



Independent Pricing and Regulatory Tribunal

Market-based electricity purchase cost allowance – 2009 review

**Regulated electricity retail tariffs and charges for
small customers 2007 to 2010**

Electricity — Draft Report
March 2009

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ISBN 978-1-921328-79-4

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Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by 14 April 2009.

We would prefer to receive them by email <ipart@ipart.nsw.gov.au>.

You can also send comments by fax to (02) 9290 2061, or by mail to:

Review of market-based electricity purchase cost allowance
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We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be subject to appeal under freedom of information legislation.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Overview

The Independent Pricing and Regulatory Tribunal of NSW (IPART) is responsible for setting the regulated retail electricity tariffs charged by the Standard Retailers in NSW – Country Energy, EnergyAustralia and Integral Energy – to small retail customers on standard form customer contracts.¹

For a household or small business, the retail electricity bill comprises of around 45 per cent network charges, 40 per cent wholesale energy charges and 15 per cent retail costs and margin.

On 14 June 2007, IPART released its determination on regulated electricity retail tariffs and charges for small customers 2007 to 2010 (the 2007 determination). IPART included an annual review of the market-based electricity purchase cost allowance (the review), to factor into the determination material step-changes in this allowance, if required. The annual review will be a mechanical review in the sense that it will not involve any policy decisions and will apply the pre-determined methodology that is set out in the 2007 determination.

IPART's draft decision is that the market-based electricity purchase cost allowance has exceeded the allowance provided for in the 2007 determination by 14, 15 and 16 per cent for EnergyAustralia, Integral Energy and Country Energy, respectively. This exceeds the 10 per cent threshold set out in the determination and, therefore, requires IPART to revise the allowance included in the retail prices from 1 July 2009.

In deciding that the market-based electricity purchase cost allowance has exceeded those set out in the 2007 determination by more than 10 per cent, IPART considered expert advice from Frontier Economics. This advice is available on IPART's website. In particular, IPART considered:

- ▼ market uncertainty arising from the policies of governments, including greenhouse policies and ETEF²
- ▼ market uncertainty arising from the impact of the drought on generation capacity and output
- ▼ the impact of these uncertainties on contracting behaviour, and
- ▼ updated demand and supply forecasts and ownership changes within the generation market.

1 Customers consuming less than 160 MWh per annum of electricity can be supplied under a standard form customer contract and, therefore, be subject to a regulated tariff or can enter into a negotiated contract.

2 On 20 February 2009, the NSW Treasurer in consultation with the NSW Minister for Energy amended the ETEF payment rules. The amended Payment Rules provide that up to and including 26 September 2009 one hundred per cent of the standard retail suppliers' regulated load will remain subject to the Electricity Tariff Equalisation Fund. From 27 September 2009, forty per cent of the regulated load will be subject to the Fund. The 20 February announcement stated that at that time no decision had been taken to alter the timing of future stages of the phase out of the ETEF. This means that by 30 June 2010, ETEF is scheduled to cease to exist.

At the time of its 2007 determination IPART decided to base its decision on expert advice rather than publicly available information on future electricity wholesale prices, such as that provided by d-cypha. This is because, at the time, trading in future contracts was a relatively small proportion of physical demand and there were doubts about whether d-cypha indexes adequately represented electricity wholesale prices. Since then trading in electricity future contracts has expanded considerably and d-cypha indexes are more likely to be representative of future electricity wholesale prices. However, to be consistent with the methodology established in 2007, IPART has based its decision on advice from its expert, Frontier Economics. Frontier Economics' report which is available on IPART's website, includes comparisons between its conclusion regarding future electricity wholesale prices and d-cypha data.

As a result of the increase in the electricity purchase cost allowance alone, retail prices will increase by 6 per cent for EnergyAustralia and Integral Energy and 5 per cent for Country Energy. Network prices, which comprise around 45 per cent of the total retail bill, are likely to substantially increase as a result of the Australian Energy Regulator's (AER's) 2009-2014 distribution and transmission price determinations. In its draft distribution determination, the AER indicated distribution price increases of 24.3 per cent, 15.4 and 19.7 per cent for EnergyAustralia, Integral Energy and Country Energy, respectively for 2009/10. The AER will provide a final decision by the end of April 2009.

In addition to both the network increases and wholesale price increases, retail electricity prices will need to increase because the price increases under IPART's 2007 retail price determination are being phased in. The contributions of each of the three sources to price increases to the change in the electricity prices is shown in Table 1.1.

