Record No: D2013/55944 Container No: F2012/6956



Dr Patrick Walsh Utilities Commissioner Utilities Commission GPO Box 915 Darwin NT 0801

Dear Dr Walsh

Re: Network Cost Pass Through application

I refer to my letter of 14 December 2012 to the Utilities Commission (Commission) seeking a re-determination, to ensure that Power Networks is funded on a sustainable basis. The shortfall in funding arises from a number of factors, one of which is increased operating and capital costs, significantly higher than those allowed for in the Commission's 2009 Networks Price Determination (2009 NPD).

The Commission in its letter of 19 December 2012 requested Power and Water to clarify the grounds for which its application is being made. After further consideration of the 2009 NPD, Power and Water Corporation (Power and Water) considers that a more appropriate course of action is to apply for a cost pass through.

Power and Water is therefore seeking a cost pass through of the expenditure that has exceeded that allowed for by the Commission in its 2009 NPD. The expenditure is both capital and operating in nature and is a direct consequence of Power and Water's implementation of the Davies Review recommendations following the Casuarina Zone Substation incident in 2008, and the subsequent enhancement of Power Network's asset management regime.

The Attachment to this letter constitutes an application for the pass through of network costs, in accordance with the provisions established in the Commission's 2009 NPD.

An important feature of this pass through proposal is the three-part way in which the pass-through costs are proposed to be recovered:

- An increase to network prices in 2013/14;
- Incremental capital expenditure rolled forward in to the asset base in the fourth regulatory control period; and
- The shortfall in revenue in years prior to 2013/14 to be recovered throughout the fourth regulatory control period, through the overs and unders provision associated with the revenue cap form of price control.

Should you require clarification or further information in support of this application for cost pass through, please do not hesitate to contact Mr. John Devereaux on 08 8985 7206.

Yours sincerely

Andrew Macrides Managing Director February 2013



Network Cost Pass Through Application relating to the Davies Review recommendations

BACKGROUND

In September and October 2008, a number of electrical equipment failures at Casuarina Zone Substation resulted in widespread power disruption to Darwin's northern suburbs (the Casuarina incident). Consequently, the Northern Territory Government established an independent inquiry headed by Mervyn Davies (the Davies Review) to investigate these events as well as recommendations on improvements to be made to Power and Water's operating and maintenance practices.

The root cause of the event was a catastrophic failure of an electrical circuit breaker in a uniquely harsh environment which contributes to the premature aging of electrical equipment. Power and Water's subsequent implementation of the Davies Review recommendations was directed by Government and was driven by considerations of public and staff safety and the restoration of a reliable essential service to Northern Territory electricity consumers.

The broad ranging nature of the Davies Review led it to make recommendations which have had significant impacts on Power and Water's operating and capital expenditures. The Davies Review of this incident led to:

- a thorough assessment by Power and Water of the condition of its network assets;
- significant remedial works, where asset condition was poor; and
- the adoption of improved asset management processes¹.

COST PASS THROUGH APPLICATION

Power and Water is seeking a cost pass through of the expenditure that has exceeded that allowed for by the Commission in its 2009 Networks Price Determination (2009 NPD). The expenditure is both capital and operating in nature and is a direct consequence of Power and Water's implementation of the Davies Review recommendations and the subsequent enhancement of Power Network's asset management regime. This asset management activity has been prudently and efficiently carried out, to ensure the security and reliability of the network is in line with industry standards and community expectations.

The Commission made its Final Determination on Networks Tariffs for the current regulatory control period in March 2009². The Casuarina incident and the subsequent release of the Final Report of the Davies Review occurred prior to the release of the Commission's Final Determination. The Commission recognised at the time that increased costs would result from the Casuarina incident. However, these additional costs were explicitly excluded from the Final Determination by the Commission, on the grounds that the likely impact on Power and Water was too difficult to quantify at the time³.

2009 NETWORKS PRICE DETERMINATION PROVISIONS

This application for cost pass-through is being made under the provisions of the 2009 Networks Price Determination (2009 NPD).

¹ Independent Enquiry Into Casuarina Substation Events and Substation Maintenance across Darwin - Final Report Chairman: Mervyn Davies, 4 February 2009

² Utilities Commission, Final Determination Networks Pricing: 2009 Regulatory Reset, March 2009.

³ Ibid, p.5.

