice of ***your*** intention to vacate ***your supply address***, together with a forwarding address for ***your*** final bill.

33.2 When ***we*** receive the notice, ***we*** must arrange for ***your*** meter to be read on the date specified in ***your*** notice (or as soon as possible after that date if ***you*** do not give access to ***your*** meter on that date) and for a final bill to be sent to ***you*** at the forwarding address stated in ***your*** notice.

33.3 If ***you*** do not give ***us*** the required notice, or if ***you*** do not give ***us*** access to ***your*** meter, ***you*** will be responsible for all electricity used at the ***supply address*** until ***we*** become aware that ***you*** have vacated ***your supply address*** and ***we*** arrange for ***your*** meter to be read.

34. INFORMATION WE NEED

34.1 ***You*** must provide ***us*** with all information ***we*** reasonably require for the purposes of this contract. All information ***you*** provide must be correct. ***You*** must tell ***us*** if information ***you*** have provided to ***us*** changes (for example, if ***your*** address changes, or the purpose for which ***you*** are buying electricity changes).

35. WE CAN AMEND THIS CONTRACT

35.1 ***We*** can amend ***our*** contract with ***you*** at any time in accordance with section 36 of the ***Act***, provided the amendments satisfy the requirements of the ***Retail licence***. Any amendment will take effect from the date referred to in the Gazette.

36. NOTICES

36.1 Unless this document or the ***Retail licence*** says otherwise (for example, where phone calls are allowed), all notices must be sent in writing.

36.2 ***We*** can send notices to ***you*** at ***your supply address*** or the most recent address that ***we*** have for ***you***. If a notice is sent by post, ***we*** can assume that ***you*** have received the notice on the second ***business day*** after it was sent.

37. PRIVACY AND CONFIDENTIALITY

37.1 Subject to Clause 37.2 of this contract, ***we*** must keep information about ***you*** confidential.

37.2 ***We*** may, however, disclose information about ***you***:

(a) if required or permitted by law to do so;

(b) if ***we*** are permitted by the ***Retail licence*** to do so, such as to a law enforcement agency; or

(c) where ***you*** give ***us*** written consent.

38. FORCE MAJEURE

38.1 If but for this clause, either party would breach this connection and supply contract due to the occurrence of a force majeure event:

(a) the obligations of the party under this contract, other than an obligation to pay money, are suspended to the extent to which they are affected by the force majeure event for so long as the force majeure event continues; and

(b) the affected party must use its ***best endeavours*** to give the other prompt notice of that fact including full particulars of the force majeure event, an estimate of its likely duration, the obligations affected by it and the extent of its effects on those obligations and the steps taken to remove, overcome or minimise those effects.

38.2 For the purposes of this clause, if the effects of a force majeure event are widespread we will be deemed to have given you prompt notice if we make the necessary information available by way of a 24 hour telephone service within 30 minutes of being advised of the force majeure event or otherwise as soon as practicable.

38.3 Either party relying on this clause by claiming a force majeure event must use its best endeavours to remove, overcome or minimise the effects of that force majeure event as quickly as practicable.

38.4 Nothing in this clause will require a distributor or a customer to settle an industrial dispute which constitutes a force majeure event in any manner other than the manner preferred by that distributor or a customer.

39. APPLICABLE LAW

39.1 The laws of South Australia govern this contract.

40. OUR EQUIPMENT AND ASSOCIATED CONNECTIONS

40.1 To supply electricity in the most effective manner to ***you*** and/or to ***our*** other ***Customers*** it may be necessary for ***us*** to place ***our equipment*** on ***your*** premises. ***We*** may place the following equipment or carry out the following works on ***your*** premises when, in ***our*** opinion, electricity can most effectively be supplied by doing so:

(a) mains leading to or from ***your service point***;

(b) mains leading to or from any transformer or other equipment of ours on ***your*** premises;

(c) service lines to other ***Customers*** not requiring the placing of poles on ***your*** property;

(d) transformers;

(e) other equipment; and

(f) all such works incidental or ancillary to the placement of ***our equipment*** on ***your*** premises.

40.2 ***Our equipment*** may be placed above ground or underground and it may be attached to any building or structure at ***your*** premises. ***Our equipment*** and the ***service point*** will be placed at a location specified by ***us***.

40.3 The installation and maintenance of infrastructure beyond the service point (excluding ***our equipment***) is ***your*** responsibility.

40.4 Meters and other equipment owned by ***us*** will be placed in a location acceptable to ***us***. ***We*** will need safe and unobstructed access to ***our equipment*** at all times. ***You*** may be required to provide ***us*** with an easement before ***our equipment*** can be installed. Such easements will be provided by ***you*** to ***us*** without charge.

40.5 ***You*** must provide and maintain an approved, weatherproof and vandal resistant container or enclosure for ***our*** meters, fuses, circuit breakers and other equipment as specified at the time that electricity is first connected or at the time of any upgrading or alterations to the supply. If ***you*** want to lock the container or enclosure or any gate or door that prevents ***our*** access to ***our equipment***, ***you*** must contact ***us*** to make arrangements that suit ***us***.

40.6 Unless authorised, only we may connect our equipment to your equipment and if either you or anyone else makes that connection, legal proceedings and penalties are likely. If permission is granted to a person to connect our equipment to yours then that person must be an “A” Class licensed electrician and must include reference to the meter including, meter number and reading and appropriate test carried out on the Electrical Certificate of Compliance form.

40.7 When your equipment has been disconnected for an extended period of time (12 months or greater) or any alterations made during the period of disconnection, we will require a valid Electrical Certificate of Compliance. Notwithstanding the above, for safety reasons, we reserve the right to request a valid Electrical Certificate of Compliance prior to reconnection.

41. ADDITIONAL WORKS

41.1 When ***we*** connect or vary the connection to ***your*** premises (and maybe other premises as well as ***yours***), ***we*** may have to do more work than would usually be required. If so, ***we*** will provide ***you*** with a quotation for the cost of that additional work and ***we*** reserve the right to ask ***you*** to contribute to the cost of that work.

