Energy Connected

2017/18 Annual Review

TransGrid

TransGrid is at the forefront of keeping customers connected to the electricity they use every day. The work we do quietly improves the lives of millions – from lighting schools, homes and streets, to powering local businesses, hospitals and everything in between.

Customers want the electricity network to be reliable, affordable and sustainable. TransGrid is working on innovative upgrades that will protect and sustain communities and the environment across Australia.

With a strong history of adapting to change, TransGrid plays a central role in Australia's changing energy landscape - reshaping for a bigger brighter future and delivering the energy our community needs to thrive.

Contents

Network reliability
99.9999%

MW+
1,100
Renewable megawatts connected since 2015

Highlights

Employee lost time injury frequency rate
4.3

Number of locations across NSW
7

Staff located in five regional areas
38%

86%
Reputation score for direct customers

Number of community members engaged in our business project plans
34,000

Public safety campaign
582,000
Social reach

Non regulated revenue growth
2.1x
Up 2.1x on 2017

Regulated Capex invested in the network in 2018
$230.8M

Regulated asset base
$6,371M

Revenue for 2017/18
$832.3M
Up 6% on 2017

Transmission services as a proportion of a typical NSW electricity bill
3.4%

Real price change
-5.2%
Compared to the previous regulatory period

Who we are

Chairman's message

In an industry experiencing rapid change, TransGrid will play a critical role in providing the platform for the evolving energy market, by expanding our network efficiently and developing new services to meet changing needs.

The energy landscape has been reinvented since the formation of the National Energy Market (NEM) less than 25 years ago. In this time TransGrid has honed what we do well whilst evolving with the industry.

We provide an essential service to the people of New South Wales (NSW) delivering safe, reliable energy whilst making prudent decisions to ensure investment in the network benefits our consumers.

Unsurprisingly, there are challenges in the sector. While TransGrid unreservedly respects the role of regulators in the industry, we find ourselves in an environment which is continually shifting and demanding more from us as we seek to deliver for consumers. There are a number of proposals and campaigns' that could inhibit our ability to attract and retain sufficient investment capital to support the transmission network. This limits the chances of Australia fully benefiting from the capabilities of the network as a platform for energy transformation in Australia.

The Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) currently provides the clearest roadmap to show how our industry will adapt to the economic and technological developments shaping energy systems across the world. NSW and TransGrid are firmly at the centre of Australia's energy future.

The ISP calls for significant transmission investment to respond to and underpin the growth of renewable energy in the NEM. With at least three major ISP projects identified in TransGrid's network footprint, the opportunities and responsibilities these present will be transformative not only for our business, but for the whole of the NEM, and will deliver significant benefits to end customers.

Direct and transparent interactions with our stakeholders will be crucial if we want to harness the full potential of this transformation.

This document explores in detail the complex interaction between TransGrid and our stakeholders, regulators and customers', who as of the 1st of July 2018 had a change of manger at Utilities Trust Australia (UTA).

Approved by TransGrid's Board of Directors, this document is a record for our stakeholders and investors, it captures the significant achievements of TransGrid's past performance and the great potential of our future.

TransGrid's transformation under private ownership continues. This is a strong business with a key role to play in Australia's energy system.

Jerry Maycock
CHAIRMAN

Who we are

CEO'S report

There are many opportunities for TransGrid now and into the future. While our future is bright, it is not without challenges.

TransGrid CEO Paul Italiano answers questions on TransGrid's performance in 2017/18, and discusses focus areas for the future.

How would you describe TransGrid's performance in 2017/18?

We have a lot to celebrate from the past year, and we've exceeded our goals across every financial metric. Exceptional results in project delivery drove revenue from our non-prescribed business totalling $119.2 million, 6 per cent more than our target. Our operational expenditure is below budget as we transform the business with better procurement outcomes, better processes and technology innovation, while our Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) for the period was $19.9 million above 2016/17.

The business set a challenge for itself to stay within one per cent of its prescribed capex target and we delivered. While faced with delays in transmission line projects we compensated by bringing forward planned investment in substations.

In the IT space we delivered $21 million worth of projects on budget, enabling performance and transformation outcomes for the coming year.

Our energy supplied performance was well ahead of our forecasts and targets, reflecting strong management of the network to deliver what consumers want: reliable, safe electricity.

Overall this is a really strong set of results from the business and a strong performance of which we can be proud.

Revenue from non-regulated business

$119.2 M

Up 2.1% on 2017

What aspect of TransGrid's performance in 2017/18 has disappointed you most and, what has pleased you most?

Safety remains a priority and we need to continue to focus and improve in this area. We have put significant focus on safety for the coming year and expect that to translate to a stronger performance in 2019.

Successful determination of our 2018-2023 Revenue Proposal was an enormous achievement for the business. There are a lot of people across the business who deserve credit for helping set TransGrid up to continue supplying safe, reliable power to NSW and the Australian Capital Territory (ACT), enabling us to continue investing in the network while lowering prices.

We also made great strides in developing TransGrid's Reconciliation Action Plan (RAP), a crucial part of our focus on diversity and corporate social responsibility.

In an environment where energy affordability is the top priority for regulators and governments, how is TransGrid factoring this into decision making?

Our revenue for the next five year regulatory period will result in a 5.2 per cent reduction in transmission tariffs across NSW and the ACT. We contribute relatively little to the average household energy bill, accounting for around 1c/kWh which was just 3.4 per cent as a proportion of a typical NSW electricity bill in 2017/18.

On top of that, transmission prices are actually lower than they were in 1995, adjusted for inflation, so I think we're controlling our part of consumer bills quite effectively.

Outside of our direct action in lowering tariffs, as operator of the NSW transmission network, TransGrid has a big role to play in facilitating competition by connecting new generation projects to the energy system. We've demonstrated a great ability to get new projects connected to the grid over the past years.

The energy market continues to change at a rapid pace, and innovation and competition are driving this change. How is TransGrid ensuring its strategic framework is still fit for purpose in this rapidly developing sector?

There are many opportunities for TransGrid at the moment, and our future is bright but not without challenges.

Paul Italiano

CHIEF EXECUTIVE OFFICER

We're operating in an environment where we need to redouble our efforts on safety. We'll need to continue delivering for our customers in a newly contestable connection space, and we have regulatory reform driving down investment with significant flow on effects for TransGrid.

In particular there are five areas where we need to focus:

- **Delivery of safe and reliable power** remains at the core of what we do, and we need to keep doing this well every day.
- **Constantly improving our efficiency** means continuing to invest in our transformation. Not just the specific transformation initiatives run by our Transformation team but the broader performance transformation that goes along with it.
- **Investing in customer benefit** means identifying the areas across both our Prescribed and Non-Prescribed businesses where there are requirements to expand our network and develop new services, many of which are linked to the energy transformation going on around us.
- **Supporting regulation that secures the future** means engaging in constructive dialogue with the regulators who govern our sector. Over the long term we want to advocate for positive changes.
- **Leading the energy transition** means seizing TransGrid's opportunity to act as an innovator and thought leader in the changing industry.

How are TransGrid's medium-term capital expenditure and investment plans progressing?

The ISP released by AEMO identified a range of very significant projects across the NEM, and there are some very substantial ones in NSW which will offer opportunities for investment in the network to benefit consumers and reinforce system security.

In the next couple of years – prior to 2020 – the ISP calls for small-scale upgrades to connections between NSW and Queensland (QLD) and between NSW and Victoria (VIC).

In the early 2020s the ISP identifies a need for a substantial upgrade to the QLD-NSW interconnector, significant transmission infrastructure associated with the Snowy 2.0 project, and a new connection between NSW and South Australia (SA).

All of these developments are broadly supported by contingent project applications made in our 2018-2023 Revenue Proposal, which will help us to achieve regulatory support for any investment as efficiently as possible.

Overall, this forms a significant pipeline of transmission work taking place at the heart of the NEM. This work is helping the energy system adapt to the changing dynamics in the industry, due to economics and technology changing the way we generate, move and use energy.

What are the major issues for TransGrid in the next three to five years?

There are a number of challenges for us to navigate in the regulatory and policy space as regulators and market bodies continue to focus on energy affordability in the absence of a national energy policy.

The Draft Rate of Return guideline recently published by the Australian Energy Regulator (AER) represents a significant change to the investment climate for network infrastructure. The proposed rate is driving Australian network investment returns to some of the lowest in the world and far behind comparable jurisdictions in the UK, US and New Zealand. With a significant pipeline of network investment identified in the ISP, the attractiveness of the sector for investors remains a key concern.

