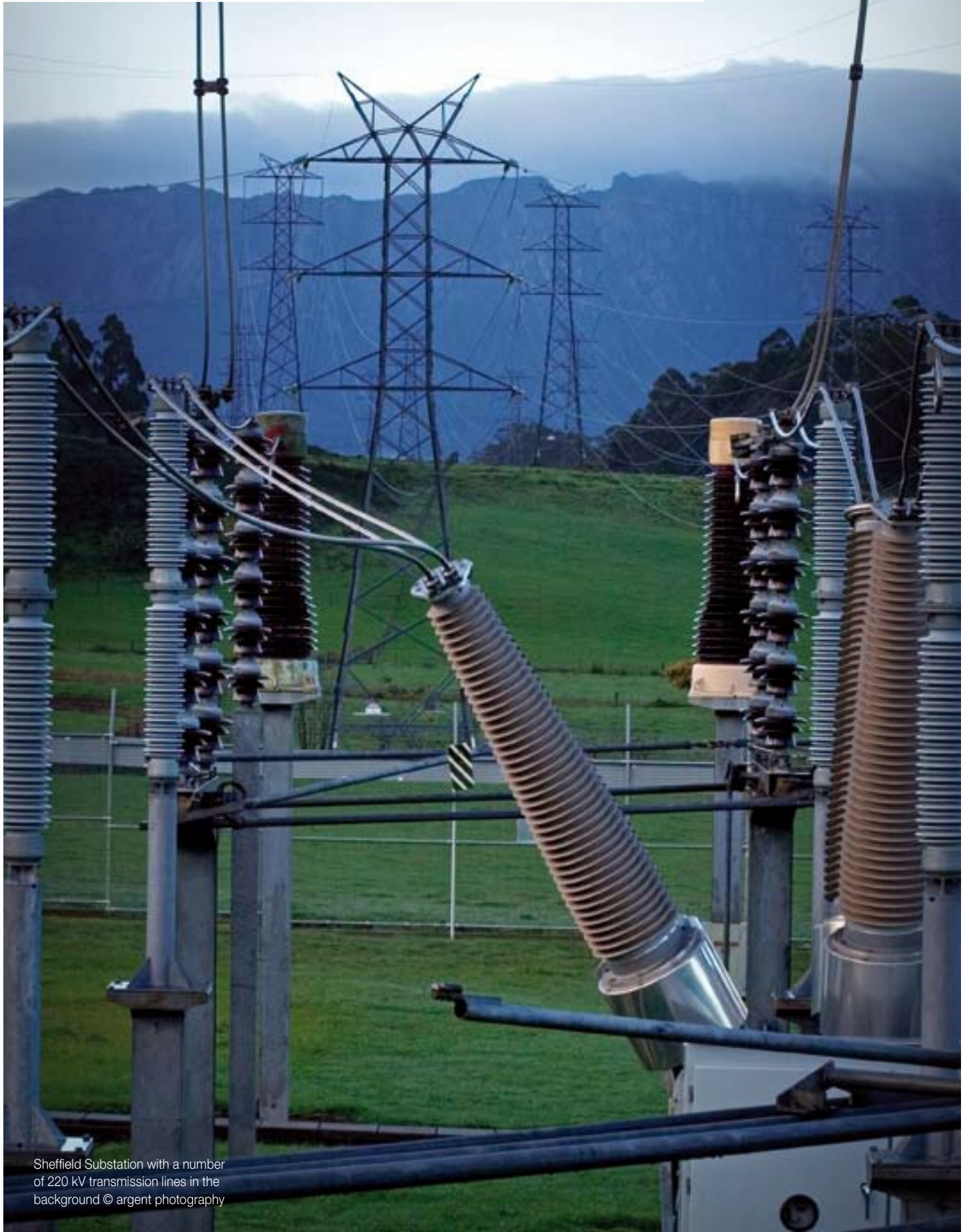


review of operations



Sheffield Substation with a number
of 220 kV transmission lines in the
background © argent photography

Our main task is to transmit electricity—safely, reliably and efficiently. In 2008–09, we excelled at that task with our best ever service performance. We connected a new power station and continued our capital program. And with our new Communications Services business, we extended our product range and welcomed new customers.

Profit was down despite growth in revenue. The result is that less funds are available for distribution to shareholders. However, the regulator’s recent revenue decision provides a platform for improved financial performance over the next five years.

This year’s report outlines our performance in responding to our customers’ needs and explains how we are working to improve efficiency and encourage innovation. We also report on the challenge of planning for a sustainable future that is clouded by the effects of the global economic crisis and the impact of climate change.

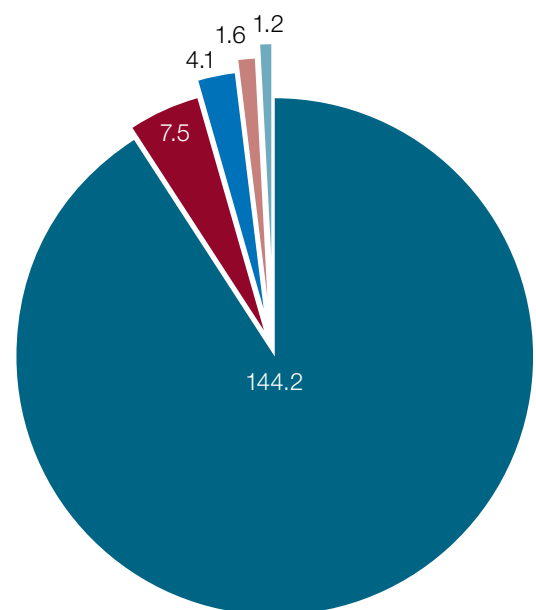
Shareholder returns

Despite solid growth in revenue, profit for 2008–09 was well down on the previous year’s result. Total revenue grew by \$22.0 million, but that growth was off-set by a three-fold increase in financing costs (up \$21.9 million) due to the equity withdrawals in 2007–08.