41.2 ***We*** may request that payment of ***your*** contribution is made by the payment of a lump sum before work commences or by instalments. If it is paid by instalments, ***we*** may require a bank or other guarantee to support that ***you*** will meet all of the instalments.

42. OWNERSHIP, INTERFERENCE WITH AND REMOVAL OF OUR EQUIPMENT

42.1 ***Our equipment*** placed on ***your*** premises will always remain ***our*** property even if ***you*** have contributed to the cost of installation. ***You*** must not damage or otherwise interfere with ***our equipment*** and ***you*** must ensure that no-one else does. ***We*** reserve the right to modify, remove or replace ***our*** equipment at any time.

43. YOUR EQUIPMENT

43.1 Before ***we*** connect ***your equipment*** to ***our*** supply, ***we*** need to be satisfied that ***your equipment*** is installed in accordance with all appropriate laws, standards and the Service Rules (Part B attached).

43.2 To do this, ***we*** may need to inspect and test ***your*** equipment. Any tests and inspections that ***we*** carry out are for ***our*** information and are not to check the overall state of ***your equipment***.

43.3 We may charge ***you*** a fee for carrying out such inspections and testing. ***We*** will not be liable to ***you*** or anyone else if ***your equipment*** fails or is defective. ***We*** reserve the right to refuse to allow ***your equipment*** to be connected to ***our*** equipment and ***we*** will not be liable for the consequences of any such refusal.

44. MAKING CHANGES TO YOUR EQUIPMENT

44.1 If ***you*** wish to change ***your*** supply requirements or install additional electrical appliances or equipment with a total capacity greater than 2.5 Kilowatts (kW), ***you*** must let ***us*** know before doing so.

44.2 Advice should be forwarded to ***us*** on the 'Installing or Altering Supply' form. Contact the ***LD*** for copies or download a copy from the RAES website - www.energymining.sa.gov.au/raes.

44.3 Our consent to any alteration or addition to ***your*** supply requirements must be given before the change is made because the change may result in the overloading of ***our equipment***. This could cause damage to both ***your equipment*** and ***our equipment*** and may create unsafe conditions. If changes are made without ***our*** consent and overloading or other damage results, ***you*** will be responsible for the cost of repairs to ***our equipment***, the equipment of any other ***Customer*** and ***your*** own equipment.

45. SERVICE RULES

45.1 The Service Rules provide details on the characteristics of the electricity supply ***we*** provide to ***your*** premises and the technical requirements of ***your*** installation.

45.2 ***Your*** installation must comply with the requirements of the Service Rules (Part B attached).

46. SUPPLY INTERRUPTIONS

46.1 ***We*** will endeavour to provide ***you*** with a continuous supply of electricity. However, circumstances may arise where supply may fail or ***we*** may be required to interrupt or ration ***your*** supply. Wherever possible, early notice of the interruption or restrictions will be given through the media or via the ***LD***.

47. INFORMATION

47.1 ***We*** will provide any information required under current legislation, relating to the supply of electricity, providing the appropriate fees and charges are paid (if applicable).

48. QUERIES AND COMPLAINTS

48.1 If ***you*** have a query or a complaint relating to this contract generally, ***you*** may contact ***us*** as follows (as updated and notified to ***you*** from time to time):

Write:

Remote Areas Energy Supplies (RAES)
Energy Markets & Programs
GPO Box 320
Adelaide SA 5001

Call:

(08) 8226 5500

Email:

DEM.RAES@sa.gov.au

48.2 If ***you*** have a query or complaint relating to the the sale of electricity by ***us*** to ***you***, or the connection or supply of electricity to ***your*** premises or property, ***you*** should contact the ***LD*** as follows (as updated and notified to ***you*** from time to time):

Write:

Cowell Electric Supply
PO Box 70
Cowell SA 5602

Call:

1800 805 020

Email:

accounts@cowellelectric.com.au

PART B: SERVICE RULES

The objective of these Service Rules is to provide electricity customers, registered electrical workers and other people in the industry with the technical requirements for electrical installations connected to the RAES Network. Customer's electrical installations must comply with the Wiring Rules in AS/NZS 3000 as they apply from time to time.

It is intended that this document will be used by RAES customer's licensed electrical contractors, registered electrical workers and other associated industry personnel who may be involved with the connection of customer's electrical installations to the RAES Network.

49. INTRODUCTION

49.1 Scope

(a) These Service Rules relate to the supply of electricity to consumers in the RAES scheme including Aboriginal Communities and set out the requirements for all electrical installations in or on buildings, structures and premises and details the essential requirements to ensure that a ***Customer's*** electrical installation is suitable for connection to the electricity distribution system provided by the ***LR*** and operated by ***LD***.

(b) These Service Rules do not apply to equipment belonging to the ***LD*** in the ***Customers'*** premises, e.g. the service line or underground service cable, service protective devices, metering equipment etc.

49.2 Additional requirements

(a) These Service Rules shall be applied in conjunction with the RAES Conditions of Supply and *AS/NZS 3000:Electrical installations (known as the Australian/New Zealand Wiring Rules)* [AS/NZ 3000].

50. SYSTEMS OF SUPPLY

50.1 Particulars of supply

(a) The electricity supplied is an alternating current of approximately sinusoidal waveform at a frequency of 50 Hertz (Hz). The Distribution Network is generally carried out using a three phase, four wire system and the supply voltage will be accordance with *AS 60038 – Standard voltages* - typically 230/400 Volts (V).

(b) High frequency control voltages may be superimposed on the normal supply voltage and ***Customers*** may have control switches and time switches (supplied and installed by the ***LD***) installed on their premises for the purposes of load and voltage control.

50.2 Earthing of supply systems

(a) The neutral conductor of the Distribution Network is solidly earthed.