On the project side, our business has ramped up work on Powering Sydney's Future, after regulatory approval of a dual-stage project with flexibility to expand the infrastructure over time if required. This approach will minimise cost impacts for consumers while ensuring a reliable energy supply for Sydney's CBD.

Can you sum up TransGrid's future priorities?

Australia is undergoing a seismic energy transformation, and in this rapidly evolving environment our company is positively contributing to the energy plan for future generations. A strong and sustainable national energy system is the foundation for Australia's continued economic prosperity.

A well-managed transmission network is the platform that can enable Australia's transition to cheaper, cleaner energy sources, and TransGrid has made great strides to make this a reality for consumers.

Delivery of safe and reliable power remains at the core of what we do, and we need to keep doing this well every day.

EBITDA

$19.9 M

Increase on 2017

Who we are

Our role

Our role is to responsibly deliver safe and reliable electricity around the clock now and into the future, to over 3 million homes, businesses and communities. Ours is the TransGrid team behind the high voltage network that energises NSW and the ACT.

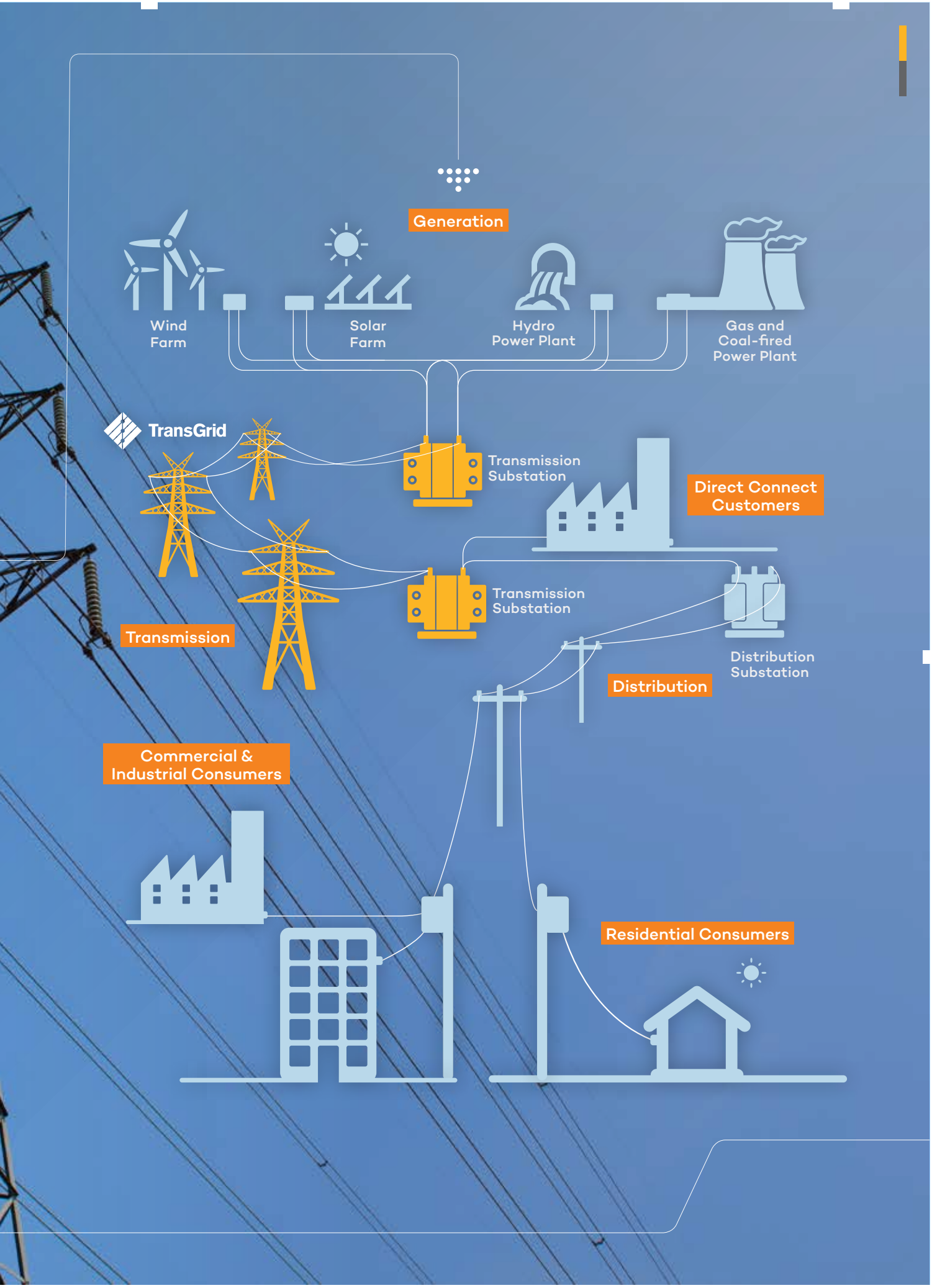
We aim to create value for society and our shareholders from reinvesting in our network, investing in growth, reliability, cost effectiveness and advocating for positive regulatory reform. And now we are looking to the future.

Gigawatt hours of electricity moved in 2018

70,381 GWh

13,093 MW

Operational peak demand in 2018


Generation
Wind Farm
Solar Farm
Hydro Power Plant
Gas and Coal-fired Power Plant
TransGrid
Transmission Substation
Direct Connect Customers
Transmission Substation
Transmission
Distribution Substation
Distribution
Commercial & Industrial Consumers
Residential Consumers

Who we are

Energy connected

As manager and operator of the NSW high voltage electricity network for the last 60 years, it is our responsibility to keep you and your way of life connected 24/7.

TransGrid is the backbone of the NEM, which encompasses five interconnected regions: NSW, QLD, VIC, Tasmania (TAS) and SA. NSW represents 32 per cent of Australia's population, 34 per cent of energy consumed in the NEM and is responsible for 33 per cent of Australia's economic output.

Australia's first coal-fired generators were located in the cities distributing electricity close to people's homes. With the development of transmission capabilities, power stations moved from cities closer to coal fields where they currently reside. This improved living conditions, lowered city pollution levels and saved significant costs.

By 2036, almost 70 per cent of Australian's coal-fired generators will be more than fifty years old, most will be approaching decommissioning. The AEMO projects that capacity provided by coal generation in the NEM will reduce from 74 per cent in 2016/17, to 24 per cent in 2035/36.

AEMO also projects that wind and solar generation, which currently accounts for around 5 per cent of generation in the NEM, will need to connect up to 22 GW of new large-scale wind and solar generation before 2036.

The forecast retirement of existing coal generation, together with significant reductions in the cost of new renewable generation, is driving the transition to the energy system of the future. We must be agile in order to respond to the evolving energy landscape, and our ability to adapt to change is crucial for continued success.

Our network is instrumental to the electricity system and economy, and facilitates energy trading between Australia's largest states. We transport high voltage electricity from generators in NSW and the NEM, supplying to more than three million homes and businesses across NSW and the ACT. We operate 104 substations, over 13,000 kilometres of high voltage transmission lines, underground cables and three interconnections to QLD and VIC. We support a competitive wholesale electricity market which provides a level playing field for all participants; where the benefits flow through to consumers.

With transmission services accounting for around 3 per cent of the average electricity bill, we recognize that the way we manage our business, and maintain the network, has a direct impact on customers every day. We take this responsibility seriously. As a provider of an essential service, we believe that customers should pay no more than necessary for their 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.

	TRANSGRID	POWERLINK	AUSNET SERVICES & AEMO	ELECTRANET	TASNETWORKS
ENERGY DELIVERED	65,800 GWh	50,124 GWh	39,594 GWh	11,817 GWh	10,038 GWh
NETWORK SIZE	13,000 km	15,500 km	6,600 km	5,600 km	3,500 km
PEAK DEMAND	13,093 MW	8,548 MW	7,980 MW	2,955 MW	1,964 MW
SUBSTATIONS	104	139	53	91	49

TRANSGRID'S ELECTRICITY NETWORK

OPERATING SYSTEM VOLTAGES

- 500 kV Transmission Lines
- 330 kV Transmission Lines
- 220 kV Transmission Lines
- 132 kV Transmission Lines
- 330 kV Underground Cable
- Customer Exchange Point
- Interstate Exchange Point
- 500 kV Substations
- 330 kV Substations
- 220 kV Substations
- 132 kV Substations

Who we are

Our story

Since privatisation TransGrid has reinforced its position as the market leading provider of transmission, energy and communication services in Australia.

