



A Report on the Cost to Consumers of Greenhouse Emissions Abatement Schemes

Issued November 2005

Energy Retailers Association of Australia Inc.

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Overview

In this report the Energy Retailers Association of Australia (ERAA) estimates that the annual cost of electricity in the National Electricity Market will increase by between \$707m and \$965m per year in 2010 as a result of greenhouse gas (emissions) abatement schemes. The purpose of this report is to make these costs transparent.¹

Energy retailers incur the bulk of these costs directly and must recover them from end-use customers via the competitive market process. However, the full pass through of these costs is not guaranteed, especially in the case of regulated retail prices which inhibit full cost reflectivity.²

Currently there are three different greenhouse gas abatement schemes which impose costs on retailers of electricity, they are:

- the Federal Government's Mandatory Renewable Energy Target (MRET) scheme;
- the New South Wales Government's Greenhouse Gas Abatement (or NGAC) scheme³; and,
- the Queensland Government's 13 per cent Gas (or GEC) scheme.

The existence of a fragmented set of state and national based schemes means that electricity consumers in different States bear unequal shares of the cost burden associated with emissions abatement.

The largest average increase electricity prices for residential consumers will be in NSW, with increases ranging from \$41.86 to \$56.10 on a total annual electricity bill of between \$1062.02 and \$1076.25 in 2010.

Estimates of unit electricity cost increases in 2010 are provided in Figure 1 and estimates of annual electricity cost increases in 2010 are provided in Table 1.

1 The total cost is even higher when administration and other compliance costs are included.

2 Explicit regulatory pass through of a limited proportion of these costs is allowed for under regulated tariff rules for first tier retailers in NSW, which include an amount of \$3.00/MWh towards meeting compliance costs associated with state and national emission abatement schemes).

3 The ACT Government commenced a Greenhouse Gas Abatement Scheme on 1 Jan 2005 which mirrors the NSW scheme. The cost of this scheme, however, has not been estimated in this report.

Figure 1: Electricity cost increase in 2010 due to abatement schemes



Source: ERAA Analysis. Note: estimates exclude \$3.00/MWh compliance cost loading applicable in NSW.

Table 1: Additional annual cost to residential customers in 2010

	Additional annual cost	Base electricity cost
Qld	\$26.03 to \$38.91	\$1138.49
NSW	\$41.86 to \$56.10	\$1020.16
Vic	\$10.35 to \$13.63	\$1075.07
SA	\$11.54 to \$15.19	\$1132.43

Source: ERAA Analysis.

The cost effectiveness of each of the schemes in achieving additional emissions abatement also varies significantly. The projected costs of emissions abated in 2010, in dollars per tonne of carbon dioxide equivalent (\$/tCO₂), are:

- the MRET scheme: \$60.21 and \$79.26;
- the NGAC scheme: \$37.86 and \$51.18; and,
- the GEC scheme: \$53.76 and \$92.90.

The variation in the estimated cost of the schemes implies the current policy approach to emissions abatement is inefficient and therefore an unnecessary cost on consumers. The narrow scope of technologies (and jurisdictions) focussed on by the schemes (individually) reduces their potential cost-effectiveness.

In the ERAA's view, the overall equity and efficiency of current emissions abatement schemes can be improved upon by harmonising the existing schemes. Moreover, their abolition and possible replacement with a single national approach would provide even greater equity and efficiency improvements. However, in designing a national approach, it should:

- focus on all sectors of the economy, including power generation, agriculture and transport;
- be market-based; and,
- take into account developments at the international level, especially proposals for the post-2012 period.

1. Introduction

This report establishes an estimate of the cost impact of the MRET, NGAC, and GEC schemes on electricity consumers. Included in this report is:

- An overview of the various greenhouse gas emission abatement schemes.
- An analysis of the costs incurred by residential customers in Queensland, New South Wales, Victoria and South Australia using shortfall penalty charges imposed on retailers under the schemes as the limiting factor.
- A comparison of the findings with previously published estimates.
- A summary of the assumptions used in the analysis.

1.1 National Mandatory Renewable Energy Target Scheme

The MRET scheme was introduced by the Federal Government in 2001 and applies in all jurisdictions in Australia until 2020. It was based on the Prime Minister's statement in response to the issue of global warming where he said, "The Government will work with the States and Territories to set a mandatory target for electricity retailers to source an additional two per cent of their electricity from renewable energy sources by 2010"⁴.