51. BALANCING OF LOAD ON CUSTOMER'S MAINS

51.1 In an installation supplied through a service having more than one phase or active conductor, the total load shall be balanced as nearly as practicable over the phase or active conductors and in any case shall be so arranged that the out-of-balance current shall not normally exceed 25 A unless permitted for individual appliances in writing by the ***LD***.

52. LIMITATION ON LOADING OF APPLIANCES

52.1 General

(a) Individual appliances, other than those dealt with specifically in this rule shall comply with the following requirements unless otherwise permitted by the ***LD***.

3 PHASE 4 WIRE 240/415 V SYSTEM

(b) The rated current of any appliance arranged for connection to one phase and neutral shall not exceed 25 A. The total of the rated phase currents of any appliance arranged for connection to two-phase conductors and neutral shall not exceed 50 A. Any multi phase appliance shall be so arranged that the loading is balanced as nearly as practicable over the phases and the out-of-balance shall not exceed 10 % of the total rating unless approved by the ***LD***.

1 PHASE 3 WIRE 240/480 V SYSTEM & 1 PHASE 2 WIRE 240 V SYSTEM

(c) The rated current of any appliance arranged for connection to one active (phase) and neutral shall not exceed 25 A. Notwithstanding the preceding requirements, an appliance installed in an installation supplied by a 1 phase and neutral service line may have a rated current of up to 45 A provided a no-volt relay or an on-delay timer is fitted to the appliance or to the final sub-circuit supplying the appliance.

(d) The no-volt relay shall have a manual reset and the timer shall sense the supply voltage and have a minimum on-delay of not less than 10 seconds.

52.2 Ranges in domestic Installations

(a) Ranges having a rating not exceeding 17 kW may be connected between one active conductor and neutral.

52.3 Spa swimming pool equipment in domestic Installations

(a) Installations of spa/swimming pool equipment, incorporating a 240 V blower motor, a 240 V pump motor and a heater with a rating not exceeding 6 kW, may be connected between one active conductor and neutral.

52.4 Motors

(a) The maximum rating of any motor shall not exceed 2.5 kW unless approved by the ***LD***.

52.5 Welding plant

(a) The ***LD*** may refuse to supply or continue to supply electricity to any welding plant, the use of which may cause or is causing interference to any other ***Customer***.

(b) Welding plant having 3 phase to 1 phase conversion transformers shall not be connected, but 1 phase welding loads may be balanced on welding plant having a 3 phase transformer. Three phase supply will not be made available free of charge merely to facilitate the use of such plant.

(c) Subject to the above restrictions, the ***LD*** may allow the connection of the following welding plant at localities where the capacity of the generation/distribution system is adequate.

(d) Welding plant having input ratings exceeding the specified values and other types of welding plant may be connected only under special circumstances and with the approval of the ***LD***.

240 V ARC WELDING MACHINES

(e) 240 V single phase arc welding machines rated as "Limited Input Plant" in accordance with *AS 1966 - Electric arc welding power sources – Plasma arc cutting and welding types* (superseded by *AS 60974 – Arc welding equipment – Welding power sources*) [AS 60974] and drawing a maximum short circuit input current not exceeding 35 A may be connected between one active conductor and neutral.

415 V SINGLE PHASE ARC WELDING MACHINES

(f) 415 V single phase arc welding machines rated in accordance with AS 60974 and drawing a maximum short circuit input current not exceeding 45 A in town localities or 25 A in localities that are not towns may be connected between two active conductors.

480 V SINGLE PHASE ARC WELDING MACHINES

(g) 480 V single-phase arc welding machines rated in accordance with AS 60974 and drawing a maximum short circuit input current not exceeding 25 A may be connected between two active conductors.

415 V THREE PHASE ARC WELDING MACHINES

(h) 415 V three phase arc welding machines of the multi-operator type rated in accordance with AS 60974 and drawing a maximum short circuit input current not exceeding 75 A per phase in town localities or 45 A in localities that are not towns may be connected between three active conductors.

53. METHOD OF DETERMINING LOAD ON SERVICE

53.1 The assumed load for a proposed service shall be the maximum demand of the ***Customer's*** installation determined in accordance with AS/NZS 3000. The demand shall be calculated in amperes at 240 V.

54. SERVICE ARRANGEMENTS

54.1 In general, only one service will be provided to supply a property. Where an additional service is required and the ***LD*** agrees to install that service, the ***Customer*** will be required to contribute to the cost of the additional service.

54.2 Where more than one service is installed, the ***Customer*** shall label each service in an approved manner to indicate the presence and position of other services.

54.3 The service fuse box will be sealed with an official ***LD's*** seal. No person, other than an authorised employee or agent of the ***LD*** or ***LR*** or the holder of an A class Electrical Worker's licence authorised for a specific project shall break the seal or otherwise interfere with the service fuse box.

54.4 Generally, new services will be underground and the ***LD*** may elect to install a circuit breaker in lieu of service fuses.

54.5 UNDERGROUND

(a) For ***Customer's*** installations requiring underground ***Customer's*** mains, the location of the ***Customer's*** terminals will be determined by the ***LD***.

(b) Where the local administrative authority requires notification of ***Customer's*** underground wiring in a road reserve or the like, evidence of their approval shall be submitted prior to inspection and/or connection.

UNDERGROUND MAINS AREA

(c) The ***Customer's*** installations located in an underground mains area will be supplied from an underground service pit adjacent to the property boundary, unless otherwise approved by the ***LD***.

(d) The ***Customer's*** terminals will be deemed to be the point of connection between the ***Customer's*** mains and the distribution system cables at the service point.

54.6 OVERHEAD

(a) Where the circumstances are of a nature that an overhead service is permitted, the ***LD*** will decide the type of service line to be installed. The service box will be fixed on the exterior of the premises in a position free of obstructions from the ground level. If subsequent building alterations impede direct vertical access to the service box or hinder access in any other way, the right is reserved to disconnect the supply and the ***Customer*** shall pay the costs of alterations necessary to restore unobstructed access.