TransGrid has achieved many milestones over the past three years including:

Investing in our network and delivering major projects:

Since 2015, TransGrid has invested $507.5 million in the NSW/ACT transmission network, including adding 233 kilometres of new transmission lines and five new substations. We have delivered 11 major capital works projects to upgrade the network or connect new customers including the Deer Park substation, TransGrid's first major project in VIC.

Maintaining market-leading reliability:

The energy system is changing with new intermittent forms of generation, battery storage, and behind-the-meter energy systems which all add complexity to the task of managing our energy system in real time. Despite this TransGrid has maintained an average network reliability of 99.9999 per cent over the past three years.

Securing future revenue at lower cost to consumers:

TransGrid successfully concluded the 2018-2023 AER Revenue Determination, securing our revenue over the next five years at a 5.2 per cent real price reduction to consumers. Our determination included approval for the critical Powering Sydney's Future project, and provided conditional approval for nine major contingent projects.

Achieving world-class efficiency:

TransGrid's performance on the global International Transmission Operations and Maintenance Study showed world-class cost performance in 2017. TransGrid's cost was well below peer averages across Asia-Pacific, Europe, Scandinavia and North America. TransGrid's cost per kilometre of transmission lines has fallen versus recent surveys while maintaining strong operational performance.

Planning the future energy system:

TransGrid contributed extensively and provided thought leadership to help shape AEMO's first ISP, a comprehensive blueprint for the development of the national energy market and the role of transmission in supporting it.

Transforming our business:

TransGrid made significant progress in transforming the business from a network planner and operator to a high performing energy and infrastructure services company. This includes building new capabilities and processes to ensure TransGrid is prepared to lead and thrive in the energy system of the future.

As part of our transformation we are growing our non-regulated business, which has more than doubled in size in the past year. TransGrid's infrastructure services business has a pipeline of more than 7,500 MW of new connection requests from generator customers, a 30 per cent increase on the previous year. Our non-regulated telecommunications business is the sixth largest fibre network in Australia, and our reach into regional areas of NSW allows us to deliver internet and telecommunications services to under-served regional consumers and businesses.

MW+

1,100

Renewable megawatts connected since 2015


11
Major network projects (>$15m) completed in last two years 2017/18

Who we are

Our strategy

TransGrid's strategy is built around our five core strategic themes.

Strategy	Our Role
1 DELIVERING SAFE, RELIABLE POWER	Maintaining a safe and reliable transmission system to benefit the broader community is the core of TransGrid's business. This includes continuing to meet our reliability targets and compliance obligations, and prudently managing our network and assets. It also includes ensuring a safe working environment for our staff.
2 CONSTANTLY IMPROVING OUR EFFICIENCY	To continue to deliver for our community, employees and shareholders, TransGrid must be efficient and highly capable providing services at the lowest cost. TransGrid's transformation program is delivering improved performance across all capital projects and operations, fostering changes needed to strengthen our high performance culture and invest in the capabilities of our employees.
3 INVESTING IN CUSTOMER BENEFIT	The NSW transmission network will need ongoing investment to meet changing customer needs and generation sources. New assets, new services and additional interconnection between states will provide network capacity, security and reliability, and will create a platform for wholesale competition that will lower costs to end customers. TransGrid will actively pursue these opportunities where they hold clear benefits for customers, or when they are a result of external policy or regulation. TransGrid will also continue to support new connections in NSW and actively work to ensure that we deliver responsive and cost-effective design, project delivery, and ongoing service to our generator customers.

Our five core strategic themes flow from the transition underway in the nations energy system. They identify areas where there is strong alignment between our role and the needs of consumers for reliable, affordable and clean energy. Within each strategic theme we see a role for TransGrid to create value for our business, for consumers and for the broader energy market.

4 SUPPORTING REGULATION THAT SECURES THE FUTURE

The NEM will continue to evolve in the short and long term and will impact fundamentally how TransGrid operates. TransGrid is taking a key role as a thought leader in the evolution of the energy system, deploying our expertise to ensure the best outcomes for customers. This includes advocating for positions that are positive and benefit customers and the NEM as a whole. Through our advocacy, we aim to help shape the NEM to provide better economic incentives for transmission projects that will benefit customers, as well as incentives to identify efficiency and support innovation.

5 LEADING THE TRANSITION TO A NEW ENERGY FUTURE

The transition to a new energy future is occurring now and the pace of change and market outcomes are uncertain. TransGrid is leading the transition to a new energy system and helping to manage the integration of new technologies, such as renewable generation and storage, in a way that achieves the best outcomes for customers and market participants.

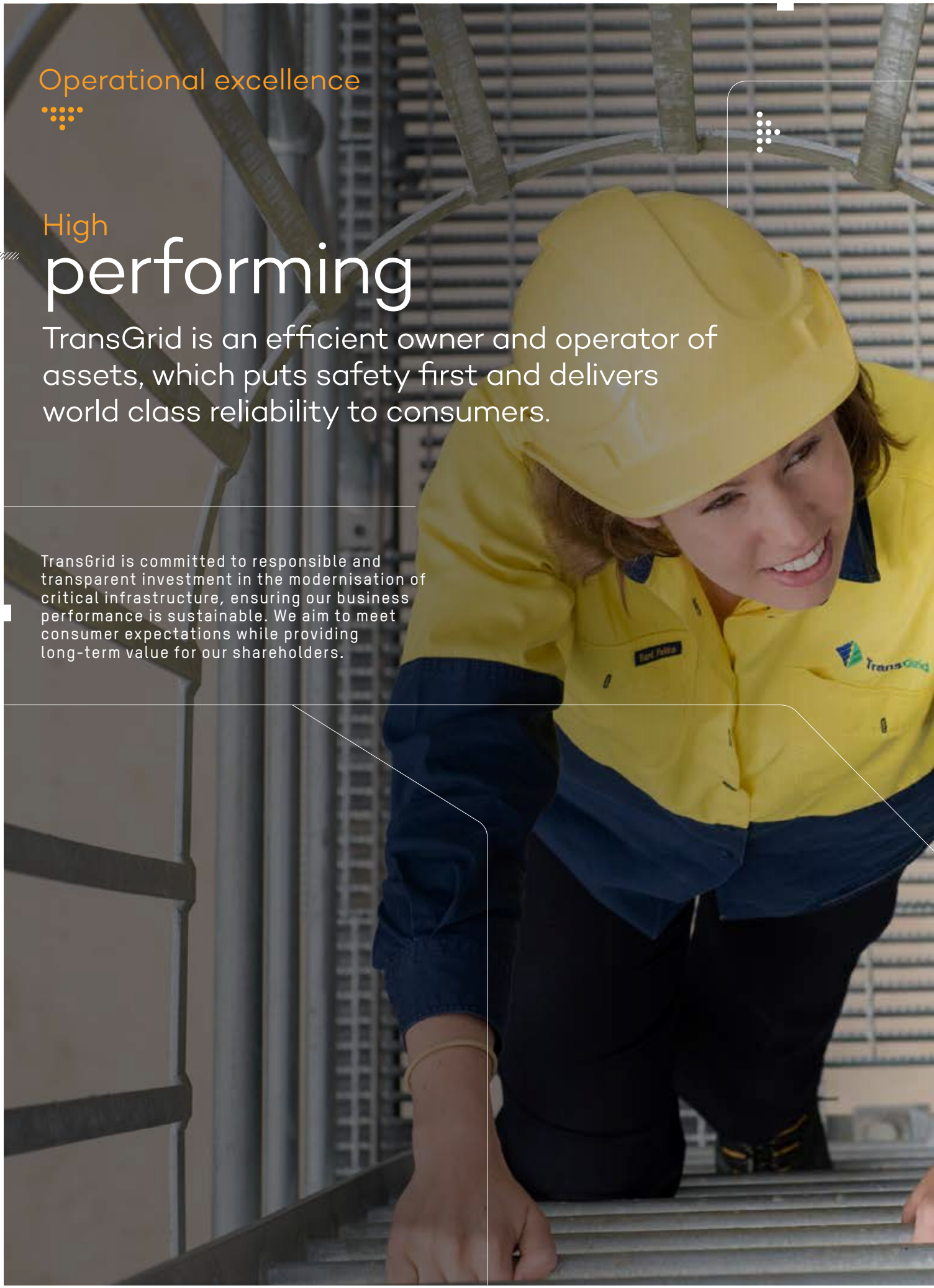
To achieve this, TransGrid's technical expertise will be deployed to deliver a system that meets consumers' needs for low-cost, reliable and low-emission power. Consumers needs will be met in a system where transmission plays a pivotal role in connecting new generation sources and managing the operation of the system.