The Commission in its 2009 NPD Final Determination made the following provisions to revisit increases in expenditure resulting from Power and Water's implementation of the Davies Review recommendations:

- Paragraph 3.47, p.24: "A reckoning will take place at the end of the third regulatory period once Power and Water's actual spend during that period is confirmed. Also, this matter could be revisited even earlier if or when the Commission considers any pass-through application by Power and Water of spending increases arising directly as a result of the implementation of Davies Report's recommendations."
- Paragraph 2.11, p.5: "When determining the X value to apply for the purposes of this Determination, the Commission has decided not to take account of increased capital and maintenance spending by Power and Water as a result of Government decisions responding to the findings of the Davies Report regarding the Casuarina zone substation outages. Instead, the Commission will reset the price cap during the third regulatory period if upon application by Power and Water and following a public review by the Commission any such spending increases satisfy the requirements of clause 71(c) of the NT Code. Such a reset would require the Commission to be satisfied that the spending increases were in the nature of "...extraordinary developments with respect to any one of the regulator [the Commission], were outside the network provider's control"."

Clause 71(c) of the NT Code⁴ states that:

"The regulator may only revoke or reset a revenue or price cap with respect to a particular financial year or years if it appears to the regulator that – ...there were extraordinary developments with respect to any one of the key factors identified in clause 68 which, in the opinion of the regulator, were outside the network provider's control."

- Paragraph 6.126, p.113-114: "In accordance with its general powers, and consistent with clause 71(c) of the NT Code, the Commission will only consider cost pass through applications during the third regulatory period if they are the consequence of:
 - such other events that satisfy the following requirements: (i) the occurrence was not anticipated at the time of the preceding reset or were, while allowable, explicitly excluded from affecting the outcome of that reset on the grounds that the likely impact on Power and Water was unknown or too difficult to quantify at the time, and (ii) the occurrence is not a result of actions of Power and Water's board or management or of decisions of the Government in its capacity as owner or shareholder or guarantor of Power and Water.

The Commission will only consider a cost pass through application based on the above types of events if it at least satisfies the materiality threshold of 1% of the annual revenue from standard control services in the financial year in which the event occurs."

In summary, to satisfy the provisions of the 2009 NPD, Power and Water considers that the following requirements need to be addressed:

• that there was an extraordinary development with respect to any one of the key factors identified in clause 68 of the NT Code;

⁴ NT Electricity Networks (Third Party Access) Code.

- that the extraordinary event was outside the control of the network service provider, and not a result of actions of Power and Water's Board or management, or decisions by Government in its capacity as owner or shareholder or guarantor of Power and Water; and
- a materiality provision of 1% of annual revenue

Each of these requirements are considered in turn.

Extraordinary development

Power and Water considers that the 'extraordinary development' in clause 71(c) of the NT Code was:

- (a) the release of the Final Report of the Davies Review;
- (b) the need for consequent expenditure by Power and Water; and
- (c) that this expenditure has explicitly not been allowed for, and therefore compensated, under the 2009 NPD Final Determination.

Clauses 68(e), 68(f) and 68(j) of the NT Code state that:

"In setting a revenue or price cap, the regulator must take into account the revenue requirements of the network provider during the relevant financial year or years having regard to –

(e) the provision of a return on efficient capital investment undertaken by the network provider in order to maintain or extend network capacity that is commensurate with the commercial and regulatory risks involved;

(f) the right of the network provider to recover reasonable costs incurred by the network provider in connection with the operation and maintenance of the network; and

(j) the on-going commercial viability of the network provider."

The 'extraordinary development' was 'with respect to' several of the key factors identified in clause 68, as required by section 71(c) of the NT Code, specifically:

- the provision of a return on efficient capital investment undertaken by the network provider in order to maintain or extend network capacity that is commensurate with the commercial and regulatory risks involved;
- the right of the network provider to recover reasonable costs incurred by the network provider in connection with the operation and maintenance of the network; and
- the on-going commercial viability of the network provider.

Outside the network service providers control

Power and Water considers that the extraordinary development that has resulted in expenditure that has not been allowed for under the 2009 NPD Final Determination was:

- (a) outside of the control of Power Networks;
- (b) was not a result of actions of Power and Water's board or management; and
- (c) was not a result of decisions made by Government in its capacity as owner or shareholder or guarantor of Power and Water.

The root cause of the event was a catastrophic failure of an electrical circuit breaker in a uniquely harsh environment which contributes to the premature aging of electrical equipment.