This was developed into the current scheme, which mandates a target increasing annually so that by 2010 retailers purchase a combined annual total of 9500GWh of electricity generated from "new" renewable energy sources. The liability rests with retailers to purchase Renewable Energy Certificates (RECs), where one REC is equivalent to one MWh of electricity generated by a renewable energy source. On present forecasts 9500GWh will account for about 4.12 per cent of national electricity generation in 2010.

The scheme aims to develop the renewable energy sector through the creation of an investment fund for renewable energy projects. It will achieve emissions abatement to the extent that new renewable energy generation displaces traditional fossil fuel generation.

The cost of RECs is effectively capped at the level of the renewable energy certificate shortfall charge payable by a liable entity. The current rate of charge is \$40 per MWh shortfall, which is not subject to CPI escalation. This charge translates to a maximum cost of \$57.14, after tax. Initial market prices observed early in the scheme's legislated life have been around \$37, in 2003, and \$39 in 2004. A rising trend has been observed for trades for future years (for example, trading market screens indicate prices close to \$50 for 2008).

⁴ http://www.pm.gov.au/news/media_releases/1997/GREEN.html.

Long-term power purchase agreements require certain minimum pricing and CPI escalation in order that the projects are financially viable. The pricing level of certificates required for renewable energy projects to be developed is at, or close to, the shortfall charge. This analysis assumes: (i) the shortfall charge remains unchanged for the life of the scheme; and (ii) mid range REC prices rising from \$36.28, in 2005, to \$50.91 in 2012 and then remaining constant at \$50.91 for the remaining period to 2020.

The ERAA recognises the REC price path assumed may not eventuate over time and may follow an oscillatory path (boom-bust cycle).⁵

The possibility that the price path, assumed here as a surrogate for scheme costs, overstates the total costs of the scheme is mitigated in the analysis because all other scheme costs such as administration, compliance and broader electricity system impacts have been excluded. A more refined estimate of the forecast REC price path is beyond the scope of this report.

Other costs associated with the MRET scheme include the funding of the Office of the Renewable Energy Regulator (ORER) and the administrative costs incurred in logging and acquittal of RECs with the ORER. Energy retailers estimate that up to 40-50 personnel are involved nationally in trading and administering RECs. For comparison purposes, first-tier retailers in NSW are permitted an allowance of \$1.00 per MWh towards meeting the cost of compliance resulting from the MRET⁶ (this equates to a cost of \$3.4m when applied to the NSW component of the MRET load forecast for 2010).

In addition, the development of eligible renewable energy sources for electricity generation under the scheme imposes further costs on the electricity system. That is, costs associated with a requirement for additional reserve (or shadow) generation capacity, transmission augmentation and network system control facilities, especially due to the intermittent nature of wind generation and the general remoteness of wind farm locations. For example, only about 15 per cent of wind generation capacity can be regarded as 'firm', and therefore available to consumers on demand.⁷ These additional costs, although not allowed for in this analysis, must eventually be passed on to consumers.

Although the MRET is a national scheme, the transparency and exposure of actual costs to residential and other mass-market electricity customers is largely subject to the pricing policies of the jurisdictions.

1.2 NSW Greenhouse Gas Abatement Scheme

The NGAC scheme came into effect in 2003 and is scheduled to remain in force

5 For example, the current oversupply of RECs, caused by baseline allocation and/or solar hot water installations, could cause boom-bust behaviour in the market price.

6 Refer to "NSW Electricity Regulated Retail Tariffs 2004/05 to 2006/07", June 2004, IPART, p 39.

7 Refer to Appendix B, "Wind Farm Status Briefing", ESIPC Report to WETAG.

until 2020.⁸ It requires retailers to purchase certificates to satisfy a benchmark emission intensity level related to total electricity purchased for sale in NSW (from low emission intensity sources of electricity, including offsetting activities). As with the MRET scheme, the certificates are tradeable. They may be created from any eligible source of generation in the National Electricity Market (NEM).

Compared to the MRET, the NGAC scheme is more efficient because it includes more emission abatement sources, such as sequestration and demand side management/energy efficiency options. However, it is limited to a single jurisdiction and involves a significant element of potential arbitrariness in the creation and registration of abatement certificates. For example, certificates created by generators are determined on the basis of being below a stipulated average baseline level of emission intensity. This enables accredited generators undertaking new or refurbishment works in their facilities to earn additional revenue from the creation of certificates through efficiency improvements which would have occurred anyway in their normal business activities.