Operational excellence

High performing

TransGrid is an efficient owner and operator of assets, which puts safety first and delivers world class reliability to consumers.

TransGrid is committed to responsible and transparent investment in the modernisation of critical infrastructure, ensuring our business performance is sustainable. We aim to meet consumer expectations while providing long-term value for our shareholders.



Gigawatt hours of electricity moved in 2018

70,381 GWh

Peak operational demand in 2017/18

13,093 MW

Regulated Asset Base (RAB)

$6,371 M

Number of substations

104

Number of telecommunication towers (radio masts)

132

Our network length

13,133 KM

Reliability in 2018

99.9999%

Energy not supplied

0.25

System minutes

Optical Ground Wire (OPGW) in NSW

3,000 KM

Number of major projects completed in 2018

9

Operational excellence

Our safety culture

The safety of employees, contractors and consumers is our number one priority, and it guides our actions every day.

TransGrid promotes a positive safety culture in which all our employees and contractors are encouraged to actively manage their own safety and the safety of others. Our safety vision and plan focuses on employee capabilities, risk culture and injury prevention.

To enable change we have focused on instilling a safety culture throughout the business leadership, systems and technology, learning and coaching, and knowledge sharing.

Our achievements include:

- Introducing the Heads Up safety conversations to increase the leadership presence in the field, and assist in unlocking an open dialogue around safety risk
- Utilizing technology – 85 per cent of all easements and access tracks have been mapped and are available for our workers' to view and assist in the planning of work
- Implementing the mobile plant framework – ensuring mobile plant compliance via an efficient and easy to understand app
- Collaborating with our construction forums, sharing experiences and ideas aiding better understanding of industry best practice.

Employee lost time injury frequency rate (LTIFR) is 4.3

Whilst the LTI/LTIFR for 2018 was higher than 2017, we continue overall on a downward trend over a 10 year period. TransGrid has moved to understand the severity of the LTIs with the use of the SafeWork NSW guidelines. In this analysis we see a majority of our LTIs are of a minor nature.

We ensure our assets are maintained and operating safely, by following strict guidelines and implementing robust processes to protect the safety of employees and consumers. We also engage with contractors and the relevant authorities to safely manage works in and around our assets.

Public Electrical Safety Awareness Plan

We have developed a Public Electrical Safety Awareness Plan (PESA), in accordance with the requirements of the Electricity Supply (Safety and Network Management) Regulation 2014, to outline the management of our network assets in relation to public safety.

The objective of the PESA Plan is to provide information to the public regarding the hazards associated with electricity, in particular high voltage transmission lines and substations owned and/or operated by TransGrid.

Electricity Network Safety Management System

TransGrid's Electrical Network Safety Management System is in place to meet the expectations and requirements of stakeholders, including:

- The safety of the public, and persons near or working on electricity transmission network assets
- The protection of property and network assets
- Safety aspects arising from the protection of the environment, including protection from ignition of fires by network assets
- Safety aspects arising from the loss of electricity supply.

4.3

Employee lost time injury frequency rate

We are all empowered and inspired to step up, take action and be responsible for safety.

Operational excellence

Energy transition

Energy transition is accelerating - creating new challenges and opportunities for the transmission network.

TransGrid has seen unprecedented levels of generator connection enquiries in the past year. The withdrawal of traditional sources of baseload generation and the influx of renewable energy sources means the supply-demand balance is tightening. At the same time, energy throughput and peak demand across TransGrid's network have risen for the past four years.

Transmission plays a pivotal role in this changing energy landscape. Consumers and businesses demand electricity supply that is sustainable, affordable and reliable, and the transmission network is a key enabler to meet demand.

- In the past three years we have facilitated the connection of over 1,000 MW of renewable generation to the network, and have managed the integration of higher levels of intermittent generation without destabilising the grid
- By facilitating connection of renewable energy sources, we increase the level of competition amongst the generators in the wholesale market. This results in lower wholesale prices, providing a positive net benefit for the consumers
- We deliver reliability by actively balancing supply and demand in the operation of the network. TransGrid provides essential system stability services, and many of our line and substation upgrades are focused on improving the flow of energy between regions to create a more stable, interconnected grid.

TransGrid actively collaborates with a wide range of stakeholders in preparing for the energy system of the future. During 2018 we supported AEMO's ISP, with technical input to its modelling of supply solutions.

Network Investment

TransGrid delivers value to consumers and its shareholders by managing its assets in a sustainable and responsible manner. Value is delivered through:

- Ensuring safe and reliable operation of the network
- Continual modernisation of assets and a commitment to low cost solutions, ensuring future network improvements are in the best interest of consumers.

Investments in the network take the form of:

- Asset replacements and upgrades to maintain the safe and reliable operation of the existing network
- Network augmentations to provide new network capacity, either to meet rising demand, or to support new connections.

Transmission is key to the energy transition within the NEM. Key changes expected in the energy market over coming years include:

- Increased interconnection between states, with NSW continuing as the centre of the NEM
- A higher proportion of intermittent generation facilitated by greater interregional transmission capacity and large-scale energy storage
- New connections to areas with abundant resources and large-scale renewable generation
- New ancillary services to manage system stability
- A changed regulatory framework to be managed to support the energy system of the future.

TransGrid's network investments aim to prepare for these developments.

Reliability

The existing reliability standard is a performance standard, measured by the amount of energy not supplied versus energy supplied over one financial year.

In 2017/18 TransGrid's network reliability continued to exceed 99.9999 per cent. This high rate of reliability is largely due to the excellence of our operational planning expertise, mature systems and experienced work force.

A new planning standard will take effect from 2018/19.

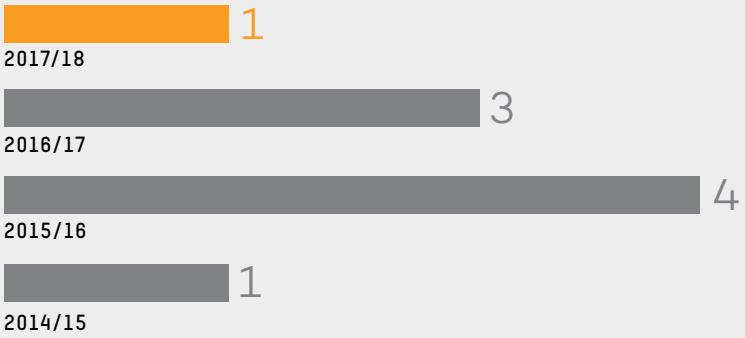
NETWORK RELIABILITY (SYSTEM MINUTES LOST)

0.25 42%

SYSTEM MINUTES LOST HAS DECREASED BY 0.18 SINCE LAST YEAR

A system minute is the amount of energy which would not be supplied if the whole NSW system was unavailable for a minute at peak usage.

NUMBER OF OUTAGES (where energy not supplied exceeded 12 MWh)



In 2017/18 TransGrid's transmission network reliability continued to exceed 99.9999%