Table 1.1 Possible increase in typical bills for customers on regulated retail electricity tariffs after allowing for inflation, 1 July 2009 (%)

	EnergyAustralia	Integral Energy	Country Energy
Network price increases	12.6	9.5	12.7
Price increases due to transitioning in 2007 determination	2.9	3.5	0.9
Impact of increased market based electricity cost allowance from 2009 review	6.0	5.9	4.9
Total percentage increase	21.5	18.9	18.5

Note: Assumes typical annual usage without controlled load consumption of 5600kWh.

These increases do not include the increase in the NSW Climate Change Fund Levy or the Clean Coal Fund Levy announced in the 2008 NSW Mini-budget.

These price increases are substantial and have the potential to significantly impact on all households, especially low income households. IPART notes that the NSW Government's Energy Reform Strategy³ sets out a range of consumer protection measures, including:

- ▼ Increasing the pensioner rebates
- ▼ Extending energy rebates to include recipients of carers allowances, sickness allowances and special benefits
- ▼ Funding to establish a customer assistance policy and
- ▼ Increased funding for the Energy Accounts Payment Assistance (EAPA) Scheme.

2 Background and process

2.1 2007 determination

In June 2007, IPART released its determination on regulated electricity retail tariffs and charges for small customers from 2007 to 2010.⁴ In undertaking its review and making its determination, IPART was guided by the terms of reference provided by the Minister for Energy. These terms of reference required IPART to, among other things:

- ▼ Assess the costs of a hypothetical retailer, including the electricity purchase costs for the regulated load in each Standard Retailer's supply district, and the retail costs and retail margin for a mass market new entrant.
- ▼ Recognise retailers' hedging, risk management and transaction costs, particularly given that the ETEF⁵ will be phased out during the determination period.

For 2010, IPART set R values (in \$2006/07) that reflect the following factors:

- ▼ The market-based electricity purchase costs, based on the Frontier Economics' conservative point estimate for each business.
- ▼ The volatility allowance.
- ▼ Costs associated with greenhouse reduction and renewable energy requirements.
- ▼ Retail operating costs (including customer acquisition costs) and retail margin.

³ New South Wales Government, *New South Wales Energy Reform Strategy, Defining an Industry Framework*, March 2009, p 4.

⁴ IPART, *Promoting retail competition and investment in the NSW electricity industry, Regulated electricity retail tariffs and charges for small customers 2007 to 2010 – Final Report and Final Determination*, June 2007.

⁵ ETEF is the Electricity Tariff Equalisation Fund, put in place by the NSW Government. Standard Retailers contributed to and/or withdraw from the fund based on differences between the actual price they pay for electricity and the cost of electricity assumed in setting regulated retail tariffs.

- ▼ NEM fees.
- ▼ Energy losses.

IPART decided to set the R values for 2007/08 and 2008/09 to reflect a transition to the calculated hypothetical retailer costs in 2009/10.

2.1.1 Electricity purchase cost allowance

IPART engaged Frontier Economics to provide expert advice on the electricity purchase cost allowance included in its determination by specifically addressing the relevant matters set out in the terms of reference. Frontier Economics provided advice to IPART on:

- ▼ The long-run marginal cost of electricity generation.
- ▼ Market-based electricity purchase costs, based on analysis of the efficient mix of electricity purchasing instruments for each level of risk, derived using its proprietary portfolio optimisation models (STRIKE). The results of this analysis formed an efficient frontier with the expected cost of the electricity portfolio on the vertical axis and the associated risk on the horizontal axis. Frontier Economics identified two points on each frontier – a conservative point, representing the lowest risk, highest cost point on the frontier, and an elbow point, representing a lower cost but higher risk portfolio.

In its determination IPART adopted Frontier Economics' conservative point estimate of the market-based electricity purchase costs for calculating the R values.

Around the time that IPART released its draft report in April 2007 there were substantial increases in reported spot and contract wholesale electricity prices. These increases highlighted the relationship between critical inputs (such as water), plant availability and the market price of electricity.

IPART determined the market-based cost of electricity purchases, as set out in Table 2.1 and addressed the risk of a step-change in future wholesale electricity prices by conducting the annual reviews of this cost allowance prior to the roll-off of ETEF.

Table 2.1 IPART’s 2007 market-based cost of electricity purchase – Conservative point by time-of-use (\$2009/10 /MWh)

Description	2009/10
Country Energy	
Peak	64.0
Shoulder	70.2
Off-peak	30.5
All periods	47.5
EnergyAustralia	
Peak	98.9
Shoulder	49.7
Off-peak	32.7
All periods	54.1
Integral Energy	
Peak	107.6
Shoulder	49.0
Off-peak	34.7
All periods	56.7

Source: IPART, *Promoting retail competition and investment in the NSW electricity industry, Regulated electricity retail tariffs and charges for small customers 2007 to 2010, Electricity – Final Report and Final Determination*, June 2007, p 84, adjusted for (actual and forecast) inflation.