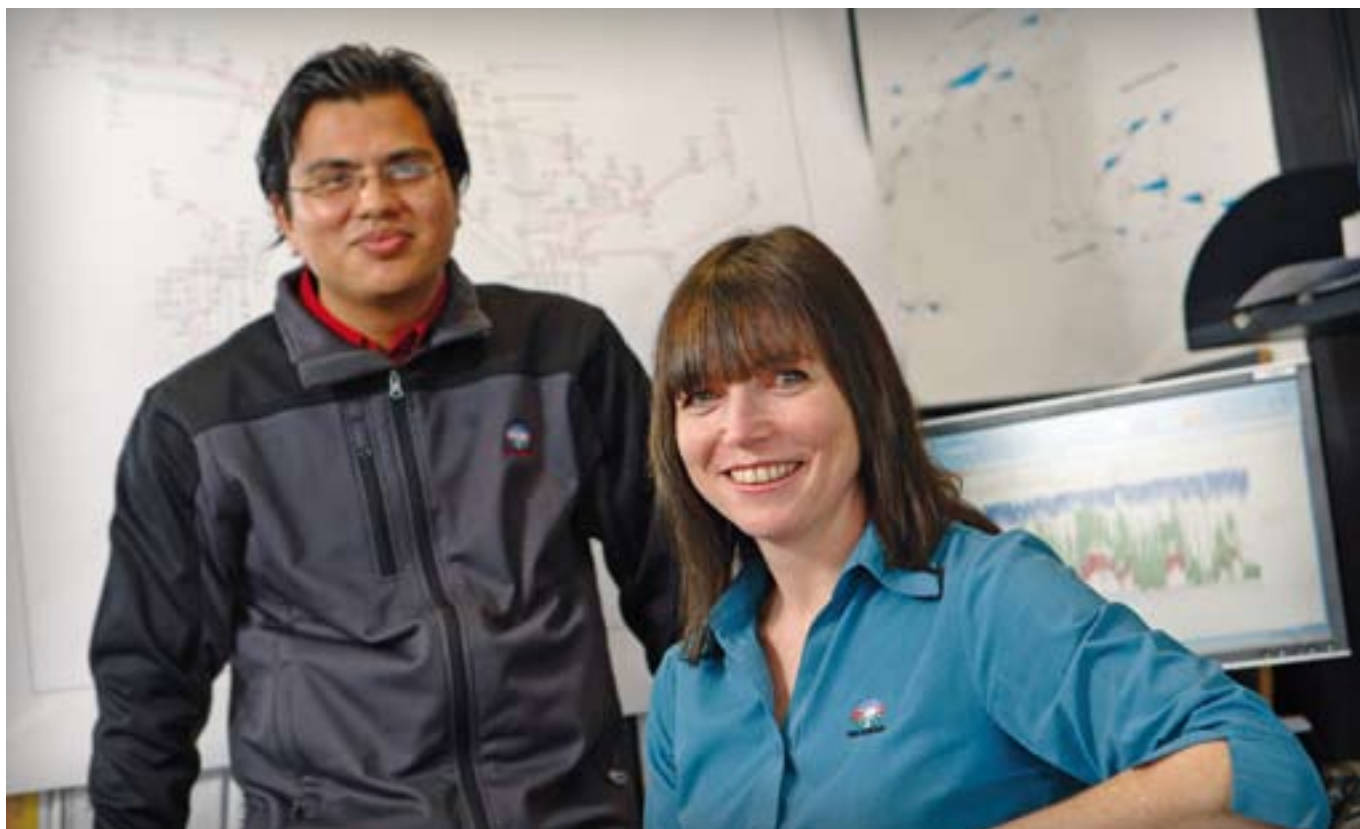
Revenue in the core transmission business was up \$17.9 million in total and our new Communications Services business, acquired from Hydro Tasmania in November 2008, also gave a revenue boost, generating \$4.1 million in external revenue. This new line of business has already made a positive contribution to profit and has exciting growth prospects.

Although prescribed transmission services still constitute the lion’s share of Transend’s business (91 per cent of total revenue in 2008–09), our other lines of business made up a larger share of total revenue than previously. In 2007–08, prescribed services accounted for over 95 per cent of revenue.

Revenue streams in 2008–09
(\$ million)



- Prescribed electricity transmission services
- Negotiated electricity transmission services
- Communications services
- Miscellaneous
- Non-regulated electricity transmission services



(from left) Transend's Aman Bajracharya, graduate engineer, and Anita Zelazo, executive assistant

On the cost side, two items exceeded budget estimates and affected the result: an increase in depreciation due to the asset revaluation in 2008 (up \$6.1 million); and extra costs to fund superannuation liabilities under the RBF's defined benefits scheme (\$6.7 million). In 2007–08, there was an actuarial gain of \$0.3 million in respect of this scheme.