Operational excellence

Investing in stability

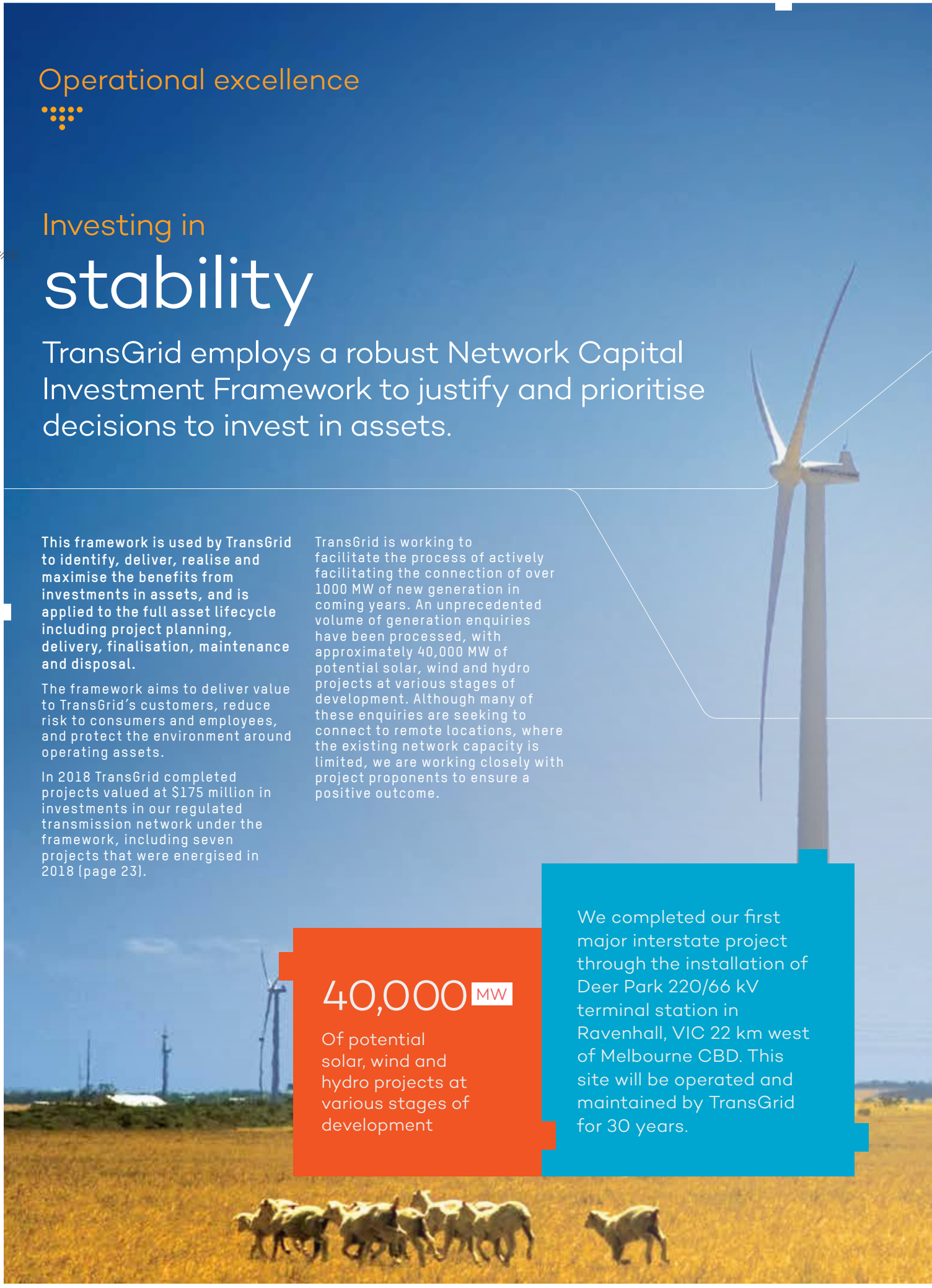
TransGrid employs a robust Network Capital Investment Framework to justify and prioritise decisions to invest in assets.

This framework is used by TransGrid to identify, deliver, realise and maximise the benefits from investments in assets, and is applied to the full asset lifecycle including project planning, delivery, finalisation, maintenance and disposal.

The framework aims to deliver value to TransGrid's customers, reduce risk to consumers and employees, and protect the environment around operating assets.

In 2018 TransGrid completed projects valued at $175 million in investments in our regulated transmission network under the framework, including seven projects that were energised in 2018 (page 23).

TransGrid is working to facilitate the process of actively facilitating the connection of over 1000 MW of new generation in coming years. An unprecedented volume of generation enquiries have been processed, with approximately 40,000 MW of potential solar, wind and hydro projects at various stages of development. Although many of these enquiries are seeking to connect to remote locations, where the existing network capacity is limited, we are working closely with project proponents to ensure a positive outcome.



40,000 MW

Of potential solar, wind and hydro projects at various stages of development

We completed our first major interstate project through the installation of Deer Park 220/66 kV terminal station in Ravenhall, VIC 22 km west of Melbourne CBD. This site will be operated and maintained by TransGrid for 30 years.

CAPITAL DELIVERY PROGRAMS

	PROJECT	LOCATION	PURPOSE	STATUS
1	Sydney North Secondary System Replacement	Central North	Asset Replacement for end of life condition	Energised
2	Vales Point 330 kV Substation Rebuild	North	Asset Replacement for end of life condition	Energised
3	Wagga 132 kV Substation Condition	South	Asset Replacement for end of life condition	Energised
4	Taree 132 kV Substation Secondary Systems Replacement	North	Asset Replacement for end of life condition	Energised
5	Transmission Line 96H (Coffs Harbour to Koolkhan) Wood Pole Condition	North	Asset Replacement for end of life condition	Energised
6	Transmission Line 97K (Cooma to Munyang) Rehabilitation	South	Asset Replacement for end of life condition	Energised
7	Deer Park 220/66 kV Sub Establishment	South	Customer request	Energised
8	Silverton Wind Farm Connection	South	Customer request	Energised
9	Sapphire Wind Farm Connection	North	Customer request	Energised
10	Orange 132 kV Substation Rebuild	Central West	Asset Replacement for end of life condition	Energised
11	North Ring- OPGW Port Macquarie to Stroud	North	Asset Replacement for end of life condition	Energised
12	Beaconsfield Redevelopment Stage 2	Sydney CBD	Asset Replacement for end of life condition	Completion due in December 2018
13	Transmission Line 99F (Uranquinty to Yanco) Pole Replacement	South	Asset Replacement for end of life condition	Completion due in December 2018

Operational excellence

Encouraging innovation

TransGrid encourages innovation in engineering, fosters knowledge sharing and supports research across our industry, to address the challenges of the future.

The energy industry is in a time of transformation. Flexible and scalable, the grid enables us to accommodate more sustainable solutions as they become more accessible. As the supply side of Australia's electricity market changes, we are able to adapt and provide transmission network services to a broader range of customers.

An important part of our planning and development is to provide connections for proposed new generators, including from the renewable energy sector. We are constantly looking for new and innovative ways to overcome challenges that may arise. We do this by working innovatively, working together and working smarter.

DRIVING INNOVATION IN THE NETWORK

ENHANCING THE SAFETY OF OUR OPERATIONS

INVESTING IN TECHNICAL INNOVATION

PROTECTING THE ENVIRONMENT

Embracing data and digital to drive efficiency

We are deploying digital technologies to reduce costs and improve efficiency across our network.

Harnessing data and analytics

TransGrid's network generates over 36 million real time data points each year on the performance of our network, as well as, five million data points on the operating condition of our assets. Our Asset Management team uses 'big data' analytics to harness these data streams to improve our network reliability, boost efficiency of our operations, prioritise investments, and adopt more accurate condition-based maintenance.

Substation goes digital

We recently completed the installation of a cutting edge IEC-61850 Digital Substation at our Avon 330 kV substation, located 100 kilometres south of Sydney. Digital substations enhance the control and protection of power transmission. TransGrid partnered with leading global technology companies to deploy this design in Australia. The digital technology results in smaller and fewer components in the substation which reduces cost and complexity, as well as reducing the size of the building required to accommodate the systems by up to 80 per cent.

In June 2018, Paul Italiano and Lord Mayor - Councillor Clover Moore unveiled the first industrial-scale Tesla Powerpack battery which was installed and in operation in the Sydney metropolitan area.

Doing more with less

TransGrid is deploying innovative approaches and technologies that allow us to get more output from our existing network, reducing the need to invest in new transmission assets to meet growing customer needs. Examples include:

Dynamic line ratings

TransGrid is deploying new on-line technology to determine maximum power transmission line operating conditions, and to determine the maximum power carrying capacity under prevailing conditions in real-time. This allows better utilisation of the capacity of the existing lines: for example, on a windy day the lines will be rated higher, allowing the lines to carry more electrical power from wind generators. It also provides a better approach for managing the risks associated with unintentional overloading of the transmission lines, under unfavourable weather conditions. TransGrid completed installation of dynamic line ratings for over 20 transmission lines in NSW by the end of 2017, with plans to roll out additional lines over the next five years.

Smart Wires

We are trialling a new way to reduce network constraints through innovative and modular technology. Smart Wires is a new technology which dynamically controls power flows on transmission lines to help remove transmission constraints on the network. Benefits include larger power transfer capacity along interconnectors, connection of new generation without major network modifications, and reduced cost when compared with other solutions.

Preparing for the grid of the future

Our future energy system will involve higher proportions of variable renewable generation, making it critical for networks to have resources in place to manage greater peaks and troughs in output. Examples include:

Battery storage trials

Batteries are widely viewed as being able to provide many different services to the grid and consumers including storing peak energy for use later. The vast majority of the battery storage capacity installed in Australia is located behind the meter, and is distributed. Our challenge is to have visibility of these resources, and manage them securely within the grid. We recently commissioned an aggregated 1.5 MWh of battery energy storage capacity across three sites in partnership with The City of Sydney Council, The University of New South Wales and Woolworths. The trial gives us the ability to dispatch distributed batteries for demand management during network constraints, and allows our partners to schedule the battery for day-to-day operations.

