

Paper for

TRANSPORT WORKING GROUP

**Commentary to the Set of Proposed Transmission
Service Definitions and Measures**

TWG Report

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1. Introduction

Under Section 1 of Part F of the proposed Rulebook, an independent working group is tasked with preparing a set of service definitions and measures for transmission services to be put to Transpower and its customers for a vote. In order to meet the Minister of Energy's deadline for completing work on transmission services, work on transmission service definitions and measures had to proceed ahead of the adoption of the proposed Rulebook.

At the request of EGEN, the Transport Working Group (TWG) took on the role of the independent working group envisaged under the Rulebook. Following discussions with key stakeholders and interested parties, Transpower released its initial service definitions and measures proposal to EGEN on 21 December 2001. The set of service definitions and measures released in this package reflects the results of the TWG's work since the release of this initial proposal by Transpower.

This suite of papers being released now comprises:

- The proposed set of **Service Definitions and Measures**, which sets out the proposed service definitions, measures, and indicative units of measurement that the industry is being asked whether it wishes to adopt through a referendum;
- This **Commentary**, which provides background on the issues that lie behind the development of the set of transmission service definitions and measures;
- A **Response to Submissions**, which outlines the TWG's responses to the submissions received on Transpower's proposal of 21 December;
- A **Plain English Guide to Part F of the Rulebook** and practical worked examples of Part F;
- A **Guideline on "Current" levels**, which is a Transpower paper on what it considers are service measures that should be regarded as "current" in individual service level negotiations and factors that have to be considered in setting service levels.

2. Background: Part C versus Part F

As part of the current process of electricity reform, the Electricity Governance Establishment Committee (EGEC) has developed a Rulebook ("the Rules").

Part C of the Rules outlines the obligations on the various industry players to:

- avoid cascade failure of the system;
- maintain frequency levels; and
- maintain other standards as required.

The contractual framework is multilateral with the key contract being that between the system operator and EGB, on behalf of all those signed up to the Rules.

The Transport Working Group developed Sections I, II and III of Part F of the Rules, which contain processes for parties to determine service definitions, measures, and levels, for current transmission services, to decide on changes to services, and to determine whether proposed pricing methodologies conform with the pricing

principles contained in the Rules. Part F, in effect, covers key processes around future investment in transmission services and substitutes for them. The contractual framework for Part F is bilateral, in the sense that the results of Part F processes will only be reflected in individual transmission provider – customer contracts, although some decisions affecting these contracts must be made multilaterally.

3. Output of Section 1: service levels in contracts

Section 1 of Part F of the Rules provides that a service level determined under the Rules will only apply to contracts for transmission services between Transpower and the relevant Transpower customer if:

- Service definitions and service measures have been agreed between Transpower and the Transpower customer under the Rulebook; and
- At the time when the relevant service levels are agreed or determined either:
 - There exists a signed written contract for transmission services between Transpower and the Transpower customer and both parties have agreed in writing that those service levels should apply to that contract; or
 - Transpower has posted a set of terms and conditions for the provision of one or more transmission services to that customer that have become a contract between Transpower and that Transpower customer, by the operation of law or by agreement in respect of those particular transmission services; and
- A confirmed pricing methodology in relation to that transmission service has been determined in accordance with the Rules or by the Commerce Commission under section 57P of the Commerce Act 1986.

If these circumstances apply, the Rules bind Transpower and its customer to immediately vary their contract to incorporate the relevant service definitions, measures, and levels, and for the customer to pay the appropriate transmission price under the pricing methodology for these services.

If it is not possible to reach agreement on current service levels, the Rules specify that an Arbitral Tribunal may determine these levels using the following criteria:

- Service levels must not be inconsistent with any service levels specified in any written contract between Transpower and each customer;
- If there is no written contract, or there are no levels of service specified in the relevant contract for transmission services between Transpower and its customer, or the levels specified are ambiguous, then service levels are to be ascertained from behaviour and practice to date, including by reference to documented policy and procedures; and
- The service levels are not expected to require Transpower to invest in new or existing assets or alter fundamentally the manner in which it manages or operates the grid.

NB: The drafting of this section and rule 5 of section 1 of Part F is to be reviewed by the TWG, however, in light of concerns from some members.

4. TWG terms of reference and process

4.1 Terms of Reference

The TWG's terms of reference for this work – as consistent with Rule 2.6 of Section 1 of Part F of the Rules - required it to prepare a report recommending a set of transmission service definitions and measures that:

- Is meaningful to both Transpower and Transpower customers;
- Is consistent with other Rules and would be legally effective; and
- Includes service definitions and service measures which are included in existing bilateral contracts between Transpower and Transpower customers where those bilateral contracts have been notified to the working group by Transpower or a Transpower customer.