An underlying factor that has affected the financial result—not only for 2008–09 but also prior years—was an outcome of the revenue decision made by the Australian Competition and Consumer Commission (ACCC) in 2003. We have previously advised shareholders of the consequences of that decision, which constrained the company's earnings over the past 5.5-year regulatory period. Our advice then was that the ACCC's allowance for operating expenditure (opex) was insufficient to run the business, and that the problem would grow progressively worse. That advice has proved to be correct. As a result, the return on shareholders' funds has deteriorated over time.

In our revenue proposal for the new regulatory period (2009–14), we reiterated our view that the ACCC's 2003 decision on opex was inadequate. We are pleased to report that the Australian Energy Regulator (AER) has made a more reasonable opex allowance for the new regulatory period. (For more detail on the AER's recent revenue decision, see page 16 of this report.)

In line with the company's dividend policy, the directors have recommended a dividend of \$3.6 million.

Income statement

	2008–09 \$M	2007–08 \$M
Income		
Prescribed revenue	144.2	130.1
Income from external work		4.9
Negotiated services	7.5	–
Communications	4.1	–
Non-regulated services	1.2	–
Miscellaneous income	1.6	1.6
Total income	158.6	136.6
Gain on acquisition of business	0.7	–
Expenditure		
Operations & maintenance	45.2	44.4
RBF liability	6.7	(0.3)
Communications	3.4	–
Other expenses	4.1	3.7
Depreciation	57.6	51.5
Total expenditure	117.0	99.3
Financing costs	32.4	10.5
Profit before tax	9.9	26.8
Income tax equivalent expense	2.7	8.1
Profit	7.2	18.7

Customer service

Consumption of electricity in Tasmania fell slightly during 2008–09. We transmitted 11,031 GWh of electrical energy for the year, 267 GWh or 2.4 per cent less than the amount transmitted in 2007–08. This reduction reflects the fact that one of our industrial customers was running on reduced load for a significant portion of the year.

Despite the reduced consumption, we recorded a new maximum demand. At 6:00 pm on 21 July 2008, the half-hour average demand within Tasmania peaked at 1874 MW. This is a new record for maximum demand and is 53 MW more than the previous highest mark of 1821 MW recorded in 2006–07. The maximum demand for Tasmania plus Basslink export was 2236 MW, recorded on 28 July 2008. This was 96 MW less than the maximum demand recorded in 2007–08.

Energy and demand

	2008–09	2007–08
Energy transmitted (GWh)	11,031	11,298
Maximum demand (MW)*		
– Tasmania	1874	1795
– Tas + export	2236	2332

* Half-hour average

Hydro Tasmania dominates the generation sector in Tasmania. In 2008–09, Hydro produced 66 per cent of the electricity consumed in Tasmania. As in recent years, imports from the mainland provided a significant proportion of total electricity (23 per cent in 2008–09). Meanwhile, the proportion of gas-fired electricity fell due to the fact that one of the units at Bell Bay Power Station was out of service for several months. Output from Woolnorth wind farm increased to four per cent of the total.

Energy sources in Tasmania (GWh)

Source	2008–09		2007–08	
Hydro	7281	66%	7186	64%
Basslink (net import)	2554	23%	2509	22%
Gas	729	7%	1219	11%
Wind	467	4%	384	3%
Total	11,031	100%	11,298	100%

Service performance: Our overall performance in providing a secure and reliable electricity transmission service has been better than target for each of the past five years. In fact the latest year (to 31 December 2008) was our best ever for service performance.



A Transfield Services crew constructs a new tower on the Waddamana–Bridgewater 110 kV transmission line

Service performance (12 months to December¹)

Performance measure	Target	2008	2007	2006	2005	2004
Loss-of-supply events (number)						
All events (>0.1 system minutes)	≤ 16	7	10	16	13	18
Major events (>2.0 system minutes)	≤ 3	0	0	1	0	0
(System minutes measure the impact of the loss of electricity supply.)						
Circuit availability (%)						
Transmission lines	≥ 99.10	99.52	99.01	99.21	98.67	99.33
Transformers	≥ 99.00	99.11	99.56	98.80	99.20	99.29

¹ The AER requires transmission companies to report service performance on a calendar year basis.

On the critical measure of loss-of-supply events, we recorded only seven events for the year, well below the target of 16 and better than the previous year's result (10). And there were no major loss-of-supply events, the same result as in 2007. In terms of circuit availability, once again our performance was better than target.

But we can't relax. The AER has stepped up the pressure by setting more challenging performance targets for the new regulatory period (July 2009 to June 2014).

Transmission customers: Transend now has 18 directly connected electricity transmission customers, comprising four generators, 12 industrials and two networks (Aurora's distribution network and Basslink). Of these 18 customers, we now have direct connection agreements with 16. The remaining two are covered under an umbrella agreement with Aurora Energy.

During the past year, we executed two new connection agreements with existing industrial customers. These new agreements cover existing connections for Gunns' woodchip mill at Hampshire and Norske Skog's paper mill at Boyer. In addition, our agreement with Grange Resources Tasmania (which covers two sites, the mine at Savage River and the pelletising plant at Port Latta) was extended for a further five years from 1 July 2009.

We finalised asset development agreements with two of our existing customers for proposed developments: with Gunns for the proposed pulp mill near Bell Bay and with Roaring 40s for the Musselroe Wind Farm. These agreements relate to the works necessary to enable the customers to connect to the transmission system.

