

Part A Interpretation

1. Defined terms

In these **rules**, unless the context otherwise requires:

“**Act**” means the Electricity Act 1992;

“**active energy**” means the integration over time of the product of voltage, current and the cosine of the phase angle between them, and which is normally measured in kilowatt hours (kWh);

“**active power**” means the product of voltage, current and the cosine of the phase angle between them, and which is normally measured in kilowatts (kW);

“**active meter**” means a **meter** used for the measurement of **active energy**;

“**adjustment**” means an operation or process intended to reduce the differences between the values indicated by an instrument and the values realised by a **reference standard** or **working standard** to within a predetermined tolerance, and “**adjust**” and “**adjusted**” have corresponding meanings;

adjustment clause means a clause in a **contract for differences** or **fixed-price physical supply contract** under which the price or prices of a specified volume of **electricity** may be adjusted, including an adjustment relating to the Consumer Price Index, the Producers Price Index or any other index

“**administrative cost**” means, in relation to any **ancillary service**, those significant costs that are incurred by the **system operator** in relation to the development of **ancillary service** provision and that are specifically attributable to an **ancillary service** and that have been agreed to by the **Board** and the **system operator**;

“**allocable cost**” has the meaning set out in rule 11 of section IV of part C;

“**alternative ancillary service arrangement**” means an arrangement between a **participant** and another **participant** or other person, or an arrangement involving only a **participant**, which is authorised by the **system operator** in accordance with rule 9 of section IV of part C;

“**ancillary service**” means **black start, over frequency reserve, frequency keeping, instantaneous reserve** or **voltage support**;

“**ancillary service agent**” means a person who provides any **ancillary service**;

“**ancillary service arrangement**” means a contract entered into between the **system operator** and an **ancillary service agent** for the procurement of **ancillary services** in accordance with rule 6 of section IV of part C;

“**annual audit**” means a complete review of all processes, procedures, facilities and other relevant items to confirm compliance with the **rules**;

“**annual consumption list**” means the list published by the **market administrator** in accordance with rule 3.32 of section V of part G;

applicant means, for the purposes of schedule J1:

- (a) a **reconciliation participant**; or
- (b) a **prospective reconciliation participant**

requiring **certification** of its facilities, processes, procedures, and other relevant items, to gather, process or manage information, in accordance with schedule J1

“**approved calibration laboratory**” means the Measurement Standards Laboratory of New Zealand, or a calibration laboratory that has been accredited under the Testing Laboratory Registration Act 1972 to ISO 17025, or an international laboratory that has been recognised by the Chief Metrologist for the specific **calibration** required;

“**approved test house**” means a meter testing and calibration facility that has been approved by the **market administrator** in accordance with the procedures in a **code of practice** D2 of schedule D1 of part D;

“**approved test laboratory**” means a test laboratory that has been accredited under the Testing Laboratory Registration Act 1972 to ISO 17025 for the specific test required;

“**asset**” means equipment or plant which is connected to, or forms part of the **grid** and, in the case of part C, includes equipment or plant which is intended to become connected to the **grid** and equipment or plant of **embedded generators**;

“**asset capability statement**” means a statement of capability and operational limitations that applies to specific **assets** during the normal and abnormal conditions which may arise on the **grid**, provided to the **system operator** in accordance with **technical code** A of schedule C3 of part C;

“**asset owner**” means a **participant** who owns **assets** used for the generation or conveyance of **electricity** and persons who operate such **assets** and, in the case of part C, includes **consumers** with a **point of connection** to the **grid**;

“**asset owner performance obligations**” and “**AOPO**” means a performance obligation specified in section III of part C, with which **asset owners** must comply for the **system operator** to plan to comply and comply with its **principal performance obligations**;

“**associated person**” means a person that has **control** of a **participant**. A **participant** is deemed to be associated with another person who is:

- (a) an officer or employee of the **participant**; or
- (b) an entity controlled by an officer or employee of the **participant**; or
- (c) an entity controlled by a person covered in (a) or (b); or
- (d) an entity controlled by any person with whom the **participant** is deemed to be related by virtue of rule 3.

“**assumed co-efficient of variation**” means the value of **co-efficient of variation** which is set by the **market administrator** for the purpose of calculating the **preliminary sample size**;

“**at risk HVDC transfer**” means the quantity of **MWh** for each **trading period** calculated in accordance with tables 1 and 2 below:

HVDC configuration the operating configuration of the **HVDC link** at the beginning of **trading period t**;

$INJ_{HVDC\ CHAYt}$ = the **electricity** injected from the **HVDC link** into the North Island grid assets at the North Island **HVDC injection point** in **trading period t**; and

$INK_{HVDC\ BENT}$ = the **electricity** injected from the **HVDC link** into the South Island grid assets at the South Island **HVDC injection point** in **trading period t**.

Table 1: HVDC northward transfer – if **electricity** is injected at the North Island **HVDC injection point** in the relevant **trading period**

HVDC Configuration	Electricity injected in trading period t	At risk HVDC transfer
Both Poles	> 299	$INJ_{HVDC\ CHAYt} - 269$
Both Poles	≤ 299	0
Pole 2 and 1 Halfpole	> 196	$INJ_{HVDC\ CHAYt} - 166$
Pole 2 and 1 Halfpole	≤ 196	0
Pole 2 only	> 30	$INJ_{HVDC\ CHAYt}$
Pole 2 only	≤ 30	0
Two Halfpoles	> 172	$INJ_{HVDC\ CHAYt} - 142$
Two Halfpoles	≤ 172	0

One Halfpole only	> 30	$INJ_{HVDC}HAY_t$
One Halfpole only	≤ 30	0

Table 2: HVDC southward transfer – if **electricity** is injected at the South Island **HVDC injection point** in the relevant **trading period**.

HVDC Configuration	Electricity injected in trading period t	At risk HVDC transfer
Both Poles	> 223	$INJ_{HVDC}BEN_t - 193$
Both Poles	≤ 223	0
Pole 2 and 1 Halfpole	> 131	$INJ_{HVDC}BEN_t - 101$
Pole 2 and 1 Halfpole	≤ 131	0
Pole 2 only	> 30	$INJ_{HVDC}BEN_t$
Pole 2 only	≤ 30	0
Two Halfpoles	> 131	$INJ_{HVDC}BEN_t - 101$
Two Halfpoles	≤ 131	0
One Halfpole only	> 30	$INJ_{HVDC}BEN_t$
One Halfpole only	≤ 30	0

“**auction**” means a must-run dispatch auction conducted by the **clearing manager** under section IV of part G;

“**auction bid**” means a bid made for the **auction** under rule 3 of section IV of part G;

“**auction revenue**” means, for a **generator**, the amount payable in accordance with rule 2.7 of section IV of part G and, for a **purchaser**, the amount receivable in accordance with rule 2.5 of section IV of part G;

“**auction right**” means the right (but not the obligation) to offer for sale a specified quantity of **electricity** to the **clearing manager** at zero price in accordance with rule 2.13 of section IV of part G;

audit means a process of inspection of the facilities, processes, procedures, and other relevant items, to confirm compliance with the **rules** and **audited** has a corresponding meaning

auditor means:

- (a) for the purposes of parts D, E and J, a person approved by the **Board** to carry out an **audit**; and
- (b) for all other parts of the **rules**, a person carrying out an **audit**

“**automatic control plant**” means any hydro generating plant that has a pre-programmed generation profile and an automatic override should uncontrollable water inflows change;

“**automatic under-frequency load shedding**” means automatic shedding of electrical load when frequency falls below preset frequency as specified in rule 6.3 of **technical code B** of schedule C3 of part C;

“**availability cost**” means the costs incurred by the **system operator** in purchasing **instantaneous reserve** and providing that **instantaneous reserve** for a **trading period**, including:

- (a) payments made by the **system operator** for that **trading period** pursuant to contracts which secure the availability of **instantaneous reserves**; and
- (b) the annual and variable costs (including any constrained-on costs) incurred by the **system operator** under any other contracts allocated by the **system operator** to that **trading period**:
less
- (c) costs of **instantaneous reserves** procured as a direct result of a **generator** having been granted a **dispensation** under rule 7.3 of section III of part C.

but excludes any **administrative cost**;

back-up metering information means **half-hour metering information** from any alternative **metering installation** which measures the same flow of **electricity** at the relevant **grid exit points** and **grid injection points** as would have been given pursuant to rule 3.26.2 of section V of part G

back up protection system means a protection system:

- (a) which disconnects faulted **assets** from the **grid** because either a **main protection system** or a **circuit breaker** has failed to disconnect a faulted **asset** from the **grid** in the allocated time; and
- (b) that may disconnect non-faulted **assets** as well as a faulted **asset**

balancing area means in relation to any particular **ICP**:

- (a) the **embedded network**; or
- (b) that part of the relevant **local network** owned by one **network owner**,

having one or more **NSPs**, to which that **ICP** is connected from time to time under normal circumstances

bank means an incorporated person which carries on the business of banking as that expression is defined in the Reserve Bank of New Zealand Act 1989

“bank bill bid rate” means the rate per annum (rounded upwards to two decimal places) displayed at or about 10.45am on the Reuters Screen on page BKBM (or its successor or equivalent page) on the relevant date as the bank bill “settlement” bid rate for bank bills having a tenor of one month provided that if such a rate is not available then the **“bank bill bid rate”** will be the rate determined by the **clearing manager** to be the nearest practicable equivalent;

“benchmark agreement” means an agreement for the connection to and/or use of the **grid** under rule 4 of section II of part F as amended from time to time as a result of a review under rule 7 of section II of part F (including, where relevant, investment);

“benefit to the public” means public benefit net of any costs and detriments, including those detriments associated with a lessening of competition as those concepts are applied under the Commerce Act 1986;

“bid” means the information submitted to the **system operator** by a **purchaser** in accordance with rule 3.10 of section II of part G and includes any bid revised in accordance with rule 3.14 or 3.17 of section II of part G but excludes any **bid** cancelled in accordance with rule 3.14 of section II of part G;

“binding constraint” means a **constraint** which is likely to cause a significant difference in a price at one **node** in comparison to the price at another **node**;

“billing period” means a period of one calendar month;

“black start” means an **ancillary service** required to enable a **generating unit** isolated from a **grid** to be livened and connected to the **grid**;

“block dispatch group” means a group of **generating stations** on one continuous water course, which is the subject of an agreement between the **system operator** and a **generator** pursuant to rule 3.6 of section III of part G;

“block security constraint” means any one of the following:

- (a) a constraint applied by the **system operator** to any **generating unit** or **generating station** to provide **voltage support** or **frequency keeping** as determined in accordance with part C; or
- (b) a limitation in the offered capacity of a **grid owner’s network** to convey **electricity** between **generating stations** constituting a **block dispatch group**; or
- (c) a limitation in the offered capacity of a **grid owner’s network** to convey **electricity** between **generating stations** constituting a **block dispatch group** and a **grid owner’s network**,

in both (b) and (c) above, such a limitation in the offered capacity being either the offered capacity of a **grid owner's network** or a **grid system security constraint** as determined by the **system operator** in accordance with part C;

"Board" means the Electricity Commission continued under subpart 1 of part 15 of the Act;

bona fide physical reason includes:

- (a) in relation to any **generator, purchaser, ancillary service agent** or **grid owner**, a situation where personnel or plant safety is at risk;
- (b) in relation to a **generator** or in relation to an **ancillary service agent** providing **partly loaded spinning reserve, tail water depressed reserve** or **frequency keeping**:
 - (i) a reasonably unforeseeable change in generating capability, reserve capability, or **frequency keeping** capability (as the case may be) from an item of **generating plant** which is the subject of an existing **offer, reserve offer**, or offer to provide **frequency keeping** by that **generator** or **ancillary service agent**; or
 - (ii) a reasonably unforeseeable change in the level of expected uncontrollable water inflows into the head pond of a hydro station which is the subject of an existing **offer, reserve offer**, or offer to provide **frequency keeping** by that **generator** or **ancillary service agent**; or
 - (iii) a reasonably unforeseeable change in circumstances such that the **generator** or **ancillary service agent** will breach any consent held by it under the Resource Management Act 1991; or
 - (iv) a reasonably unforeseeable physical infeasibility which arises from a **pre-dispatch schedule** or **dispatch schedule**;
- (c) in relation to a **purchaser** or in relation to an **ancillary service agent** providing **interruptible load**:
 - (i) a reasonably unforeseeable full or partial loss of demand or reserve capability (as the case may be) at a **grid exit point** which is the subject of an existing **bid** or **reserve offer** by that **purchaser** or **ancillary service agent**; or
 - (ii) a reasonably unforeseeable change in circumstances such that the **purchaser** or **ancillary service agent** will breach any consent held by it under the Resource Management Act 1991; or
 - (iii) a reasonably unforeseeable full or partial loss of generating capability from an item of **generating plant** owned by, or the subject of a supply contract with, that **purchaser** during the relevant **trading periods**;
- (d) in relation to a **grid owner**, a reasonably unforeseeable loss of full or partial capacity on transmission plant forming part of the **grid**

bound, in relation to a **transmission security constraint**, means that the flow of **electricity** through one or more transmission lines or transformers is equal to or greater than the **transmission security constraint** applied to those transmission lines or transformers, and **bind** has a corresponding meaning