4.2 TWG process

Transpower forwarded its initial proposal for service definitions and measures to EGEc by 21 December 2001 as per the agreed timetable. EGEc requested the TWG to undertake the task of the “working group” envisaged under Section 1 of Part F of the proposed Rulebook. Submissions were called for, and six submissions were received.

The TWG met on 23 January and established a sub-group to work on the transmission service definitions and measures. The sub-group comprised some existing members of the TWG and some additional Transpower nominated members. The TWG also agreed to utilise the services of some Transpower staff as technical experts advising the sub-group and the TWG alongside the project team.

The sub-group was tasked with developing a set of transmission service definitions and measures based on the initial proposal Transpower had prepared and the submissions on that proposal. This set was then reported back to the TWG for its approval, by way of a vote.

The TWG discussed at some length the key purposes underlying the task it had been set so as to gain clarity about what it was trying to achieve. A consensus among TWG members was that the aim of the exercise was to develop a basis for further contracting and investment decision-making through:

- Providing Transpower's customers with a basis upon which they could then decide whether they wished to retain their current transmission services or negotiate for a different service, a different level of service, or a new service altogether in future negotiations;
- Providing Transpower with clarity about its obligations to its customers and a basis for developing its 10-year service delivery plan and subsequent investment intentions, particularly in relation to the “core grid”.

In view of its aim, the TWG agreed that its objective should be to identify and define in a meaningful way the services that are being traded now, including services that

are being provided implicitly rather than explicitly now that they are perceived to have value to customers.

While outside the scope of the work required to identify current service levels, the TWG also considered it would be beneficial for it to define in a meaningful way the services that could be provided in the near future that are perceived to have value to customers, in order to assist negotiations over future services and service levels. This is discussed in more detail in 10.4.

5. Consultation and submissions

In October of last year, Transpower prepared an initial draft set of service definitions and measures and consulted with customers to gain their feedback on them. The key issues arising from the feedback were:

- Many submissions found the draft proposal's presentation of the service definition purely from the point of view of the grid owner to be too limiting;
- There were suggestions for some additional measures;
- Two submissions pointed out that parties other than existing counterparties are affected by transmission services;
- One submission queried the status of capacity as a service and considered it to be an input related to availability¹.

The resulting feedback from eleven stakeholders enabled Transpower to make substantive changes to the set of definitions and measures.

Transpower released a formal set of service definitions and measures to EGECE on 21 December 2001², taking on board these earlier comments. As was discussed earlier, EGECE passed this set of definitions and measures to the TWG to consider. By the end of January 2002, EGECE had received six submissions on this formal set of definitions and measures, which it also passed on to the TWG. Of these submissions:

- Several expressed general support for the service categories proposed and went on to provide detailed suggestions for improvement;
- Two commented that they did not see the need for the grid owner and system operator roles to be differentiated;
- Two commented that the exclusions under "normal conditions" seemed excessive, particularly given that some were within Transpower's control;
- One indicated discomfort with the current services provided by Transpower and argued that it should be providing service guarantees;
- One stated that the service definitions and measures exercise needed to be linked directly with the pricing exercise;

¹ These submissions can be viewed in full on Transpower's web site <http://www.transpower.co.nz/>.

² Transpower's proposal and these submissions can be viewed in full on the EGB website: <http://www.egb.co.nz/>, under the Transport Workstream.

- One raised significant questions about the roles of the asset owner and system operator and operation of Part F.

These issues were extensively discussed by the TWG as reflected later in this paper. Transpower was asked to provide specific responses to the principal submission comments. The TWG then considered Transpower's responses and asked Transpower to reconsider a number of them. From this process, the TWG developed its own responses to the submissions and recommended these to the TWG. These responses are provided in a separate paper included in this package.

6. Ensuring the definitions and measures are meaningful

The TWG developed the following questions as a tool for ensuring that the definitions and measures that it proposed would be meaningful to the wider industry:

Questions	Characteristic
<i>Are all aspects of current services that are of value to the transmission purchasers covered by the definition or measure?</i>	<i>Value of output and attributes</i>
<i>Are the aspects of service defined or measured in a way that reflects the attributes desired by purchasers?</i>	
<i>Are the services defined and measured in such a way that it will be clear whether the customer is receiving the service?</i>	<i>Measurable in quantity and quality</i>
<i>Are the transmission services and related attributes clearly and unambiguously defined?</i>	<i>Common language and clear expression</i>

In order to assure it that it was taking on board the interests of transmission customers as reflected by the questions above, the TWG proceeded to develop a matrix of possible Transpower customer interests in transmission services. These interests were expressed as 'inputs' as the aim at that stage was simply to establish respective interests of customers in various aspects of transmission services rather than to specify service definitions.