Consequently, the NTG established the Davies Review to investigate these events as well as recommendations on improvements to be made to Power and Water's operating and maintenance practices.

Power and Water's subsequent implementation of the Davies Review recommendations was directed by Government in its capacity as policy maker, rather than its capacity as owner, shareholder or guarantor of Power and Water. It was driven by considerations of public and staff safety and the restoration of a reliable essential service to NT electricity consumers.

This is evidenced by the following policy statements made by the then Minister for Essential Services, Rob Knight, after the release of the Davies Review:

• "Essential Services Minister Rob Knight today said Power and Water will implement all the recommendations from the Final Report into the failures at the Casuarina Zone Substation. "Territorians deserve to have a safe and reliable power supply and Power and Water must make the necessary changes to make that happen," Mr Knight said. "More than \$1 billion is being invested into Power and Water over the next five-years on capital works and repair and maintenance programs. The Mervyn Davies enquiry makes it clear more maintenance will need to be done on top of that program for Power and Water to provide the service that Territorians deserve. ...

I have spoken to Power and Water's Managing Director and I have made it clear the problems raised in the report must be addressed as soon as possible. This is a turning point for Power and Water. Maintenance will be a top priority... I will be overseeing the implementation of all recommendations to make sure they are followed through."⁵

• "I now turn to the independent review of our power networks system done by Mervyn Davies earlier this year. His recommendations have been implemented as a matter of priority. The Remedial Asset Management Program, or RAMP as it is called, was established immediately to oversee the restoration of the Casuarina Zone Substation, to ensure the condition of Power and Water's power system assets, and to manage critical remedial and maintenance works. Budget 2009-10 provides the necessary financial backing to ensure Power and Water implements all the recommendations completely, as soon as possible."⁶

The broad Terms of Reference set by Government for the Davies Review resulted in recommendations which have had significant impacts on Power and Water's operating and capital expenditures, and ultimately led to the adoption of improved asset management processes.

The Davies Review recommended Power and Water transition to a more 'condition based' approach to substation maintenance.⁷ The Davies Review noted that Power and Water's previous 'minimalist' approach to maintenance:

"... is a characteristic of the industry that whenever there is competing demand for resources, priority is given to customer connection work and system expansion, ahead of maintenance. This is particularly so in periods of high growth and in periods of economic stringency. Historically at these times it was not uncommon for maintenance to be deferred, and for routine periodicities to be extended, as an expedient. ...

⁵ NTG Media Release, Rob Knight, Minister for Essential Services, Final Report Released, 5 February 2009.

⁶ Minister Knight, Hansard full text transcript 07/05/2009, Statement by Speaker, continued from 6 May 2009.

⁷ Independent Enquiry Into Casuarina Substation Events and Substation Maintenance across Darwin - Final Report, Chairman: Mervyn Davies, 4 February 2009, p.76.

For young and rapidly growing systems, the consequence of poorly managed maintenance are not so severe but as systems have aged this has proven to be no longer the case and the industry generally has had to come to embrace maintenance and asset replacement/refurbishment and the science of optimising maintenance regimes, as a priority."⁸

Materiality

The amount of the proposed pass through is much higher than the materiality threshold of 1% of network revenue, or approximately \$1.2 million.

Summary

Power and Water considers that the additional capital and operating expenditure resulting from its implementation of the Davies Review recommendations is consistent with the necessary cost pass through provisions:

- the requirements of the clause 71(c) of the NT Code, being an extraordinary development affecting the key factors to which the regulator must have regard to in making a regulatory determination; and
- the conditions established in the Commission's 2009 NPD: inability to quantify the expenditure at the time of the NPD; not a result of actions taken by Power and Water's Board and management or the Government in its capacity as shareholder; and the materiality of the expenditure involved in each year of the 2009 NPD.

COST PASS THROUGH AMOUNT

The required revenue increase as a result of the capital and operating cost increases has been identified.

In the Commission's 2009 NPD, the approach used was to determine the base year cost of service for 2009/10 and project a price path for the remaining years of the regulatory control period using a form of Total Factor Productivity (TFP) analysis. The Commission's Final Determination was for a CPI-X form of price control where X made up as follows.

"4.89 GHD Meyrick concluded that, assuming that opex accounts for one third of electricity distribution costs while capital costs account for the remaining two thirds, it was reasonable to consider that available data produces an overall input price differential or X3 component estimate of 1.1%.

