



**CONNECTION AGREEMENT FOR DISTRIBUTED  
GENERATION**

**between**

**TOP ENERGY LIMITED  
(Distributor)**

**and**

**NGAWHA GENERATION LIMITED  
(Distributed generator)**

This Agreement is dated

13 May

2020

**BETWEEN**

**TOP ENERGY LIMITED (“Distributor”)**

**AND**

**NGAWHA GENERATION LIMITED (“Distributed generator”)**

### **Background**

- A. The Distributor owns and operates the electricity network in the Far North District of the North Island.
- B. The Distributed generator (a wholly owned subsidiary of the distributor) owns a geothermal generation plant which is connected to the distributor’s network and as such is a distributed generator in terms of the Electricity Industry Participation Code 2010 (“Code”).
- C. Part 6 of the Code provides a framework to enable the connection of distributed generation to networks and provides for regulated terms that apply to the connection of distributed generation in the absence of contractually agreed terms.
- D. The parties have agreed that the regulated terms provided for in Part 6 of the Code, and set out in Schedule 6.2 of the Code, will apply to the Distributed generator’s Distributed generation except to the extent that this agreement provides otherwise.

### **It is agreed:**

## **1. Definitions and Construction**

**1.1 Definitions in Act and Code:** In this agreement terms defined in the Code or the Electricity Industry Act shall have the same meanings unless the context requires otherwise.

**1.2 Definitions in this Agreement:** In this Agreement unless the context requires otherwise;

**Act** means the Electricity Industry Act 2010;

**Business day** means any day of the week other than Saturday, Sunday, or a public holiday (within the meaning of the Holidays Act 2003);

<b>Capacity</b>	in relation to a distribution network, means the capability of the network to convey electricity under a range of load and generation conditions in accordance with reasonable and prudent operating practice;
<b>Code</b>	means the Electricity Industry Participation Code 2010;
<b>Connect</b>	in relation to distributed generation, means to be connected to a distribution network or to a consumer installation that is connected to a distribution network;
<b>Consumer installation</b>	includes: <ul style="list-style-type: none"> <li>(a) an electrical installation; and</li> <li>(b) any fittings that are used, or designed or intended for use, by any person in or in connection with the generation of electricity so that electricity can be injected into a distribution network;</li> </ul>
<b>Distributed generation</b>	means the Distributed generator's equipment used, or proposed to be used, for generating electricity that: <ul style="list-style-type: none"> <li>(a) is connected, or proposed to be connected, to a distribution network, or to a consumer installation that is connected to a distribution network; and</li> <li>(b) is capable of injecting electricity into that distribution network, and</li> </ul> <p>which is located at the location specified in Part A of the Schedule;</p>
<b>Distribution network</b>	means the electricity lines, and associated equipment, owned or operated by the Distributor, but does not include: <ul style="list-style-type: none"> <li>(a) the national grid; or</li> <li>(b) an embedded network that is used to convey less than 5 GWh per annum</li> </ul>
<b>Distributor</b>	means Top Energy Limited;
<b>Distributed generator</b>	means Ngawha Generation Limited;
<b>Maximum Injection</b>	means the maximum amount of power the Distributor has agreed to permit the Distributed generator to inject into the Distributor's network; as specified in Part B of the Schedule;
<b>Point of connection</b>	means the point at which the distributed generator's distributed generation is connected to the Distributor's network as specified in Part C of the Schedule;
<b>Regulated Terms</b>	means the terms set out in Schedule 6.2 of the Code

**Retailer** has the same meaning as electricity retailer in section 5 of the Act;

**Transmission Pricing** means the methodology determined by Transpower New Zealand Limited (Transpower) and used by them to charge distributors for inter connection charges and being based on Regional Coincident Peak Demands.

### 1.3 **Application forms, technical specifications and policies:**

For the purposes of this Agreement, the application forms, technical specifications and policies of the distributor are to be read in the context of this Agreement although they do not form part of this Agreement.

## 2. **Agreed connection terms**

The parties agree that the terms upon which the Distributed generator's Distributed generation may connect to the Distributor's network are the Regulated Terms except as is provided in this Agreement.