The TWG considered the analysis and noted that:

- The interests of various categories of Transpower customer were similar, but not necessarily identical;
- Much of Transpower's original proposal seemed to fit in with the interests of customers;
- There seemed to be merit in splitting "core transmission services" – such as power quality - from "additional services" - such as metering;
- "Point to point" services appeared to have value to some customers.
- Information flows featured strongly as a service(s) valued by Transpower's customers and that this was for day-to-day operational reasons as well as for longer term investment reasons.

The TWG noted that in accordance with Section 1 of part F of the Rules, the transmission service definitions and measures also needed to be meaningful to

Transpower. The TWG considered what should be meaningful to Transpower and concluded that:

- What is meaningful to Transpower's customers should also be significant, and hence, meaningful to Transpower because of its role of providing services to its customers; and
- The definitions and measures must enable Transpower to make efficient investment and operational decisions.

6.1 Input versus output measures

The TWG discussed the desirability of using input or output based definitions and measures. Some submissions also questioned whether service definitions should be more output focused. The TWG noted that input definitions and measures are not typically conducive to economic efficiency because:

- They provide no incentive to identify the least cost or most effective means of provision over time as they specify a particular means of provision.
- They can act as a barrier to competition. It can be difficult for another provider to compete against services specified in input terms because its competitive advantage might lie in the use of a different set or mix of inputs. As a result, the total production cost of the relevant service is likely to be higher or production less effective than the case where services are specified in output terms.
- It can be difficult for the customer to determine whether an input has been provided and hence whether they have actually received a service.
- An input definition and measure may be a poor proxy for the service actually valued by customers; for example, an increase in the level of input may not produce a corresponding benefit to the customer.

However, there may be instances where output-based specifications are not entirely satisfactory. This may be particularly where:

- The cost to customers of a failure in the service is large. For example, the cost of a failure to supply the service might be such that all parties prefer to be assured that various inputs will be in place (rather than seek contractual remedies after the event).
- It is too costly or technologically difficult to define or measure performance in output terms, so an input measure is necessary to ensure efficient contracting for transmission services.

After considering the issues discussed above, the TWG agreed to adopt a presumption of seeking to recommend output-focused service definitions and measures but noted that, given the nature of transmission services, such output definitions may not be sufficiently specifiable for making investment decisions. Where this arises, input-focused definitions would also be useful and meaningful to customers and Transpower.

6.2 Dynamic versus static definitions and measures

The TWG asked Transpower to consider whether dynamic service definitions could be used in the place of static definitions. More dynamic service definitions and

measures would provide stronger incentives to perform and innovate over time but might weaken incentives to perform if poorly specified. An example might be “meet the customer’s power quality requirements at the times notified by the customer” as opposed to “meet the customer’s power quality requirements of x”.

The TWG noted that:

- Dynamic measures might be desirable given that the potential gains to the industry from them could be large;
- Sufficient data would need to be available to measure and monitor them;
- There was uncertainty over information currently available and even greater uncertainty over any dynamic data that might be available.

Consequently, the TWG agreed to focus on developing service definitions and measures based on current (static) data but to also provide dynamic measures where these might feasibly be provided in the near future.

6.3 Serving multiple customers from the same point

The TWG noted that in some cases, two or even three customers take services from a common transmission Point of Service. The question arises as to which services or service categories can be separated for individual customers and which cannot. Certain services are not separable and must be provided in common to multiple connected customers whilst others may vary depending on individual customer requirements. Customers may choose different measures to define common services, but the measures must be consistent from a scientific/mathematical perspective. For any specific service measure at a common point of service, the level of service must be the same for multiple connected customers (voltage quality would be a good example).

In relation to each of the service categories, the TWG noted:

- Capacity can be defined in terms of a customer’s projected load growth over a set period of time. Under this definition, Transpower would provide a capacity service that both separately and severally meets the requirements of multiple connected customers. Note that capacity service provided under Transpower’s existing Connections is not defined in this way.
- Service measures relating to reliability, security and power quality are clearly common to multiple customers at a single point of service although technically there could be an agreement between the parties that service levels to one or more customers could be reduced during specified circumstances in order that service levels to the other customers at the same point of service could be maintained.
- The additional information service is separable between customers at the same point of service and can vary depending on measures and levels selected by each connected customer.
- The metering service is generally the same for each connected customer but can easily be made separable if required.

7. A key issue

7.1 The interconnected grid

A “key” issue, which the TWG had to resolve, was how to define the services so they encompassed what the “core grid” provides. This was necessary so that the operation of Section 1 of Part F does effectively create a more efficient environment for investment in “core grid” assets/services and/or their substitutes.