Generator runback schemes

We have provided innovative solutions for generator connections by leveraging runback schemes, removing the need for more costly network augmentations. Runback schemes allow a generator to produce its rated output at system normal conditions and at reduced generation in contingency events. This is especially useful in weaker parts of the network where a significant number of generators are looking to connect, allowing better utilisation of network capacity.

Customer service

New connections

Since 2015, TransGrid has facilitated the connection of over 1,100 MW+ of renewable generation to the network, including Sapphire Wind Farm, Silverton Wind Farm, Griffith Solar Farm, Parkes Solar Farm, Crookwell II Wind Farm, White Rock Wind Farm and Bodangora Wind Farm.

TransGrid responded to over 46,303 MW of new connection enquiries this financial year. We are supporting contestable connections and infrastructure services in VIC, SA and QLD, with over 1,000 MW of new generation projects supporting private industry demand and the Victorian Renewable Energy Target.

Customer Story:

The 200 MW Silverton Wind Farm project is a $450 million development owned by Partnering Australian Renewables Fund (PARF), a partnership set up by AGL and QIC. TransGrid partnered with PARF to build, own, operate and maintain the high voltage infrastructure that enables the project to connect to the transmission network.

- This was the first time AGL had engaged a Transmission Network Service Provider to deliver contestable connection services for a new generator development
- TransGrid provided a value for money solution and immense benefits, including our ability to build, own, operate, and maintain a high voltage electrical asset, connected to the wind farm project
- The wind farm commenced generating on 14 May 2018, and will power approximately 136,000 average Australian homes. It will ultimately produce around 780,000 MWh of energy annually.

NEW CUSTOMER CONNECTIONS

NEW GENERATION CONNECTIONS UNDER COMMISSIONING

4 WIND FARMS 700 MW capacity

4 SOLAR FARMS 100 MW capacity

NEW GENERATION CONNECTIONS MOVING TO CONSTRUCTION IN FY19/20

1 WIND FARM

8 SOLAR FARMS

Total over 1,000 MW+ new generation capacity

NEW GENERATION CONNECTIONS UNDER DEVELOPMENT

4 WIND FARMS

18 SOLAR FARMS

Total over 4,300 MW new generation capacity

WHAT OUR CUSTOMERS SAY

Global Power, Generation Australia

Global Power Generation Australia appreciate the collaborative spirit from the TransGrid team, enabling the Crookwell II Windfarm project to become a successful and record-low price NSW wind farm. TransGrid took the time to fully understand our needs as a wind farm proponent and operator, and they set the right foundation for a timely and cost-effective delivery of a significant piece of grid connection infrastructure.

Guillermo Alonso Castro
Engineering Manager - Global Power Generation Australia

Neoen

TransGrid worked proactively with Neoen to connect the Parkes, Griffith and Coleambally Solar Farm projects. TransGrid's integrated approach and high level of responsiveness, allowed us to focus on project development and assisted us to manage our time more efficiently. Neoen was satisfied with TransGrid's quality and dedicated customer service.

Chris Leonard
Head of Solar Development - Neoen

Total Eren

TransGrid's ability to work collaboratively and in partnership with Total Eren helped our business develop a unique proposition with Kiamal Solar Farm. We look forward to building VIC's largest solar farm with TransGrid.

Kam Ho
Head - Origination & Development Asia-Pacific Region - Total Eren

$450M
200 MW Silverton Wind Farm project

NEW LOAD CONNECTIONS UNDER DEVELOPMENT

1000MW

Supporting new critical State, Federal and privately funded infrastructure

PROJECT	LOCATION	TECHNOLOGY	STATUS
BROKEN HILL	Broken Hills, NSW	Solar	Connected in 2015
WHITE ROCK	Spring Mountain, NSW	Wind	Connected in 2016
PARKES	Parkes, NSW	Solar	Connected in 2016
GRIFFITHS	Griffiths, NSW	Solar	Connected in 2016
SAPPHIRE	Kingsland, NSW	Wind	Connected in 2016
SILVERTON	Silverton, NSW	Wind	Connected in 2017
BODANGORA	Bodangora, NSW	Wind	Connected in 2017
CROOKWELL	Roslyn, NSW	Wind	Connected in 2017
COLEAMBALLY	Coleambally, NSW	Solar	Connected in 2017
BERYL	Gulgong, NSW	Solar	Under construction due April 2019
METZ	Armidale, NSW	Solar	Under construction due June 2019
CRUDINE RIDGE	Illford, NSW	Wind	Under construction due July 2019
KIAMAL	Ouyen, VIC	Solar	Committed project due March 2019
SUNRAYSIA	Balranald, NSW	Solar	Committed project due December 2019
LIMONDALE 1 AND 2	Balranald, NSW	Solar	Committed project due February 2020

Customer service

Telecommunications business

With more than 15 years' experience TransGrid Telecommunications is a market leader, managing an extensive fibre optic network covering in excess of 4000 kilometres across NSW, the ACT and VIC.

Our telecommunications assets and infrastructure have been built to support TransGrid's high voltage electricity network, which meets the strictest reliability standards in the country.

As an independent Telecommunications Infrastructure Partner, our aim is to maximise our competitive advantage, leveraging TransGrid's existing infrastructure. TransGrid's "Fibre in the Sky" is a network of optic fibre that runs along 24,000 of our towers, combined with a comprehensive microwave network known for its reliability and security. This enables TransGrid's Telecommunications the diversity and scale to successfully meet customers' needs.

TransGrid's co-location business offers services to Telstra, Vodafone, Optus and NSW emergency services, facilitating the deployment of wireless networks by leasing space for the installation of customers:

- Antennae
- Microwave dishes
- Panel antennae
- Rack space within our buildings; or
- Ground Space for customer shelters.

Our business focus is to continually improve on customer engagement and satisfaction, generating steady growth in revenue, strategic planning and innovation through a series of initiatives including:

- Implementing a Carrier Grade Metro Ethernet Forum designed network
- Upgrading the Network Management System
- Significantly growing the business with the NSW Government sector
- Increasing network coverage into QLD, and further expanding our reach into rural and regional NSW
- Expanding the product portfolio, for example: Data Centre Connect, Facilities as a Service, Internet of Things, and Software-Defined Wide-Area Network
- Targeting high value long term revenue opportunities
- Collaborating with the Infrastructure Connections team and its renewable energy customers.

Several sales initiatives have already been implemented and successes achieved:

- 100 Gbps Sydney to Melbourne service for Optus
- 100 Gbps network solution for TPG.

TransGrid Telecommunications were recently selected by the NSW Government as a member of the five-year Telecommunications Purchasing Arrangements panel. The appointment being a significant milestone and a vote of confidence in our 4,000 kilometres 'Fibre in the Sky' network. We also recently connected with the NBN, increasing our coverage, connectivity and sales.

Number of telecommunication towers (radio masts)

132

Customer service

Customer engagement

TransGrid's success depends on its ability to engage and better understand our customer needs and expectations. We are focused on creating a seamless service experience.

TransGrid works with a diverse set of stakeholders including energy consumers, directly connected customers, local communities, regulators, state governments and the Federal Government.

Engagement methods

TransGrid customer and stakeholder managers build strong relationships through frequent engagement across multiple touch points, including operations, technical, planning, projects, and commercial as well as community engagement.

We do this by:

- Allocating a dedicated customer manager to any customer directly connected to TransGrid's network, providing customer advocacy, understanding and delivery on customer needs
- Facilitating engagement between key industry stakeholders and TransGrid's senior leaders through the TransGrid Advisory Council, set up in 2016 to act as a key advisor to the business, typically meeting four times a year
- Developing an open and reliable channel of communications between TransGrid and its customers, providing invaluable access should there be a customer issue that needs to be resolved quickly
- Building high levels of trust by supporting our customers throughout the enormous changes faced by the energy industry.

In 2017/18, TransGrid achieved a 86 per cent reputation score for our direct customers, according to an external audit by Newgate Australia, maintaining a positive trend in the last several years.

Our goal is to consistently deliver the highest Net Advocacy Score of Australian energy businesses and achieve top-quartile stakeholder engagement scores.

86%
Reputation score for direct customers

95%
Trust score for direct customers

We provide operational support to generators and direct connect customers, including 24/7 support from our skilled field force located throughout NSW.

WHAT OUR CUSTOMERS SAY

Tomago Aluminium

We really appreciate our strong relationship with TransGrid, whose customer engagement team consistently provide great support. In early 2018 the TransGrid team were on hand to assist Tomago with CT and circuit breaker replacements, their quick work allowed us time to set up the main regulator transformers. TransGrid was on hand when needed, reliably provided the collaborative support required by Tomago business operations. We look forward to working together in the future.