OVERHEAD MAINS AREAS

(b) A minimum clearance from ground level of 3 metres for open wire services or 2.7 metres for neutral screened services is required throughout the entire length of the service line. The length of a neutral screened service line shall be limited to 18 metres for a two wire service and 15 metres for a three and four wire service. Where the appropriate clearance is not available, the ***Customer*** shall provide a riser, or alternatively, the ***Customer*** will be required to contribute to the cost of other arrangements. The load terminals in the service fuse box shall be deemed the ***Customer's*** terminals.

55. TYPES OF SERVICE TO BE INSTALLED

55.1 The type of service installed will be dependent on the distribution system adjacent to the service point and the calculated maximum demand of the site. Note that the following information is a guide only and the ***LD*** shall have the final decision in the appropriate type of service.

55.2 3 PHASE 4 WIRE 240/415 V SYSTEM

The number of phases which will be provided to supply load in an installation shall be determined from the following:

(a) Calculated Maximum Demand not exceeding 70 A: Single phase (two wire service);

(b) Calculated Maximum Demand exceeding 70 A, but not exceeding 140 A: Two phase (three wire service);

(c) Calculated Maximum Demand exceeding 140 A: Three phase (four wire service).

Where the connection of an appliance requiring other than the type of service determined above is desired, then advice shall be sought from the ***LD***. Where it is agreed that a special service may be required, then the ***Customer*** may be required to contribute to the cost of the service.

55.3 SINGLE PHASE 2 WIRE 240 V NON-TOWN SYSTEM

A two wire 240 V service only is available.

55.4 TWO PHASE 3 WIRE 240/480 NON-TOWN SYSTEM

A two wire 240 V service will normally be installed. However, a three wire 240/480 V service may be provided as determined by the ***LD***.

55.5 INSTALLATION HAVING TWO OR MORE CUSTOMERS

In addition to the above stated requirements, where an installation has two or more potential ***Customers***, e.g. blocks of flats or shops with a maximum demand that does not exceed 70 A per phase, the number of phases or active conductors supplying the installation shall be determined from the following schedule:

55.6 3 PHASE 4 WIRE 240/415 V DISTRIBUTION SYSTEM

(a) Two potential Customers: Two phase (3 wire) service.

(b) Three or more ***Customers***: Three Phase (4 wire) service.

55.7 1 PHASE 3 WIRE 240/480 V DISTRIBUTION SYSTEM

For two or more potential ***Customers***: Three wire 240/480 V service.

55.8 1 PHASE 2 WIRE 240 V DISTRIBUTION SYSTEM

A two wire 240 V service will be provided.

56. SERVICE PROTECTION EQUIPMENT

56.1 General

(a) Where the ***LD*** does not provide service protection equipment at the **Customer's** service point, the ***Customer*** shall provide the enclosure and mounting facilities for the service protection equipment.

(b) The enclosure shall be in a position exterior to the building in a location, which is available to the ***LD's*** personnel at all times.

(c) Where the service protection equipment is enclosed in a low security area, e.g. behind a carport door, with a private fence etc., the access facility shall be fitted with an approved lock, which is compatible with the ***LD's*** Master Key System.

56.2 Equipment mounted on meter or switchboard panels

(a) Where the ***LD*** approves the mounting of the service protection equipment on the installations meter or switchboard panel, space shall be provided for the service protection equipment. Provisions shall be made for securing the conductor to any hinged or removable panel in such a position as to prevent movement of the conductors at the terminals of the service protection equipment. Mounting panels for the service protection equipment shall be constructed of a material complying with *AS/NZS 1795 - Sheets and boards for electrical purposes - Classification and general requirements* (Part 1) [AS/NZS 1795], as a Type X or Z material, which is flat on both the front and rear of the panel.

(b) Refer to the ***LD*** for details on the space required for the Principal's service protection equipment.

56.3 Equipment mounted in a discrete enclosure

(a) Service protection equipment may be mounted in a discrete enclosure, which must be fitted with an approved lock. Where the discrete enclosure forms part of a switchgear assembly it shall be completely segregated from all other parts of the assembly including metering equipment and shall be provided with a separate access door.

(b) A service protection equipment enclosure either of a single entity or forming part of a switchgear assembly must be approved by the ***LD*** before it is connected to the distribution system.

57. PROVISION AND INSTALLATION OF METERING EQUIPMENT

57.1 General

(a) Metering equipment will be supplied by the ***LR*** and, fixed and connected by the Contractor and will remain the property of the ***LR***. The metering equipment will be sealed by the ***LD*** and no person, other than an authorised employee or agent of the ***LD***, or the ***LR*** shall break the seal or otherwise interfere with the metering equipment.

57.2 Mounting facilities for standard base connected metering equipment

(a) The ***Customer*** shall provide suitable pre-drilled meter panels for the fixing of the ***LR***'s metering equipment. Meter panels shall be constructed of a material complying with AS/NZS 1795 as a type X or Z material which is flat on both the front and rear of the panel. The size and drilling of a meter panel for installations of other than the individual domestic type shall be determined by the ***LD***, but due allowance must be made by the ***Customer*** regarding any additional panel area that may be required for fixing such panel to its support or surround.

57.3 Single phase multiple domestic installation

(a) In a multiple installation that has one or more individual domestic portions which are capable of being metered with a single phase metering instrument, the ***Customer*** shall provide and install a meter box suitable for the appropriate meters and associated equipment.

57.4 Installation with a maximum demand greater than 100 A per phase

(a) In installations where the maximum demand exceeds 100 A per phase, the ***Customer*** shall provide facilities for the installation of current transformers for metering purposes.

(b) The installation and configuration details shall be as determined by the ***LD*** for the fixing, connecting, changing and enclosure of the ***LR***'s metering transformers and associated conductors.