•••

- 4.114 The Commission determines that the following component values are to be used for the purposes of calculating the value of the X factor to apply during the third regulatory period:
 - $X_1 = 0.0\%;$
 - X₂ = 0.25%; and

• $X_3 = 1.1\%$

where:

⁸ Independent Enquiry Into Casuarina Substation Events and Substation Maintenance across Darwin - Final Report, Chairman: Mervyn Davies, 4 February 2009, p.70-71.

 X_1 = the difference between the TFP growth for the electricity distribution industry in Australia and that for the economy as a whole;

 X_2 = the difference between the best observed operating expenditure partial productivity level in the electricity distribution industry in Australia and Power and Water's operating expenditure partial productivity level; and

 X_3 = the difference between the input price growth for Power and Water and that for the economy as whole;

and

$$X = X_1 + X_2 - X_3 "'^9$$

Allowing for the rounding of X factors in the Final Determination, the components of X3 were thus as follows:

The base year levels of capex and opex of the Commission's decision were as follows:

Opex: \$45.580 M¹¹ Capex: \$56.782 M¹²

The levels of capex and opex that formed the basis for the Commission's decision for the third regulatory control period are recreated in the following calculation. The assumed volume growth underpinning the decision is the assumed annual quantity growth used in UC's modelling for the 2009 NPD, $g = 2.5\%^{13}$. The decision has been adjusted for out-turn CPI. The imputed capex and opex allowances are set out in Table 1. Also shown is the actual and forecast revenue through prices.

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2009-14
CPI ¹⁴	2.33%	4.25%	1.82%	2.85%	3.39%	1.76%	-
Opex allowance ¹⁵	45.6	48.7	50.9	53.7	56.9	59.4	315.1
Capex allowance ¹⁶	56.8	61.2	64.3	68.4	73.0	76.8	400.5
Total allowance	102.4	109.9	115.2	122.0	129.9	136.2	715.6
Actual/ <i>forecast</i> revenue	83.8	102.6	100.6	104.7	115.6	123.8	631.1

Table 1 – Opex and capex allowances from the Commission's 2009 NPD (\$M)

 ⁹ Utilities Commission, Final Determination Networks Pricing: 2009 Regulatory Reset, March 2009, pp. 39, 43-44.

¹⁰ Utilities Commission, Price Control Mechanism, Final Decision Paper: 2009 Regulatory Reset, May 2008, p. 73.

¹¹ Utilities Commission, Final Determination Networks Pricing: 2009 Regulatory Reset, March 2009, p.79.

¹² Ibid. p. 63.

¹³ Ibid. Table 3-2, p. 23.

¹⁴ Assumed CPI is taken as the CPI approved for each annual Network Tariff submission.

¹⁵ Opex escalation is calculated as: $(1 + X_{3Opex}) * (1 - X_2) * (1 + CPI) * (1 + g)$.

¹⁶ Capex escalation is calculated as: $(1 + X_{3Capex}) * (1 + CPI) * (1 + g)$.

The extent to which the capex and opex incurred by Power and Water has, and is expected to, exceed regulatory allowances is shown in Table 2 and 3, and summarised in Table 4 and Figure 1.

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Opex actual/forecast 17	84.3	78.5	93.0	101.1	97.8	87.7	542.4
Opex allowance	45.6	48.7	50.9	53.7	56.9	59.4	315.1
Incremental Opex	38.7	29.8	42.1	47.5	40.9	28.3	227.3

Table 2 – Actual and forecast opex compared with the regulatory allowance (\$M)

Table 3 – Actual and forecast cap	ex compared	with the re	gulatory	allowance ((\$M)
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Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Capex actual/forecast	73.6	85.2	88.8	78.8	123.8	<i>98.7</i>	548.9
Capex allowance	56.8	61.2	64.3	68.4	73.0	76.8	400.5
Incremental Capex	16.8	24.0	24.5	10.4	50.7	21.9	148.4

Table 4 – Total increment (\$M)

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Opex actual/forecast 17	84.3	78.5	93.0	101.1	97.8	87.7	542.4
Capex actual/forecast	73.6	85.2	88.8	78.8	123.8	<i>98.7</i>	548.9
Incremental opex	38.7	29.8	42.1	47.5	40.9	28.3	227.3
Incremental capex	16.8	24.0	24.5	10.4	50.7	21.9	148.4
Total increment	55.5	53.8	66.6	57.9	91.6	50.2	375.7

Figure 1 – Actual and forecast opex, capex and revenue compared with the regulatory allowance (\$M)



¹⁷ 2013/14 Operating expenditure forecast is currently an estimate. The final number will be provided once the annual budget process has been completed. This will affect the final cost pass through amount that PWC is requesting for 2013/14.