“**branch**” means an electrical link between:

- (a) two or more **nodes**; or
- (b) a **node** and a **point of connection** to the **grid**;

“**business**” means the business carried out as a **participant**;

“**business day**” means any day of the week except Saturdays, Sundays, **national holidays** and any other day from time to time declared by the **market administrator** not to be a **business day** by notice to each **registered participant** in the manner set out in the **rules**;

buyer, for the purposes of section VI of part G, means:

- (a) in respect of a **contract for differences**, the fixed-price payer, being the **party** obligated to make payments at a fixed price from time to time during the **term** of the contract;
- (b) in respect of a **fixed-price physical supply contract**, the purchaser of **electricity**; or
- (c) in respect of an **options contract**, either:
 - (i) the **party** paying the **premium**; or
 - (ii) if there is no **premium**, the **party** who agrees to be the **buyer** for the purposes of section VI of part G; or
 - (iii) if neither **party** agrees to be the **buyer**, the **party** whose name is the first alphabetically

“**calibration**” means the set of operations that establishes, under specified conditions, the relationship between the values indicated by the measuring system and the corresponding values of a quantity realised by a **reference standard** or **working standard**, and “**calibrate**” and “**calibrated**” have corresponding meanings;

“**calibration report**” means a report which contains the results of all **calibration** tests carried out on a **metering installation** or a component of a **metering installation** or a **working standard** by an **approved test house** as part of the **certification** process;

“**call**” has the meaning given to it in rule 3.1.3 of part H;

“**capacity reserve**” means:

- (a) demand that can be decreased for the purpose of adjusting a **constraint**; or
- (b) generation that can be increased or decreased for the purpose of adjusting a **constraint**.

“**cash deposit**” means the cash deposited in **cleared funds** by a **payer** in accordance with rule 2.4 of part H and includes any interest under rule 2.6.6 of part H, which has not been paid out;

“**cash deposit accounts**” means the trust accounts established by the **clearing manager** in accordance with rule 2.6.1 of part H;

“**cash interest rate**” means the interest rate calculated by taking a weighted average of interest rates applying to each **purchaser’s cash deposit**;

“**causer**” means the person whose **asset** caused an **under-frequency event**;

“**centralised data set**” means information kept by the **Board** relating to transmission and **transmission alternatives** under section III of part F;

certification means:

- (a) when applied to a **metering installation**, confirmation that the whole metering system is installed and functioning correctly and the **metering installation** meets the requirements of the **rules**;
- (b) when applied to an individual component of a **metering installation**, confirmation that that component meets the requirements of the **rules**; and
- (c) when applied to a **reconciliation participant**, confirmation that that **reconciliation participant** has met the requirements of schedule J1

“**certification report**” means a report which contains the **calibration report** and all other information relevant to the **certification** of a **metering installation** or a component of a **metering installation**;

“**certification sticker**” means a sticker which is valid for a specific period and which is attached to a **metering installation** or a component of a **metering installation** confirming that the **metering installation** or component has been **certified** by an **approved test house** in accordance with rule 5.2 of **code of practice D3** of schedule D1 of part D;

“**certified**” means having achieved **certification**;

“**certify**” means to carry out a **certification**;

“**chargeable capacity**” means the capacity that the **distributor** may charge for, but which might not be the actual installed capacity at the relevant **ICP**;

“**check metering information**” means **half-hour metering information** from a **meter**, and located at the **grid exit point** or **grid injection point**, giving equivalent information, but not necessarily of the same accuracy, as the relevant **grid exit point** or **grid injection point** meter;

“**circuit branch**” means a **branch** that is not a **transformer branch** or the **HVDC link**;

circuit breaker means a switching device capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time and breaking currents under specified abnormal conditions (such as a short circuit)

circuit breaker failure protection system means a protection system which:

- (a) operates because a **circuit breaker** has failed to disconnect a faulted **asset** from the **grid** in the allocated time; and
- (b) may disconnect non-faulted **assets** from the **grid** as well as a faulted **asset**

“**class A approved test house**” means an **approved test house** which has been approved in accordance with rule 7 of **code of practice** D2 of schedule D1 of part D;

“**class B approved test house**” means an **approved test house** which has been approved in accordance with rule 7 of **code of practice** D2 of schedule D1 of part D;

“**cleared funds**” means on any **business day**, funds which are immediately available for disbursement on that day;

“**clearing auction price**” means the lowest successful price bid at an **auction** in dollars per **MW** per **half hour**;

“**clearing manager**” means the **service provider** for the time being who is appointed as clearing manager pursuant to the **regulations**;

code of practice means a code of practice issued pursuant to the **rules**, and includes the **codes of practice** in schedule D1

“**co-efficient of variation**” means the ratio of the standard deviation to the mean of the distribution for the random variable under consideration;

co-generator means the owner of an **industrial co-generating station**. For the avoidance of doubt, rules specifying **co-generators** only apply to the **industrial co-generating stations** owned by the **co-generator**

“**Comalco agreement**” has the same meaning as in regulation 198;

“**commissioning**” means to verify the correct operation of metering equipment installed in a **metering installation**;

“**commissioning report**” means a report which contains the results of all **commissioning** tests carried out on a **metering installation** by an **approved test house** as part of the **certification** process;

“**common quality**” means those elements of quality of **electricity** conveyed across the **grid** that cannot be technically or commercially isolated to an identifiable person or group of persons;

“**configuration**”, in relation to the **HVDC link**, means the following modes of operation of the **HVDC link**:

- (a) Bipole;
- (b) Pole Two and One half Pole;
- (c) Pole Two only;
- (d) Pole One only, both half poles;
- (e) Pole One only, one half pole;

“**connection asset**”, for the purposes of sections II, VI and VII of part F, has the meaning set out in the **transmission pricing methodology**;

“**Connection Code**” means the Connection Code developed in accordance with rule 3.3 of section II of part F;

connection location means a substation or other location at which the lines, equipment and plant owned or managed by a **designated transmission customer** that are directly related to a **point of connection**, and that are used for the consumption, conveyance, or generation of **electricity**, are directly connected to the **grid**

“**constrained off amounts**” means the amounts calculated by the **clearing manager** pursuant to rule 4.3 of section V of part G;

“**constrained off situation**” means a situation as defined in rule 4.1 of section V of part G;

“**constrained on amounts**” means the amounts calculated by the **clearing manager** pursuant to rules 5.3 and 5.4 of section V of part G;

“**constrained on compensation**” means the amounts payable to any **generator** and the amounts payable by the **system operator** or any **purchaser** in accordance with rule 5 of section V of part G;

“**constrained on situation**” means a situation as defined in rule 5.1 of section V of part G;

“**constraint**” means a limitation in the capacity of the **grid** to convey electricity caused by limitations in capability of available **assets** forming the **grid**; or limitations in the performance of the integrated power system;

constraint price, in relation to a **transmission security constraint**, means the amount in dollars and cents per **MW** by which the objective function described in rule 2 of schedule G6 of part G is decreased by relaxing the **transmission security constraint** by a very small amount

“**consumer**” means any person who is supplied **electricity** for consumption and includes a **distributor**, **retailer** or **generator** where the **distributor**, **retailer** or **generator** is supplied with **electricity** for its own consumption;

consumption information means the information describing the quantity of **electricity** conveyed during the period for which the information is required, which may be directly measured or calculated from information obtained from a **metering installation**, or calculated in accordance with the **rules**

consumption pattern means, for the purposes of this part A and schedule J5, the shape of the **half hourly** consumption

consumption period means a calendar month during which **electricity** is supplied to **consumers** (and conversely produced by **generators**)

contract for differences, for the purposes of section VI of part G, means a financial derivative contract:

- (a) under which one or both **parties** makes or may make a payment to the other **party**;
- (b) in which the payment to be made depends on, or is derived from, the price of a specified **quantity of electricity** at a particular time;
- (c) which may provide a means for the risk to one or both **parties** of an increase or decrease in the price of **electricity** to be reduced or eliminated; and
- (d) in which the quantity of **electricity** that the contract relates to equals or exceeds 0.25 **MW** of **electricity**

contract price means, in respect of a **risk management contract**, a single price that has, in accordance with rule 4 of section VI of part G, been calculated, time weighted, adjusted to a location factor for the relevant **grid zone area**, and corrected for losses, for the purposes of section VI of part G

contract price schedule means, in respect of a **risk management contract**, a price or series of prices to be paid under that contract in respect of specified times or amounts and at a single location

“contract specifications” means specifications prescribing the specific terms of, and terms of trading in, each class of contract which may from time to time be traded on a market under these **rules**;

“controller” means:

- (a) in relation to a company:
 - (i) any person in accordance with whose directions and instructions the persons occupying the position of directors of the company are accustomed to act (but disregarding advice given in a professional capacity); or
 - (ii) any person who is entitled to exercise, or control the exercise of, 50% or more of the voting power at any general meeting of the company or of another company of which the company is a subsidiary;
- (b) in relation to an unincorporated body of persons:
 - (i) any person in accordance with whose directions and instructions the officers of the body are accustomed to act (but disregarding advice given in a professional capacity); or
 - (ii) any person who is entitled to exercise, or control the exercise of, 50% or more of the voting power on any resolution of the body;
- (c) in relation to any person, any person who has the power to appoint or remove a majority of the participants of the governing body of that person or otherwise controls or has the power to control the affairs or policies of that person; and “control” and “controlled” have corresponding meanings;

“control room” means the location at which **asset owners** have facilities to receive operational instructions from the **system operator** and to act on those instructions;

“control system” means equipment which adjusts the output voltage, frequency, **MW** or **reactive power** (as the case may be) of an **asset** in response to certain aspects of **common quality** such as voltage, frequency, **MW** or **reactive power**, including speed governors and exciters;

“core grid” means the **assets** that form part of the **core grid** as specified in the **core grid determination**;

“core grid determination” means the determination specifying the **assets** forming part of the **core grid**, developed in accordance with rules 5A and 5B under section III of part F, including variations;

customer means a person who purchases, or has agreed to purchase, **electricity** from a **retailer** at a specific **ICP**

“data logger” means a device that complies with **code of practice** D4 of schedule D1 of part D, whether or not the **data logger** is integral with the **meter**;

“**day**” has the meaning set out in the Time Act 1974;

declaration date means the date, nominated by the **profile applicant**, on which the **market administrator** must, for a particular **profile**, notify every **registered participant** of the information set out in rule 5.2 of schedule J5 for that **profile**

“**de-energisation**” means the movement of any isolator, breaker or switch or the removal of any fuse or link so that no **electricity** can flow to or from a **network** or any part thereof, and “**de-energise**” has a corresponding meaning;

“**default interest rate**” means the **bank bill bid rate** plus 5 percent per annum;

“**demand**” means the rate of consumption of electrical energy;

“**designated transmission customers**” means **participants** required to enter into **transmission agreements** with **Transpower** under section II of part F;

direct consumer means a **consumer** with a **point of connection** to the **grid**

direct purchaser means a **consumer** that purchases, or agrees to purchase, **electricity** directly from the **clearing manager** for its own consumption at a **point of connection**

disconnected means, in relation to a **grid injection point**, **grid exit point** or **point of connection**, that there is no load or generation at, or connected to, the **grid injection point**, **grid exit point** or **point of connection** in the modelling system

“**dispatch**” means the process of:

- (a) pre-dispatch scheduling to match expected **supply** with expected **demand**, and to allocate **ancillary service offers** and transmission **offers** to match expected **grid** conditions; and
- (b) rescheduling to meet forecast **demand**; and
- (c) issuing instructions based on the **pre-dispatch schedule** and the real-time conditions to manage resources to meet the actual **demand**,

and “**dispatching**” has a corresponding meaning;

“**dispatch arc flows**” means, for a transmission line or a transformer, the quantity of energy flow on that transmission line or transformer, as calculated by the **system operator** in accordance with rule 5 of section III of part G, that is equal to or greater than 95% of the maximum flow limit (in **MW**) of that transmission line or transformer as set by the **system operator** in accordance with schedule G6 of part G;

“**dispatch group constraint arc flows**” means the quantity of energy flows on a group of transmission lines and/or transformers calculated according to the relevant **group constraint formula**, as calculated by the **system operator** in accordance with rule 5 of section III of part G, and where the calculated energy flow is equal to or above 95% of the maximum flow limit (in **MW**) for that group of transmission lines and /or transformers as set by the **system operator** in accordance with schedule G6 of part G;

“**dispatch instruction**” means any instruction formulated and issued by the **system operator** in accordance with rule 4.5 of section III of part G;

“**dispatch objective**” means the objective defined in rule 2 of section III of part G;

“**dispatch prices**” means the prices for **electricity** at all **grid exit points** and **grid injection points** and the prices for **sustained instantaneous reserve** and **fast instantaneous reserve** in dollars and cents prepared by the **system operator** in accordance with rule 5 of section III of part G;

“**dispatch quantities**” means the quantities of **electricity**, **sustained instantaneous reserve** and **fast instantaneous reserve** calculated by the **system operator** in accordance with rule 5 of section III of part G;

dispatch schedule means the schedule from which the **system operator** formulates and issues **dispatch instructions** in accordance with rule 4 of section III of part G

“**dispensation**” means an exclusion from compliance with an **AOPO** or **technical code** granted by the **system operator** in accordance with the process set out in rule 7 of section III of part C, and includes an **interim dispensation** granted under rule 1 of section II of part I;

distributed unmetered load means **unmetered load** with a single **profile** supplied to a single **customer** across more than one **point of connection**

distributor means any **participant** who owns or operates a **local network** and, for the purposes of parts D, E, G and J, includes an **embedded network** owner and, for the purposes of part C, includes a **direct consumer**

“**distributor installation details**” means any information, additional to **price category** and **chargeable capacity**, that may be used to calculate line charges applicable to an **ICP**;

“**distributor kvar reference node**” means a notional node that represents a group of **grid exit points** within a **zone** for which a distributor nominates peak demand in kvar, where the individual kvar quantities measured at the individual **grid exit points** within the group are aggregated for voltage support charging purposes, as approved by the **system operator** (such approval not to be unreasonably withheld).

“**domestic consumer**” means a person who acquires **electricity** for personal, domestic or household use or consumption and does not acquire **electricity** or hold himself or herself out as acquiring **electricity** for the purpose of resupplying it in trade or consuming it in the course of production or manufacture;

“**draft policy statement**” means a document provided for in rule 10.1 of section II of part C. ;

“**draft procurement plan**” means a document provided for in rule 4.1 of section IV of part C. ;

“**economic investments**” means investments in the **grid** that can be justified on the basis of the **grid investment test** under section III of part F and are not **reliability investments**;

effective date, for the purposes of section VI of part G, means the date of the first **trading period** to which the **risk management contract** applies

“**electrical installation**” means all fittings that form part of a system for conveying **electricity** at any point from the **ICP** to any point from which **electricity** conveyed through that system may be consumed (including any fittings that are used or designed or intended for use by any person in, or in connection with, the generation of **electricity** for that person’s use and not for supply to any other person), but does not include any electrical appliance;

“**electricity**” means electrical energy measured in kilowatt-hours (kWh);

electricity supplied means, for any particular period, the information relating to the quantities of **electricity** supplied by **retailers** across **points of connection to consumers**, sourced directly from the **retailer’s** financial records, including quantities:

- (a) that are metered or unmetered;
- (b) supplied through normal **customer** supply and billing arrangements;
- (c) supplied under sponsorship arrangements; and
- (d) supplied under any other arrangement

embedded generating station means one or more **generating units** that are directly connected to a **local network** or an **embedded network** and which injects into a **local network** or an **embedded network** at a single point of **injection**

“**embedded generator**” means a **generator** who owns or operates one or more **embedded generating stations**;

embedded network means a system of lines, substations and other works used primarily for the conveyance of **electricity** between two points (point A and point B), where:

- (a) point A is a **point of connection** with either a **local network** or another **embedded network**; and
- (b) point B is a **point of connection** with a **consumer**, an **embedded generating station**, or both; and
- (c) the **electricity** flow at point A is quantified by a **metering installation** in accordance with part D of the **rules**

end date, for the purposes of section VI of part G, means the date of the final **trading period** to which the **risk management contract** applies

“equivalence arrangement” means an arrangement put in place in accordance with the process set out in rule 7 of section III of part C;

“equivalent day” means the day of a previous week corresponding to the day for which an **initial estimate** or **final estimate** is required to be made. However, if the day is a **national holiday**, then the **equivalent day** will be deemed to be the previous Sunday. In addition, if the day for which an **initial estimate** is required to be made is a **business day**, but the corresponding day of the previous week is a **national holiday**, then the **equivalent day** is deemed to be the next prior corresponding day that is not a **national holiday**;

“error compensation” means the application of a predetermined **adjustment** or process to the data within or obtained from, a **meter** or **metering installation** in order to correct such data for known errors in any component or components of the **metering installation**;

estimated reading means a value, used in the place of a **meter reading**, which:

- (a) is created using an estimation algorithm; and
- (b) is not a **validated meter reading**

“event charge” means the amount calculated pursuant to rule 11.5.2 of section IV of part C;

“event date” means the date on which a **retailer** commences selling **electricity** to a **customer**;

“event of default” means any event as listed in rule 9.1 of part H;

exceptional circumstances means, for the purposes of part J, circumstances where access to the relevant **meter** is not achieved despite the **reconciliation participant’s** best endeavours

“excluded information” has the meaning as set out in the **regulations**;

“**excluded generating station**” has the meaning set out rule 2.5 of section III of part C;

“**existing ancillary service arrangements**” means contracts for the procurement of **ancillary services** entered into by **Transpower** which come into effect on or before 1 November 2003 and which are in force as at the **operational date**;

“**expected interruption costs**” means the cost per kW, estimated by the **Board** from time to time, which exceeds the cost per kW that any persons are expected to incur as a direct consequence of block 2 **automatic under-frequency load shedding** facilities operating in accordance with rule 6.3 of **technical code B** of schedule C3 of part C;

“**expected unserved energy**” means a forecast of the aggregate amount by which the **demand** for **electricity** exceeds the **supply** of **electricity** at each **grid exit point** as a result of likely planned or unplanned outages of **primary transmission equipment**;

“**fast instantaneous reserve**” means:

- (a) for providers of **partly loaded spinning reserve** and **tail water depressed spinning reserve**, the additional capacity (in **MW**) provided six seconds after a “Contingent Event” (as defined in schedule C4 of part C) which is sustained for a period of at least 60 seconds;
- (b) for providers of **interruptible load**, the drop in load (in **MW**) that occurs within one second of the **grid** system frequency falling to or below 49.2 Hertz which is sustained for a period of at least 60 seconds;

“**final estimate**” means the mean of the metering data for each of the previous four **equivalent days** for the relevant **trading period** weighted in accordance with the quantity of **electricity** sold in the relevant **trading period** on the **equivalent days** in the relevant **island** as determined in accordance with the following formula:

$$\frac{Eday_4 + Eday_3 + Eday_2 + Eday_1}{4} \times \left\{ \frac{(IslandLoad_0)}{\left(\frac{IslandLoad_4 + IslandLoad_3 + IslandLoad_2 + IslandLoad_1}{4} \right)} \right\}$$

where:

$Eday_1$ is the quantity of **electricity** measured at the relevant **metering installation** in kWh for the **trading period** of the **equivalent day** one week prior to the **trading day** for which the estimate is required.

$Eday_2$ is the quantity of **electricity** measured at the relevant **metering installation** in kWh for the **trading period** of the **equivalent day** two weeks prior to the **trading day** for which the estimate is required.

- Eday₃* is the quantity of **electricity** measured at the relevant **metering installation** in kWh for the **trading period** of the **equivalent day** three weeks prior to the **trading day** for which the estimate is required.
- Eday₄* is the quantity of **electricity** measured at the relevant **metering installation** in kWh for the **trading period** of the **equivalent day** four weeks prior to the **trading day** for which the estimate is required.
- Island Load₀* means the quantity of **electricity**, measured in kWh, for the relevant **trading period** (as measured prior to the commencement of the calculation of this estimate) supplied in the **island** in which the relevant **metering installation** is located, less any measurement taken at any **metering installation** for which an estimate is being obtained for the same **trading period** and **island**.
- Island Load₁* means the quantity of **electricity**, measured in kWh, for the **trading period** of the **equivalent day** one week prior to the **trading day** for which the estimate is required (as measured prior to the commencement of the calculation of this estimate) supplied in the **island** in which the relevant **metering installation** is located, less any measurement taken at any **metering installation** for which an estimate is being obtained for the same **trading period** and **island**.
- Island Load₂* means the quantity of **electricity**, measured in kWh, for the **trading period** of the **equivalent day** two weeks prior to the **trading day** for which the estimate is required (as measured prior to the commencement of the calculation of this estimate) supplied in the **island** in which the relevant **metering installation** is located, less any measurement taken at any **metering installation** for which an estimate is being obtained for the same **trading period** and **island**.
- Island Load₃* means the quantity of **electricity**, measured in kWh, for the **trading period** of the **equivalent day** three weeks prior to the **trading day** for which the estimate is required (as measured prior to the commencement of the calculation of this estimate) supplied in the **island** in which the relevant **metering installation** is located, less any measurement taken at any **metering installation** for which an estimate is being obtained for the same **trading period** and **island**.
- Island Load₄* means the quantity of **electricity**, measured in kWh, for the **trading period** of the **equivalent day** four weeks prior to the **trading day** for which the estimate is required (as measured prior to the commencement of the calculation of this estimate) supplied in the **island** in which the relevant **metering installation** is located, less any measurement taken at any **metering installation** for which an estimate is being obtained for the same **trading period** and **island**;

“final marginal location factor” means the factor that is determined by dividing the **final price** at any **grid exit point** or **grid injection point** by the **final price** at the relevant **reference point**;

“final price” means a price in dollars and cents for each **grid injection point**, each **grid exit point** and each **reference point** determined in accordance with the methodology specified by rule 3.1 of section V of part G;

“**final reserve price**” means the price calculated in dollars and cents for **fast instantaneous reserve** and **sustained instantaneous reserve** determined in each island in accordance with the methodology specified by rule 3.1 of section V of part G;

“**financial year**” means the twelve-month period beginning on the date determined by the **Board**;

fixed-price physical supply contract means a contract that provides for the physical supply of **electricity**, if:

- (a) the **buyer** is reasonably expected to purchase 1 **MW** or more of **electricity** on average during the **term** of the contract (for the purposes of determining whether a contract meets this 1 **MW** threshold, the total purchases under the contract should be used despite rule 3.6 of section VI of part G); and
- (b) the contract allows the **buyer** to purchase either:
 - (i) variable amounts of **electricity** linked to actual consumption of **electricity** at a fixed price or prices; or
 - (ii) a fixed amount of **electricity** at a fixed price or prices,

but:

- (c) excludes a contract for the physical supply of **electricity**, that is generated by an **embedded generating station**, directly to a **consumer**

floating-price payer means the **party** obligated to make one or more payments, from time to time during the **term** of a **contract for differences**, of a floating amount for a **quantity** of **electricity**

force majeure clause, for the purposes of section VI of part G, means a clause in a **risk management contract** under which some or all obligations may be suspended and/or the **risk management contract** may terminate due to events beyond the control of the **party** and that could not reasonably have been foreseen:

- (a) including any event or circumstance occasioned by, or in consequence of, any act of God (being an event or circumstance:
 - (i) due to natural causes, directly or indirectly and exclusively without human intervention; and
 - (ii) which could not reasonably have been foreseen or if foreseen, could not reasonably have been resisted); or
- (b) including strikes, lockouts, other industrial disturbances, acts of public enemy, wars, blockades, insurrections, riots, epidemics, or civil disturbances; or
- (c) including the binding order of any court, government or a local authority beyond the control of the **party**;
- (d) but not including an event specified in a **suspension clause**