The scheme requires retailers to purchase and acquit certificates to satisfy their liability. Certificates may be created by accredited parties who do one or more of the following:

- reduce the emission intensity of the electricity they generate;
- reduce the consumption of electricity (demand side management/energy efficiency);
- manage forests so as to capture and retain carbon from the atmosphere (carbon sequestration); or
- reduce emissions from (non-electricity related) occurring from industrial processes at sites which they own and control.

Over 95 per cent of registered NGACs come from the generation of electricity.⁹ First-tier retailers in NSW are permitted an allowance of \$2.00 per MWh towards meeting the cost of compliance resulting from the imposed NGAC scheme.¹⁰

The cost of NGACs is effectively capped at the level of the greenhouse certificate penalty charge payable by a liable entity. The rate of charge commenced at \$10.50 per tonne CO₂ in 2003, and is subject to CPI escalation annually from 1 July 2004. This charge translates to about \$15.00 per tonne CO₂, after tax. A rising trend has been observed for trades for future years (for example, trading market screens indicate prices in excess of \$14.00 for 2012). On 11 February 2005 the Independent Pricing and Regulatory Tribunal (IPART) indicated an impending shortage of NGAC supply in 2007 or 2008 based on current project

⁸ The NSW Premier announced 11 June 2005 that the NGAC scheme will be extended from 2012 to 2020.

⁹ Refer to IPART presentation, October 2004

¹⁰ Refer to "NSW Electricity Regulated Retail Tariffs 2004/05 to 2006/07", June 2004, p 39.

registrations.

This analysis assumes the NGAC mid range price path will rise from about \$12.00 in 2005 to around \$17.00 in 2012. The possibility that the price path, assumed here as a surrogate for scheme costs, overstates total scheme costs is mitigated in the analysis because all other scheme costs such as administration, compliance and broader electricity system impacts have been excluded. A more refined estimate of the forecast NGAC price path is beyond the scope of this report.

On 11 June 2005 the NSW Premier announced that the NGAC scheme will be extended from 2012 to 2020 and after 2020 on a 15-year rolling basis. Details have not yet been confirmed of any possible adjustments to targets or other rules for the scheme.¹¹

1.3 Queensland 13% Gas Scheme

The GEC scheme requires retailers to purchase at least 13 per cent of electricity sold in Queensland predominately from the State's new gas-fired generation sources. The scheme commenced in January 2005 and scheduled to continue until 2019. Emissions will be reduced under this scheme through the displacement of higher emission intensity coal-fired generation (approximately 0.8tCO₂/MWh) by lower emission intensity of gas-fired generation (approximately 0.4tCO₂/MWh).

The cost of GECs is effectively capped at the level of the certificate shortfall penalty charge payable by a liable entity. The rate of charge commenced at \$11.00 per MWh shortfall in 2005, and is subject to CPI escalation annually from 2005 (at least until 2012). This charge translates to \$15.71 per MWh shortfall after tax. Initial market prices have been around \$15.50 per MWh. It is predicted that the price will trend downwards until 2007 as more eligible generation becomes available, and then begin to increase in the following years. This analysis assumes the mid range GEC price of \$15.50 for 2005 reducing to \$11.00 in 2007 then rising to \$13.10 in 2010.

The possibility that the price path, assumed here as a surrogate for scheme costs, overstates total scheme costs is mitigated in the analysis because all other scheme costs such as administration, compliance and broader electricity system impacts have been excluded. A more refined estimate of the forecast GEC price path is beyond the scope of this report.

2. Analysis of costs across jurisdictions

The analysis assumes that 100 per cent of the increase in costs incurred by liable

11 Forward Trading Market for NGACs

parties will be passed through to end-consumers.¹² However, the analysis excludes scheme costs related to administration and compliance and broader system impacts which makes estimate more conservative than otherwise. Table 2 shows the application of schemes across jurisdictions included in this analysis. Costs have been estimated for residents in the major cities in each of the jurisdictions (as opposed to residents in non-metropolitan areas who also bear the cost of these schemes).

Table 2: Application of existing schemes across major cities

	Brisbane	Sydney	Victoria	Adelaide
MRET Scheme	✓	✓	✓	✓
NGAC scheme		✓		
GEC scheme	✓			

2.1 Queensland

Queensland residential customers incur costs associated with the MRET and GEC schemes. Table 3 provides estimates of the increase in costs incurred by residents in Brisbane.