58. LOCATION OF METERING EQUIPMENT

58.1 General

(a) The ***LD*** will determine the location for metering equipment. Unless specifically approved by the ***LD***, metering equipment enclosures will not be permitted to be mounted on poles or structures.

58.2 Domestic installation

(a) In individual domestic installations, metering equipment shall be fixed outside the building where the ***LD*** or the agent of the ***LR*** can gain access without hindrance.

58.3 Properties which are the subject of a strata plan/Community Title

(a) Metering equipment associated with an installation which is to be or is the subject of a strata plan/community title shall be installed in a location which is common property and accessible through common property as defined in the strata plan/community title.

58.4 Properties incorporating multiple tenancies not subject to strata plan/ Community Title metering

(a) Equipment associated with an installation with multiple tenancies shall be located in an area which is available during Business Hours.

58.5 Installation with a maximum demand greater than 100 A per phase

(a) Metering equipment shall not be located within 1.2 metres of un-bunched conductors rated at more than 100 A unless adequate magnetic shielding is provided.

59. ACCESSIBILITY OF METERING EQUIPMENT

59.1 General

(a) The ***LR***'s metering equipment shall be readily accessible in accordance with the conditions under which electricity is supplied in Designated Remote Areas.

59.2 Non-domestic premises

(a) In general, no objection will be raised to the location of metering equipment within non-domestic premises, which will always be open during ordinary Business Hours.

59.3 Mounting height

(a) Except where otherwise permitted by the ***LD***, the top of meter panels shall not be more than 2 metres and the bottom not less than 0.7 metres from the ground, floor, or platform level. Where a platform is required, the access to the platform, its size and any guard rails shall be approved by the ***LD***.

59.4 Locking facilities for access to metering equipment

(a) Where the ***LR***'s metering equipment is enclosed in an enclosure or a low security area or in a metering instrument enclosure behind a carport door behind a private fence, etc. the access facility to the area or enclosure shall be fitted with an approved lock which is compatible with the ***LR***'s Master Key System.

60. PROTECTION OF METERING EQUIPMENT

60.1 The ***LR***'s metering equipment shall not be exposed to weather, moisture, dust, vibration or mechanical damage. The ***Customer*** shall provide and maintain protection for the ***LR***'s metering equipment, by virtue of location or enclosure to the satisfaction of the ***LR***.

60.2 Where the ***LR***'s metering equipment is enclosed in a box, the following general requirements shall be observed:

(a) the suitability of any box shall be determined by the ***LD***;

(b) meter boxes for individual domestic installations shall be of an "approved" type complying with the requirements of the ***LR***. For the purpose of this rule, an individual domestic installation is one in a single dwelling;

(c) any hinges or fixings used to support a meter panel shall be of adequate strength to support the weight of the panel and meters thereon without sag of the panel when in the open position;

(d) hinged meter panels shall be capable of movement through an arc of not less than 60 degrees when the ***LR***'s metering equipment is fixed and connected. The movement of the panel shall not be obstructed in any way and the device used to retain the hinged panel in the closed position shall be in correct alignment when all necessary equipment is mounted on the panel; and

(e) access doors of the hinged type shall have the hinges mounted on the vertical side. Access doors of the sliding type shall move horizontally.

61. GROUPING OF METERING EQUIPMENT

61.1 Where a ***Customer*** is supplied with electricity at more than one tariff or where several ***Customers*** are supplied from the one service, the ***LR***'s metering equipment will be fixed in a group or groups, the location of which will be determined by the ***LD***.

62. INSTALLATIONS HAVING TWO OR MORE CUSTOMERS

62.1 General

(a) Where an electrical installation has two or more ***Customer's*** then facilities shall be provided to enable the connection and disconnection of supply to any ***Customer*** without interfering with the supply to any other ***Customer***.

62.2 Properties which are the subject of a strata plan

(a) Where the installation is to be, or is the subject of a strata plan the means of connection and disconnection, and the sub-main protection equipment shall be in a location which is common property and accessible at all times through common property as defined in the strata plan.

62.3 Properties which are not the subject of a strata plan

(a) Where the installation is not the subject of a strata plan, the means of connection, disconnection and the sub-main protection equipment shall be located in an area which is available at all times.

62.4 Circuit protection equipment

OVERCURRENT PROTECTION ARRANGEMENTS FOR SUB-MAINS

(a) Notwithstanding the arrangements of overcurrent protection devices laid down in AS/NZS 3000, the ***LD*** may permit a device for short circuit current protection to be positioned at the origin of the sub-main and a device for the overload current protection to be positioned at the termination of the sub-main, provided:

- the overload current protection device is under the control of the ***Customer*** who is being supplied by the sub-main; and
- the overload current protection device effectively discriminates with the short circuit protection device.

FUSE LINKS

(b) In general, non-rewirable fuselinks shall not be installed in a location which is under a ***LD's*** security seal.

(c) Where the ***LD*** permits non-rewirable fuses under a ***LD's*** security seal, a complete set of spare fuse cartridges shall be provided and maintained by the ***Customer*** in an approved enclosure to permit prompt replacement.

(d) The enclosure shall be fitted with either an approved lock which is compatible to the ***LD's*** Master Key System or a lock which will accept a 7 millimetres (mm) square turn buckle / spanner key with a 16 mm outside diameter.

62.5 Meter Isolating Devices for all Customers

(a) Where an electrical installation has one or more ***Customers***, a meter isolator shall be provided by the ***Customer*** to individually isolate the metering equipment and outgoing sub-mains (circuits) associated with each ***Customer***.

(b) Where a single ***Customer*** has multiple meters due to tariff requirements, a single meter isolator shall be used for isolation of that metering combination.

