



**TransGrid**

# **Connecting with you**

**TransGrid Stakeholder Engagement 2016**

## Introduction

As operator and manager of the NSW high voltage electricity grid, TransGrid keeps you and your way of life connected – 24/7.

We connect generators, distributors and major end users across the state, enabling you to access electricity where and when you need it.

With transmission services accounting for around 7% of the average electricity bill, we recognise that the way we manage our business, and the approach we take to operating and maintaining the grid, has a direct impact on your everyday. We take this responsibility seriously. As a provider of an essential service, we believe that you should not pay more than necessary for your electricity.

With this in mind, we are committed to delivering the most efficient solution to meet your energy needs, both now and into the future.

## Why stakeholder engagement is important to us

At TransGrid, understanding the needs and views of our stakeholders and electricity consumers is important to us and over the past two years we've been working with a variety of consumers, customers, government bodies, regulators and members of the community who represent such diverse audiences.

As the energy market evolves, TransGrid is transforming how we operate to effectively and efficiently meet the changing environment. We want to drive innovation across the sector and apply rigorous testing to constraints on our network and work with our stakeholders to help us deliver solutions.

Since 2013 in line with our 5 year business plan, we sought new and innovative ways to communicate with a wide range of energy users. The business has developed our own stakeholder engagement strategy and taken the lead from the AER Better Regulation Guidelines to ensure that our stakeholder engagement plans meet the needs and expectations of energy users.

We've reviewed the feedback that we received from our stakeholders over the last 2 years and we have consolidated your thoughts to help us evaluate and develop our engagement program for 2016.

# Measuring feedback

We have segmented the feedback we received throughout our engagement program and reported views heard across the following stakeholder groups:



## Your insights

- > The cost of electricity is your number one concern
- > You support TransGrid's move towards more cost reflective transmission pricing and encourage us to continue to advocate for further reform
- > Having a reliable source of electricity is important
- > You want to ensure that TransGrid offers an economically efficient transmission service
- > You want to have the opportunity to have input into, and receive updates on, our broader business plans and priorities
- > You want plain English, easy to understand information that still contains the detail
- > You are interested in renewable energy and the future of the grid
- > You want focused engagement that leads to clear outcomes with evidence of progress
- > You want us to make prudent network decisions with a strong business case.

# Objectives, principles and drivers

TransGrid wants to work with our stakeholders on areas that they can tangibly influence and our engagement is driven by the following principles to help us achieve this:

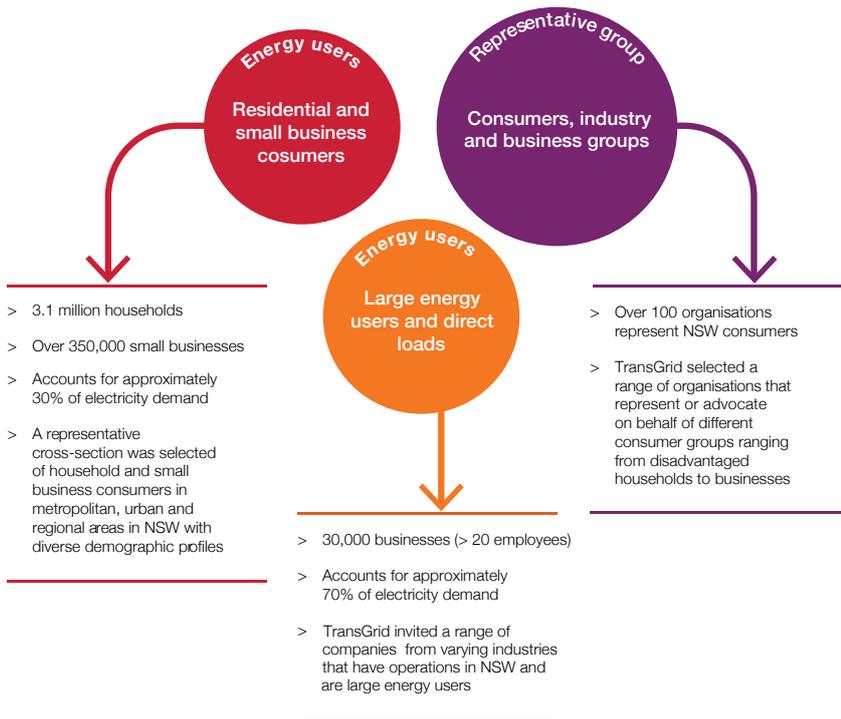


# How we engaged

Understanding who our key stakeholders are and their reasons for interacting with us has been integral to our engagement plans. Energy stakeholders can be classified as those who consume, connect to or advocate usage of today's electricity and for the future of the grid.

Over the past two years, we've embraced and formed stronger relationships with stakeholders through our business planning and we've backed this change through a process redesign. We are committed to creating a robust engagement program, giving you opportunity to input into our business plans and decisions through a clear, transparent and timely process.

## Our approach to engagement



**TransGrid's large energy user roundtables and consumer advisory panel workshops**

TransGrid held a series of workshops with large energy users, direct customers and consumer, industry and business groups throughout 2014/15 which aimed to open the lines of communication between TransGrid and electricity end users. The program was designed to consult and gain feedback on key elements of TransGrid's Five Year Business Plan.

## Engagement activities

Policy	Plans	Projects	Locations	Methods
Reliability standards	Transmission planning	Powering Sydney's Future	Sydney	Deliberative forums
Demand Management Innovation	Regional project and network updates	TransGrid's Revenue Proposal	Wagga Wagga	Workshops
Pricing methodology	Five year business plan	NSW transmission reliability standards	Cooma	Information sessions
Improvements to community consultation practices			Tamworth	Online surveys
			Taree	Briefings
			Orange	Website
			Parramatta	Enewsletters
			Dubbo	Written communication
			Batemans Bay	Social media
			Wollongong	Blogs
				Q&A sessions
				Webinars
				Quantitative surveys

# Powering Sydney's Future



Powering Sydney's Future was our flagship project for our community and project based consultation. TransGrid responded to the changing environment of the electricity industry and adopted an adaptive planning approach that invited stakeholders and the community to engage in the Identify Need stage in TransGrid's four-staged engagement process as highlighted in figure 1.

You said you wanted to be involved in our project planning right from when we identify a need – and we listened.

Figure 1

		TransGrid planning process	Stakeholder involvement
 <p><b>Stage 1</b> <b>Identify need</b></p>	<p>Look at demand forecasts, expected generation patterns and condition of existing assets.</p> <p>Will there be a shortfall in supply if we do nothing?</p>	<p>Sense-check forecasts with</p> <ul style="list-style-type: none"> <li>&gt; Distributors</li> <li>&gt; Directly connected customers</li> <li>&gt; AEMO.</li> </ul> <p>Seek feedback from end users and their representatives on need assessment.</p>	
 <p><b>Stage 2</b> <b>Review options</b></p>	<p>Identify possible network and non-network options to fulfil the need, including:</p> <ul style="list-style-type: none"> <li>&gt; Demand management</li> <li>&gt; Local or distributed generation</li> <li>&gt; Network infrastructure optimised to expected requirements.</li> </ul>	<p>Input from large users, service providers and experts on potential for non-network options.</p> <p>Communicate with local community that may be impacted by network infrastructure.</p>	
 <p><b>Stage 3</b> <b>Plan in detail</b></p>	<p>Request proposals and undertake investment analysis on most viable options.</p>	<p>Encourage proposals from market participants for non-network options.</p> <p>Engage impacted communities in network corridor selection, if relevant.</p> <p>Involve end users and their representatives in final investment decisions.</p>	
 <p><b>Stage 4</b> <b>Implement solution</b></p>	<p>Enter into contracts for network or non-network solutions.</p> <p>Build network infrastructure, if required.</p>	<p>Work with impacted community to support best local outcomes.</p> <p>Report progress in meeting identified need to end users and their representative.</p>	



## How feedback has started to shape decisions

By working with our stakeholders and openly discussing how we manage the network, we can continually enhance the services we provide in delivering a safe, reliable and efficient energy supply. We have engaged with our stakeholders on a variety of key industry topics. The following pages highlight feedback we've received to date and outlined how this has started to influence business decisions.