“**forecast marginal location factor**” means the factor that is determined by dividing the **forecast price** at any **grid exit point** or **grid injection point** by the **forecast price** at the relevant **reference point**;

“forecast prices” means the prices in dollars and cents prepared by the **system operator** in accordance with rule 3 of section III of part G;

“forecast reserve prices” means the prices in dollars and cents calculated by the **system operator** for **fast instantaneous** and **sustained instantaneous reserve** in accordance with rule 3 of section III of part G;

“formal notice” means a notice issued by the **system operator** in accordance with rule 4.1 of **technical code B** of schedule C3 of part C;

forward estimate means, in relation to non **half hour** metered **ICPs**, any **volume information** (in kWh) submitted for a part or full **consumption period** that is not an **historical estimate**

“frequency keeping” means an **ancillary service** that maintains the system frequency within the **normal band**;

“frequency time error” means a deviation from **New Zealand standard time** caused by variations in system frequency;

“generating plant” means equipment collectively used for generating **electricity**;

“generating station” means one or more **generating units** that are directly connected to the **grid** or to a **local network** and which inject into the **grid** or **local network** (as the case may be) at a single point of **injection**;

“generating unit” means a machine that generates **electricity**;

generator means a person who owns **generating units** connected to a **network**, or any person who acts, in respect of part G, part H and part J, on behalf of any person who owns such **generating units**, and includes **embedded generators**, **intermittent generators** and **co-generators**

“good electricity industry practice” in relation to transmission, means the exercise of that degree of skill, diligence, prudence, foresight and economic management, as determined by reference to good international practice, which would reasonably be expected from a skilled and experienced **asset** owner engaged in the management of a transmission network under conditions comparable to those applicable to the **grid** consistent with applicable law, safety and environmental protection. The determination is to take into account factors such as the relative size, duty, age and technological status of the relevant transmission network and the applicable law;

“grid” means the system of transmission lines, substations and other works, including the **HVDC link** used to connect **grid injection points** and **grid exit points** to convey **electricity** throughout the North Island and South Island of New Zealand;

“**grid economic investment report**” means the report prepared under rule 6.2 of section VI of part F, either as part of **Transpower’s** annual planning report or in some other form, if the **Board** so determines;

“**grid emergency**” means a situation where:

- (a) in the reasonable opinion of the **system operator**, one or more of the events set out in rule 4.1 of **technical code B** of schedule C3 of part C has occurred, or is reasonably expected to occur and urgent action is required of the **system operator** or **participants** to alleviate the situation; or
- (b) independent action (as set out in rule 8 of **technical code B** of schedule C3 of part C) is required of a **participant** to alleviate the situation;

grid exit point and **GXP** mean any **point of connection** on the **grid**:

- (a) where **electricity** predominantly flows out of the **grid**; or
- (b) determined as being such by the **Board** following an application in accordance with rule 4 of section II of part G.

For clarity, such a **point of connection** may, from time to time, constitute either a **grid exit point** or a **grid injection point**, but not both at the same time

grid injection point and **GIP** mean any **point of connection** on the **grid** where **electricity** predominantly flows into the **grid**. For clarity, such a **point of connection** may, from time to time, constitute either a **grid injection point** or a **grid exit point**, but not both at the same time

“**grid interface**” means the **assets** used to make a connection to the **grid** (as the case may be), including associated protection, control and communication systems. The term includes the interface between assets forming part of the **grid**;

“**grid investment test**” means a test for **reliability investments** and **economic investments** in the **grid** developed in accordance with rule 6 of section III of part F;

“**grid owner**” means a person who owns or operates any part of the **grid**;

“**grid planning assumption**” means information on future planning for inclusion in **statements of opportunities** under section III of part F;

“**grid reliability report**” means a report on grid reliability **published** by **Transpower** under rule 12A.1 of section III of part F;

grid reliability standards means standards for reliability of the **grid** developed in accordance with rule 4 of section III of part F, including variations, but does not include **interim grid reliability standards**

“**grid rules**” means rules containing provisions dealing with **grid reliability standards**, a **grid investment test** and **investment contracts** under section III of part F;

“**grid upgrade plan**” means a plan for **grid** expansions, replacements and upgrades, developed in accordance with rule 12 of section III of part F;

grid zone area means a geographical area, which includes many **nodes**, as determined by the **Board** and **published** under rule 5.1.2

“**group constraint formula**” means the mathematical formula applied by the **system operator**, in accordance with schedule G6 of part G, to constrain the energy flows on a group of transmission lines, transformers or both;

“**GST**” means goods and services tax payable pursuant to the Goods and Services Tax Act 1985;

“**half hour**” means a thirty minute period ending on any hour or half hour, and “**half hourly**” has a corresponding meaning;

“**half-hour metering**” means metering which stores information relating to **electricity** consumption during **half hour** periods;

half-hour metering information means information recorded directly by a **metering installation** measuring the quantity of **electricity** conveyed every **trading period**. For a **generator** which is selling **electricity** to the **clearing manager** and other persons at the same **grid injection point** in the same **trading period**, **half-hour metering information** also includes the file recording the quantity of **electricity** sold to the **clearing manager** during each such **trading period** constructed in accordance with dispatch instructions issued by the **system operator** pursuant to the **rules**

“**half-hour metering installation**” means a **metering installation** which uses **half-hour metering**;

“**hedge settlement agreement**” means an agreement in the form set out in schedule H5 of part H between a **generator** and a **purchaser** which provides for settlement by the **clearing manager** of payments for differences in respect of the price of **electricity**;

high spring washer price relaxation factor means, in relation to a **high spring washer price situation** in a **trading period**, the greater of **1MW** or 1% of the relevant **transmission security constraint** that has **bound** in the **trading period**

high spring washer price situation means a situation in a **trading period** where:

- (a) one or more **transmission security constraints bind**; and
- (b) the **software** used by the **pricing manager** to calculate **provisional prices** and **final prices** calculates a price for **electricity** at any **grid injection point** or **grid exit point**, excluding **grid injection points** and **grid exit points** that are **disconnected**, that is equal to or greater than the product of the **high spring washer price trigger ratio** and the highest **unconstrained cleared offer price** in that **trading period**

high spring washer price situation methodology means the methodology described in rule 2B.2 of section V of part G

high spring washer price trigger ratio means the ratio in rule 2A of section V of part G

“high voltage terminal” means the connection point where the higher voltage side of a **grid owner’s** transformer connects to the **grid**;

“historical annual consumption” means the annual consumption of a **grid exit point** or **grid injection point** for the 12-month period ended 3 months preceding publication of the **annual consumption list**;

historical estimate means, in relation to non **half hour** metered **ICPs**, any **volume information** (in kWh), apportioned to part or full **consumption periods** after having the **seasonal adjustment shape**, or any other **profile** which has, from time to time, been approved by the **Board** for this purpose, applied, being one of the following:

- (a) the difference between two **validated** actual **meter readings**;
- (b) the difference between two **permanent estimates**; or
- (c) any relevant **unmetered load**

“HV”, for the purposes of sections II, VI, and VII of Part F, means high voltage;

“HVDC component flows” means the quantity of energy flow on each component of the HVDC link as calculated by the modelling system in accordance with the model formulation set out in the **system operator service provider agreement**, (as amended from time to time);

“HVDC injection point” means the point at which **electricity** is injected into the North Island or South Island from the **HVDC link**;

“HVDC link” means the converter stations at Benmore in the South Island and Haywards in the North Island and the high voltage transmission lines and undersea cables linking them (and including all associated equipment);

“**HVDC Owner**” means the **grid owner** who owns and/or operates the **HVDC link**;

“**HVDC risk offsets**” means the values by which HVDC flows are adjusted by the **system operator** to determine the relevant reserve risk on the **HVDC link**;

ICP day means any day when an **ICP** has the status of Active as recorded by the registry

“**identification costs**” means any reasonable identification and testing costs incurred by the **system operator** in accordance with rule 2.3.2 of section II of part C which are unable to be recovered from **participants** by the **system operator**;

industrial co-generating station means one or more **generating unit**:

- (a) that is connected to the **grid** or to a **local network**; and
- (b) that is reliant on a co-located **industrial process** because:
 - (i) it derives its fuel source from that co-located **industrial process**; or
 - (ii) it provides some or all of the **electricity** that it generates to that co-located **industrial process**; or
 - (iii) it provides some or all of any by-product of generating **electricity** to that co-located **industrial process**; and
- (c) that is tightly coupled to an **industrial process**; and
- (d) that has been approved by the **Board** under schedule G9 of part G

industrial process means a process that has a primary purpose of producing an output other than **electricity**

infeasibility situation means a situation where the **software** used to determine **final prices** and **final reserve prices** calculates a model variable with a value (either positive or negative) as set out in the list given to the **pricing manager** pursuant to schedule G2 of part G

“**information system**” means the system or systems required for the conveyance of information between persons in accordance with the **rules** as may be approved from time to time by the **Board**;

“**inherent characteristics**” means the permanent and fundamental characteristics of an **asset** which are outside the reasonable control of the **asset owner** and affect the output or response of that **asset** and includes the effects of water temperature, ambient air temperature and performance during ramping on **asset** performance;

initial estimate means an estimate of **metering information** to be made by giving the **metering information** of all **participants** of the **equivalent day** of the previous week

“initial statement of opportunities” means the first **statement of opportunities** prepared and **published** by the **Board** under section III of part F;

injection means the flow of **electricity** into a network

“input connection contract” means the fixed term input connection and input connection assets contracts between **Transpower** and each of the following: Tuaropaki Power Company Limited, Carter Holt Harvey Limited, Contact Energy Limited, Stratford Power Limited and Southdown Cogeneration Limited;

“input information” means information given to the **pricing manager** in accordance with rule 3.3 of section V of part G;

installation control point and **ICP** mean a **point of connection** on a **local network** or **embedded network**, having the attributes set out in rule 1 of schedule E1

installation type means a category based on whether an **ICP** consumes **electricity**, generates **electricity**, or both consumes and generates **electricity**

“instantaneous reserve” means an **ancillary service** comprising one or more of the following: **interruptible load**, **partly loaded spinning reserve** or **tail water depressed reserve**;

interconnection asset, for the purposes of sections II, VI and VII of part F:

- (a) has the meaning set out in the **transmission pricing methodology**; and
- (b) includes the **HVDC link**

“interconnection branch” means an **“interconnection circuit branch”**, and an **“interconnection transformer branch”**;

“interconnection circuit branch” means a **“circuit branch”** that comprises or includes **interconnection assets**;

interconnection point means a **point of connection** that measures **electricity** flow between:

- (a) a **local network** or **embedded network** where that **point of connection** is not (by reference to the volume of **electricity** flowing) the primary **point of connection** for that **local network** or **embedded network**; and
- (b) any other **local network** or **embedded network** as recorded within the **registry** for that **point of connection**

“**interconnecting transformer**” means a transformer which allows for the transfer of power within the **grid** between any of the following voltage levels: 220 kV, 110 kV, 66 kV and 50 kV, but excludes a transformer which is required to supply **demand** to **distributors** or **direct consumers**;

“**interconnection transformer branch**” means a **transformer branch** comprising **interconnection assets**;

“**interim dispensation**” means an exclusion from compliance with an **AOPO** or **technical code** granted by the **system operator**, along with any associated conditions, as set out in a notice provided by the **system operator** to the **Board** prior to 1 March 2004;

“**interim grid reliability standards**” means interim standards for reliability of the **grid** prepared by the **Board** for the sole purpose of the **initial statement of opportunities** under rule 9.1.3, section III of part F;

“**intermittent generating station**” means a **wind generating station**;

“**intermittent generator**” means the owner of an **intermittent generating station**. For the avoidance of doubt, rules specifying **intermittent generators** only apply to the **intermittent generating stations** owned by the **intermittent generator**;

“**interrogation**” means the extraction or manual reading of stored data from a **metering installation**;

“**interruptible load**” means a form of **instantaneous reserve** comprised of energy being consumed that is able to be disconnected to balance the injection **supply** and the **offtake** of **electricity** following a drop in system frequency to a specified level below 50 Hz;