The purpose of the core grid, or main transmission system, is to transfer power from generating stations to demand centres under varying environments. Other players are required, however, to ensure delivery of electricity to the consumer in the manner needed and so the failure of the transmission service may be only one cause behind the failure of the electricity system to supply power to consumers.

Specifying the nature of the transmission service being provided by Transpower to customers excluding all these other factors is not easy. In particular, linking a transmission service being received by a customer specifically to a particular transmission investment requires assumptions about generation and load. These latter factors can vary markedly over time.

But there is clearly a link between investment in core grid transmission services and the delivery of electricity to customers. Without the core grid in place, many customers would not receive any electricity at all. When it is not operating as it should, customers suffer the consequences. It is, therefore, important that the service definitions and measures capture the benefit that customers receive from having the core grid operating effectively so that future negotiations between the parties can reflect this value.

Consequently the definitions of some of the key services proposed (reliability, security, and power quality), while measured at the customer’s point of service, are designed to capture as much of the value delivered by the existence of the core grid as possible. For example, impacts on service levels due to any interruptions affecting the point of service are to be measured regardless of where the interruptions occur on the grid.

In addition, a general undertaking by Transpower has been included in the service definitions. This obliges Transpower to make its grid assets available for the conveyance of electricity in accordance with Good Industry Practice except where service levels conflict with this.

The intent behind this general undertaking is to capture the economic and security benefit to customers, and particularly to electricity users, of having as much of the core grid available for the transmission of electricity as is practicable and economically efficient at any point in time. The concern was that in the absence of this general undertaking, Transpower could meet its service level obligations to its customers, without necessarily achieving the efficient use of the existing transmission system or the optimal level of security achievable given the assets that already exist and are available for service. This general undertaking has, however, been designed so as not to override the service levels that Transpower specifically agrees with its customers so that the primary emphasis remains on achieving these service levels.

7.2 Service Delivery Plan

Agreement on service levels relating to definitions and measures – allied with the general undertaking - will allow Transpower to develop its Service Delivery Plan each year as required under Section I of Part F. The Plan is to outline how Transpower intends to deliver those levels over the following 10 years.

The TWG was informed that Transpower intends to develop a System Adequacy Guideline document to assist it to decide on its service delivery plan and specifically on what investments in the core grid it should undertake in order to satisfy its service level obligations to customers. Members noted that there was a risk that Transpower's investment decisions could end up being driven by its System Adequacy Guideline rather than the service levels it is contracted to provide to its customers. But members also noted that:

- Transpower is required to disclose and consult over the projected timing and nature of its investment proposals contained in its Service Delivery Plan and any Statement of Investment Opportunities before finalising the plan under section I of Part F and proceeding with the investments.
- A vote securing at least 75% among Transpower's customers in favour of a service level change proposed by Transpower (or an alternative transmission provider) is required before that change can take effect under section II of Part F.

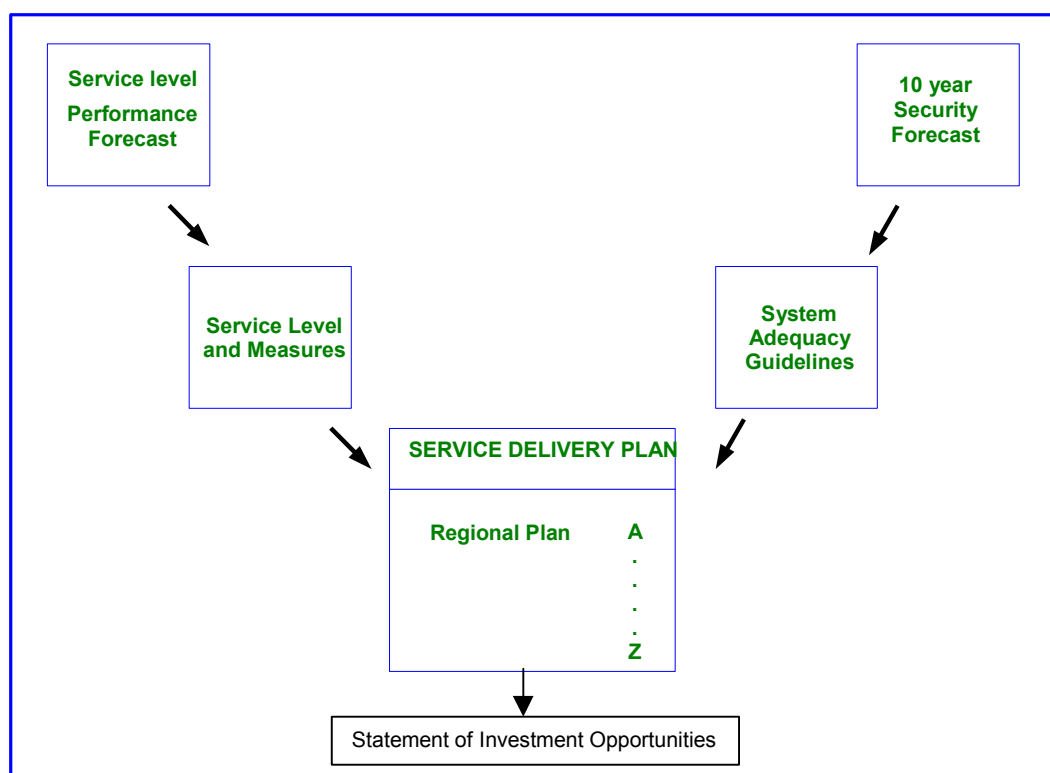
Consequently, the TWG concluded that there are sufficient checks and balances within the Part F process to encourage Transpower to meet its customers' requirements.