# Engagement

TransGrid is committed to an effective stakeholder engagement process that is proactive, transparent and represents a genuine desire to inform, consult and collaborate with interested parties. It's important to us that our stakeholders feel that engagement is worthwhile and that their voices are heard.

## What we heard



> Acknowledgment of TransGrid's improved approach to engagement and a strong desire to see this continued



- > Strong support for bringing different categories of stakeholders together via joint consultation forums
- > Some stakeholders would appreciate smaller group or one-on-one sessions outside of broader forums
- > Meaningful engagement is important and stakeholders need to see evidence that feedback has been integrated into business decisions



> An appreciation of being consulted with, although some stakeholders said they would be happy to be simply informed rather than consulted on our Five Year Plan



- > Engaging with directly impacted communities is important as consumer groups cannot always represent all aspects of the broader community
- > Levels of consumer electricity literacy need to be increased with a focus on understanding the electricity supply chain, why costs are rising and what individual consumers can do to keep their costs down.



Residential and small business consumers



Large energy users and direct loads



Consumer, industry and business groups



Generators

## What we did

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- > Reviewed stakeholder and consumer engagement practices to ensure that we continue to understand our stakeholder's needs and views
- > Restructured our business so there is a dedicated stakeholder engagement team
- > Held dedicated workshops and deliberative forums with large energy users, direct customers and consumer, industry and business groups
- > Throughout 2014 we arranged a number of face-to-face meetings with interested stakeholders to discuss areas they wanted to hear more about
- > Launched our Have Your Say website and blog
- > Through a whole of business initiative, we changed our internal processes to ensure that stakeholders can influence business decisions and that feedback received is reported back to the Board and Executive team
- > Published a suite of clear and simple factsheets on issues relating to the business and industry to help educate and inform stakeholders
- > Launched Powering NSW, our bi-monthly e-newsletter, designed with consumers in mind that offers information about our business and the wider electricity industry in NSW and the ACT.

### Engagement: where next?

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TransGrid is gearing up for our 2016 engagement program, and this time around we are going to ensure that we focus on tangible areas of influence that stakeholders are interested in. As a result of your feedback, we've set up an Advisory Council, to work with us on our engagement program and ensure that stakeholder views influence our business direction.

# Energy prices and costs

With transmission costs accounting for around 7% of an average NSW household electricity bill, we recognise that our capacity to plan, operate and maintain the network as efficiently and as responsibly as possible has a direct impact on how much you pay for electricity.

## What we heard



- > Rising energy prices are placing a strain on households and businesses
- > The cost of electricity is your number one concern
- > Support for our then proposed operating expenditure, due to no planned increase from the previous period
- > Approval of better planning to retain efficiency of our capital portfolio under changing conditions
- > A call for more transparency of our pricing models
- > A feeling that our proposed WACC appeared to be too high and that it lowered the incentive to reduce costs
- > Strong support to move to a cost reflective pricing model.



- > Stakeholders were happy with proposed changes to transmission prices, particularly TransGrid's focus on moving to more cost reflective transmission pricing
- > A need to see more testing of capex proposals and ensuring that non-network solutions are properly considered before a decision is made to build
- > Questions on the process through which our transmission prices are determined
- > Frustration that network electricity prices do not look likely to drop in the coming period and asked why efforts to reduce electricity consumption are not reflected in electricity bills.



- > Pleased to see customer interests being reflected in decisions and the prospect of a much lower capital investment spend than in the previous five year period
- > Stakeholders could see evidence of TransGrid's efforts to reduce costs in a number of areas and how this was offset by proposed increases in other areas.