2.1.2 The annual review of market-based electricity purchase cost allowance and R values

After considering submissions to the draft determination and the supplementary advice provided by Frontier Economics, IPART decided to include annual price reviews of the market-based electricity purchase cost component. IPART’s intention was to provide for updated information on electricity purchase cost allowances to be incorporated into the prices as if it was known at the time of making the 2007 determination. Therefore, IPART limited the extent of these reviews, stating in its report:

- ▼ The review will examine the market-based electricity purchase cost allowance only – it will NOT consider long-run marginal cost of electricity generation, the volatility allowance, green energy costs, NEM fees, retail operating costs, customer acquisition costs or the retail margin.
- ▼ IPART will engage an expert to advise it on the appropriate future market-based electricity purchase cost allowance. It decided due to the relatively small amount of trade captured by d-cypha at the time of making the 2007 determination that IPART would not rely on that information, but would engage an expert to provide advice.

- ▼ IPART will adopt a conservative approach to estimating the market-based electricity purchase cost and focus on changes to the spot and contract prices for electricity.
- ▼ IPART will use the same load profiles as it used in the 2007 determination – it will not update the load profiles.
- ▼ These reviews will commence by 1 March 2008 and 1 March 2009. IPART will release a draft report and consult with stakeholders prior to issuing its final decision by 20 May in each year.

If, in any year, the market-based electricity purchase cost allowance is at least 10 per cent higher or lower than IPART’s determined market-based electricity purchase cost allowance, then IPART will reconsider the transition path (to 2010 prices) and recalculate the R values.⁶ In doing so, it will consider:

- ▼ the revised market-based electricity purchase cost allowance and
- ▼ the transitioning of the tariffs to full cost reflectivity by 2009/10.

This review is a forward-looking review and does not look at the actual costs of hedging incurred by the Standard Retailers.

2.2 Process for 2009 review of market-based electricity purchase costs

IPART has engaged Frontier Economics to prepare a report outlining its expert opinion of the market-based electricity purchase cost allowance for 2009/10, which is available on the IPART website.

Submissions on this draft report are due on 14 April 2009.

Table 2.2 Process for 2009 review of market based electricity purchase costs

Date	Event
12 March 2009	Consultants reports and Tribunal draft decision released
19 March 2009	Stakeholder information session on consultant’s draft report
14 April 2009	Submissions due
20 May 2009	Release final decision

⁶ The R values are set out in sections 7.3 and 7.4 of the 2007 determination.

3 2009 review of market-based electricity purchase cost allowance

3.1 Expert report

Frontier Economics has provided expert advice to IPART on its current views on the market-based electricity purchase cost allowance. Consistent with the approach taken in providing advice to IPART for the 2007 determination, Frontier Economics used its proprietary models – STRIKE and SPARK - to estimate the market-based electricity purchase costs.⁷

The analysis provided by Frontier Economics concludes that market based energy purchase costs have increased by around 15 per cent, due to:

- ▼ market uncertainty arising from the policies of governments, including greenhouse policies and ETEF
- ▼ market uncertainty arising from the impact of the drought on generation capacity and output
- ▼ the impact of these uncertainties on contracting behaviour, and
- ▼ updated demand and supply forecasts and ownership changes within the generation market.

Table 3.1 sets out Frontier Economics' recommended market-based electricity purchase costs allowances under two scenarios:

1. Where ETEF has ceased to exist by 30 June 2010 (current government policy).⁸
2. Where ETEF continues to cover the entire regulated load at 30 June 2010. This scenario reflects market uncertainty regarding the future of ETEF.

⁷ Frontier Economics, *Draft methodology for energy cost consultancy and retail costs/margin consultancy* – Frontier Economics, October 2006, available on the IPART website.

⁸ On 20 February 2009, the NSW Treasurer in consultation with the NSW Minister for Energy amended the ETEF payment rules. The amended Payment Rules provide that up to and including 26 September 2009, 100 per cent of the standard retail suppliers' regulated load will remain subject to the Electricity Tariff Equalisation Fund. From 27 September 2009, forty per cent of the regulated load will be subject to the Fund. The 20 February announcement stated that at that time no decision had been taken to alter the timing of future stages of the phase out of the ETEF. This means that by 30 June 2010, ETEF is scheduled to cease to exist.