7.3 Process to develop the service delivery plan

The TWG was informed that Transpower would adopt the following process to produce its Service Delivery Plan:

- New Zealand will be segmented into regions and a regional plan developed for each area. The plan will be formulated by a combination of an assessment of core grid and point of service (substation) adequacy against the proposed Guideline over a 10-year period and an assessment of the ability of the network to deliver to existing service levels by comparing quality and performance statistics against them.
- An output will be a list of areas where some form of investment will be necessary to meet either the System Adequacy Guideline or to continue to meet contractual service levels.
- From this work, a Statement of Investment Opportunities will be developed to set out either the proposed transmission solution or the process to develop the transmission solution to address the concern.

This is outlined in Figure 1:

Figure 1 – Proposed development process for the Service Delivery plan

The regional plans will be developed until there is a full set of plans to cover the entire country. The plans will remain in effect until they are revised, but will be reviewed at least once a year to ensure their currency. A significant effort will be required to consult on and communicate the issues identified and the proposed solutions to customers and stakeholders at both multi lateral and bilateral levels. A proposed content of a Service Delivery Plan provided by Transpower to the TWG is attached as Appendix 1.

7.4 Contracting for Reliability and Power Quality: Implications for the Service Delivery Plan and Section I of Part F

The TWG noted that if customers choose to receive reliability and power quality at their points of service, but not specific capacities, Transpower will be able to develop its Service Delivery Plan on the assumption that it needs to provide sufficient capacity to achieve these other service levels. New investment related to forecast load growth in order to maintain existing service levels, for example, would be disclosed and consulted on by Transpower in its Service Delivery Plan and possibly, Statement of Investment Opportunities under section I of Part F. Once it had heard and considered any concerns, Transpower could proceed to make the resulting investments. This is exactly how Section I of Part F is intended to operate.

7.5 Contracting for Capacity: Implications for Service Delivery Plan and Section I of Part F

If customers have contracted to receive a specific capacity at a Point of Service, however, any increase in capacity to deal with load growth, for example, would constitute a change in service level. In these circumstances, an increase in capacity would require agreement to increase the service level, and would need to be dealt with under Section II of Part F of the Rules, if other parties were likely to be affected. Under Section II, new investment proposals to increase capacity would require a 75% positive vote from affected customers in order to proceed.

To restate this matter more bluntly, a decision to contract for a specified capacity at a Point of Service will effectively negate many of the processes to ensure Transpower plans and invests to meet increased load that are incorporated in Section I of Part F of the Rules. Capacity has been included among the menu of service definitions and measures because in some situations customers and/or Transpower may prefer to use this input-focused measure, but the TWG recommends that parties should be cautious about the implications for future investment decision making and flexibility to deal with load growth of using this service definition to determine a service level before choosing to do so.

7.6 Discussion Document on potential Point to Point service

The TWG noted that Transpower's customers were likely to be interested in a (grid) point to (grid) point reliability/power quality/capacity and security service for operational, investment and pricing reasons. The TWG also noted that there are no services relating to the capacity and reliability of the grid to limit the impact of loss and constraint rentals on nodal prices.

Transpower advised that potential services in this area were potentially very complex to develop given the number of factors involved, including the system operator and its principal performance objectives. Transpower agreed to release a discussion document in conjunction with the seminars on this set of service definitions and measures (and prior to the indicative industry referendum on them) on the issues surrounding a potential (grid) point to (grid) point service.

8. Relationship between Part F and the rest of the Rules

8.1 Grid owner versus system operator issues

The TWG considered how to treat Transpower's grid owner and system operator functions in the set of transmission service definitions and measures. Submissions expressed a preference for there to be no distinction made between the two for transmission services provided at customer points of service.