(c) The meter isolator shall be a circuit breaker with its operational status clearly visible at all times and operating mechanism accessible for local operation by the ***Customer***. However, provisions for the attachment of ***LD's*** security seal are required for all terminal covers as well as the adjustment mechanisms where an adjustable circuit breaker is used. The means of locking is required to be of adequate construction and permanently attached to either the circuit breaker or its enclosure.

(d) Wherever reasonably practical the meter isolator shall be located immediately adjacent the meter(s) or metering transformers which it isolates.

(e) Where a large number of meter isolators are required, or for safe switchboard design, the meter isolators may be installed in a separate sealed compartment of the switchboard. In such cases the means of operating and locking each meter isolator shall be accessible without the need to open escutcheon panels or break the security seal.

(f) Each meter isolator shall be capable of being individually locked in the off (open) position only, however, where safety services systems as defined in AS/NZS 3000 such as fire detection, warning and extinguishing systems, smoke control systems, evacuation systems and or lifts are supplied through the meter isolator, then the meter isolator shall be provided with facilities for locking it in both the on (closed) and off (open) positions.

(g) The rating of the circuit breaker must be sized or adjusted as close as practical to the maximum demand as specified by the connection agreement of the tenancy that the meter relates to.

(h) The meter isolator will be required to grade with the ***LD's*** service protection device. Refer to Notes below, and consult with ***LD*** to ensure that the meter isolator can operate appropriately with the characteristics of the ***LD's*** service protection device. When selecting a suitable circuit breaker, consideration should be given to the environment in which it is to be installed (e.g. high ambient temperatures may affect some circuit breakers performance).

Note 1:

1. Except where safety services exist, for all single and multiple residential installations the meter isolator shall be regarded as the main switch. For such installations this device will be the main switch, meter isolator and load control and shall be marked accordingly. Consequently, the enclosure housing this device becomes the main switchboard and the MEN connection shall be made within that enclosure.

Exception:

1. This requirement shall not apply where a meter position is supplied via an unmetered sub-main and the electrical installation that contains the meter position is not being regarded as a separate outbuilding.

Note 2:

1. Where approved motor starting prevents effective grading with the ***LD*** service fuse, then the meter isolator circuit breaker may be selected for effective grading for sustained overload protection characteristics only.

62.6 Facilities for the connection of metering equipment in non-domestic premises having one or more Customers

(a) In non-domestic buildings i.e. offices, medical centres, shops etc. where it is likely that changes in tenancies will result in the ***Customer*** occupying differing numbers of rooms or suites of rooms or the like, the following arrangements shall be provided by the developer.

(b) A metering junction box located not more than 2 metres or less than 0.7 metres from the ground or platform level and in a position accessible to the ***LD***.

(c) Each meter connection box shall be protected by an over-current circuit breaker complying with Clause 63.5 in each active conductor, provided with a separate terminal for each incoming and outgoing terminal and shall be arranged for sealing with a ***LD's*** seal.

(d) Stranded copper cables only shall be used for the wiring between the metering connection box, the ***LR***'s metering equipment and the ***Customer's*** switchboards. Each individual section of the development which may be the subject of a separate tenancy shall be individually metered.

62.7 Marking

(a) Where provision is made for individual ***Customers*** within an installation, each portion of the installation shall be suitably identified at the link, fuse or circuit breaker located at the origin of the circuits and at their main control. Where a building is subdivided and a supply of electricity is given to occupiers of individual rooms, suites, shops, flats or the like, an identification number must be marked on the main entrance door of each room, suite, shop or flat and on the corresponding fuse, circuit breaker and switchboard.

63. PROSPECTIVE FAULT CURRENT

63.1 General

(a) The ***Customer's*** electrical installation shall be so arranged and protected to withstand, without damage, the prospective fault current applicable throughout the Installation. Where the service is greater than 100 A, supplied direct from a transformer, the prospective fault current at the ***Customer's*** terminals shall be obtained from the ***LD***.

(b) Notwithstanding the above, installations comprising a non-domestic installation and one domestic living portion shall be arranged so that each individual ***Customer's*** supply can be disconnected or reconnected by an approved isolator which is capable of being locked in only the open or off position.

(c) **NOTE:** For the purpose of this clause, Single Wire Earth Return (SWER) and Non-Town single phase high voltage distribution systems shall be considered as street mains.

63.2 Interrupting capacity of protective devices

(a) In general, the ***Customer*** shall provide protective devices having an interrupting capacity adequate for the prospective fault current at the point of installation.

(b) Where a ***Customer's*** installation is supplied from street mains, the protective devices mounted on the ***Customer's*** main switchboard shall be rated at not less than the following:

- Residential Installations
  - 80A Service: 4.5 kilo amp (kA)
  - 100A Service: 6 kA
- Commercial and Industrial Installations
  - 80A Service: 6 kA.

63.3 Discrimination between service protection device and main protective equipment

(a) Effective discrimination shall be arranged between the protective devices at the ***Customer's*** main switchboard and the ***LD's*** protective devices unless otherwise permitted by the ***LD***.

63.4 Fault current limiter

(a) Unless approved by the ***LD***, fault current limiters installed to protect ***Customer's*** protective equipment shall not be placed in a location where they are under the ***LD's*** security seals.

(b) When approval is given for a set of fault current limiters to be placed under the ***LD's*** security seal, a complete set of spare fault current limiters shall be provided and maintained by the ***Customer*** in an approved enclosure to permit prompt replacement.

64. CUSTOMER'S MAINS

64.1 General

(a) The un-metered portion of a ***Customer's*** installation shall be designed in such a manner that a deliberate act is required for a connection to be made to any un-metered conductor. Any fuses, switches, or junction boxes installed in the un-metered portion of an installation shall be of an approved type and arranged for sealing with the ***LD's*** security seals. No person, other than an authorised employee or agent of the ***LD*** or the ***LR***, shall connect, disconnect or otherwise interfere with any un-metered conductors or associated equipment between the ***Customer's*** terminals and the ***LR***'s metering equipment.