- > Want to see more transparency around unspent capital allocation
- > Some stakeholders noted that because our business appears to have a clear incentive to build, the needs outlined in the proposal could not be interpreted as being truly genuine
- > Pleased to see that we decided not to spend all of our allocated capex because of falling demand
- > Stakeholders noted that they were unclear on how transmission prices are set and how they are passed through to distribution network service providers
- > A feeling that the rate of return is something that needs to be further addressed by government policy.



- > Broad acceptance of revenue smoothing to match the forecast energy consumption profile to achieve a flat price path for consumers.



- > Encouragement for us to further scrutinise the proposed replacement capital expenditure
- > Encouragement for deferring over \$600 million of capital expenditure in response to changes in electricity demand patterns.



Residential & small business consumers



Large energy users & direct loads



Consumer, industry & business groups



Generators

## What we did

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- > Held a number of workshops to offer greater transparency on our business plans where we discussed our capital expenditure in conjunction with risk assessments
- > Invited key stakeholders to TransGrid's Transmission Annual Planning Forum to further explain our planning decisions
- > Undertook an organisational restructure that resulted in an improvement in on-time and on-budget performance for major capital works
- > To help facilitate better understanding of transmission pricing, we held a workshop to explain transmission pricing and discuss the role of pricing methodology
- > Based on the interest in WACC, we held a workshop with our experts to provide insight into our methodology
- > We accepted the AER's reduction to WACC
- > Held a comprehensive engagement process on our pricing methodology
- > Implemented a series of operational changes to boost non-build alternatives
- > We accepted further capex reductions in the AER determination as well as the AER's opex reduction
- > We also developed a management plan to ascertain operating efficiencies and maximise effectiveness
- > Implemented a business wide initiative to ensure that the business continues to integrate commercial discipline throughout the business
- > As a direct result of consultation, we made six core changes to our pricing methodology including moving to pricing based on peak demand instead of based on energy, and locational demand charges to be reflective of how much of the network is utilised
- > Forecasts took into consideration the changing electricity environment and took into account the most efficient and smooth price path for customers
- > Retained the approach of smoothing revenue in line with CPI within the period. This aligned to most stakeholder preferences and assists to reduce price spikes
- > Deferred over \$600m of capital expenditure in 2013/14.

### Energy prices and costs: where next?

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Throughout 2016 TransGrid will engage with our stakeholders to further drive transparency around how we plan the network, explain our new efficiency measures and work together on further changes to transmission pricing.

# Grid innovation

The energy sector is evolving, and TransGrid is committed to advancing and responding to the changing environment. As part of this commitment, TransGrid is looking to find new ways to conduct our business more efficiently and actively assist in the promotion and development of the renewable energy industry. By working with our stakeholders we can better understand the evolving needs of energy users, demonstrate innovation and together better plan for the future of the network.

## What we heard



- > There is ongoing interest in plans to integrate renewables into the network and how consumers can access electricity from renewable sources.



- > Stakeholders want to see more detail and transparency on demand management and how we'll account for falling demand prices
- > Stakeholders feel that our focus on demand management as a way to avoid future capital expenditure was important and could not understand why the AER did not appreciate its merits.



- > Generally stakeholders were positive about our efforts to avoid building new infrastructure
- > The concept of demand management was well received but some stakeholders were worried that it represented an unfair burden on the industry
- > Stakeholders want to know what we are doing to ensure consistent investment in infrastructure in-line with future energy sources.



- > Stakeholders supported initiatives to encourage efficient demand side response at times of system stress, however, believe that it is not our core business to create a market for demand response services or energy efficiency projects.



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Generators

## iDemand

TransGrid's iDemand system facilitates research, and promotes development and education in demand management. The iDemand system consists of a 400 kilowatt-hour battery energy storage system, almost 100 kilowatts of solar generation capacity (including thin film technology and polycrystalline panels), energy efficient LED lighting, and a web portal that provides iDemand's live status and historical data for download. Installed at our Sydney West site, the system aims to reduce site electrical demand by 50%. Research agreements with universities seek to optimise battery algorithms, and understand life-cycle costs.