The TWG noted that Part C of the Rules outlines the proposed Principle Performance Objectives of the system operator – and other parties including the grid owner – in ensuring common quality across the system. As was noted earlier, the system operator is to be contracted by the EGB to deliver the following common quality functions:

- avoiding cascade failure;
- maintaining frequency; and
- maintaining other standards when requested.

The TWG also noted that:

- other parts of the Rules provide for specific system operator obligations; and
- the Rules were designed to enable the system operator role to be contracted separately from Transpower's other transmission service provider role.

The TWG considered it reasonable to assume that the Rules are in place, and that the obligations in Part C had replaced existing common quality obligations. The TWG subsequently agreed that the set of transmission service definitions and measures should assume that all of Transpower's obligations under Part C (i.e. system operator and grid owner) would be covered by the multilateral contract with the EGB under Part C. The set of transmission service definitions and measures therefore exclude any reference to the common quality functions outlined above.

The TWG also considered it necessary to maintain the transparency as provided in the Rules between the functions of the system operator and transmission provider so to preserve the capability of contracting out the former without the need to amend the service definitions and measures. Consequently, the service definitions and measures carry the general qualification that Transpower is offering these services as a transmission provider only, not a combined transmission provider and system operator.

8.2 Local Quality Agreements

At some points of service it will be necessary for the system operator to grant local quality agreements to Transpower as the transmission provider. Local quality agreements between the transmission provider and system operator are recognised in Part I of the Rules as a construct designed to ensure that where there is a contract or arrangement for the maintenance of voltage at a point of service within a lesser

range than that set out in Part C of the Rules, the customer continues to receive levels of service (in particular voltage) that they have experienced in the past.

For example, at present, some parts of the power system are operated within a tighter voltage range than asset owners are required to operate within under Part C. Asset owner obligations are included in Part C with respect to voltage ranges so as to ensure that the system operator has sufficient flexibility in operating the core grid and avoid cascade failure of the grid. However, if the core grid voltage was managed within +/- 10%, as implied by the asset owner performance obligations in Part C, the voltage range at a number of grid exit points may exceed historical voltage levels. Local quality agreements were therefore provided for under Part I to ensure that the contractual level of quality enjoyed by customers (who have a contract or arrangement for the maintenance of voltage at a point of service within a lesser range than that set out in Part C of the Rules) would not be altered without proper economic analysis of the costs and benefits and, importantly, who should pay for any equipment upgrades which might be needed.

The TWG agreed that while service definitions and measures would be restricted to what Transpower could offer as a transmission service provider and exclude all of Transpower's Part C obligations, they could include the maintenance of voltage at a Point of Connection where the System Operator has granted Transpower a local quality agreement.

9. Comments on the set of proposed definitions and measures

9.1 General and Specific Conditions

The TWG agreed that Transpower's obligation to achieve the service levels relating to a service measure should be subject to certain conditions. By way of a general comment, these conditions relate to events outside the control of Transpower as transmission provider that have a significant effect on its ability to achieve the service levels.

In addition to the General Conditions, Specific Conditions have been provided only where necessary for the provision of particular services.

9.2 General Undertaking

The TWG recommended that subject to meeting the actual service levels agreed between Transpower and its customers, a general undertaking should be offered to ensure that the benefit of having the core grid available for the transmission of electricity was captured sufficiently. Since the general undertaking is subject to Transpower meeting its service level obligations, Transpower and its customers may, in future, choose to negotiate service levels that modify or possibly supersede the general undertaking.

9.3 Implications of the “menu” approach

Under Section 1 of Part F, customers have the right to choose which of the service definitions and measures they would include in their contracts if they were unable to gain the agreement of Transpower as to which should be included. There is no obligation for every customer to choose every service definition or measure. Indeed, in some situations the definitions and measures are clearly alternatives, and it would be quite illogical for customers to choose both. A general issue with choosing capacity as a service definition is discussed in Section 7.5 above.

Moreover, since some service definitions are included because they may be of interest to Transpower and its customers in the near future, there is nothing to oblige Transpower to provide a current service level for every definition and measure identified in the menu during the initial process of establishing the current service level.

9.4 Definitions for which there is no current service

In developing Part F last year, the TWG took the view that the menu of service definitions and measures could include definitions for services that are not currently provided, but which either Transpower or its customers might like to provide/receive in the future. Current service levels, however, would encompass only current services.

In presenting its initial proposal to the TWG, Transpower cautioned that extending the scope beyond existing services could result in an open-ended process. Other members noted that defining terms for likely new services as well as current services could potentially provide significant benefits as it would assist in providing a platform for future negotiations.