We also negotiated and executed a new deed with Hydro Tasmania for the system protection scheme (SPS). The SPS, which unleashes Basslink's full capacity, relies on the availability of loads to shed or generators to trip, depending on whether Basslink is importing or exporting.



(from left) Transend's John Peter, metering/customer account manager, with Nyrstar Hobart's David Gaskell at Nyrstar's electricity substation. Nyrstar is one of Transend's major industrial customers

New power station connected: We are pleased to have facilitated the connection of Tasmania's newest power station over the past year. The Tamar Valley Power Station, now owned by Aurora Energy, boasts a total nominal capacity of 399 MW making it the second largest power station in Tasmania. The station comprises three existing gas turbines (each 43 MW), a new 60 MW open cycle unit and a new 210 MW combined cycle gas turbine. The new plant is connected to the power system at Transend's George Town Substation via separate 110 kV and 220 kV circuits.

Over the past year we worked closely with the power station developers to ensure the project was connected in time to meet Tamar Valley's commissioning schedule. We upgraded the existing 110 kV connection and constructed a new 220 kV transmission line to connect the largest generating unit. As well as providing metering and communications facilities, we have also installed and commissioned a generator contingency scheme that will help Tamar Valley comply with Tasmania's new frequency operating standards. If the power station trips, the scheme operates to interrupt contracted loads and return the power system to a satisfactory state.

Connection enquiries: We received a number of connection enquiries during the past year. Most of the enquiries related to renewable energy projects but there have also been discussions in relation to possible new industrial loads. We are keen to assist these potential new customers meet the necessary requirements to enable them to connect to the network.

Looking ahead, we expect a revival of interest from proponents of wind farms and other renewable energy projects as a result of the Commonwealth Government's expanded renewable energy target. Although we welcome new customers, we will continue to alert proponents to the constraints of the Tasmanian power system and the technical matters that must be resolved before we can make an offer to connect to the transmission system.

In an effort to standardise the connection process throughout the National Electricity Market (NEM), we collaborated with our mainland counterparts to develop guidelines for customers connecting to the transmission system. These guidelines, which have now been published by our industry association, Grid Australia, establish a uniform approach to connections by transmission companies in the NEM.

Communications: Transend's new communications business has maintained its excellent service record since the acquisition from Hydro Tasmania in November 2008. Circuit availability for 2008–09 was consistently maintained at better than 99.99 per cent. The communications team not only provides asset-based services but also uses the team's



Transend's Carl Hankey, works inspector, oversees construction work on the George Town–Tamar Valley Power Station 220 kV transmission line. The Tamar Valley Power Station, still under construction, is in the background

intellectual property in developing new products and value-added services.

Our customers appreciate our consistent performance in resolving difficult engineering issues. We have been commended for our efforts in support of Downer Engineering and Aurora has expressed its appreciation following the resolution of several significant network problems. The communications team has a proud record of providing a high availability telecommunications service to the electricity supply industry over many years. We look forward to continuing that high level of service to our existing and new customers.



(from left) John Holland's Amado Fajol, Clint Wilkinson and Chris Baldock are part of a team that is dismantling Transend's old Waddamana–Bridgewater 110 kV transmission line. The old line is being removed to make way for a new Waddamana–Lindisfarne 220 kV transmission line

System development

Our Grid Vision program promotes a long-term view of the Tasmanian electricity market and its relationship with the NEM. Despite the uncertainties surrounding the impact of climate change, the Grid Vision points to continued investment in the Tasmanian transmission network over the next three decades. In the past 12 months, we have given priority to three strategic development plans in the Grid Vision program: a plan to assess the impact of potential generation developments, another for the main transmission line corridors, and a plan for Tasmania's southern region.

In light of the opportunities presented by new generation developments, we commissioned research into the maximum amount of wind generation that could be connected to the Tasmanian power system. Our research highlights the limits of the power system to cope with significant additional wind energy. The research also identifies the key technical challenges that need to be managed in order to realise the ambition of developing multiple large wind farms in Tasmania.

We are not alone in drawing attention to the limits that power systems face in connecting large amounts of renewable energy sources. For example, in a recent report the Essential Services Commission of South Australia expressed concern about the “long-term safety and reliability” of that state's power system because of the significant proportion of wind generation connected to the transmission network. South Australia has the most installed capacity of wind generation in Australia and one of the highest proportions of wind generation relative to total installed capacity in the world.

In terms of transmission line corridors, we modelled a number of development scenarios over the 30-year planning horizon to 2040. The study shows that all of our existing 220 kV corridors will need additional capacity in order to supply the forecast load growth. We also analysed alternative voltages for the core network. The analysis indicates that the existing 220 kV network, if enhanced with new technologies and dynamic reactive power sources, will be capable of delivering the required future capacity in the majority of development scenarios.

In southern Tasmania, the load is forecast to double by 2040 compared with the maximum load in 2007. That's the medium growth forecast. In the high growth scenario, the load triples by 2040. To deliver this amount of load to the south of the State, not only will the transmission network need to be reinforced but also a number of other technical measures will be necessary, in particular to manage voltage stability issues in the greater Hobart area.



(from left) Transend's Scott Rowell, senior land use planner, and Gina Goodman, projects development officer

Climate change: The Commonwealth Government has proposed a number of measures aimed at addressing climate change by reducing carbon emissions and encouraging renewable energy developments. The key measures include a carbon pollution reduction scheme (CPRS) and an expanded target for renewable energy. In addition, state governments are introducing a variety of schemes and targets aimed at reducing greenhouse gas emissions.