## 3. **Term**

3.1 The term (Term) of this Agreement is 20 years from the date hereof.

3.2 Six months prior to the expiry of the Term, if requested by the Distributed generator, by notice in writing to the Distributor, the parties will enter into good faith negotiations to seek to agree an extension of the Term or a new agreement to provide for the Distributed generator's Distributed generation to remain connected to the Distributor's network and inject electricity into that network.

3.3 This Agreement supersedes and replaces in its entirety all prior Connection Agreements entered between the parties and all other understandings or representation of the parties, whether written or otherwise.

## 4. **Metering**

4.1 Metering for exported generation is to be supplied and installed by the Distributed generator at the location specified in Part D of the Schedule.

4.2 If four-quadrant metering (import/export/real and reactive power) is required to be installed in accordance with this Agreement, the Distributed generator will supply and install such metering at the location specified in Part D of the Schedule.

4.3 If local supply metering is required to be provided in accordance with this Agreement it will be supplied and installed by the Distributed generator at the location of the Distributed generation.

## **5 Termination**

5.1 The Distributor may terminate this Agreement if:

(a) The Distributed generator physically removes the distributed generation from its location and is no longer connected to the Distributors network; or

(b) The Distributed generator is in breach of any of its obligations under this Agreement and has failed to remedy such breach within a time which is reasonable having regard to the nature of the breach, having received notice in writing requiring remedy of such breach from the Distributor.

(c) The Distributed generator:

(i) has a receiver appointed to the whole or any substantial part of its undertaking, property or assets;

(ii) is deemed or presumed to be unable to pay its debts within the meaning of the Companies Act 1993, becomes or is deemed to be insolvent, or is in fact unable to pay its debts as they fall due, or proposes or makes a consignment, or an arrangement or composition with or for the benefit of its creditors;

(iii) is removed from the register of companies or is subject to liquidation, either where an application for an order is made for or an effective resolution is passed for its liquidation; or

(iv) sells its business, or its undertaking, property or assets comprising the major part of its business without the prior consent of the Distributor, which consent shall not be unreasonably withheld.

5.2 If the Distributor wishes to terminate this Agreement it will give the Distributed generator written notice of termination which will be effective on the 5th Business day after it is given.

## **6. Connection Charges**

6.1 The Distributor's pricing principles under 6.9 of the Code require that any distinct and identifiable capital expenditure, for example (without limitation) costs for a significant asset replacement or upgrade, attributable to the Distributed generation that is required to be met by the Distributor, such costs will be paid by the Distributed generator and must be paid before the Distributor commits to incurring those costs

6.2 If asset replacement or upgrade costs referred to in clause 6.1 exceed \$5.0 million, the Distributor may, in its absolute discretion but applying a consistent methodology which takes into account financial and credit risk, agree to alternative payment terms, but in no case will such payment terms be for a period greater than the life of the asset or the term of this Agreement (whichever is greater)

- 6.3 If alternative payment terms agreed to by the Distributor include a monthly fee, for any dedicated network assets that enable the Distributed generator to inject into the Distributor's network, such fee will be that which is published by the Distributor as part of the Distributor's tariffs. Any change to such charge will be notified to the Distributed generator in writing at least 60 days prior to it taking effect.
- 6.4 If the Distributed generation is connected to the Distributors substation, the Distributor will provide a single metering and communications cabinet in that substation to accommodate the Distributed generator's meter and communications equipment. The cost of this cabinet (as specified in Part E of the Schedule), will be charged to the Distributed generator who will pay such cost at the time of the first fee payable under clause 6.1 and 6.2.
- 6.5 The Distributed generator shall contribute to the cost of grid connection and grid transmission charges for export incurred by the Distributor calculated on the following basis:
- (a) the cost of grid connection and transmission charges for export payable by the Distributor to Transpower on a half hour basis, and
  - (b) the gross half hour value of export to the national grid in MW from Kaikohe GXP,  
multiplied by
  - (c) the half hour generation produced by the Distributed generator as a percentage of the total embedded generation on the Distributor's network in that half hour.
- 6.6 If connection of the Distributed generation requires additional transmission asset investment which is incurred by the Distributor, the Distributed generator shall contribute to the additional costs of grid connection and grid transmission charges in proportion to the Distributed generator's share of the total use on the used capacity of those additional transmission grid assets. For clarity, if the Distributor generator who caused the additional costs is the only party using those additional transmission grid assets, then that Distributed generator shall pay for the full cost of those additional transmission grid assets. This will continue for the term of the contract or until another party starts to use the capacity within those additional transmission grid assets, in which case the cost of those additional transmission grid assets shall be shared proportionately based on usage.
- 6.7 If this Agreement is terminated after transmission investments referred to in clause 6.6 have been made by the Distributor, the Distributed generator shall be liable for the Distributed generator's share of ongoing transmission charges attributable to such additional transmission assets for the period of the term of

this Agreement had it not been terminated. Payment of such amount must be made at the time of termination of this Agreement.