“**interruptible load group GXP**” means the **grid exit point**, as approved by the **system operator** (such approval not to be unreasonably withheld), at which a **reserve offer** for **interruptible load** comprises the aggregate quantity of **interruptible load** available at a number of specified **grid exit points** for the purposes of **offer** and **dispatch**;

“**interruption**”, for the purposes of part F, means an interruption in the conveyance of **electricity** between **assets** owned or operated by a **designated transmission**

customer and the **grid assets** owned by **Transpower** at a **point of connection**, other than such an interruption by reason of **Transpower** being directed to **de-energise a point of connection** by the **Board** or the **Rulings Panel** under the **regulations** or the **rules** or by the **clearing manager** or any other person authorised to do so by the **rules** or the **regulations**;

“**investment contracts**” means contracts for investments that are agreed between **Transpower** and a **designated transmission customer**;

“**island**” means the South Island or the North Island of New Zealand (as the case may be);

“**law**” includes the **regulations** and the **rules**;

local losses means **losses** applying to the conveyance of **electricity** over a **local network** or an **embedded network**

local network means the lines, equipment and plant that are used to convey **electricity** between, on the one hand, the **grid**, and, on the other one of the following:

- (a) an **embedded generator**;
- (b) an **embedded network**; or
- (c) a **consumer**

location factor, for the purposes of section VI of part G, means the location factor calculated in accordance with rule 5.2

“**loss adjusted demand**” means the total demand determined by taking all actual demand **half-hour metering information** given to the **pricing manager** pursuant to rule 3.2.3 of section V of part G and multiplying the total by 1.05;

“**loss and constraint excess**” means the difference between **purchaser** and **generator** payments as defined in rule 12.2 of Part H;

loss category means the relevant code in the schedule published by the **registry** which identifies the relevant **loss factors** that apply to **submission information**

“**loss compensation**” means the application of a predetermined **adjustment** or process to the data within, or obtained from, a **meter** or **metering installation** in order to correct such data for known **losses** in primary plant (such as power transformers, cables etc.);

losses means the difference between the delivered **electricity** at one **point of connection** and the **electricity** required to be injected into any other **point of connection** in order to supply the delivered **electricity**

loss factor means the factor, identified by reference to a **loss category** within the **registry**, to be applied to **submission information** to obtain adjusted for **losses** information at the relevant **NSP**, which factor will be:

- (a) as set out in the report to be provided by the **registry** in accordance with rule 24.2.2 of part E; or
- (b) if there has not been a report provided by the **registry** as described in paragraph (a), as notified by the **Board** in accordance with rule 7 of schedule J4

“loss of communication” means a sustained disruption of communications between the **system operator** and the **control rooms** of one or more **dispatch customers** such that operation of the **grid** is affected or is likely to be affected;

“LV”, for the purposes of sections II, VI, and VII of Part F, means low voltage;

main protection system means a protection system which detects one or more types of faults and disconnects a faulted **asset** from the **grid** with the minimum of disruption to the **grid** and non-faulted **assets**.

“manufacturer’s specification”, for the purposes of part F, means the specifications for an **asset**, as stated by the manufacturer;

“market administrator” means the **service provider** for the time being who is appointed as market administrator pursuant to the **regulations**;

“MARIA” has the meaning as set out in the **regulations**;

“Market Surveillance Committee” means the independent panel appointed under **NZEM** with responsibility for supervision of the **NZEM** rules;

“maximum continuous rating” means the maximum electrical performance of an **asset** that can be maintained continuously in normal service;

“maximum South Island frequency” means the maximum frequency permitted in the South Island, which is 55 Hertz;

meter means an **active meter**, a **reactive meter** or a **meter** that measures other quantities related to **active energy** and reactive energy

meter reading means a **meter** register value or the equivalent, obtained from **raw meter data** or such other reading as detailed in rule 3.1 of schedule J2, and is not an **estimated reading**

“**metering equipment owner**” and “**meter owner**” means the **participant** who owns any or all of the items of metering equipment installed in a **metering installation**;

“**metering information**” means the quantity of **electricity** measured by a **metering installation** and adjusted for **local losses** (where relevant) to represent the equivalent amount of **electricity** at the **point of connection** with the **grid** and consolidated into a single quantity per **trading period**.;

metering installation means **meters**, load and **meter** control devices (but not their control signals or means of generation), **data loggers**, test blocks, measuring transformers, **error compensation** processes, fittings, equipment, wiring and installations used for the measurement and storage of **volume information**, that is used for the purposes of the **rules**, and which comply with the **metering standards**

“**metering situation**” means a situation where the metering information to be given is incomplete or incorrect or is and remains an **initial estimate** for:

- (a) any **grid exit point** or **grid injection point** specified on the **annual consumption list** as having **historical annual consumption** greater than 500 GWh; or
- (b) any 2 or more **grid exit points** or **grid injection points** specified on the **annual consumption list** as having **historical annual consumption** greater than 300 GWh;
- (c) 10 or more **grid exit points** or **grid injection points**; or
- (d) any **intermittent generating station** with a **point of connection** to the **grid**;

metering standards means the standards for **metering installations** set out in schedule D1 and any relevant **codes of practice**

“**metering testing requirements**” means those requirements set out in schedule D1 of part D and any relevant **codes of practice**;

“**minimum South Island frequency**” means the minimum frequency permitted in the South Island which is 45 Hertz;

“**Minister**” means the Minister of Energy as defined in the **Act**;

“**model formulation**” means the model from which **software specifications** have been developed for the **system operator**;

“**momentary fluctuations**” means any occurrence where the frequency of **electricity** deviates outside the **normal band** but is restored as soon as reasonably practicable. With respect to the frequency targets in rule 2.2.3 of section II of part C, the maximum and minimum frequency during a **momentary fluctuation** will determine which frequency band that **momentary fluctuation** is recorded in;

“**MV**”, for the purposes of sections II, VI, and VII of Part F, means medium voltage;

“**MW**” means a megawatt of electrical power;

“**MWh**” means a megawatt hour of electrical energy;

“**N-1 criterion**” means that, with all **assets** that are reasonably expected to be in service, the power system would be in a **secure state**;

“**national holiday**” means any day that Good Friday, Easter Monday, ANZAC Day, Queen’s Birthday, Labour Day, Christmas Day, Boxing Day, New Year’s Day, the day after New Year’s Day and Waitangi Day are observed for statutory holiday purposes;

“**negative sequence voltage**” means a measure of difference in magnitude and phase angle in each phase;

net grid exit point means any **grid exit point** or **grid injection point** that is not a **net grid injection point**

“**net grid injection point**” means a **grid exit point** or **grid injection point** where the most recent information provided by the **grid owner** under rules 3.3.2 and 3.26 of section V of part G is less than or equal to zero;

“**net purchase quantity assessment**” means the quantity of an **ancillary service** derived from the following formula:

$$a = b - c$$

where:

- a = the net purchase quantity of the **ancillary service** to be procured by the **system operator** in accordance with the **procurement plan**;
- b = the gross amount of an **ancillary service** that the **system operator** believes is required in order to meet the **principal performance objectives**;
- c = the amount of the **ancillary service** that is made available to the **system operator** pursuant to **alternative ancillary service arrangements**;

“**network**” means the **grid**, a **local network** or an **embedded network**;

network supply point and **NSP** each mean any **point of connection** between:

- (a) a **local network** and the **grid**;
- (b) two **local networks**;
- (c) a **local network** and an **embedded network**;

- (d) two **embedded networks**; or
- (e) a **generator** and the **grid**

“**new investment agreement contracts**” means contacts entered into, prior to the date on which **benchmark agreements** take effect as default **transmission agreements**, between **Transpower** and its customers under which **Transpower** agrees to provide new or upgraded plant and the customer agrees to pay charges based on **Transpower's** cost of providing the new or upgraded plant;

New Zealand daylight time and **NZDT** have the meaning set out in the Time Act 1974

“**New Zealand standard time**” has the meaning set out in the Time Act 1974;

“**node**” means:

- (a) a bus; or
- (b) a location where an electrical link, that is not part of or does not contain a **transformer**, diverges or terminates (such as a "tee" point or a deviation); or
- (c) a point at a substation where two or more electrical links join where there is no bus;

“**nominal voltage**” means the voltage at which particular equipment is designed to operate under normal circumstances;

“**normal band**” means a frequency band between 49.8 Hertz and 50.2 Hertz (both inclusive);

“**notified planned outages**” means those planned outages of **assets** forming part of or connected to the **grid** or **local network** which have been planned by the **asset owners** concerned and have been notified to the **system operator** in accordance with **technical code** D of schedule C3 of part C;

“**notify**” means to notify the persons referred to in the relevant rule by way of letter, e-mail or facsimile, to a contact person and address provided by that person, that the information referred to in that rule has been **published**;

“**notional embedding contracts**” means contracts entered into, prior to the date on which **benchmark agreements** take effect as default **transmission agreements**, between **Transpower** and its customers under which a customer's generation assets are treated as if they were physically connected to load in lieu of their existing connection to the grid;

“**NZEM**” has the meaning as set out in the **regulations**;

“**offer**” means the information submitted to the **system operator** by a **generator** in accordance with rule 3.1 of section II of part G and includes any revised **offer** made in accordance with rule 3.14 or 3.17 of section II of part G, but excludes any **offer** cancelled in accordance with rule 3.14 of section II of part G;

“**offer stack**” means the stack generated from ranking in price order, from lowest to highest, all **offers** to sell **electricity** as given to the **pricing manager** pursuant to rule 3.3.3 of section V of part G;

“**offtake**” means the flow of **electricity** from the **grid** at a **grid exit point**;

“**operating account**” means the trust account established by the **clearing manager** in accordance with rule 7.11 of part H;

“**operational date**” means 1 March 2004.

options contract means a contract containing the right to buy or sell a financial derivative contract

other party, for the purposes of section VI of part G, means the **party** to a **risk management contract** who did not submit the information under rule 3.1, or rule 3.2, or rule 3.3, or rule 3.4, or rule 7.1 or rule 8 of section V of part G, as the case may be

“**outage**”, for the purposes of part F, has the meaning given to it by rule 2 of section VII of part F;

outage constraint means any **grid injection point** or **grid exit point** that is **disconnected** as notified by the **system operator** in accordance with rule 6 of part J

“**outage plan**”, for the purposes of part F, means the annual outage plan developed under the **Outage Protocol**;

“**Outage Protocol**”, for the purposes of part F, means the **Outage Protocol** developed in accordance with section VII of part F;

“**overall accuracy**” means the difference between the measured energy and the true energy after taking full account of all **compensations** deliberately set into any component or components of the **metering installation** and any **error compensation** which may be applied to the **raw meter data**. The quantity is expressed as a percentage of the true energy;

“**over frequency limit**” means the maximum frequency of 50.5 Hz;

“**over frequency reserves**” means an **ancillary service** that comprises an automatic reduction in the level of **injection** by a generating set to arrest an unplanned rise in system frequency;

“**participant**” has the meaning set out in the **regulations**;

participant identifier means a unique four letter code that is used to identify a **reconciliation participant** in the reconciliation and **registry** processes

“**partly loaded spinning reserve**” means a form of **instantaneous reserve** consisting of spare capacity, held in reserve on a generation unit, generating, but not operating at full output, which is able to provide **fast instantaneous reserve** or **sustained instantaneous reserve** following a drop in system frequency to a specified level below 50 Hz;

party, for the purposes of section VI of part G, means either the **buyer** or **seller** under a **risk management contract** or both the **buyer** and **seller** under a **risk management contract**, as the case may be

“**payee**” means a participant who is a **generator**, **ancillary service agent** or, when receiving payment for **ancillary service administrative costs**, the **system operator**;

payer –

- (a) means
 - (i) a **participant** who is a **purchaser**; and
 - (ii) any **generator** who is deemed to be a **purchaser** under rule 3.4 of part H; and
 - (iii) any **purchaser**, **generator**, **distributor**, **grid owner** or **direct consumer** who purchases **ancillary services**; and
- (b) for the purposes of part C and part G and part H of these **rules**, has the additional meaning set out in rule 5

permanent estimate means a value sourced from an **estimated reading** that has passed the validation process as specified in rule 7 of schedule J2 and has been calculated from **validated meter readings**

“**planned interruption**”, for the purposes of part F, means an **interruption** caused by a **planned outage**;