Table 3.1 Frontier Economics' recommended market based electricity purchase cost allowances for 2009/10 compared to IPART's allowance in its 2007 determination (\$2009/10)

	IPART's 2007 determination	Frontier Economics' February 2009 estimates	Percentage change
<i>ETEF ceases by 30 June 2010</i>			
EnergyAustralia	54.1	61.9	14
Integral Energy	56.7	65.0	15
Country Energy	47.5	55.1	16
<i>ETEF covers 100 per cent of regulated load at 30 June 2010</i>			
EnergyAustralia	54.1	62.8	16
Integral Energy	56.7	65.9	16
Country Energy	47.5	55.7	17

The Frontier Economics report, *Annual energy cost review, Final Report, February 2009*, is available on the IPART website.

3.2 IPART's 2009 draft decision on market-based electricity purchase cost allowances for 2009/10

IPART's draft decision is to revise market based electricity cost purchases. IPART will adopt Frontier Economics' scenario based on the existing Government policy on the treatment of ETEF (ie, it will cease to exist by 30 June 2010). Therefore, the 10 per cent threshold has been met and as a result the market-based electricity purchase cost allowance and R values set out in the 2007 determination will be reset.

In coming to this decision, IPART has considered the Frontier Economics expert report. IPART acknowledges the supply and demand changes in the market, particularly the ownership changes, and the uncertainties (and resulting changes to contracting behaviour) that market participants in NSW currently face. Further, the recommendations presented by Frontier are broadly consistent with the prices observed by the d-cypha data.

At the time of its 2007 determination IPART decided to base its decision on expert advice rather than publicly available information on future electricity wholesale prices, such as that provided by d-cypha. This is because, at the time, trading in future contracts was a relatively small proportion of physical demand and there were doubts about whether d-cypha indexes adequately represented electricity wholesale prices. Since then trading in electricity future contracts has expanded considerably and d-cypha indexes are more likely to be representative of future electricity wholesale prices. However, to be consistent with the methodology established in 2007, IPART has based its decision on advice from its expert, Frontier Economics. Frontier Economics' report which is available on IPART's website, includes

comparisons between its conclusion regarding future electricity wholesale prices and d-cypha data.

Table 3.2 sets out IPART’s draft market-based electricity purchase cost allowances for 2009/10. The increased cost allowances will be used to reset the R values set out in the 2007 determination. The R values will be used in calculating the weighted average price cap that will be used to regulate the prices that each Standard Retailer charges customers on regulated retail tariffs. Table 3.3 illustrates the revised R values that will be used to calculate the 1 July 2009 price change.

Table 3.2 IPART’s draft market based electricity purchase cost allowances for 2009/10 compared to the allowances in the 2007 determination (\$2009/10 /MWh)

	IPART’s 2007 determination	IPART’s March 2009 draft decision	Percentage change
EnergyAustralia	54.1	61.9	14
Integral Energy	56.7	65.0	15
Country Energy	47.5	55.1	16

Source: IPART, *Promoting retail competition and investment in the NSW electricity industry, Regulated electricity retail tariffs and charges for small customers 2007 to 2010, Electricity – Final Report and Final Determination*, June 2007 p 83 and Frontier Economics, *Annual energy cost review, Final Report*, February 2009, p 24.

Table 3.3 R values in each year of the determination (\$2007/08)

Description	2009/10
EnergyAustralia	
Fixed R	88.6
Variable R:	
Single rate and time of use	83.7
Controlled load A	50.3
Controlled load B	67.4
Integral Energy	
Fixed R	88.6
Variable R:	
Single rate and time of use	90.7
Controlled load A	54.2
Controlled load B	70.0
Country Energy	
Fixed R	88.6
Variable R:	
Single rate and time of use	84.1
Controlled load A	51.3
Controlled load B	71.8

3.3 Estimated average price increases for regulated customers on 1 July 2009

In addition to the price increases already set out in the 2007 determination, the price changes for 1 July 2009 include:

- ▼ the higher market based electricity purchase cost allowance, and
- ▼ higher network price increases than IPART forecast in its 2007 determination, reflecting the AER's November 2008 draft determination for the NSW distribution network service providers.

3.3.1 Transmission and distribution price increases

In late 2008, the AER released draft determinations for the NSW transmission and distribution businesses. The AER's final decisions are due by 30 April 2009 and will be included in tariff increases on 1 July 2009.

The AER estimated that the transmission draft decision would result in a 6.6 per cent per annum (nominal) increase in average transmission charges from 2008/09 to 2013/14 or an increase of 4.0 per cent per annum in real terms (\$2008/09).⁹

⁹ Australian Energy Regulator, *TransGrid transmission determination 2009-10 to 2013-14, Draft decision*, 31 October 2008, p xxvi.