Transend supports a nationally consistent approach to climate change policy, in preference to ad hoc, state-based schemes which could potentially distort the National Electricity Market. Transend endorses the position put forward by the Electricity Supply Association of Australia (ESAA). The ESAA supports the development of a reliable and sustainable energy supply system, where reductions in greenhouse gas emissions are achieved at least-cost through measures that are national, long term and complementary to competitive market arrangements.

The Australian Energy Market Commission (AEMC) is also reviewing energy market frameworks in light of climate change policies. Among other proposals, the AEMC has proposed to establish a new framework in the National Electricity Rules that would encourage investment in extending networks to create connection hubs to which multiple generators could connect. We contributed to this review through Grid Australia.

Grid Australia is broadly supportive of the AEMC's proposal for these network extensions. However, access to capital and funding of these investments is a potential issue, particularly given the AER's recent decision on the weighted average cost of capital (WACC) and the current capital constraints facing industry. The AEMC's review will conclude with advice to the Ministerial Council on Energy in September 2009.

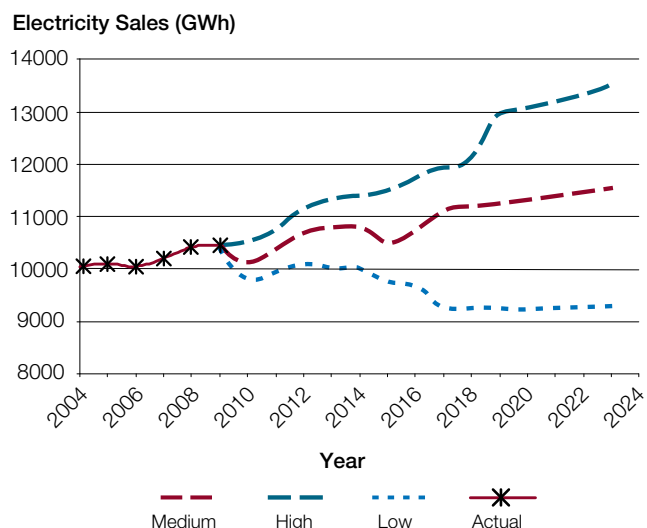
We will continue to monitor developments in climate change policy and incorporate any revised policy settings into our forward planning. One of the outcomes of the transition to a low-carbon economy is the need for more investment in the transmission network to facilitate new renewable energy projects.

Load forecasts: Given the potential impact of climate change policies and the effects of the global economic crisis, this year's load forecasting exercise was one of the most challenging ever. As a result, the outputs from our forecaster (National Institute of Economic and Industry Research) are more much varied than in previous years. Under the medium and high case scenarios, the electrical load in Tasmania continues to grow. However, under the low case scenario, the load reduces.

Taking the medium growth scenario (the base case), the latest 15-year forecast shows an average growth of 0.69 per cent per annum from 2009 to 2023. This is a significant change from the previous year's forecast of 1.87 per cent on average. The forecast under this scenario predicts a decrease in 2014–15 due to reduced consumption by major industries resulting from the projected impact of the CPRS.

The medium growth forecasts are based on the CPRS–5 scenario out to 2015. This scenario assumes a 5 per cent reduction in carbon emissions below 2000 levels by 2020. After 2015, a gradual change to the CPRS–15 scenario by 2025 is applied. Since these forecasts were prepared, the CPRS has been delayed, but a more stringent target of 25 per cent below 2000 levels has been proposed. We have not yet modelled the impact of this revised policy setting.

Tasmanian load forecasts: 2009 to 2023



Under the high growth scenario, the load increases by an average of 1.78 per cent per annum over the planning period. This scenario assumes a lower carbon tax and more favourable economic conditions than the base case. The forecast boost in 2018–19 is based on assumptions related to the proposed pulp mill. In contrast, under the low growth scenario, the load decreases on average by 0.81 per cent per annum through to 2023. This scenario assumes substantial reductions in energy consumption in the industrial sector.

Load forecasts and generation developments create the drivers to develop the transmission system. However, this is first time that we have faced such uncertainty in the outlook—from significant growth at one end of the spectrum to a gradual decline at the other. In the circumstances, long-term planning is more problematic. However, our annual planning reviews together with the Grid Vision program help us to chart a pragmatic course through the range of scenarios that might unfold in the years ahead.

Major projects: During 2008–09, we invested \$130 million in a variety of capital projects that have improved the reliability and capacity of the transmission network. Highlights of the capital program include the redevelopment of Electrona Substation, which included the installation of a second power transformer; a similar project at Mowbray Substation; and the replacement of the transformer at Que Substation.

At Sheffield Substation—one of the largest in the network—we completed a major redevelopment of the 110 kV infrastructure, and will soon complete an upgrade of the 220 kV assets that will address stability and reliability issues at the substation. A project to replace the network transformers at George Town Substation is also nearing completion. In addition, three multi-year upgrade programs are on track: the substation security program, the replacement of high voltage (HV) protection systems, and the installation of HV capacitors.