“**planned outage**”, for the purposes of part F, means an **outage** carried out in accordance with the planning requirements set out in the **Outage Protocol**;

point of connection means a point where **electricity** may flow into or out of a **network**, and for the purpose of **technical code A** of schedule C3 means a **grid injection point** or a **grid exit point**

“**point of measurement**” means a point on a **grid, local network** or **embedded network**, or on a line connected to a **grid, local network** or **embedded network**, at which the flow of **electricity** is measured by a **metering installation**;

point of service means a normally contiguous electrical busbar of a particular voltage where **Transpower** as a **grid owner** has agreed to provide services to one or more **designated transmission customers**

“**point of supply**”, in relation to any premises, means the point at which fittings, used or intended to be used for the purposes of supplying **electricity** to those premises, enter those premises;

“**policy statement**” means the **policy statement** set out in schedule C4 of part C;

“**preceding year**”, for the purposes of part F, means the period from 1 July in a year to 30 June in the following year, preceding the date by which **Transpower** is required to **publish** information under either rule 9 or rule 10.8 of section VI of part F, as the case may be;

“**preceding year day**” means the day preceding the relevant **trading day** by 364 days. If the relevant **trading day** is a **national holiday**, the **preceding year day** will be deemed to be the Sunday before the 364th day. If the relevant **trading day** is a **business day**, but the 364th day before it is a **national holiday**, the **preceding year day** is deemed to be the next **business day** after the **national holiday**;

“**pre-dispatch schedule**” means a schedule produced by the **system operator** with the characteristics described in rule 3.5 of section III of part G;

“**preliminary sample**” means the statistical sample which is required in order to establish parameter estimates to determine the appropriate size of the **profile sample**;

“**preliminary sample size**” means the required size of the **preliminary sample**;

premium, in relation to an **options contract**, means the dollar amount paid by the **buyer** of the **options contract** to the **seller**

prescribed form means a form prescribed from time to time by the **Board**

“**price category**” means the relevant code in the schedule **published** by any **distributor** that is used to unambiguously define the line charges for an **ICP**;

“**pricing manager**” means the **service provider** for the time being who is appointed as pricing manager pursuant to the **regulations**;

“**primary transmission equipment**” means any plant or equipment forming part of the **grid** which enables the bulk transfer of **electricity**, including without limitation transmission circuits, busbars and switchgear;

“**principal performance obligations**” and “**PPOs**” means the **system operator** obligations set out in rule 2 of section II of part C;

“**procurement plan**” means the procurement plan set out in schedule C5 of part C;

“**profile**” means a fixed or variable **electricity consumption pattern** assigned to a particular group of **meter** registers or **unmetered loads**;

“**profile acceptance limit**” means the maximum value allowed for the sample **coefficient of variation** calculated from the **preliminary sample**;

profile applicant means the **participant** that submitted the application to the **market administrator** to approve a new **profile** or a change to an existing **profile**, and may be a joint entity with more than one **participant** or an independent commercial entity acting on behalf of a **participant** or **participants**

“**profile class**” means the grouping of one or more individual **profiles** that are applied to **metering installations** and loads with similar generic descriptions;

profile owner means the legal entity that introduced the approved **profile** or is nominated as the **profile owner** in accordance with schedule J5

“**profile population**” means all **consumers** included in a **profile**;

“**profile sample**” means the statistical sample used to generate consumption data that is to be used to represent the load patterns of the entire group of **consumers** under the **profile**;

“**profile sample size**” means the required size of the **profile sample**;

prospective reconciliation participant means, for the purposes of part J, a person or entity who is not a **reconciliation participant** but intends to become one

“**provisional marginal location factor**” means the factor that is determined by dividing the **provisional price** at any **grid exit point** or **grid injection point** by the **provisional price** at the relevant **reference point**;

“**provisional price**” means a price in dollars and cents that has been **published** based on data relating to a **provisional price situation**. When a **provisional price** is published it applies to all **trading periods** on the relevant **trading day**;

provisional price situation means a **metering situation**, or a **SCADA situation**, or an **infeasibility situation**, or a **high spring washer price situation**

“provisional reserve price” means a price calculated in dollars and cents that has been published based on data relating to a **provisional price situation**;

“publicise” has the meaning set out in the **regulations**;

“publish” means, in respect of information to be published by the **Board** or any **service provider**, to make such information available to the intended recipient through the **information system**. In respect of all other information “publish” means to make available to the intended recipient in such manner as may be prescribed from time to time by the **Board**, and the words **“published”**, **“publishes”**, **“publication”**, **“publisher”** and **“publishing”** have corresponding meanings;

purchaser means a person who buys **electricity** from the **clearing manager** and for the purposes of part C and part G and part H of these **rules**, has the additional meaning set out in rule 5

quantity, for the purposes of section VI of part G, means:

- (a) for a **contract for differences** or **options contract** the total volume in **MWh** of **electricity** to which the contract relates: or
- (b) for a **fixed-price physical supply contract**, the volume in **MWh** of **electricity** reasonably likely to be supplied under the contract

raw meter data means the records and data used for the purposes of determining **meter readings**, being information obtained directly from the **interrogation** of a **metering installation** that has **certification**, and includes all factors applied within the **meter** and relating to that data (such as the k factor and m factor), obtained by one of the following methods:

- (a) locally by way of a handheld computer or recording device (in which it must take the form of a downloaded file);
- (b) locally by way of any other manual record (in which case it must take the form of the first entry in a database system); or
- (c) remotely (in which case it must take the form of database records)

“reactive” means that component of the impedance where the current and voltage are 90 degrees out of phase.

“**reactive capability**” means the **reactive power** injection or absorption capability of **generating sets** and other **reactive power** resources such as Static Var Compensators, capacitors and synchronous condensers, and includes **reactive power** capability of a **generating set** during the normal course of the **generating set** operations;

“**reactive meter**” means a **meter** used for the measurement of **reactive power**;

“**reactive power**” means the product of voltage and current and the sine of the phase angle between them, and which is normally measured in kiloVolt-Amps reactive (kVAr);

“**real time price**” means a price for **electricity** at a **grid exit point** or a **grid injection point**, the price for **instantaneous reserve** in dollars and cents for the **real time pricing period** determined in accordance with rule 6 of section III of part G.

“**real time pricing period**” means a period of 5 minutes starting on the hour or any multiple of 5 minutes past the hour on any **trading day**;

“**reasonable and prudent system operator**” means exercising that degree of skill, diligence, prudence, foresight and economic management, as determined by good international practice and which would reasonably and ordinarily be expected from a skilled and experienced **system operator** engaged in the co-ordination of an integrated transmission network under the same or similar circumstances as applied in New Zealand at the time;

“**recalibration**” means to repeat a **calibration** where a previous **calibration** has expired or become suspect, and “**recalibrate**” has a corresponding meaning;

“**recertification**” means to repeat a **certification** where a previous **certification** has expired or been cancelled, and “**recertified**” and “**recertify**” have corresponding meanings;

“**reconciled quantity**” means a quantity of **electricity** which has been reconciled by the **reconciliation manager**;

reconciliation information means information stating the amount of **electricity** sold to or purchased from the **clearing manager** in each **half hour** of a **reconciliation period** (or such other period as has been agreed to), calculated from and reconciled with **submission information** and the relevant **losses**, and after the process of balancing in accordance with rule 12 of schedule J4

“**reconciliation manager**” means the **service provider** for the time being who is appointed as reconciliation manager pursuant to the **regulations**;

reconciliation participant means any **participant** (excluding the **Board** (even if the **Board** acts as a **service provider**) and the **Rulings Panel**) which is any of the following:

- (a) a **retailer** when purchasing **electricity** from, or selling **electricity** to, the **clearing manager**;
- (b) a **generator**;
- (c) a **network** owner;
- (d) a **distributor**; and
- (e) a person who purchases or sells **electricity** to or from the **clearing manager**

reconciliation period means a calendar month, subsequent to a **consumption period**, during which the reconciliation process is performed in respect of the **electricity** conveyed during one or more **consumption periods**

reconciliation type means a code that identifies the type of processing to be performed during reconciliation

“reference point” means:

- (a) for the North Island, the Haywards 220 kV bus which has the HVDC Pole 2 injection or offtake connected. If there is no Pole 2 injection or offtake connected, then the first indexed Haywards 220 kV node will be used; or
- (b) for the South Island, the Benmore 220 kV bus which has the HVDC Pole 2 injection or offtake connected. If there is no Pole 2 injection or offtake connected, then the first indexed Benmore 220 kV node will be used;

“reconciliation period” means a calendar month commencing on, and including, the 1st day of each calendar month and ending on, and including, the last day of that month;

“reference standard” means a measuring instrument that has been **calibrated** by an **approved calibration laboratory** and is not used as a **working standard**;

“registered” has the meaning set out in the **regulations**;

“registry” means the person for the time being appointed as the registry pursuant to the **regulations**;

“regulations” means the regulations made pursuant to subpart 2 of Part 14 of the **Act** as may be amended from time to time;

“**relative standard error**” means the error expressed as a percentage of the estimated parameter;

“**release**” means disclosure of information by a **service provider** to the **market administrator** expressly for the **market administrator** to **publish**. All information released to the **market administrator** will be:

- (a) in a written format and will set out the date and time of the release and the name, position and telephone number of an officer or employee of the **generator, purchaser or service provider** who can be contacted by the **market administrator** concerning the information; and
- (b) marked in a prominent position with the words “For public release”; and
- (c) sent by:
 - (i) facsimile on the letterhead of the **generator, purchaser or service provider** to a facsimile number specified by the **market administrator** for that purpose; or
 - (ii) by direct data transmission from an electronic address approved by the **generator, purchaser or service provider** to an electronic address and in a format specified by the **market administrator** for that purpose; or
 - (iii) in such other manner as may be agreed between the **market administrator** and the **generator, purchaser or service provider**; and
- (d) released to the **market administrator**:
 - (i) if the information is not embargoed, as soon as practicable and where possible, not later than 1 hour prior to its public release; or
 - (ii) if a **generator, purchaser or service provider** chooses to use an embargo, no later than the release of the embargoed announcement to any other party, including the media. The times and conditions of embargo will be displayed prominently on every page of each release,

and the words “**releaser**” and “**releasing**” have corresponding meanings;

“**relevant contracts**” means the contracts established under rules 6.1.and 6.2 of part H;

“**relevant information**” means at any time information other than **excluded information** received, generated or held by a **generator, purchaser or service provider** about itself, including without limitation information about its **electricity** activities, plant, assets, generation capacity, **electricity** demand, contracts or financial position:

- (a) disclosure of which would, or would be likely to, materially affect the price of **electricity** or of any contracts relating to **electricity traded** under the **rules**; and
- (b) which is not reasonably available to other **generators** and **purchasers** which actively **trade** in a form substantially as useable as the form in which it is available to that **generator or purchaser**;

“**relevant local reconciliation contracts**” means the contracts for sale and/or the purchase of **electricity** within a **local network**;

“**relevant registration factor**” means the mean difference over time between **metering installation** readings and **check metering installation** readings at the relevant **grid exit point**;

“**reliability investments**” means investments by **Transpower** in the **grid**, or alternative arrangements by **Transpower**, the primary effect of which is, or would be, to reduce **expected unserved energy**;

“**republish**” means to **publish** again following a recalculation using revised data. The words “**republished**” and “**republication**” have corresponding meanings;

requesting participant means, for the purposes of schedule J1, any **reconciliation participant** who makes a request in accordance with rule 8.1 of schedule J1

“**reserve offer**” means an offer of **instantaneous reserve** made in accordance with the provisions of rule 6 of section II of part G;

“**resistive**” means that component of the impedance that is where the current and voltage are in phase.

responsible party means the person responsible for the installation, maintenance, operation and **interrogation** of a **metering installation** and the supply of **submission information** to the **reconciliation manager**

retailer means a person who supplies **electricity** to a **consumer** or to another **retailer**

risk management contract, for the purposes of section VI of part G, means:

- (a) a **contract for differences**;
- (b) a **fixed-price physical supply contract**; or
- (c) an **options contract**

“**rulebook information**” has the meaning as set out in the **regulations**;

“**rules**” means these Electricity Governance Rules 2003 (including all parts and sections) as amended from time to time and includes every schedule to the **rules**, any **code of practice** and any **technical code** and every amendment to deletion of, or addition to, any of the **rules**, any schedule, any **code of practice** or any **technical code**;