In November 2008, the AER released its distribution draft decision for the NSW businesses. The draft decision specifies substantial distribution price increases on 1 July 2009, followed by ongoing real price increases through until 2013/14. Table 3.4 sets out the average distribution price increases for 1 July 2009 established under the AER's draft determination.

Table 3.4 Average real distribution price increases under the AER's November 2008 NSW distribution price review (%)

	2010	2011	2012	2013	2014
EnergyAustralia	24.3	10.4	10.4	10.4	10.4
Integral Energy	15.4	3.5	3.5	3.5	3.5
Country Energy	19.7	6.8	6.8	6.8	3.0

Source: Australian Energy Regulator, *NSW draft distribution determination, 2009-10 to 2013-14, Draft Decision*, 21 November 2008, Tables 31, 32 and 34.

These distribution price increases are expected to flow through to all retail tariffs, including regulated retail tariffs. The combined impact of the transmission and distribution price increases will increase the regulated retail tariffs by 12.6 per cent, 9.5 per cent and 12.7 per cent for EnergyAustralia, Integral Energy and Country Energy, respectively (as set out in Table 3.5). Specifically, the regulated retail tariff allows for the network tariffs to be passed through to customers. This means that regardless of the outcomes of this market-based electricity purchase cost allowance review, the regulated retail tariffs would have increased substantially as a result of the increased network charges, as set out in Table 3.5 below.

3.3.2 Wholesale and retail cost increases

The 2007 determination set a transition path, which provided for tariffs to be fully cost reflective by 2009/10. Therefore, during the period from 2007 to 2010, electricity prices were increasing in real terms. The increased market-based electricity cost allowances flagged under this draft decision (set out in section 3.2) will further increase regulated retail tariffs, as illustrated in Table 3.5.

3.3.3 Estimated nominal average price increases to regulated retail tariffs on 1 July 2009

As a result of the increase in the electricity purchase allowance alone, retail prices will increase by 6 per cent for EnergyAustralia and Integral Energy and 5 per cent for Country Energy. Network prices, which comprise around 45 per cent of the total retail bill, are likely to substantially increase as a result of the Australian Energy Regulator's (AER's) 2009-2014 distribution and transmission price determinations. In its draft distribution determination, the AER indicated distribution price increases of 24.3 per cent, 15.4 and 19.7 per cent for EnergyAustralia, Integral Energy and Country Energy, respectively for 2009/10. The AER will provide a final decision by the end of April 2009.

In addition to both the network increases and wholesale price increases, retail electricity prices will need to increase because the price increases under IPART's 2007 retail price determination are being phased in. The contribution of each of the three factors to the change in the electricity prices is shown in Table 3.5.

This equates to an additional weekly electricity bills of \$3.45, \$3.50 and \$4.10 for customers of EnergyAustralia, Integral Energy and Country Energy, respectively.¹⁰

Table 3.5 Possible increases for regulated customers, by Standard Retailer after allowing for inflation, 1 July 2009 (%)

	EnergyAustralia	Integral Energy	Country Energy
Network price increases	12.6	9.5	12.7
Price increases due to transitioning in 2007 determination	2.9	3.5	0.9
Impact of increased market based electricity cost allowance from 2009 review	6.0	5.9	4.9
Total percentage increase	21.5	18.9	18.5

Note: Assumes typical annual usage without off controlled load consumption of 5600kWh.

These increases do not include the increase in the NSW Climate Change Fund Levy or the Clean Coal Fund Levy announced in the 2008 NSW Mini-budget.

Further large price increases are expected as a result of the introduction of the Commonwealth Government's Carbon Pollution Reduction Scheme in 2010.

These price increases are substantial and have the potential to significantly impact on all households, especially low income households. The proposed price increases are substantial and have the potential to significantly impact on households, especially low income households. IPART notes that the NSW Government's Energy Reform Strategy¹¹ sets out a range of consumer protection measures, including:

- ▼ Increasing the pensioner rebates
- ▼ Extending energy rebates to include recipients of carers allowances, sickness allowances and special benefits
- ▼ Funding to establish a customer assistance policy and
- ▼ Increased funding for the Energy Accounts Payment Assistance (EAPA) Scheme.

¹⁰ Assumes typical annual usage without off controlled load consumption of 5600kWh.

¹¹ New South Wales Government, *New South Wales Energy Reform Strategy, Defining an Industry Framework*, March 2009, p 4.