A John Holland crew dismantles a tower on the old Waddamana–Bridgewater 110 kV transmission line



A new transformer being installed at Mowbray Substation, Launceston

Major committed projects

Location	Project	Cost (\$M)#	Completion#
Waddamana–Lindisfarne 220 kV	Construct new 220 kV transmission line and associated redevelopments at Waddamana and Lindisfarne	130.0	Dec 2010
George Town Substation	Replace network transformers	18.2	Jul 2009
Burnie Substation	Replace network transformers	13.4	Oct 2010
Sheffield Substation	Upgrade 220 kV substation infrastructure	12.1	Aug 2009
Bridgewater	Construct new equipment store	11.6	Oct 2009
Ongoing programs	Upgrade substation security measures	28.6	Feb 2010
	Replace HV protection (8 substations)	12.7	Nov 2010
	Install HV capacitors (9 substations)	10.6	Aug 2009

Cost and completion dates reflect the current estimates and work schedules

In its recent revenue determination, the AER endorsed most of the projects in our proposed capital program for the next five years. Work on the largest single project in the forward program, the Waddamana–Lindisfarne 220 kV project, is now in progress. Civil work at the two substation sites (Waddamana and Lindisfarne) has already commenced, as has the dismantling of the old 110 kV transmission line between Waddamana and Bridgewater. The new 220 kV line will be built in the same land corridor as the old 110 kV line. This vital project is due for completion by the end of 2010.

Communications: The Communications Services team continued its capital program during 2008–09. Over the past year we strengthened the microwave radio network and introduced new products to customers. Developments included new microwave repeater sites at Downies Hill near New Norfolk and at John Butters. These new facilities will enhance the service provision into key power system assets, improving reliability and increasing capacity for expanding services.

Regulation

Transend operates within a complex national regulatory framework that is constantly under review. During 2008–09, a number of reviews were initiated and changes implemented that have significant implications for Transend and the local electricity market.

Frequency standards: The most important change, in terms of promoting competition in the local market, was the decision by the AEMC's Reliability Panel on new frequency operating standards for Tasmania. The new standards tighten the existing frequency operating band and set a number of conditions that must be implemented.

The new frequency operating standards align Tasmania more closely with the standards that apply elsewhere in the NEM. More importantly, the new standards remove a

technical barrier that, if left in place, would have impeded the development of thermal generating plant in Tasmania. We are playing an important role in implementing the new standards.

WACC: In May 2009, the AER issued its final decision on the weighted average cost of capital (WACC) for regulated electricity networks. The WACC represents the cost of debt and equity required by an efficient benchmark electricity network business to supply regulated electricity services. The decision reduced the overall WACC from present levels, which was a disappointing outcome in an environment where more network investment is needed to address climate change objectives.

A joint industry submission (from Grid Australia, Energy Networks Association, and Australian Pipeline Industry Association), to which we made a significant contribution, argued for increases in WACC values and made the point that reduced returns would undermine confidence in this vital industry sector and could discourage investment in network infrastructure.

The AER's decision will have a long-term impact on the value of Transend and other network businesses, both transmission and distribution. The decision includes the rate-of-return values and methods to be adopted in future revenue determinations by the AER. As such, the revised WACC will not apply to Transend until 2014. Together with other transmission companies, we will continue to seek the opportunity for a merits review of the AER's decisions on WACC.

AEMO: In the past few years, a number of governance changes have been implemented in the NEM resulting from the Australian Energy Market Agreement, which was executed by the Council of Australian Governments in 2004. The last of the national bodies to be set up as an outcome of the agreement—the Australian Energy Market Operator (AEMO)—commenced operations on 1 July 2009.



Members of the revenue reset team that prepared Transend's revenue application for the regulatory period 1 July 2009 to 30 June 2014. Many other staff were also involved in gathering information for the revenue reset project

AEMO is responsible for the security and operation of the National Energy Market, including the new function of National Transmission Planner (NTP). The functions of the former National Electricity Market Management Company (NEMMCO) and some transmission planning entities have been absorbed by AEMO. AEMO will produce an information resource called the National Transmission Network Development Plan which expands on the existing Statement of Opportunities. This annual plan will provide strategic direction on national transmission planning needs and will identify regional areas for likely future generation and transmission investment.

Revenue reset

On 30 April 2009, the AER released its final decision on Transend's revenue proposal for the period July 2009 to June 2014. The AER's decision provides for the capital and operating expenditure required to maintain, operate and upgrade the transmission system in Tasmania. The decision also acknowledged that expenditure in this area of our operations over the previous regulatory period was prudent and efficient.

The revenue decision provides for capital expenditure of \$606 million and operating expenditure of \$254 million (in 2008–09 dollars) over the five-year period. The WACC has been set at 8.8 per cent.

The AER made a number of adjustments to our proposed operating and maintenance expenditure (opex) allowance. The AER accepted that the actual expenditure for 2006–07 was an appropriate representation of our underlying opex costs, and was therefore an appropriate base for forecasting opex requirements in future years. This recognises that the ACCC's 2003 decision provided an insufficient opex allowance for Transend to meet its obligations.

In its review of our capital expenditure during the 2004–09 regulatory period, the AER determined that the total commissioned expenditure was prudent. Looking ahead, the AER did not accept all of our proposed capital expenditure, which effectively postpones some renewal projects to the next regulatory period. The AER determined that our total revenue requirement will increase from \$165 million in 2009–10 to \$219 million in 2013–14 in nominal terms, resulting in forecast maximum allowed revenue over the regulatory period of \$962 million.