Table 3: Increase in costs to residential customers in Brisbane (\$/MWh)

	2005	2010	2012	2019
Upper bound	\$2.99	\$4.72	\$4.76	\$5.00
Mid	\$2.61	\$3.68	\$3.92	\$3.62
Lower Bound	\$1.86	\$3.61	\$3.49	\$2.92

The Queensland Government has announced that it will introduce Full Retail Contestability in 2007. However, it is unclear whether it will maintain some form of price regulation. As a result, the real underlying costs of electricity, which includes the costs associated with emissions abatement obligations, may not be transparent to all customers.

2.2 New South Wales

New South Wales residential customers incur costs associated with the MRET

¹² Implicit here is the underlying assumption that electricity is perfectly price inelastic over the range of price changes being modelled, which are too small to cause a change in quantity demanded (either due to greater energy conservation or energy efficiency).

and NGAC schemes. The combined cost of these schemes to NSW residents is slightly lower because, under the NGAC scheme Rules, RECs purchased for NSW load under the MRET scheme may also be used to reduce the NGAC obligation. Table 4 provides estimates of the increase in costs incurred by residents in Sydney.

Table 4: Increase in costs to residential customers in Sydney (\$/MWh)

	2005	2010	2012	2019
Upper	\$2.69	\$7.19	\$7.67	\$9.78
Mid	\$2.32	\$5.97	\$6.75	\$8.21
Lower	\$2.13	\$5.37	\$6.29	\$7.42

Residential tariffs in NSW are subject to regulatory control by the IPART. A recent determination by IPART provides an allowance for first tier retailers towards the cost of complying with emissions abatement schemes.¹³

The NSW Government is expected to continue to regulate retail prices. As a result the real underlying costs of electricity, which include the costs associated with emissions abatement obligations, are unlikely to be made transparent to residential and other franchise customers.

2.3 Victoria and South Australia

Victorian and South Australian residential electricity customers incur costs associated with the MRET scheme only. Tables 5 and 6 provide estimates of the increase in costs incurred by residents in Melbourne and Adelaide, respectively.

Table 5: Increase in costs to residential customers in Victoria (\$/MWh)

	2005	2010	2012	2019
Upper bound	\$0.94	\$2.35	\$2.25	\$1.91
Mid	\$0.60	\$1.98	\$2.00	\$1.70
Lower	\$0.43	\$1.79	\$1.88	\$1.60

¹³ \$1.00/MWh for MRET and \$2.00/MWh for NGAC

Table 6: Increase in costs to residential customers in Adelaide (\$/MWh)

	2005	2010	2012	2019
Upper bound	\$0.94	\$2.35	\$2.25	\$1.91
Mid	\$0.60	\$1.98	\$2.00	\$1.70
Lower	\$0.43	\$1.79	\$1.88	\$1.60

The existence of retail price paths in Victoria and South Australia may provide certainty for consumers, but they also make the real underlying costs of electricity less transparent.

3. The relative efficiency of emissions abatement schemes

The efficiency (or cost effectiveness) of an emissions abatement scheme is reflected in the marginal cost of CO₂ abated as a result of the scheme's obligation. This indicator should attempt to avoid counting the reductions in emissions that would have occurred in the absence of the scheme becoming mandatory. This analysis includes adjustments to estimates of emissions abatement that are expected to occur (or have occurred) as part of business-as-usual. These adjustments are as follows:

- MRET — 30 per cent of generation capacity eligible under the scheme is 'grandfathered' from generation assets existing at the time the scheme was introduced (mainly hydro);¹⁴
- NGAC — 70 per cent of emissions reductions were either produced from about 515 MW of 'grandfathered' generation assets existing at the time the scheme was introduced, or due to the acquittal overlap with the MRET scheme;¹⁵ and
- GEC — 8 per cent of generation capacity eligible under the scheme is 'grandfathered' from gas-fired generation assets existing at the time the scheme was introduced.¹⁶

Table 7 provides an estimate for emissions abatement attributable to each

¹⁴ ERAA estimate.

¹⁵ Draft Report, "An Assessment of the Scheme's Performance to Date, Scenarios of its Possible Performance to 2012, and their Policy Implications", April 2005, p21, Centre for Energy and Environmental Markets, UNSW.