- 6.8 If payment is required to be made by the Distributed generator in accordance with clause 6.5 the provisions of clause 14 will apply.

## **7. Line charges for electricity consumption on local service supply**

- 7.1 The Distributed generator will pay, for any off-take from the Distributor's network on the local service supply and off-take on the Distributed generation connection (from the Distributor's network to the Distributed generator's station) including the Distributors line charges at the applicable rate published by the Distributor for the relevant class of connection, to its nominated energy retailer.

## **8. Avoided Transmission Credits**

- 8.1 This clause 8 only applies to distributed generation that is eligible to receive avoided costs of transmission (ACOT) payments under the regulated terms, as required by clause 2(a)(i) of schedule 6.4 of the Code. Generation which is distributed generation that is not eligible to receive ACOT payments as set out in clause 8.1 is not excluded from receiving ACOT payments by this Agreement. In order to receive ACOT payments, the owners of that distributed generation where distributed generation is providing a transmission alternative will be required to negotiate agreement directly with Transpower.
- 8.2 In respect of Distributed generation which is eligible for ACOT payments from the Distributor, after each month-end, the Distributor will credit the Distributed generator for any reductions in the transmission charges payable by the Distributor to Transpower that are attributable to the operation of the Distributed generator's Distributed generation as determined under clause 8.3 and 8.4, during the relevant capacity measuring period.
- 8.3 Under the present Transmission Pricing Methodology (TPM), the avoided transmission credits will be assessed on the basis of the average MW injected (if any) at the times of the 100 chargeable Upper North Island (UNI) Regional Coincident Peak Demand (RCPD) periods for Interconnection charges, as determined by Transpower and set out in Transpower's current agreement with the distributor, after the capacity measuring period (as defined by the TPM) each year. Accordingly:
- (a) Any reductions in the transmission charges payable by the Distributor attributable to injection from the Generator's generation plant from the commencement date of this document will be taken into account; and
  - (b) To the extent practical, for the period of 12 months after the term (taking into account any extensions to the term or any early termination), the Distributor

will credit to the Distributed generator the amount the Distributed generator would have been credited for reductions in transmission charges payable by the Distributor if the term had been extended by a further 12 months. Except for the case of a serious breach of the terms by the Distributed generator, this provision will survive termination.

- 8.4 Should the TPM change, the Distributor will, acting reasonably, assess the extent to which transmission charges payable by the Distributor are altered (increased or decreased) or avoided by the operation of the Distributed generator's generation and the distributor will pass this change through transparently to the Distributed generator.

## **9. Avoided Distribution Credits**

- 9.1 The distributed generator may be eligible to receive avoided cost of distribution (ACOD) payments if they satisfy the criteria as outlined in the Distributor's Avoided Cost of Distribution Benefit Policy.
- 9.2 If the Distributed generation is eligible to receive ACOD payments, after each month-end, the Distributor will credit the Distributed generator for any reductions that are attributable to the operation of the Distributed generator's Distributed generation as determined in accordance with the Distributor's Avoided Cost of Distribution Benefit Policy.

## **10. Constraints**

- 10.1 The Distributed generator agrees to reduce generation at the request of the Transmission Grid System Operator or Distributor, if a transmission or network constraint occurs.
- 10.2 The Distributor shall use best endeavours to ensure that any required reduction in distributed generation is proportionate to the share of total distributed generation output on the Distributor's network at the time the transmission or network constraint is identified.

## **11. Reactive Power**

- 11.1 The Distributed generator acknowledges that the Distributor is required to maintain a power factor of not less than 0.95 lagging at the times of the RCPD peaks and this is subject to change in the future. The Distributed generator must not permit its Distributed generation to degrade the overall half-hour power-factor for these RCPD peak periods. If the Distributed generator fails to achieve this, the Distributed generator will pay the Distributor reactive power charges, calculated by the Distributor on a basis which is consistent with applicable industry methodology. Such charges will be payable in accordance with clause 14. In cases where the Distributed generator does not resolve power factor issues and causes issues on the Distributors network, then the Distributor can immediately

disconnect the Distributed generation until the power factor issues on the Distribution network are resolved.