The TWG consequently agreed to focus work on service definitions and measures that reflect likely new services as well as current services, including service definitions for current services that may not be readily measured now. It noted that parties would be able to choose whether to negotiate a service covered by the “new” service definitions and whether they wanted a service level to be measured where it was not now. It also noted that not all services would be available to all customers.

Transpower noted that its ability to offer new services might be conditional upon whether:

- It was able to earn a satisfactory rate of return – in light of the regulation of its pricing methodology - on the expenditure and risks it would incur with the provision of the services in question; and
- Whether the provision of any new service was consistent with the Government’s objectives in relation to the provision of transmission services or the Government’s expectations of Transpower under any Government Policy Statement.

Where the TWG considered it had sufficient information to justify distinguishing “new” services from “existing” services in preparing the set of service definitions and measures, it did so. In particular, in the TWG’s view, customers are not currently receiving the four “will achieve” definitions under reliability, power quality, capacity and security and so, in the TWG’s view, these should be considered as new services. Under these “will achieve” definitions, the TWG anticipates Transpower and its customers may negotiate a different set of conditions, and potentially different performance standards for the delivery of the services in question (eg “will achieve” or use “best endeavours” to achieve etc).

The TWG decided to include these service definitions in the current set to enable customers and Transpower to negotiate the use of such terms in future negotiations if both parties wish to do so. From consultations and feedback, there is interest among customers to discuss such changes with Transpower.

For the remaining service definitions and measures, the TWG considered it did not have sufficient information to determine what should be regarded as “new” services from “existing” services, in light of the fact that the TWG was not party to all the contracts between Transpower and its customers. The TWG considered these matters were most appropriately resolved directly between Transpower and individual customers.

9.5 Connections

The TWG noted that the Connection service definition covers only existing connections at their current locations. Any new connections at new points of service would be regarded as a new service and, if they affect others, would come under the processes outlined in section II of Part F of the Rules.

9.6 Meet Offtake Demand

The TWG considered the question of whether the service definitions and measures should include a category that – in effect – combined some of the key definitions of reliability and power quality with a process for determining demand capacity over time into some form of “Meet Offtake Demand” category. After much discussion, the TWG chose to recommend such a category in light of the fact that it would be meaningful to Transpower and its customers. If customers chose this service (or the Reliability and Power Quality services) instead of the Capacity service, Transpower could then proceed to develop the Service Delivery Plan under section 1 of Part F of the Rules as intended.

9.7 Technical and operational procedures

Transpower has a number of technical and operational documents such as its Connection Policy and Outage Protocol. These documents are referred to in various places throughout the service definitions and measures. Submissions raised a number of questions about the status and referencing of these documents in the set of transmission service definitions and measures.

The TWG noted that the Connection Policy outlines the technical obligations on the grid asset owner and all parties connected to the grid for emergencies, operational communications, equipment and outage co-ordination. Connected customers are obliged to comply with the Policy via their Connection contracts with Transpower. The Connection Contract outlines a prescriptive procedure by which Transpower is obliged to consult contracted parties over changes to the Connection Policy.

The Outage Protocol outlines Transpower’s procedures for co-ordinating outages with its customers and the ways in which it will do. Unlike the Connection Policy, the Outage Protocol does not appear to be referenced in existing contracts between Transpower and its customers.

The Policy Statement Procurement Plan Working Group (PPWG) is currently reviewing the management of outages across the industry. While some members of the TWG were keen to see a more transparent process apply to the Outage Protocol (eg by requiring Transpower to apply some form of efficiency test when making outage decisions), the TWG considered it was more appropriate for the PPWG to review the management of outages in a comprehensive manner.

The TWG subsequently agreed that:

- The Connection Policy was an appropriate condition for Transpower agreeing to connect other parties’ equipment to the core grid given that it was primarily an essential technical document and given that Transpower was obliged to consult customers over any changes to it in its existing Connection contracts;
- Transpower should commit to complying with the Outage Protocol and consulting customers over any material change to the Protocol;

- The publication, compliance and consultation aspects of the Outage Protocol should be reflected in the transmission service definitions and measures for potential inclusion in transmission service contracts.
- Any other potential changes to the Outage Protocol should be dealt with by the PPWG.

9.8 Treatment of information

The TWG considered that information exchange was a service valued by transmission customers that, in some instances, was probably being supplied implicitly rather than explicitly now. Information relating to the provision of a “core” transmission service was regarded by members as being “core” to that service. Consequently, the TWG agreed that:

- Key reporting requirements in relation to the performance of particular core transmission categories (e.g. reliability, security and power quality) should be included in that category’s definition;
- An information service should be included in the service definitions and measures under an Additional Services category to reflect any other key sources of information exchanged in relation to the core transmission service.