¹⁶ Business-as-usual estimates indicate that additional gas-fired electricity will account for around 5% of the liable load by 2010.

scheme in 2010. Table 8 provides an estimate of the cost of net emissions abatement (taking into account the adjustments referred to above).

Table 7: Attributable emissions abatement in 2010 (mtCO₂)

	Nominal abatement	Non-attributable abatement	Attributable abatement
MRET	9.79	2.94	6.85
NGAC	20.60	14.42	6.18
GEC	3.09	1.95	1.14
Total	33.48	19.30	14.17

Table 8: Emissions abatement costs in 2010

	Total cost – lower (\$m)	Total cost – upper (\$m)	Unit cost – lower (\$/tCO₂)	Unit cost – upper (\$/tCO₂)
MRET	\$412.375	\$542.857	\$60.21	\$79.26
NGAC	\$234.030	\$316.338	\$37.86	\$51.18
GEC	\$61.464	\$106.201	\$53.76	\$92.90
Total	\$707.869	\$965.396	\$49.94	\$68.11

According to these estimates the cost effectiveness of emissions abatement schemes varies significantly. The range of unit cost estimates reflects the differing (and in most cases limited) range of eligible generation sources under each scheme. For example, renewable energy generation, eligible under the MRET scheme, includes the most expensive sources of electricity generation, compared to the wider range of options eligible under the NGAC scheme which is the most cost effective of the three.

4. Published data on cost impacts of greenhouse schemes

For the purpose of making comparisons with other published data, estimating the cost to consumers of emissions abatement, has been included in this report. Not unexpectedly there is significant diversity among these estimates.

Included for reference is information published by the Ministerial Council on Energy, the MRET Review Panel and, representing a specific industry interest position, the Business Council of Sustainable Energy (BCSE).

Table 9: Estimates of emissions abatement and electricity costs of existing schemes (\$2002) ¹⁷

Scheme	2010			2020		
	Abatement (mtCO ₂ -)	Electricity cost per year (\$m)	Abatement cost per year (\$/tCO ₂)	Abatement (mtCO ₂)	Electricity cost per year (\$m)	Abatement cost per year (\$/tCO ₂)
MRET	7.4	323 to 543	44 to 73	0 to 6.5	190	29 +
NSW Benchmark	4.3	75 to 150	17 to 35	4.3	75 to 150	17 to 35
Queensland 13% Gas	0.2	17	85	0	0	0
Total/average	13.9 to 18.3	424 to 734	23 to 53	6.3 to 17.2	274 to 364	16 to 58
Average increase in electricity \$/MWh	\$1.72 to \$2.97			\$0.92 to \$1.23		

Information published by the MRET Review Panel Report in its report to the Federal Minister for the Environment and Heritage (the Tambling Report)¹⁸ estimates that there will be an average increase of \$2.26/MWh in 2010 due to the MRET scheme.

The BCSE estimates an increase in electricity cost of between \$1.30/MWh and \$1.65/MWh for MRET (in 2003\$'s)¹⁹ in 2010.

Estimates of average increases in cost as a result of the MRET scheme, in 2010, is summarised in Table 10.

Table 10: Estimates of electricity cost increases in 2010 due to the MRET scheme

	ERAA Analysis		Parer Report		Tambling Report	BCSE (\$2003)	
	Lower	Upper	Lower	Upper		Lower	Upper
2003 \$			\$1.72	\$2.97	\$1.90	\$1.30	\$1.65
2010 \$ w CPI at 2.5% p.a.	\$1.79	\$2.35	\$2.04	\$3.53	\$2.26	\$1.55	\$1.96

17 "Towards a Truly National and Efficient Energy Market", December 2002 (p.235).

18 "Renewable Opportunities – A Review of the Operation of the Renewable Energy (Electricity) Act" 2000, September 2003.

19 Refer to Business Council of Sustainable Energy Journal, "Eco-generation".

The ERAA analysis presented in this report (mid range at \$1.98/MWh for MRET in 2010) is similar to the Parer Report estimate and the Tambling Report estimate.

5. Conclusion

This report estimates that the annual cost to electricity retailers will increase by between \$707m and \$965m per year in 2010 as a result of emissions abatement schemes. Ultimately electricity customers will be required to meet these additional costs.