“**Rulings Panel**” has the meaning as set out in the **regulations**;

“**sample date**” means the most recent date when the **profile sample** was drawn or updated;

“**satisfactory state**” means that none of the following occur on the power system:

- (a) insufficient **supply** of **electricity** to satisfy **demand** for **electricity** at any **grid exit point**;
- (b) **unacceptable overloading** of any **primary transmission equipment**;
- (c) **unacceptable voltage conditions**; and
- (d) **system instability**;

“**SCADA**” means the monitoring and remote control of equipment from a central location using computing technologies;

“**SCADA situation**” means a situation where the **input information** to be given pursuant to rule 3.3.1 of section V of part G is incorrect or incomplete except where a reasonable estimate has been made by the **grid owner** pursuant to rule 3.3.1.2 of section V of part G;

“**schedule period**” means:

- (a) at any time prior to 1300 hours on any day, the remaining **trading periods** of that day; or
- (b) at any time from 1300 hours on any day, the remaining **trading periods** of that day together with each **trading period** of the next day;

schedule of dispatch prices, dispatch quantities, dispatch arc flows, dispatch group constraint arc flows, group constraint formulas and HVDC component flows means a schedule of **dispatch prices, dispatch quantities, dispatch arc flows, dispatch group constraint arc flows, group constraint formulas and HVDC component flows** prepared by the **system operator** in accordance with rule 5 of section III of part G

scheduled quantity means, for the purposes of rules 4.3.1 and 5.3.1 of section V of part G, the sum of all the **offer** quantities at the relevant **grid injection point** where the **final price** is equal to or greater than the **offer** price for each of those **offer** quantities in the relevant **trading period**. For the **grid injection points** that form part of a **block dispatch group**, **scheduled quantity** is the sum of all the **offer** quantities of the individual **grid injection points** that form that **block dispatch group** where the **final price** is equal to or greater than the **offer** price for each of those **offer** quantities in the relevant **trading period**

scorecard rating means the numerical value, pursuant to rule 9 of schedule J4, to rate the quality of each **retailer’s** processes for the production of **submission information**

“**secure state**” means that the power system:

- (a) would be in a **satisfactory state**; and
- (b) would remain in a **satisfactory state** during and following any **single credible contingency event** wheresoever occurring on the **grid**;

seasonal adjustment shape means the total energy consumption (expressed as daily kWh values) for all **NSP** derived **profiles** for all **retailers** in each **balancing area**

seller, for the purposes of section VI of part G, means:

- (a) in respect of a **contract for differences**, the **floating-price payer**;
- (b) in respect of a **fixed-price physical supply contract**, the **party** selling the **electricity**; or
- (c) in respect of an **options contract**, either:
 - (i) the **party** receiving the **premium**; or
 - (ii) if there is no **premium** under the **options contract**, the **party** who agrees to be the **seller** for the purposes of section VI of part G; or
 - (iii) if neither **party** agrees to be the **seller**, the **party** whose name is the second alphabetically

“**series**”, for the purposes of determining the level of impedance of **branches** under part F, means an arrangement of **assets** where the **assets** comprising a branch have the same current flowing through them.

“**service provider**” means the **system operator**, the **market administrator**, the **pricing manager**, the **clearing manager**, the **reconciliation manager**, the **registry** and any other person appointed as a **service provider** by the **Board** pursuant to the **regulations**;

“**service provider agreement**” means the agreement entered into between the **Board** and the relevant **service provider** for the provision of services for the purposes of these **rules** and the **regulations**;

shared unmetered load means **unmetered load** at a single **point of connection** that is distributed across more than one **ICP**

“**shunt**”, for the purposes of determining the level of impedance of **branches** under part F, means an arrangement of **assets** where the **assets** comprising a branch have the same voltage across the terminals.

“**shunt asset**”, for the purposes of part F, means a shunt connected **asset** that is an **interconnection asset**;

“**simple random sampling without replacement**” means the general procedure of drawing **consumers** from a **profile population** to form a sample. Each **consumer** in the **profile population** must have an equal probability of being drawn. Once a **consumer** is drawn, the probability of drawing the same **consumer** again must be zero;

“**single credible contingency event**” means an individual credible contingency event comprising any one of the following:

- (a) a single transmission circuit interruption;
- (b) the failure or removal from operational service of a single **generating unit**;
- (c) an **HVDC link** single pole interruption;
- (d) the failure or removal from service of a single bus section;
- (e) a single inter-connecting transformer interruption;
- (f) the failure or removal from service of a single shunt connected reactive component;

“**single-line diagram**” means a schematic diagram of a **network interface**;

“**software**” means any software:

- (a) developed by or on behalf of a **service provider** which is used by that **service provider** to perform its obligations under the **regulations**, the **rules** or its **service provider agreement**, or
- (b) used by a **service provider** exclusively for the purposes of performing its obligations under the **regulations**, the **rules** or its **service provider agreement**;

“**software specification**” has the meaning as set out in regulation 51;

special credit clause means a clause in a **contract for differences** that specifies that, in the event that a **party** defaults during the **term** of the contract, the **party** that is not in default will be paid a specified amount or that on execution of the contract, the **party** that is not in default, is provided with a guarantee that payment will be made when the settlement amount reaches a certain threshold

“**statement of opportunities**” means a statement of opportunities for transmission and **transmission alternatives** under section III of part F and, except where the context otherwise requires, includes the **initial statement of opportunities**;

“**station dispatch group**” means either:

- (a) one or more **generating units** that inject into a single **grid injection point**; or
- (b) one or more **generating units** that are the subject of an agreement between the **system operator** and a **generator**.

and is not a **block dispatch group**;

“**station security constraint**” means any one of the following:

- (a) a constraint applied by the **system operator** to any **generating unit** to provide **voltage support** or frequency reserve capacity as determined in accordance with part C; or
- (b) a limitation in the offered capacity of a **grid owners** network to convey electricity between **generating units** constituting a **station dispatch group**; or
- (c) a limitation in the offered capacity of a **grid owners** network to convey electricity between **generating units** constituting a **station dispatch group** and a **grid owners network**,

and where in both (b) and (c) above, such a limitation in the offered capacity is either the offered capacity of a **grid owners network** or a grid system security limit, as determined by the **system operator** in accordance with part C.

“**sub-block dispatch groups**” means that groupings of **generating stations** or **generating units** within a **block dispatch group** into subgroups to take account of any **block security constraints** as notified by the **system operator** in accordance with rule 3.6.3 or rule 4.6.10 of section III of part G;

“**sub-station dispatch groups**” means that grouping of individual **generating units** or **generating stations** within a **station dispatch group** into subgroups to take account of any **station security constraints** as notified by the **system operator** in accordance with rule 3.6.3 or rule 4.6.11 of section III of part G;

“**submission expiry date**” means:

- (a) in the case of a submission on a **draft policy statement**, the date notified by the **Board** in accordance with rule 11.2 of section II of part C;
- (b) in the case of a submission on a **draft procurement plan**, the date notified by the **Board** in accordance with rule 5.2 of section IV of part C;
- (c) in the case of a submission on the **transmission agreement** structure, the date notified by the **Board** in accordance with rule 2.1.3.2 of section II of part F;
- (d) in the case of a submission on the appropriate categories of **participants**, the date notified by the **Board** in accordance with rule 2.2.2.2 of section II of part F;
- (e) in the case of a submission on the draft **benchmark agreement**, the date notified by the **Board** in accordance with rule 4.4.2 of section II of part F;
- (f) in the case of a submission on the draft **grid reliability standards**, the date notified by the **Board** in accordance with rule 4.5.2 of section III of part F;
- (g) in the case of a submission on the draft **grid investment test**, the date notified by the **Board** in accordance with rule 6.4.2 of section III of part F;
- (h) in the case of a submission on the draft **statements of opportunities**, the date notified by the **Board** in accordance with rule 9.5.2 of section III of part F;
- (i) in the case of a submission on the issues paper, the date notified by the **Board** in accordance with rule 5.1 of section IV of part F; and,

- (j) in the case of a submission on the proposed **transmission pricing methodology**, the date notified by the **Board** in accordance with rule 8.2.2 of section IV of part F.

submission information means **volume information** aggregated in accordance with rule 3 of schedule J3 (and includes, where relevant, any **profile** shape or control times associated with a **profile**)

“**subsidiary**” means a subsidiary as defined in section 5 of the Companies Act 1993;

“**supply**” means a measure of the rate of production of electrical energy;

suspension clause means a clause in a **risk management contract** under which some or all of the obligations may be suspended due to an event directly relating to the **supply** (including transmission) or generation of **electricity** or the price at which **electricity** is supplied, including an inability to inject **electricity** into the **grid** as a result of an **outage** of or damage to the **grid** or a **grid injection point** or the price of **electricity** exceeding a level specified in the contract

“**sustained instantaneous reserve**” means:

- (a) for providers of **partly loaded spinning reserve** and **tail water depressed reserve**, the average additional output (in **MW**) provided during the first 60 seconds after a Contingent Event (as defined in schedule C4 of part C) and which is sustained for at least 15 minutes after the Contingent Event (unless a new **dispatch instruction** is given prior to the expiry of that 15 minute period);
- (b) for providers of **interruptible load**, the average drop in load (in **MW**) that occurs over the first 60 seconds after the **grid** system frequency falls to or below 49.2 Hz and which is sustained until instructed by the **system operator**;

synchronised means the condition whereby a synchronous machine is connected to a network and the electrical angular velocity of the machine corresponds with the network frequency and **synchronise, de-synchronise, synchronising, synchronism** and **synchronisation** have corresponding meanings. Asynchronous **intermittent generating stations** will be treated as being **synchronised** for the purposes of rules in section III of part C;

“**system instability**” means operating conditions under which it is reasonably likely that one or more **generating units** may cease to be **synchronised** with the **grid**;

“**system number**” means a coded number assigned to **assets** referred to in rule 2.1.1 of **technical code A** of schedule C3 of part C for the purposes of the **operation** of the **grid** and the management of the **assets** that, when used in conjunction with a locality name, uniquely identifies the **assets**;

“**system operator**” means the **service provider** for the time being who is appointed as system operator pursuant to the regulations;

“**system operator register**” means the register kept by the **system operator** for recording **equivalence arrangements, dispensations and alternative ancillary service arrangements** in accordance with rule 8 of schedule C1 of part C and rule 1.6 of schedule C2 of part C. The **system operator** must maintain an up to date copy of the **register** and make it available to **registered participants** at no cost on the **system operator’s** website at all reasonable times;

“**system security**” means the security and quality objectives set out in part C;

system security forecast means the forecast prepared by the **system operator** under rule 15 of section II of part C

“**system security situation**” means any situation which the **system operator** believes on reasonable grounds is not adequately mitigated by the current **policy statement** and one of the following exists:

- (a) the **system operator** reasonably considers that its ability to comply with the **principal performance obligations** is at risk; or
- (b) there is a risk of significant damage to **assets**; or
- (c) public safety is at risk;

“**system test**” means a test conducted on **assets**, with that **asset** connected to the **grid**, to assess the interaction of that **asset** with the **grid**;

“**tail water depressed reserve**” means a form of **instantaneous reserve** comprising a generating capacity on a motoring hydro generation set with no water flowing through the turbine that is available following a drop in system frequency;

“**technical codes**” means the technical codes contained in schedule C3 of part C;

term, for the purposes of section VI of part G, means the term of a **risk management contract**, being the period between the **effective date** and the **end date**

“**termination date**” means the date on which either the **MARIA** or **NZEM** rules are terminated (as the context requires);

“**test facility**” means a device which permits access to voltage and current circuits for testing purposes while the **metering installation** is in normal service;

“**time block**” means a block of **trading periods** either from 1 to 16 (inclusive) or from 17 to 48 (inclusive) in each **trading day**. On the day that daylight saving begins “**time block**” means a block of **trading periods** either from 1 to 14 (inclusive) or from 15 to 46 (inclusive). On the day that daylight saving ends “**time block**” means a block of **trading periods** either from 1 to 18 (inclusive) or from 19 to 50 (inclusive);

“**total auction revenue**” means, for each **auction**, the aggregate of all amounts payable by all **generators** in the relevant **time block**;

“**traceable**” means having the property of **traceability**;

“**traceability**” is the property of the result of a measurement whereby it can be related to the SI units of measurement through an unbroken chain of comparisons, each with a stated **uncertainty**;