## What we did

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- > To drive better transparency and understanding, we shared our proposal to improve sustainability and facilitate the connection of renewable and alternative energy generators to the grid
- > In response to a network constraint in northern NSW, we started to undertake a feasibility study into the development of a renewable energy hub to enable connection of renewable energy to the network
- > Approximately 70% of our new formal connection agreements over the last two years came from renewable generators
- > In developing the Powering Sydney's Future Project we invited stakeholders and the community to engage on demand management
- > We have been further exploring and growing non-build options such as energy storage and demand management with an aim to integrate these into our business plans
- > We have been devising ways to help develop the market for demand response by bringing together potential demand management providers
- > We launched our iDemand pilot project and website which tests solar PV generation combined with a large scale battery and energy efficient lighting to reduce demand by 50% at our Western Sydney site
- > Non-network solutions can offer alternatives to expanding our network and we consider such options whenever we face an investment need. This is because they can defer or avoid capital costs. Such solutions can also be tailored to local needs as well as allow us to adapt quickly to changing operating conditions.

### Grid innovation: where next?

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TransGrid is seeking to build its demand management innovation and as part of the 2014/15-2017/18 Revenue Proposal has sought funding to support this initiative.

## Battery storage

TransGrid knows that the future of energy consumption is changing and that consumers are looking to seek smarter ways to manage energy use. Battery storage will play a crucial role in that future with applications that support the generation, transport and use of electricity. As part of our commitment to support the changing environment of energy use, TransGrid is in the process of partnering with various organisations to trial energy storage solutions.

## Automatic Demand Response *(ADR)*

TransGrid is committed to using demand management as an alternative to network investment where it can provide a cost-effective alternative for meeting peak demand. The Australian market for demand management solutions is relatively new. To help provide more cost-effective demand response solutions TransGrid is investigating automatic demand response technologies to build and develop the demand management market.

# Fit for purpose network

Transmission network planning requires detailed analysis and modelling. TransGrid's state based energy and demand forecasts are prepared by the Australian Energy Market Operator (AEMO) with extensive input from TransGrid.

Understanding future demand forecasts is a critical component to planning and maintaining a safe, secure, reliable and economically efficient network. To understand the changing needs and views of stakeholders, TransGrid has been engaging on issues impacting the network, including understanding how we can plan a flexible network when it comes to reliability.

## What we heard



- > Decisions about future infrastructure are being made too far in advance and insufficient flexibility exists to modify these decisions when demand changes
- > An interest in our approach to ensure the forecasts we use are rigorous and to understand potential impacts of reliability and pricing in the future
- > There is a large variance in stakeholder perceptions of reliability and what service levels are deemed acceptable as some stakeholders value reliability and don't want to compromise it, but believe they pay enough already
- > Most stakeholders thought TransGrid's proposal to replace old infrastructure on a condition based analysis to maintain the current level of network reliability was fairly acceptable
- > Stakeholders urged us to work with the Australian Energy Market Commission to push for a national approach to setting reliability standards
- > Some stakeholders felt it was important that non-network options such as battery storage and demand management are taken into account when considering reliability standards
- > A strong interest in planning cycles around planning for future maintenance and investment of the network
- > There were concerns around proposed augmentation to facilitate coal mine connections to the network.



- > There was concern about the difference in our own forecast calculations compared to the AEMO forecasts
- > Some stakeholders were particularly apprehensive around stranded assets and how the cost of the remaining life of the assets would be allocated.



- > Stakeholders were concerned that we are not adequately prepared for the changing nature of energy consumption caused by consumers going off the grid
- > The current regulatory arrangements transfer all financial risks to customers in regards to stranded and over capacity assets.