## **12. Interference with power quality**

- 12.1 The Distributed generator must ensure that its Distributed generation (whether operating or not) does not materially degrade the power quality measured at the Distributor's Kaikohe point of connection to the national grid. This includes voltage stability and the level of harmonics.
- 12.2 If the Distributor identifies any other major connections which are experiencing any material interference to power quality, the Distributor may immediately disconnect the Distributed generation pending resolution of the cause of the interference.

## **13. Licence to occupy**

- 13.1 If the Distributed generator has cables and associated communications and metering equipment (the Equipment) on any of the Distributor's substation sites the Distributor hereby grants the Distributed generator a licence to occupy that part of the Distributor's premises for such purpose for the duration of the Term and any subsequent extensions to the term at no cost.
- 13.2 If Clause 11.1 applies, the Equipment is at the sole risk of the distributed generator who shall arrange for insurance of the Equipment and for any liability arising as a result of or from the Equipment and/or the Distributed generation causing damage to the Distributor's substation assets and the Equipment may only be used for the purpose of conveying electricity and associated communications between the Distributed generator's Distributed generation and the Distributor's network.
- 13.3 The Distributed generator will strictly adhere to the Distributor's health and safety and other access protocols prior to and during the course of access to the Distributor's substation site and building by the Distributed generator or its authorised contractors.
- 13.4 The Distributed generator will be and remain at all times responsible for the maintenance and operation of its Equipment and the Distributor will have no responsibility or liability for the maintenance and operation of any of the Distributed generator's equipment located on the Distributor's substation site.

## **14. Invoicing and payment**

- 14.1 Each party will provide a tax invoice (for any charges payable by the other) to the other prior to the 5<sup>th</sup> working day of the month for payment on the 20<sup>th</sup> day of that month.

- 14.2 Payment on all invoices is payable on the 20th day of the month of the invoice or, if the 20<sup>th</sup> day is not a business day, the first business day after the 20<sup>th</sup> day of the month in which the invoice is issued.
- 14.3 If the Distributed generator fails to make payment of any amount payable under this Agreement, the Distributed generator shall pay the Distributor default interest on the amount unpaid at the rate of five percentage points over the Distributor's costs of borrowing.

## **15. Increases in injection capacity**

- 15.1 The Distributed generator must not, inject more than the maximum injection into the Distributor's network without first having reached agreement with the Distributor as to requirements for the installation of additional equipment which will be payable by the Distributed generator. Unless otherwise agreed between the parties, a minimum of 2 years prior written notice of a proposed increase in injection by the distributed generator is required to be given by the Distributed generator. Prior to connection of any increased capacity the Distributor and the Distributed generator will meet to agree any new terms and conditions (including any increase in prices) that will be required to reflect the increased capacity.

## **16. Notices**

All notices and other communications required or permitted by this Agreement shall be in writing and shall become effective when delivered by hand (including by messenger or courier) or received by facsimile or such other method as may be agreed by the parties, at the addresses set forth below or at such other addresses as the party receiving notice shall subsequently designate by written notice to the other party:

If to the Distributor:

Top Energy Limited  
Level 2 John Butler Centre  
60 Kerikeri Road  
Kerikeri  
New Zealand  
Attention: General Manager Network  
  
Tel No. +64-9-401 5440

If to the Distributed generator:

Ngawha Generation Limited  
Level 2, John Butler Centre  
60 Kerikeri Road  
Kerikeri  
New Zealand  
Attention: General Manager Generation  
Tel No. +64-9-401 5440

## **17. Assignment**

- 17.1 Neither party may assign, encumber, novate or otherwise dispose of its benefits or obligations under this Agreement without the prior written consent of the other party, which consent shall not be unreasonably withheld. A change of control of a party will be deemed to be an assignment for the purposes of this clause.
- 17.2 Any consent under clause 15.1 shall not relieve the assignor from liability for performance of any obligations, responsibilities or duties so assigned.