From an equity perspective, electricity users in different jurisdictions bear markedly different costs for emissions abatement, despite the obvious fact that greenhouse gases are a global issue (and therefore not localised by jurisdiction). It has been estimated that in 2010 residential customers in NSW will face additional costs of between \$5.37/MWh and \$7.19/MWh (the highest of all jurisdictions) compared to additional costs of between \$1.79/MWh and \$2.35/MWh for residential customers in Victoria and South Australia (the lowest of all jurisdictions).

From an efficiency perspective, the cost effectiveness of emissions abatement schemes also varies significantly. It has been estimated that in 2010 the unit cost of the NGAC scheme will be between \$37.86 and \$51.18/tCO₂ (the lowest of all schemes) compared to between \$60.21 and \$79.26/tCO₂ for the MRET scheme (the highest of all schemes).

In the ERAA's view, the overall equity and efficiency of current emissions abatement schemes can be improved upon by harmonising the existing schemes. Moreover, their abolition and possible replacement with a single national approach would provide even greater equity and efficiency improvements. However, in designing a national approach, it should:

- focus on all sectors of the economy, including power generation, agriculture and transport;
- be market-based; and,
- take into account developments at the international level, especially proposals for the post-2012 period.

List of Assumptions

- Renewable/low emissions electricity required by the schemes: refer to Attachment 1.
- Average electricity prices for residential customers in different States (as at 2004) are as follows:
 - Queensland - 11.911 c/kWh
 - New South Wales – 11.275 c/kWh
 - Victoria – 16.00 c/kWh
 - South Australia – 15.119 c/kWh
 - Reference: Derived from Table 5.1, Nominal retail electricity prices – c/kWh, “Electricity Australia 2004”, ESAA.
 - Electricity price escalation factor = 3.0% pa.
- Average annual residential electricity consumption used in different States (as at 2004) is as follows
 - Queensland - 7.24 MWh/yr
 - New South Wales - 7.40 MWh/yr
 - Victoria - 5.49 MWh/yr
 - South Australia - 6.12 MWh/yr
 - Reference: Derived from Tables 4.1 (Number of customers) and 4.2 Consumption), “Electricity Australia 2003”, ESAA.
 - Residential customer growth rate: 1% pa.
 - Consumption annual growth rate: Queensland: 3.0% pa, elsewhere: 2% pa.
- Scheme shortfall penalty rates:
 - The numbers for the Mid Case were calculated using the AFMA forward curve (mid point between buy and sell), 20 April 2005.
 - Escalation between 2009 and 2012 is at 3% or 6%, then holding flat thereafter.
 - The Upper Bound is the pre-tax equivalent of the penalty price for the scheme.
 - The Lower Bound is half price difference below the Mid Case as the Upper Bound is above the Mid Case.

- Emissions intensity factor applicable to NEM generation, at pool = 1.04 tonnes CO₂ per MWh, reducing to 1.03 in 2007 and to 1.02 in 2014.
 - Reference: NEMMCO and Greenhouse Emissions Intensity for existing generators, - selected from Table 2, "Implication on Power Sector Investments of Climate Change Policy", AMP Capital Investors, 14 April 2005.
- Emissions intensity (average) for gas fired generation = 0.50 tonnes CO₂ per MWh.
- No cost allowance included for Registry set-up and operations, certificate transactions, regulatory compliance audits and reporting, liable party (retailer) administration.
- Estimates exclude \$3.00/MWh compliance cost loading applicable in NSW.
- Analysis is based on estimated average annual residential consumption in 2010 of 8.24MWh (Qld), 7.8MWh (NSW), 5.79MWh (Vic) and 6.46MWh (SA).

Attachment 1: Renewable/Low Emission Electricity scheme requirements

Year	Required Electricity under the Scheme (GWh)		
	MRET ²⁰	NGAC ²¹	GEC ²²
2001	300		
2002	1100		
2003	1800		
2004	2600	7548	
2005	3400	11081	4854
2006	4500	15043	5058
2007	5600	17165	5220
2008	6800	18764	5431
2009	8100	20392	5647
2010	9500	21463	5830
2011	9500	22563	6022
2012	9500	23694	6241
2013	9500	24858	6441
2014	9500	26054	6635
2015	9500	27284	6834
2016	9500	28547	7073
2017	9500	29846	7246
2018	9500	31181	7461
2019	9500	32553	7681
2020	9500	33962	

²⁰ Source: ORER.

²¹ Source: ERAA estimate.

²² Source: Data provided by Ergon and independently verified by ACIL.