64.2 Connection into metering equipment

(a) Single strand conductors or aluminium conductors shall not terminate in the ***LR***'s metering equipment. The terminals of the ***LR***'s metering

equipment shall not be used as a facility for connecting together the various circuits of a ***Customer's*** installation.

64.3 Size

(a) The size of the conductors used for the ***Customer's*** mains shall not be less than 16 mm^2 copper. All the active conductors shall be the same cross sectional area and material.

(b) Where different thermal grades of insulation are employed for the ***Customer's*** mains, the current carrying capacity of the circuit conductors shall be that of the conductor with the lowest thermal grade of insulation. The cross sectional area of the conductor employed in the ***Customer's*** mains must be capable of connection to the ***Customer's*** terminals.

(c) The above requirements may be achieved by one of the following:

- In some instances, the ***LD*** may permit a different type of ***Customer's*** terminals to be installed provided they have been advised prior to construction and the ***Customer*** is prepared to pay the additional costs incurred by the ***LD***.
- The ***Customer's*** mains conductors may be junctioned prior to the ***Customer's*** terminals, i.e. the ***Customer's*** 'mains conductors are reduced to a size that is compatible to the ***Customer's*** terminals and is capable of carrying the maximum demand of the electrical installation.

64.4 Cable Types

(a) ***Customer's*** mains installed in a building, structure or the like which are not protected on the supply side by a short circuit protective device shall be constructed of insulated and sheathed cables installed in a metallic wiring enclosure.

64.5 Types of enclosure

(a) The ***Customer's*** mains between the ***Customer's*** terminals and the ***LR***'s metering instruments, shall be completely enclosed in an approved conduit or ducting except that such enclosures will not be required for metal armoured cable, metal sheathed cable, neutral screened cable or where other types of cables or conductors are readily open to view or located in normally inaccessible places or underground. Metal and non-flexible enclosures, sheathing or armouring of the ***Customer's*** mains shall not be joined rigidly to the ***LR***'s service fuse boxes.

64.6 Underground **Customer's** mains

(a) Wiring systems permitted - Underground **Customer's** mains shall be constructed of any wiring system permitted by AS/NZS 3000.

(b) Entry into the structure - **Customer's** mains which are not protected by circuit protection devices at the consumers' terminals shall enter into or onto the structure, building or the like within the vertical planes

immediately beneath the enclosure which accommodates the service protection equipment.

(c) Mechanical protection – **Customer's** mains installed in an exterior location above ground level e.g. on poles, on wall faces, over footings etc. shall be provided with mechanical protection to a height of at least 2.5 metres above ground level and not inferior to the protection afforded by an appropriate size medium duty galvanized water pipe manufactured in accordance with AS/NZS 1074 - Steel tubes and tubulars for ordinary service.

(d) Prohibited cables or enclosures - Armoured cables, mineral insulated metal sheathed cables, neutral screened cables and metallic piping shall not enter into the ***LD***'s service pit.

(e) Depth of laying - Underground **Customer's** mains shall be installed at a depth of not less than 600 mm unless otherwise approved by the ***LD***.

(f) Entry into service pit or transformer vault - Where underground **Customer's** mains are to enter into the ***LD***'s service pit or transformer vault, they shall enter through the aperture or ducting system provided. Where there is no facility provided, a neat hole shall be made at a depth of 600 mm below the final ground level.

(g) The **Customer's** mains shall be of sufficient length to effect a connection to the **Customer's** terminals and be not less than 600 mm above the top of the ***LD***'s service pit.

(h) The ends of the cable shall be protected by the equivalent of double insulation to prevent contact with live conductors within the service pit or transformer vault.

(i) Sealing of entry into service pit or transformer vault - A seal which prevents the transmission of liquids, termites and vermin through the conduit .or duct, shall be provided within 900 mm of the entry into the ***LD***'s service pit or transformer vault.

(j) A site plan shall be provided inside the meter enclosure showing the position of underground Customers mains, sub mains or other underground reticulation.

64.7 **Customer's** mains supplied from an aerial service

(a) ***Customer's*** mains protected on the supply side by a short circuit protective device shall be constructed of any wiring system permitted by the AS/NZS 3000 and subject to the additional requirements of these Service Rules.

64.8 Underground wiring, wiring embedded in concrete or attached to structural metalwork

(a) The ***LD*** will determine the conditions under which wiring may be installed for ***Customer*** installations where:

- the underground wiring is embedded in a concrete floor;
- any structural metalwork or metallic cladding which is in contact with the electrical installations; or
- is located within 3.5 metres of a steel pole supporting a Transmission or Distribution Network, or a transformer station.

65. LOCATION OF CUSTOMER'S ELECTRICAL INSTALLATION

65.1 Except where the ***LD*** supplies a duct or a pipe for the connection to a service pit the ***Customer's*** electrical installations shall be constructed only on the real property which is registered in the same name as the property for which the service has been provided.

66. SEGREGATION OF MULTIPLE SERVICES

66.1 Where two or more services are provided to supply any building, the ***Customer's*** wiring shall be so arranged that the limits of the installation connected to each service are clearly defined. There shall be no interconnection between multiple services, and, unless any additional service is provided to supply specific equipment only, the whole of the installation in any defined portion of the premises must be supplied from the same service.

66.2 Metal enclosures which contain the ***LD's*** service protection equipment shall not be connected to the installation earthing system. It shall be connected to the neutral conductor of the ***Customer's*** mains by a conductor of the same cross-sectional area and material.

66.3 Any connecting device required shall include facilities for securely clamping the conductor between metal surfaces in such a manner as to prevent the spreading of the cable strands. Where tunnel terminals are used they shall have two clamping screws except that for conductors larger than 16 mm2, one clamping screw may be used if its diameter is not less than 90 % of the tunnel diameter.