“**trade**” means any activity carried out under the **rules** by a **generator** or **purchaser** including buying or selling contracts or parts of contracts, and the verb “**trade**” and the words “**traded**”, “**trades**”, “**trading**” and “**trader**” have corresponding meanings;

trade date, for the purposes of section VI of part G, means the date on which legally binding rights and obligations are created between the **parties** under a **risk management contract**

“**trading day**” means the period from 0000 hours until 2400 hours on any day on and after 1 March 2004;

“**trading period**” means a period of 30 minutes ending on each hour or thirty minutes past each hour on any **trading day**;

“**trading rights**” means, in relation to a **generator** or **purchaser**, the rights conferred on the **generator** or **purchaser** by the **rules** in relation to the use of the trading of **electricity**;

“**transfer**” means transfer, sell, assign or otherwise dispose of an ownership interest;

“**transformer branch**” means a **branch** that contains a transformer;

“**transitional ancillary service arrangements**” means contracts for the procurement of **ancillary services** entered into by the **system operator** between 1 November 2003 and 1 November 2004 and which have effect for any part of the period between the **operational date** and 1 November 2004, as approved by the **Board**;

“**transmission agreement**” means an agreement for connection and/or use of the **grid** under section II of part F (including, where relevant, investment);

“**transmission alternatives**” means alternatives to investment in the **grid**, including investment in local generation, energy efficiency, demand-side management and distribution network augmentation set out in part F;

“**transmission pricing methodology**” means the pricing methodology developed in accordance with section IV of part F;

transmission security constraint means a flow limit covered by rule 5.4(a) or rule 5.4(c) of schedule G6 of part G, including any adjustments that have been made in accordance with paragraphs (d) and (f) of rule 4.2 of schedule G6 of part G, but excluding a flow limit set in relation to the **HVDC link**

“**Transpower**” means Transpower New Zealand Limited;

“**type-testing**” means subjecting a sample or samples of a device to testing by an **approved test laboratory** accredited for the appropriate form of **type-testing** to verify compliance of that device with a prescribed standard or defined requirements, and **type-test** and **type-tested** have corresponding meaning;

“**unacceptable overloading**” means that one or more **grid assets** exceed their stated capability, as set out in the **asset capability statements** for those **grid assets**, for the prevailing conditions including without limitation ambient and seasonal temperature, pre-fault loading and time dependent loading cycles;

unaccounted for electricity and **UFE** mean, for any **balancing area**, the quantity of **electricity**, as calculated per **trading period** by the **reconciliation manager** pursuant to rule 8.1 of schedule J4

“**unacceptable voltage conditions**” means voltages on the **grid** outside the limits specified in part C of these **rules**;

“**uncertainty**” means a parameter associated with the result of a measurement that characterises the dispersion of the values that could reasonably be attributed to the quantity being measured, and must be determined to a confidence level of 95% or greater unless otherwise specifically stated;

unconstrained cleared offer price means the highest amount in dollars and cents per **MWh** specified for a **grid injection point** or a **grid exit point** in an **offer** that is:

- (a) provided to the **pricing manager** in accordance with rule 3.8 of section III of part G; and
- (b) less than or equal to the price for **electricity** at that **grid injection point** or **grid exit point** calculated by the **software** used by the **pricing manager** to calculate **provisional prices** and **final prices**

“**under-frequency event**” means either;

- (a) an interruption or reduction of **electricity** injected into the **grid**; or
- (b) an interruption or reduction of **electricity** injected from the **HVDC link** into the South Island **HVDC injection point** or the North Island **HVDC injection point**,

where there is, within any 60 second period, an aggregate loss of **injection of electricity** in excess of 60 **MW** (being the aggregate of the net reductions in the **injection of electricity** (expressed in **MW**) experienced at **grid injection points** and **HVDC injection points** by reason of either (a) or (b)), and such loss causes the frequency on the **grid** (or any part of the **grid**) to fall below 49.25 Hz (as will be determined by **system operator** frequency logging);

“**under frequency limit**” means the minimum frequency of 48hz for a contingent event;

“**undesirable trading situation**” has the meaning set out in part 3 of the **regulations**;

“**unit cost**” means the quantity calculated by dividing the product of the **consumer’s half hour** consumption and the corresponding **half hour** prices over a defined time period by the sum of the **consumer’s half hour** consumption over the same period of time (note that the **half hour** prices are based on the prices for trading at the **grid exit point** supplying energy to the **consumer**);

unmetered load means load for which **volume information**, that is not directly recorded using a **meter**, and is calculated or estimated in accordance with the **rules**

“**unoffered generation**” means **electricity** supplied from a **generating station** for which an **offer** has not been made in accordance with rule 3.27 of section II of part G, but which is purchased by the **clearing manager**;

“**unplanned interruption**”, for the purposes of part F, means an **interruption** caused by an **unplanned outage**;

“**unplanned outage**”, for the purposes of part F, means an **outage** not planned in accordance with the planning requirements set out in the **Outage Protocol**;

validated meter reading means a **meter reading** which has passed a **reconciliation participant’s** validation process in accordance with rule 7 of schedule J2

verification notice, for the purposes of section VI of part G, means the notice provided by the **other party** in accordance with rule 10.2.2 of section VI of part G

“**voltage support**” means an **ancillary service** comprising reactive power injection to the power system to boost voltage at the **point of injection**;

volume information means the information describing the quantity of **electricity** generated, conveyed, or consumed that is calculated or estimated from **raw meter data** and supporting data, and in the case of **unmetered load**, calculated in accordance with the **rules**

washup means the correction procedure followed as set out in rule 11 of part H when incorrect information, including **volume information**, has been used in preparing any **payer's** or **payee's** invoice

“wind generating station” means one or more **generating units** that are connected to the **grid** or to a **local network** and which inject into the **grid** or a **local network** (as the case may be) at a single point of **injection**, and for which wind is the primary power source;

“working standard” means a measuring instrument which has been **calibrated** by an **approved calibration laboratory** or an **approved test house**, and which is used routinely for the **calibration** of **meters** and **metering installations**;

“year” means a year commencing on the 1st day of April of each calendar year and expiring on the 31st day of March of the following calendar year; and

“zone” means the **points of connection** specified in the **technical codes** from time to time and at the commencement of the **rules** means any of the following **points of connection**:

- (a) zone 1 being all **points of connection** to the **grid** in the North Island on circuits north of Huntly (excluding the Thames Valley spur);
- (b) zone 2 being all **points of connection** to the **grid** in the North Island not in Zone 1;
- (c) zone 3 being all **points of connection** to the **grid** in the South Island on circuits north of (and not including) Islington, Coleridge, Hororata and Papanui; or
- (d) zone 4 being all **points of connection** to the **grid** in the South Island not in Zone 3.

2. General principles of construction

In these **rules**:

- 2.1 Any participant who carries on the functions or business of a **generator, purchaser, distributor, grid owner** or **service provider** is, for the purpose of the **rules**, to be treated as a separate person for each such function or business, notwithstanding that at law all or any of the functions or businesses may be carried on by the same person; and

- 2.2 For the purpose of the arrangements expressed in the **rules** as to the supply and conveyance of **electricity** by one **generator** or **purchaser** to another **generator** or **purchaser**, the supply and conveyance will be deemed to have been made, notwithstanding that the physical flow of **electricity** from **generators** to **consumers** will not necessarily correspond with the contractual supply of **electricity** from **generators** to **purchasers**.

3. A special definition of “related”

For the purposes of the **rules** a person (the “first person”) is deemed to be related to another person (the “second person”) if the first person is so related to the second person by reason of any domestic or business relationship (other than because the second person is a customer of the first person) such that the first person can reasonably be expected to have influence over the second person’s judgment in trading or investment matters or to be consulted by the second person before any such judgment is formed, and if the first person is deemed to be so connected, the second person shall also be deemed to be related to the first person. No person shall be deemed to be related to any other person where either person is a Shareholding Minister as that term is defined in section 2 of the State-Owned Enterprises Act 1986 or any other New Zealand legislation, provided that person is acting in his or her capacity as a Shareholding Minister.

4. A special definition of “independent”

A person is deemed to be independent for the purposes of the **rules**, unless that person:

- 4.1 is a director or employee of the **participant**; or
- 4.2 has a direct or indirect financial interest, whether legal or beneficial, and whether as shareholder, partner or other equity holder in a **participant**, other than an interest not greater than 0.1% of the equity capital or funds of the relevant entity or, where that entity is a subsidiary of another entity, of that other entity; or
- 4.3 is a director or employee of any shareholder, partner or other equity holder referred to in rule 4.2; or
- 4.4 is a person who regularly or from time to time trades, directly or indirectly, under the **rules**.

5. Special definition of purchaser and payer

- 5.1 For any matter that relates to a **trading period** during which a notice given under rule 5.2 is in effect, a reference in part C or part G or part H of these **rules** to a **purchaser** or a **payer**, when it refers to a **participant** who is described as participant B in the notice, must be read as a reference to the **participant** who is described as participant A in the notice.
- 5.2 A **participant** (participant A) may, by notice in the form set out in schedule A1 of these **rules**, give notice to the **Board** that, from a date specified in the notice, participant A will assume all rights and obligations under part C and part G and part H of the **rules** of another

participant named in the notice (participant B) in participant B's capacity as a **purchaser** and a **payer**.

- 5.3 A notice given under rule 5.2 takes effect from the first **trading period** on the date specified in the notice. That date must be at least 30 **business days** after the date that the notice is given to the **Board**.
- 5.4 A notice given under rule 5.2 does not take effect unless the **Board** approves it by notice to the **clearing manager**, participant A, and participant B.
- 5.5 Participant A or participant B may revoke a notice given under rule 5.2 by giving notice to the **Board** in the form set out in schedule A2.
- 5.6 A revocation takes effect from the first **trading period** on the date specified in the notice. That date must be at least 15 **business days** after the date that the notice is given to the **Board**.
- 5.7 A notice given under rule 5.2 or rule 5.5 must be signed by both participant A and participant B.
- 5.8 The **Board** must **publish** notice of—
- 5.8.1 each approval given by the **Board** under rule 5.4; and
- 5.8.2 each revocation under rule 5.5.
- 5.9 If, but for this rule, a provision in part C or part G or part H of these **rules** would confer a right or impose an obligation on participant B in participant B's capacity as a **purchaser** or a **payer**, that provision must be read as conferring the right or imposing the obligation on participant A in respect of every **trading period** during which a notice under rule 5.2 is in effect.
- 5.10 Participant A is able to comply with any obligation that arises from the operation of rule 5.9 by complying in aggregate with its own obligations under these **rules** and obligations that arise from the operation of rule 5.9.
- 5.11 To avoid doubt, for any **trading period** during which a notice under rule 5.2 is in effect, participant A is deemed to be the person who buys **electricity** from the **clearing manager** for participant B.

**SCHEDULE A1 – Notice of assumption of rights and obligations under
part C and part G and part H of the Electricity Governance Rules 2003**

1. _____ (participant A) gives notice to the Electricity Commission Board under rule 5.2 of part A of the rules that it will assume all rights and obligations of _____ (participant B) under part C and part G and part H of the rules in participant B's capacity as a purchaser and as a payer.

2. The notice given under clause 1 will, if approved by the Board under rule 5.4 of part A of the rules, take effect from the first trading period on _____ and will continue until it is revoked by participant A or participant B under rule 5.5 of part A of the rules.

SIGNED for and on behalf of _____)
_____ by _____)
(participant A)

[insert name]

[insert occupation]

[insert date]

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SIGNED for and on behalf of)

_____ by)

(participant B)

[insert name]

[insert occupation]

[insert date]

SCHEDULE A2 – Revocation of notice of assumption of rights and obligations

under part C and part G and part H of the Electricity Governance Rules 2003

1. _____ gives notice to the Electricity Commission Board that the notice given to the Board under rule 5.2 of part A of the rules by _____ (participant A) on _____ that it would assume all rights and obligations under part C and part G and part H of the rules of _____ (participant B) in participant B's capacity as a purchaser and as a payer is revoked.

2. The revocation under clause 1 will take effect from the first trading period on _____.

SIGNED for and on behalf of _____)
_____ by _____)
(participant A)

[insert name]

[insert occupation]

[insert date]

SIGNED for and on behalf of _____)
_____ by _____)
(participant B)

[insert name]

[insert occupation]

[insert date]