The total impact on Power and Water of this over expenditure during the third regulatory control period is calculated as at 2013/14, as follows:

- Incremental capital expenditure on system assets (with a life of 50 years) is rolled forward to determine the annual cost of supporting it. This also determines the increment in the asset value that would be carried forward to the fourth regulatory control period; and
- Incremental capex and opex amounts are escalated to 2013/14 using the Pre-tax real WACC of 6.82% determined by the Commission¹⁸.

The capital expenditure roll forward calculation is shown in Table 5.

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15			
Incremental RAB calcul	Incremental RAB calculation									
Opening asset base	0.0	16.8	41.2	65.6	76.6	128.4	150.0			
Сарех	16.8	24.0	24.5	10.4	50.7	21.9				
Depreciation	0.0	-0.3	-0.8	-1.3	-1.5	-2.6				
Indexation	0.0	0.7	0.8	1.9	2.6	2.3				
Closing asset base	16.8	41.2	65.6	76.6	128.4	150.0				
Incremental expenditur	Incremental expenditure on capex calculation									
Return on assets	0.6	2.0	3.6	4.9	7.0	9.5				
Depreciation (Return of)	0.0	0.3	0.8	1.3	1.5	2.6				
Incremental expenditure	0.6	2.3	4.5	6.2	8.5	12.1				

Table 5 – Incremental capital expenditure roll forward (\$M)

The incremental operating expenditures and incremental return on and return of capital expenditure are therefore as shown in Table 6.

Table 6 – Incremental expenditure (\$M)

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Incremental opex	38.7	29.8	42.1	47.5	40.9	28.3	227.3
Incremental capex (return on and of)	0.6	2.3	4.5	6.2	8.5	12.1	34.1
Total	39.3	32.1	46.6	53.6	49.4	40.4	261.4

RECOVERY OF THE COST PASS THROUGH VIA CUSTOMER TARIFFS

There is one remaining year of the existing regulatory control period in which the proposed pass through amount could be recovered, 2013/14. It would not be possible to recover the whole amount of the pass through in a single year, without an unacceptably large increase in network prices.

Power and Water therefore proposes a three-stage approach to recovering the pass through amount associated with the implementation of the Davies Review recommendations:

1) The additional revenue to be recovered in 2013/14 would be set at \$40.4 M. This represents an increase in the weighted average network price of approximately 33%,

¹⁸ Utilities Commission, Final Determination Networks Pricing: 2009 Regulatory Reset, March 2009, p. 36.

and would align the price in the final year of the third regulatory control period with the revenue required to cover additional capital and operating costs.¹⁹

2) The revenue shortfall in the prior years to 2013/14 would be indexed and carried forward to the fourth regulatory control period. This is calculated in Table 7.

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2014/15
Incremental expenditure	39.3	32.1	46.6	53.6	49.4	
Indexation to 2014/15	1.4856	1.3908	1.3020	1.2189	1.1411	
Indexed to 2014/15	58.3	44.7	60.7	65.4	56.4	285.41

Table 7 – Recovery of over expenditure prior to 2013/14 (\$M)

Power and Water proposes that the amount of \$285.4 M be recovered in the fourth regulatory control period. If recovered as equal instalments, this would represent a network price increase of approximately 35% in 2014/15.

The most convenient way of permitting this sum to be recovered, whilst allowing for some flexibility in the annual recovery, would be to use the overs and unders provision that will be established by the Commission as part of the revenue cap form of price control in 2014.

3) The RAB would be increased by the rolled forward value of capital over expenditure, of \$150.0 M, at the commencement of the fourth regulatory control period.

In this way, Power and Water would eventually recover the additional costs arising from the implementation of the Davies Review recommendations as permitted by the Commission's 2009 Networks Price Determination.

¹⁹ 2013/14 Operating expenditure forecast is currently an estimate. The final number will be provided once the annual budget process has been completed. This will affect the final cost pass through amount that PWC is requesting for 2013/14.