67. MOTORS

67.1 General

(a) The installation of all motors with a total capacity of 2.5 kW or greater shall not proceed without the prior approval of the ***LD*** or the ***LR***. Approval for the installation of these motors may be subject to the installation of current limiting equipment during starting and the use of multi-phase motors.

67.2 System disturbances

(a) Motor installations shall be arranged and operated to prevent interference with the supply of electricity to other ***Customers***. Except where otherwise approved by the ***LD***, the motor installation shall be designed so that the current drawn by motors during the conditions of

starting or change of speed shall comply with the conditions set out in this clause and as applicable to the system of supply.

67.3 Starting currents

TOWN AREAS - 3 PHASE 4 WIRE 240/415 V & 1 PHASE 2 WIRE 240 V SYSTEMS

(a) The installation shall comply with either of the following:

- Fall in voltage - the current drawn during starting or change of speed shall not cause a fall in voltage of more than 5 % for more than 0.02 second when connected to a 50 Hz supply system having the following impedance;
  - phase to neutral 0.2 + j 0.2 ohms
  - line impedance per phase 0.1 + j 0.1 ohms or
- Single phase 240 V motors 30 A
- Single phase 415 or 480 V motors 30 A
- Three phase 415 V motors 30 + 3.3 k amperes (where "k" is the continuous output rating in kW of the largest motor in the installation).

NON-TOWN AREAS - 1 PHASE 2 WIRE 240 V, 2 PHASE 3 WIRE 240/480 V & 3 PHASE 4 WIRE 415 V SYSTEM

(b) The installation shall comply with either of the following:

- motors not exceeding 2.5 kW shall have a starting current less than 30 A; or
- motors of capacity 2.5 kW or greater – as approved by the ***LD***.

(c) Fall in voltage may be determined by oscillographic, or other methods considered suitable by the ***LD***.

(d) For the purpose of this clause, starting currents shall be determined by the locked rotor method or, if this is not practicable, by such other method as determined by the ***LD***.

68. APPLIANCE/EQUIPMENT RESTART

68.1 Where the following appliances or equipment are installed:

(a) comfort heating systems rated at 6 kW or greater;

(b) air conditioning equipment not connected to a general purpose socket outlet (10A); or

(c) compressor equipment (including air conditioning) rated at 2.4 kW or greater;

68.2 The ***Customer*** must ensure that the equipment is provided with either of the following:

(a) an under-voltage release with a manual reset; or

(b) an ON-delay timer which senses the supply voltage and where automatically operated has a minimum on delay of not less than 10 seconds.

69. SUPPLY DISTURBANCES

69.1 The ***Customer*** must ensure that voltage disturbances caused by the ***Customer's*** installation or by any appliances do not result in voltage disturbances to other ***Customers***, greater than the limits prescribed in:

(a) AS 61000/NZS.3.3 – Electromagnetic compatibility (EMC) – Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current (<=16 A per phase and not subject to conditional connection); and

(b) AS/NZS 61000.3.5 – Electromagnetic compatibility (EMC) – Limits – Limitation of voltage fluctuations and flicker in low-voltage power supply systems for equipment with rated current greater than 16A.

70. POWER FACTOR

70.1 The power factor of an installation at full load shall be between 0.8 lagging and unity (1.0). During times, other than full load, the ***Customer*** shall use ***best endeavours*** to ensure the power factor of the installation remains between 0.8 lagging and unity (1.0).

71. HARMONIC DISTORTION

71.1 The ***Customer*** must ensure that harmonic distortion caused by the ***Customer's*** installation or by any appliance is not in excess of the limits prescribed in *AS/NZS 61000.3.2 Electromagnetic compatibility (EMC) – Limits – Limits for harmonic current emissions (equipment input current (16 A per phase)*.

71.2 Further to this, the contribution to harmonic voltage distortion of the AARD distribution system, by any one ***Customer***, shall be no greater than the values listed below.

71.3 Maximum allowable harmonic distortion at the service point is:

(a) Total: 1.67 %

(b) Any individual odd harmonic: 1.33 %

(c) Any individual even harmonic: 0.67 %

72. TEMPORARY SERVICES

72.1 Where the ***LR*** agrees to provide a temporary service, the ***Customer*** will be required to contribute to the cost of the service in addition to the cost of electricity used and any charge for the meters.

73. CUSTOMER GENERATORS

73.1 ***Customer's*** generators shall not be connected to operate in parallel with the distribution system unless specifically approved by the ***LD***.

73.2 Where approval is granted to operate in parallel with the Principal's supply the ***Customer's*** generator must be compatible with the Principal's supply and additional protection will be required to disconnect the ***Customer's*** generator during abnormal conditions.

73.3 Where ***Customer*** generators are used for standby generation they must be connected in such a way that feedback to RAES Power Stations is not possible.

74. INTERFERENCE WITH SUPPLY TO OTHER CUSTOMERS

74.1 General

(a) All electrical installations connected to the ***LD's*** distribution system shall be constructed in accordance with AS/NZS 3000.The ***LD*** will permit connection of apparatus having large or fluctuating demand, such as electrical furnaces, welders, X-Ray equipment, ***Customer*** generators etc. only when it is satisfied that by so doing its supply to other ***Customers*** will not be prejudicially affected.

(b) The ***LD*** will disconnect installations that are interfering with the quality of supply to other ***Customers***.

74.2 Modification to **Customer's** equipment

(a) If the ***Customer*** uses or deals with the electricity supplied to him in such a manner as to cause, in the opinion of the ***LD***, undue interference with the supply to other ***Customers***, the ***LD*** may require him to make the necessary adjustments or alterations and so operate the appliance or equipment as to ensure that the supply to other ***Customers*** will not be interfered with and, in the event of his failing to do so, the ***LD***, as set out in the Conditions of Supply (Part A attached), may discontinue the supply of electricity to the premises. ***The*** fact that the ***Principal*** shall have connected and have approved any appliance or equipment shall not be taken to exempt the ***Customer*** from subsequent application of this rule.