AER's decision on Transend's revenue (\$ million nominal)

	2009–10	2010–11	2011–12	2012–13	2013–14	Total
Return on capital	83.7	96.2	108.7	115.8	123.3	527.6
Regulatory depreciation	26.3	27.7	22.8	27.3	30.8	134.8
Opex allowance	50.9	52.9	53.8	57.7	58.8	274.0
Net tax allowance	3.8	4.4	5.0	5.6	6.2	25.0
Annual revenue requirement (unsmoothed)	164.7	181.1	190.3	206.5	219.0	961.5

A number of parameters used in calculating the WACC are prescribed in the National Electricity Rules (Rules), with the risk-free rate, debt-risk premium and forecast inflation rate determined by the AER.

Under the Rules, Transend has the right to appeal the AER's final revenue decision. In May 2009, we applied for a merits review of the decision in relation to three matters: the WACC averaging period, the methodology for calculating the debt risk premium, and the inflation rate methodology. The appeal was heard by the Australian Competition Tribunal in Sydney during August 2009. We await the tribunal's decision.

The AER's revenue decision also encompasses an efficiency benefits sharing scheme, which encourages efficiencies and allows for resultant savings to be shared between Transend and its customers. The decision also includes a revised service target performance incentive scheme, which is more challenging than the scheme that applied during the previous regulatory period.

The revenue decision is the culmination of a concerted effort by many people throughout the company over the past few years. The transition from one revenue decision to the next is a pivotal moment in the company's history. We are taking the opportunity to learn from the experience of our revenue reset project and embed that knowledge in our business processes.

New business

Transend added a new line of business during 2008–09. On 1 November 2008, we acquired the Communications Services business from Hydro Tasmania. This is a strategic acquisition that complements the electricity transmission business and builds on our strengths in developing and operating infrastructure networks.

Previously, Transend was the only transmission company in Australia that relied on an external party for mission-critical communications services. With communications now in-house, we are realising operational efficiencies and finding opportunities to expand the range of services we can offer to our customers. We are pleased to report that Communications Services has already made a positive contribution to earnings and has exciting growth prospects.

This new business unit provides specialist communications services to customers in the electricity supply industry (ESI) and others outside the industry. It is currently the only telecommunications network in Tasmania that can meet the performance levels required by the participants in the ESI. These companies need a very high standard of reliability for telecommunications services, which are used for operational purposes such as power system protection, monitoring and control, voice communications and asset management functions.



An old insulator is removed at Sheffield Substation

The backbone of the communications network is a microwave radio system. This radio network is complemented by a growing number of optical fibre circuits that are being progressively installed as part of the electricity transmission network. During 2008–09, we completed the final stage of a major upgrade of the radio network. The redevelopment program, which started in 2002, was carried out in three stages at a total cost of \$15 million. Each stage was successfully completed on time and within budget.

The communications business presents various growth opportunities that build on our existing assets and expertise. For example, over the past year we helped Aurora Energy (on behalf of the State Government) to develop its proposal for the proposed National Broadband Network (NBN). More recently, we have been advising Aurora on technical aspects of the proposed NBN roll-out in Tasmania. We already operate and manage the optical fibre assets associated with the Tasmanian Gas Pipeline. And we recently executed a new agreement with the State Government to support the Government's trunk mobile radio network.

Electricity transmission: Meanwhile, our electricity transmission business offers continued prospects for organic growth as new customers connect to the network and existing customers demand more capacity and more services. Despite the economic downturn during 2008–09, we recorded revenue growth from all three segments of the electricity transmission business (prescribed, negotiated and non-regulated services). However, the outlook for continued growth in the industrial sector is uncertain given the potential impact of the Commonwealth Government's carbon pollution reduction scheme.



Transend's Kristy Godfrey (left), IT financial and management administration officer, and Adam Granquist (right), Corporate IT's infrastructure administrator

On the generation side, we are very aware of the opportunities for connecting more renewable energy developments due to the stimulus provided by the Commonwealth's renewable energy target. We are currently dealing with a number of parties that have connection enquiries relating to renewable energy projects, especially wind farms.

However, the potential for connecting wind farms to the Tasmanian power system is constrained by the relatively small size and nature of the system. Our latest research shows that for a number of technical reasons, wind generators are more difficult to integrate into the Tasmanian power system than conventional generators. For example, wind generators do not provide inertia to the system and they provide little or no frequency control.

These and other issues can be overcome, but not without significant investment in mitigation measures. Using market simulations, we studied the effect of an increased level of wind generation in Tasmania on Basslink constraints, system inertia, frequency control and fault levels. The simulations showed that up to 1300 MW of wind generation could be incorporated into the Tasmania power system with Basslink in service, provided the mitigation measures were put in place. This amount reduces to 630 MW with Basslink out of service.

At present, Woolnorth (140 MW) is the only wind farm connected to the Tasmanian power system. Woolnorth's owner, Roaring 40s, is currently developing another wind farm at Musselroe (138 MW), scheduled for completion by mid-2010. Meanwhile we are assisting a number of proponents who have proposals totalling up to 735 MW of additional wind generation. Given the scale of these proposals, we need to consider the implications of connecting more wind generation into the Tasmanian power system.

Efficiency and effectiveness

We continue to find ways to work more efficiently and effectively. To encourage innovation throughout the company, we have established the Chairman's Award for Innovation. This year's award went to our Substations Department for its integrated substations security project. This project was undertaken to manage the risks associated with unauthorised access to our substations.

The multi-disciplinary project integrates access control, intruder detection, powered fencing and visual monitoring across 47 sites around Tasmania. The project has delivered a number of benefits, including better access control arrangements, improved safety and the ability to remotely inspect and monitor asset condition. This project has sparked interest from other organisations, including the Department of Defence, and was highly commended at the 2009 Engineering Excellence Awards.