9.9 Additional service: Metering

The TWG agreed that the provision of metering (as opposed to having access to metering information) should be treated as an additional service as it was not a service that Transpower had to provide itself in order to provide transmission services. In due course, revenue metering at offtake Points of Service could be provided via a service provider contract with the EGB.

9.10 Financial products

The service relating to the availability of the HVDC and other links has been included in the service definitions and measures at the request of a customer and is situated under the “Financial Products” category. This service involves Transpower paying the customer certain penalty fees if specific links are not available.

10. Implications for individual service level negotiations

10.1 Service level negotiations: what is the “current” service level?

Under section I of Part F, agreed service definitions and measures are to be used by Transpower and its customers to agree current service levels. Two questions arose for the TWG:

- Do the service definitions and measures need to express a view on what is “current” for service levels ie is “current” what the Customer received over the last five years, last 3 months or what they were receiving at one particular point in time?
- If so, what should this view be?

After some consideration, the TWG did not consider it was appropriate for it to define the time period that would be considered “current” but, for the purposes of providing some certainty, chose to define “current” services as being:

The transmission services provided by Transpower to its Customers on the earlier of the date that Service Levels are agreed in respect of those transmission services or the date that the Rules come into effect.

Furthermore, the TWG:

- Considered that individual service level negotiations could prove more complex and time consuming if a guideline definition for “current” was not provided;
- Agreed that Transpower should provide a Guideline on what it considered to be “current” so as to assist bilateral negotiations with its customers;
- Noted that this Guideline had no formal status in the Rules and so was not binding; rather it was simply information to assist the respective parties’ negotiations.

Transpower’s paper on this issue is included in the suite of papers.

Appendix 1: Proposed contents of the Service Delivery Plan

Service Delivery Plan for region A:

(i) Purpose

A purpose statement will set out the objective of the plan, which is primarily to identify areas where either system adequacy or service levels are being breached or are at risk of breach within a 10-year horizon and to put forward a range of solutions to maintain system adequacy or service levels.

(ii) Methodology Statement

A methodology statement will include:

- A brief explanatory section including reference to Part F – Transport rules section 1.
- A statement about how long the plan is valid.
- Process and timetable for finalising the plan and for parties to make submissions.
- Reference to the system adequacy guideline and how this has been developed and applied.
- References to service levels and how these have been applied.
- A description of the processes used to formulate regional plans.

(iii) Description of the regional power system

A description of each region including schematics of the network (similar to the system security forecast) will be included. The section will also set out:

- Demand projections both in aggregate and per point of supply.
- Assumptions regarding generation scenarios.
- Assumptions regarding transmission network capability.
- Any assumptions about future network, demand or generation augmentation relevant to the regional system adequacy.

(iv) Adequacy of Regional Core Grid and Points of Service

This section will provide a 10-year view of core grid adequacy based on an assessment of the regional power system compared to the guideline. It will also include an assessment of all of the points of supply in the region and will identify where demand exceeds substation capacity (firm or total) based on the guideline. The likely output will be an identification of areas where system adequacy is not being met, is at risk or will be at risk within the 10-year time frame of the studies.

(v) Comparison of Service Levels with Performance

This section will provide a comparison of service levels and statistics on historical performance. It is likely that this will capture services such as reliability and security and power quality. The likely output is a range of locations where service levels are being breached or are at risk of breach within the following 10 years.

(vi) Statement of Investment Opportunities (ref clause 6.2)

While a statement of opportunities is optional under rule 6.2 of Part F, the publication of investment plans will be of substantial value to both Transpower and its customers, as it will enable a focussed discussion on transmission investment plans.

The statement of opportunities will set out high level investment options and where possible, Transpower's preferred (transmission) proposals to meet identified deficiencies highlighted in the above sections on adequacy and service levels.

For more complex proposals the plan may simply outline the requirement in high level output terms (e.g. 300 MVA within the region) and the timetable to develop a preferred transmission solution through due process (e.g. RMA).

A best estimate of the costs would be included. For core grid solutions these would most likely be "ballpark" estimates until detailed design work has been completed. For substation solutions these are also likely to be high-level estimates based on building block costs rather than on detailed design work.

Timetables for investment would be stipulated for each proposal including the dates when prior planning work would need to be completed or processes such as RMA would need to commence in order to deliver a solution on time.

Finally the affected parties who would pay for any upgrade, in accordance with the Confirmed Pricing Methodology applicable to Part F section 1 would be identified and where possible indicative pricing would be applied in accordance with the methodology.