## **18. Dispute Resolution**

- 18.1 The Distributor and the Distributed generator will actively and in good faith negotiate with a view to the speedy resolution of any dispute or difference that may arise between them concerning any matter arising under this Agreement.
- 18.2 Either Party may refer any dispute or difference that is not resolved by discussion between the Distributor and the Distributed generator to mediation.
- 18.3 If a dispute has been referred to mediation then the Parties shall endeavour to agree on a mediator and shall submit the matter in dispute to the mediator. The mediator shall discuss the matter with the Parties and endeavour to resolve it by agreement between the Parties. All discussions in mediation shall be without prejudice and shall not be referred to in any later proceedings. Each Party shall bear its own costs in the mediation and shall pay half the costs of the mediator.
- 18.4 If the matter in dispute remains unresolved after compliance with Clauses 18.2 and 0 it may only be referred to arbitration if the Parties so agree. If the Parties do not so agree, either Party may refer the dispute to the New Zealand courts.
- 18.5 If the Parties agree that any matter in dispute is to be referred to arbitration the following procedures will apply:
- (a) The dispute or difference shall be referred to a sole arbitrator for resolution if the distributor and the distributed generator agree on one, or if they cannot agree on the appointment of an arbitrator within 10 Business Days an arbitrator will be appointed by the President for the time being of the New Zealand Law Society at the request of either or both of them.
  - (b) Where the matter has previously been referred to mediation, the mediator shall not be called by either Party as a witness, and no reference shall be made to the determination, if any, issued by the mediator in respect of the matter in dispute, during any subsequent arbitration on the matter in dispute.
  - (c) The Arbitration Act 1996 will apply in the case of any difference or dispute referred to an arbitrator in accordance with this clause and the decision of the arbitrator will be final and binding on the Parties.
  - (d) The venue for the arbitration shall be Kerikeri unless otherwise agreed by the Distributor.

## 19. Variation

- 19.1 The provisions of this Agreement may only be varied by agreement in writing between the parties.
- 19.2 For avoidance of doubt, should the Regulated Terms alter, such alteration will not vary these terms. Should there be a change in law (including any change to the Code) which makes any aspect of these terms illegal or invalid, the parties will promptly negotiate a variation to remove the illegality or invalidity but so as to preserve the intent of the terms prior to such law change.

## EXECUTION

### Signed by the Distributor: Top Energy Limited

Signature 

Name Ian Robertson

Designation General Manager Network Top Energy

Date 13/05/2020

### Signed by the Distributed generator: Ngawha Generation Limited

Signature   Digitally signed by Ray Robinson  
DN: cn=Ray Robinson, c=NZ,  
o=Ngawha Generation Ltd,  
ou=Generation,  
email=ray.robinson@topenergy.co.nz  
Date: 2020.05.13 08:56:25 +1200

Name Ray Robinson

Designation GM Generation

Date 13/05/2020

## Schedule

### Part A

#### Location of distributed generation (clause 1.2)

Ngawha Springs Road  
Ngawha Springs  
NORTHLAND

### Part B

#### Maximum Injection (clause 1.2)

The maximum injection into the distribution network is 89MW.

### Part C

#### Point of connection (clause 1.2)

##### OEC1-3

Point of Connection is the bolted terminations between the underground cables on the line side of the Ngawha 33kV Circuit Breakers 07-3322 (KOE-WSP-NGA Circuit) and 07-3362 (KOE-NGA Circuit), and the overhead 33kV lines.

##### OEC4

Point of Connection is the bolted connection between the 11kV terminals of the OEC4 T1 transformer and the terminations of the underground cables to 11kV switch CBX1

##### OEC5

To be determined

### Part D

#### Metering (clause 4.1)

##### OEC1-3

The metering is located in the 33/11kV Substation switchroom at the Ngawha Power Station, Station 1 complex. Revenue & Check-Meters are installed in the Metering Panel at the North-East end of the Substation switchroom.

Metering CT's & VT's are installed on each of Circuit Breakers 07-3322 & 07-3362.

##### OEC4

The metering is located in the 33kV Substation switchroom at the Ngawha Transmission Substation

Metering CT's are installed on each of Circuit Breakers 453822 and 453842 and the metering VTs on the 33kV bus

OEC5

To be determined

**Part E**

**Metering and Communications Cabinet (clause 6.2)**

Not applicable