The George Town automatic voltage control scheme is another innovation that was developed over the past year. Since Basslink was commissioned, managing the voltage in the north of the State has been challenging for AEMO and Transend.

To overcome this problem, we designed a scheme to manage the voltage at George Town within a target range by controlling selected capacitors and generators. The scheme is currently being modified to include the new Tamar Valley Power Station.

We also commissioned an automated generator control (AGC) system that can be used to assist in the regulation control of Tasmania's power system. This system is only intended for use in an emergency situation when AEMO is unable to manage the Tasmanian transmission system. In those circumstances, we are responsible for running the

Tasmanian system and the AGC is one of a suite of tools that helps fulfil that obligation.

Other innovations include an upgrade of the software and procedures that manage the schedule of planned outages and the installation of an application that disables and restores auto-reclosers on distribution feeders in substation blocks, rather than individually. This software allows our power system coordinators to quickly and safely remove and restore auto-recloser functionality on high voltage circuits when a fire ban is declared, helping to reduce the risk of bushfires.

Work environment

Safety is a core value at Transend. We are concerned not only for the health and safety of our people—our employees and contractors—but also for members of the public who may be affected by our activities. Our safety management plan sets out clear objectives and targets for safety performance.

We work closely with our contractors to maintain the focus on safety and ensure that work is carried out as safely as possible. Despite our commitment, our safety performance deteriorated somewhat during 2008–09. The number of work injuries and statutory reportable incidents both increased. On the positive side, the total number of safety incidents decreased in comparison with the previous year.

Three of the statutory reportable incidents had the potential to result in electric shock—two through electrical induction

and the other through inadvertent contact with energised conductors. The fourth incident, which occurred while erecting a transmission line tower, had the potential to result in permanent disability to a worker’s hand.

In order to reverse the trend in injuries and return to the improving performance of recent years, we have added resources in our safety area. In 2009–10, we are focusing more attention on higher risk activities and contractor performance. We are also conducting more contractor safety audits than previously.

Safety performance (Twelve months to 30 June)

Measure	Target	2008–09	2007–08
Statutory reportable incidents	0	4	1
Injury – lost time	0	4	3
Injury – no lost time	≤ 5	15	9
Incident – high risk	≤ 5	5	9
Incident – low to medium risk	≤ 10	20	21

As well as our commitment to a safe working environment, we also encourage staff to adopt a healthier lifestyle. Physical activity and improved capacity to deal with stress can have beneficial effects on both work and home lives. We provide regular presentations on health-related areas of interest to staff and, through our support for participation in events such as the Point to Pinnacle and Bike Week, we encourage staff to engage in physical exercise.



(from left) Transend’s Greg McInerney, desktop and training service delivery coordinator, and Ellen Hennessy, information and records officer

Environment

Minimising the impact of our activities on the environment is part of our corporate culture. Our environmental performance during 2008–09 was good and we achieved all of our targets. Although we recorded no statutory reportable incidents, six incidents were classified as low- to medium-risk. These were either oil spills or incidents involving birds and transmission lines. The oil spills were contained and cleaned up in a timely manner. We have installed more flight diverters to reduce the bird problem.

Bureau Veritas audited our Environment Management System as part of the process for maintaining our accreditation under ISO 14001. Two non-conformances identified during the surveillance audit have both been addressed.

In order to ensure that our environment management principles are being put into action, we require our contractors to have their own environment management plans approved by us. We then conduct environmental audits of the contractors to confirm that the plans are being put into practice. During 2008–09, we carried out 24 audits which identified a number of required actions. As at 30 June 2009, only eight of these remained to be completed.

Environment management performance

(Twelve months to 30 June)

Measure	Target	2008–09	2007–08
Statutory reportable incidents	0	0	1
Incident - high risk	< 5	0	0
Incident - low to medium risk	< 10	6	2
Environmental audits	> 24	24	0
Outstanding audit actions ¹	≤ 20	8	0

¹ Environment audit actions arising from internal/external audit program (new measure in 2007–08)

We try to maintain good relationships with our neighbours around Tasmania. One of these relationships was recognised in the 2009 Awards for Environmental Excellence. Lenah Valley Primary School is one of our neighbours next to Creek Road Substation. With assistance from Greening Australia, we sponsor an outdoor classroom at nearby Haldane Reserve. This education program was a finalist in this year's environmental awards.

Conclusion

Despite solid revenue growth over the past year, increased finance costs and higher operational expenditure resulted in a disappointing profit result. However, the AER's latest revenue decision gives us a sound financial basis to further develop the electricity transmission business over the next five years.

During 2008–09, we worked closely with Aurora Energy Tamar Valley—owners of the Tamar Valley Power Station—to connect and commission the new generating plant. This new power station provides a significant increase in Tasmania's generating capacity. We are pleased to welcome AETV as a new customer.

Having successfully integrated the Communications Services business during 2008–09, we now have another engine for growth. The Communications team has an excellent service record and has already made a positive contribution to earnings. Looking ahead, this new business offers exciting growth prospects as our communications customers demand more capacity, more speed and more reliability.

Despite the uncertainties surrounding the economic crisis and the impact of climate change, we can safely predict the need for continued investment in the Tasmanian transmission system. Meanwhile, our immediate and constant challenge is to continue improving our day-to-day service performance.