Delta Electricity – Simon Bolt (Technical Manager)

Over several years, TransGrid has successfully worked with Delta Electricity to effectively carry out planned upgrades to the Vales Point Power Station Facility, including on high voltage electrical infrastructure assets operated by TransGrid. The projects have been necessary to improve reliability on ageing equipment. The TransGrid team worked with Delta Electricity to understand and deliver effective planning processes, successfully managing generator outages, and minimising the impacts and disruptions to Vales Point operations.

Customer service

Our community

TransGrid cares about the communities we work and live in. We support initiatives that deliver lasting benefits. Through our Community Partnerships Program we actively contribute to areas where our infrastructure is located, and where we are undertaking network upgrades.

BeSafeKids

BeSafeKids is a program that educates children about electrical safety. The program is designed to inform youngsters about the importance of safety around common electrical items and TransGrid's assets. BeSafeKids is targeted at communities where we are actively working or have assets nearby.

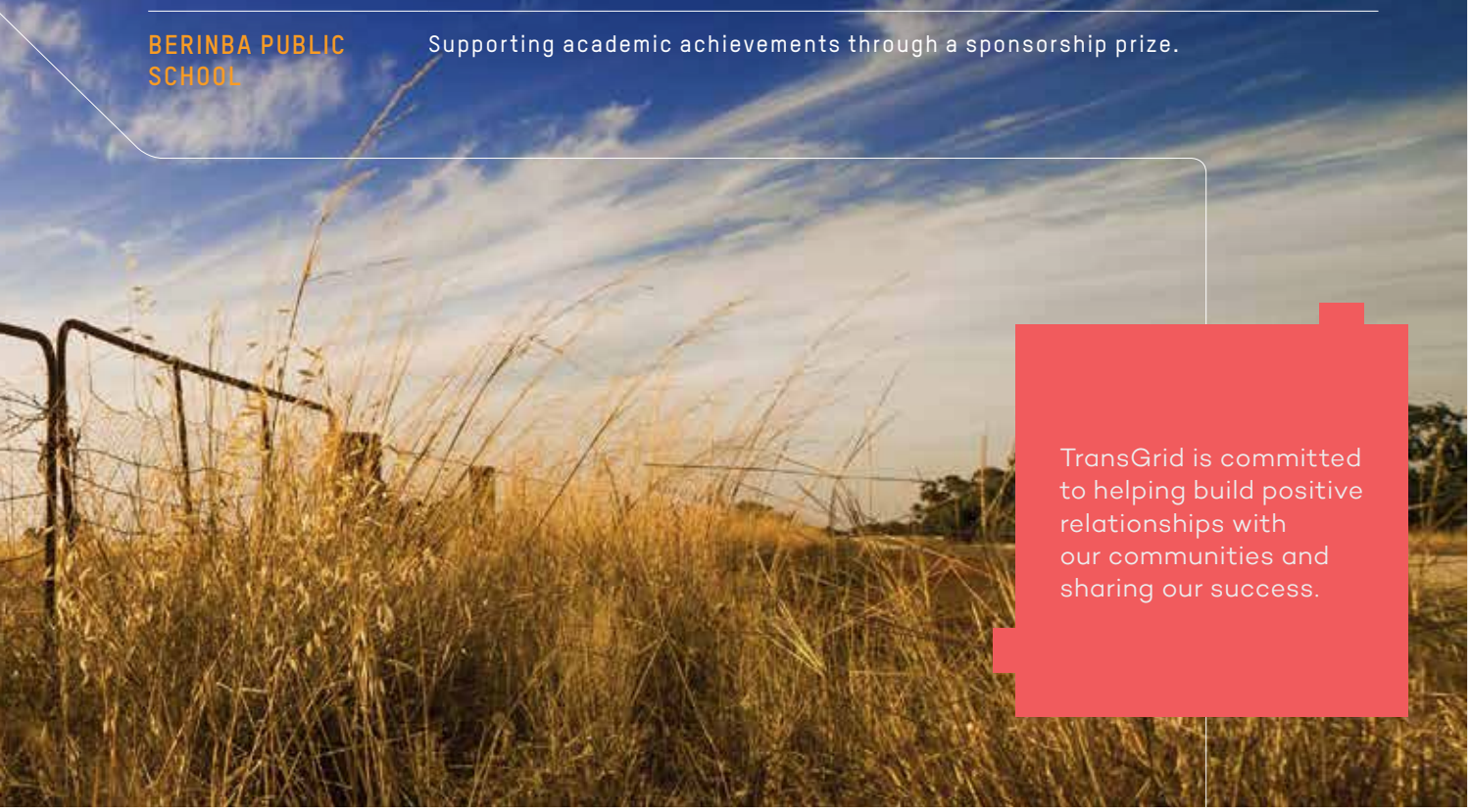
BeSafeKids covers a range of areas including:

- Staying safe around TransGrid's assets
- History of electricity
- Brief overview of TransGrid, including our commitment to the environment.

The BeSafeKids program is free, and can be presented to individual classrooms or the whole school.

OVER THE LAST YEAR, WE HAVE FUNDED A NUMBER OF COMMUNITY INITIATIVES INCLUDING:

MULGOA VALLEY LAND CARE GROUP	To assist with the management of weeds and improve biodiversity in the Mulgoa Creek corridor. The commitment to this land for conservation is vital as it provides habitat and supports safe movements for wildlife including wombats and several bird species.
MOUNT ANNAN CHRISTIAN COLLEGE	To support the purchase of STEM focused resources to extend students ability to understand scientific and engineering principles through the use of Robotics and Circuitry work.
2018 REGIONAL ACHIEVEMENT & COMMUNITY AWARDS	Sponsoring the Leadership Award to acknowledge, encourage and reward the valuable contribution businesses, groups, organisations and individuals make throughout regional and rural NSW and ACT.
TAMWORTH REGIONAL GALLERY	Sponsoring a new artwork acquisition for the Gallery based on the City of Light to celebrate the 130th anniversary of Tamworth being the first town in Australia to have municipal electric street lights.
YASS VALLEY COUNCIL	Supporting the local community to protect and preserve Aboriginal history through an interpretative display by Yass Valley Council, featuring three Aboriginal Scarred Trees at Oak Hill Aboriginal Place in Yass.
NATIONAL HEART FOUNDATION	To assist with funding for the Nimmitabel Public School in the Snowy Region's Jump Rope for Heart outreach skipping program. This program enables students to learn healthy behaviours and habits, to lead active, healthy lives, and learn skills to protect their heart health.
YASS PUBLIC SCHOOL	Supporting academic achievements through a sponsorship prize.
YASS HIGH SCHOOL	Supporting academic achievements in math and science through sponsorship prizes.
BERINBA PUBLIC SCHOOL	Supporting academic achievements through a sponsorship prize.



TransGrid is committed to helping build positive relationships with our communities and sharing our success.

Our environment

The protection of the environment is a fundamental value in TransGrid's day to day operations. Our commitment to preventing waste and responding to environmental challenges, is part of our continued investment in the responsible use of resources.

TransGrid's environmental performance is governed by the following principles:

- Protection of the environment is important for business success and is a key consideration in everything TransGrid does
- Our people actively seek to build trust, promote open and honest discussions, and take action to rectify environmental issues
- Environmental protection is everyone's responsibility
- We are committed to identifying and managing environmental risks in the business, in a sustainable manner
- Our environmental commitment extends to our employees and contractors
- Our environmental vision is to be a strong enabler in the transition to a low carbon energy system and economy.

For the 2018 reporting year, there was one reportable environmental incident to a regulator and five high consequence incidents recorded.

TransGrid submitted its National Greenhouse and Energy Report during the year, with the following emission data reported for FY2018:

- Direct emissions: 8,515 tonnes CO_2-equivilant
- Indirect emissions: 1,082,017 tonnes CO_2-equivilant

DIRECT EMISSIONS

8,515 tonnes CO_2-e
FY2017/18

12,045 tonnes CO_2-e
FY2016/17

15,163 tonnes CO_2-e
FY2015/16

41% Decrease from 2017

Direct Emissions are emissions released directly to the atmosphere as a direct result of an activity. For example, the emissions that are emitted from our field work force driving vehicles across NSW.

41%
Direct emissions decrease from 2017

INDIRECT EMISSIONS

1,082,017 tonnes CO_2-e
FY2017/18

1,178,963 tonnes CO_2-e
FY2016/17

1,347,408 tonnes CO_2-e
FY2015/16

9% Decrease from 2017

Indirect Emissions are released to the atmosphere from indirect consumption of an energy commodity. For example, as a result of transmission line losses (and subsequent energy losses) indirect emissions are incurred as CO_2 is released from a coal fired power station that originally generated this energy.