*Residential and small business consumers*



*Large energy users and direct loads*



*Consumer, industry and business groups*



*Generators*

### Fit for purpose network: where next?

We play a vital role in managing the flow of electricity to homes and businesses, effectively balancing supply with demand to meet your energy needs, where and when you need it. A key priority throughout 2016 will be working with industry leaders and stakeholders on how the NSW Government plans to set the reliability standard and what impact that might have on how we plan and manage the network.

## What we did

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- > We developed our forecasting model by working with industry leaders such as the Australian Energy Market Operator and the NSW and ACT distribution network service providers
- > We facilitated a conversation with stakeholders and the Australian Energy Market Operator about the Value of Customer Reliability research
- > Reliability standards are important, so we started the conversation about the NSW reliability standards to better understand the needs and views of consumers to feed into our report to IPART on the NSW reliability standards
- > We ensured that we scoped specific network needs to augment the network or replace assets reaching the end of their serviceable lives and continue to do so
- > We developed proposals on potential stranded asset issues at our April 2014 workshop. As there were no forecast closures of coal fired power stations or any interest in the community to come off the grid, we will continue to monitor the situation closely and respond accordingly
- > We engaged on reliability standards and will continue to ensure we meet the needs of stakeholders.

## NSW reliability standards

While reliability standards are set by the NSW Government, they are an important input into our capital program and we believe it's important that we understand energy users expectations. Our network is currently 99.999% reliable, connecting safe and cost-efficient energy to more than 3 million homes and businesses throughout the state. The NSW Government asked the Independent Pricing and Regulatory Tribunal (IPART) to review and recommend transmission reliability standards to apply to TransGrid for the regulatory control period commencing 1 July 2018.



# Our ongoing interaction with stakeholders



Over the last two years we've listened to your feedback, and we've substantially changed our approach to engagement and our business operations. By involving our stakeholders and inviting the community to offer their thoughts and views on business decisions, we've managed to improve the overall reputation of how we do business and demonstrate our willingness to engage and integrate tangible changes, where possible, into our operations.

We acknowledge that our stakeholders have wide ranging issues and expectations, and over the next five years we'll be seeing a big change in the energy sector. With this in mind, here at TransGrid we're going to substantially focus on a variety of projects and our ongoing consultation in line with the Five Year Business Plan.

TransGrid values your feedback and we do our best to integrate your suggestions into our work. In certain circumstances we are limited to making changes due to regulatory or commercial constraints; however we are committed to building a transparent and genuine conversation that will influence our business. We will continue our stakeholder engagement program in 2016 and will use your feedback to help shape our 2016 program.

Participants from consumer, business and industry groups suggested a range of topics they would like to discuss in future consultation with TransGrid.

- > Price impacts for consumers that come from transmission versus distribution and how we can clearly show the different costs on bills
- > The rationale behind CPI increase on historic assets
- > Demand management education and peak demand reduction
- > How TransGrid has lowered prices for consumers
- > Transparent information about the calculation of the WACC
- > The future of network regulation in the transforming energy system
- > Tariff to get rid of postage stamp pricing
- > Distributed generation and storage
- > Powering Sydney's Future
- > Rule changing proposals.

## How to get involved?

TransGrid is interested to hear your views and keep you updated on our plans and priorities.

Register to TransGrid's **Let's Connect** website

[www.transgrid.com.au/lets-connect](http://www.transgrid.com.au/lets-connect)

Sign up to Powering NSW

[www.transgrid.com.au/PoweringNSW](http://www.transgrid.com.au/PoweringNSW)



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Join the energy conversation



Shaping the grid  
of the future



Exploring new ways  
to do what  
we do



Faster, smarter &  
more efficient



Sustainable &  
cost effective



We believe the grid is  
the vehicle to enable  
a low carbon  
future



Help us shape the  
grid & pave the way  
to a low carbon  
future.

**The changing energy ecosystem  
brings exciting opportunities**

**TransGrid, keeping you & your way of life connected**