THE KEY ENVIRONMENTAL INITIATIVES FOR THE COMING YEAR INCLUDE:

- **ELECTRONIC WASTE TRACKING SYSTEM**
  to provide ongoing visibility of compliance with legislation and potential areas for cost reduction
- **KEY ENVIRONMENTAL SUSTAINABILITY METRICS (LEAD INDICATORS)**
  to drive continual improvement in environmental management
- **ABORIGINAL CULTURAL HERITAGE CODE OF PRACTICE**
  to minimise risk of non-compliance with legislation
- **EMISSION REDUCTION AND ENERGY EFFICIENCY STRATEGY**
  involving a desktop opportunities review, energy audit, marginal abatement cost curve and workshop with key personnel to validate outcomes
- **NETWORK CLIMATE CHANGE ADAPTION STRATEGY**

Performance Culture

Our people

Our people underpin the delivery of reliable power supply to our customers. Our talented teams are essential to the smooth operation and long term success of TransGrid's business.

IDENTIFYING, ACQUIRING, DEVELOPING AND RETAINING THE SKILLS AND CAPABILITIES REQUIRED TO DRIVE TRANSGRID'S PERFORMANCE AND ACHIEVE OUR STRATEGY

BUILDING THE VALUES AND BEHAVIOURS THAT ENCOURAGE PERFORMANCE, SUPPORT DIVERSITY AND ENSURE BEHAVIOURAL AND ETHICAL CONDUCT

TransGrid's operations are far reaching, with 38 per cent of the workforce located in regional areas. We have employees stationed in Western Sydney, Orange, Wagga Wagga, Yass, Tamworth and Newcastle.

TransGrid is committed to ensuring we have a capable workforce to meet and respond to strategic opportunities and changes in the external environment.
The development, reward and recognition of employees is central to enabling a performance culture that supports the organisational Vision and Strategy.

Flexible, agile and family-friendly workplace:

At TransGrid we support flexibility so our people can achieve a balance between work and personal lives. Flexible working arrangements benefit TransGrid by increasing employee engagement, decreasing absenteeism and achieving greater productivity through increased employee job satisfaction.

Diversity and inclusion

TransGrid's vision is to become a diversity and inclusion leader in the Energy supply sector by 2020. We are committed to achieving this through four areas of focus:

- Developing an external talent pipeline
- Removing bias
- Creating an environment that values diversity
- Attracting, developing and retaining talent.

Implementation of initiatives commenced with steps taken to, ensure a gender mix in recruitment shortlists, delivery of unconscious bias workshops, supporting indigenous students pursuing a career in STEM, in addition to promoting the Women in Engineering and IT scholarship programs.

Reconciliation Action Plan

TransGrid's Reflect Reconciliation Action Plan (RAP) was launched in October 2018.

Our RAP will be in place from October 2018 to October 2019. The RAP outlines our commitment to advancing reconciliation with Aboriginal and Torres Strait Islander communities. It is an opportunity to build better relationships with the Indigenous communities in which we operate.

White Ribbon

TransGrid is a White Ribbon Accredited Workplace. This is a key step in raising awareness for our employees and community of this important issue and the support TransGrid can provide.

Paul Italiano TransGrid CEO: "With our accreditation we have the means to create and sustain an environment based on equality and mutual respect – working towards building an inclusive workplace community, to enhancing the skills and knowledge needed to address abuse and violence against women, and to strengthen gender equality."

WORKFORCE DIVERSITY

MEASURE %	2017	2020 GOAL
Female employees across the organisation	20%	26%
Women in leadership	20%	26%
Women in engineering and operational roles	10%	12%
Indigenous employees	1%	3%

Performance Culture

Our board

TransGrid's Board of Directors brings a wealth of knowledge, varied experience and value to our business. They provide strong leadership and direction, and guide the business through this period of change.

Jerry Maycock
Chair
B.Eng Mech (Hons), FAICD, FEngNZ

Jerry Maycock was appointed as Chair of TransGrid on 22 February 2018. Jerry has spent over thirty five years in business leadership roles. As a senior executive he worked principally in the building and construction materials industries, and more recently as a chair and non-executive director in energy, resources and infrastructure.

Having begun his career with Shell Oil in the UK and then New Zealand, he held a number of senior management positions in Australia, principally with Swiss-based construction materials multinational group Holcim Ltd over a twenty year period. Subsequently he held several other senior management positions, the last being Managing Director and CEO of CSR Ltd.

Rick Francis
Director and Deputy Chair
B.Com, MBA, CA, GAICD

Rick Francis was appointed as a Director of TransGrid on 16 December 2015. Rick has over twenty years experience in the Australian energy and energy infrastructure industries. He has been the Managing Director and Chief Executive Officer of ASX-listed Spark Infrastructure since May 2012.

Prior to joining Spark Infrastructure as Chief Financial Officer in 2009 he was employed by the ASX-listed gas transmission and energy infrastructure business APA Group, where he was Chief Financial Officer for four years. He also worked for Origin Energy Limited for over eight years in a number of senior management roles including Group Financial Controller for over five years.

Julie Stanley
Director
GAICD, CA, B.Com

Julie Stanley was appointed to the TransGrid board as an independent director on 16 December 2015. Julie is a former Assurance & Advisory partner at Deloitte and has been a Director of Regional Arts Victoria since 2015.

Julie has extensive experience as a Registered Company Auditor with a specialisation in energy and infrastructure. She is a Chartered Accountant and a Graduate of the Australian Institute of Company Directors.

Jean-Étienne Leroux
Director
B.Com, MFE

Jean-Étienne Leroux is Regional Director, Transactions & Asset management on the Infrastructure team of Caisse de dépôt et placement du Québec (CDPQ) since 2006. While heading the office of CDPQ in Sydney, he has a mandate to develop a portfolio of quality infrastructure holdings in Australia, and to manage specific assets within the portfolio, including the Port of Brisbane, TransGrid and Plenary Group, for which he led the acquisition processes.

Jean-Étienne joined CDPQ in 2001. In this capacity, he has led transactions and managed investments, notably in the following sectors: social infrastructure; public transportation; water; energy infrastructure; utilities; toll roads; airports and ports.

Jean-Étienne is on the board of directors of Transgrid, the Port of Brisbane and Plenary Group, and has previously served on the boards of InTransit BC (British Columbia, Canada), the Budapest Airport, South East Water (United Kingdom) and on the Oversight Committee of Fiera Axium Infrastructure (Québec, Canada).

Dr Warren Mundy
Director
FRAeS, FAICD, BSc (Hons), DipEc, MPhil PhD, Grad Dip App Fin, MEnvLaw (Hons)

Dr Warren Mundy was appointed to the TransGrid Board on 16 December 2015. Warren held senior executive roles in the Australian and European airport industry and has worked for McKinsey and Company, the Reserve Bank and the WA Treasury Corporation.

He retired as a Commissioner on the Australian Productivity Commission after six years, having worked on Regulator Engagement with Small Business, Access to Justice, International Tourism, Transfers and Closures, Public Infrastructure, Australia's Urban Water Sector, the Export Finance and Insurance Corporation, Compulsory Licensing Provisions of the Patents Act and Carbon Pricing in Selected Economies.

Warren is currently a director of the Sydney Desalination Plant, trustee of the Energy Industry Superannuation Scheme, and the National Health Co-Operative. He served on the Board of Air Services Australia as Deputy Chair.

Warren is the Chair of the Regulatory Committee and trustee of the NSW Electricity Networks Assets Trust.

TransGrid also thanks Dr Kerry Schott AO, Michele Wong and Brett Mitsch for their contributions to the board for the 2017/18 financial year.

Dr Keith Turner
Director
BE (Hons), ME, PhD, Elec Eng, FIEE, FIPENZ, FNZM

Keith Turner was appointed to the TransGrid Board on 16 December 2015. Keith possesses extensive experience in the New Zealand energy sector. He served as Chief Executive Officer of Meridian Energy Limited from 1999 to 2008. Prior to that, he worked as a private energy expert advising a range of large corporate clients and Government. He has previously served in a number of senior roles in establishing Contact Energy, and in the Electricity Corporation of New Zealand, and the New Zealand Electricity Department, as well as many industry reform roles. Keith is currently a Non-Executive Director of SA Power Networks, Victoria Power Networks, Citi Power and Powercor, having been appointed to these roles in 2009.

Keith is a Director of Chorus NZ Limited and has previously been Deputy Chair of Auckland International Airport, and Chair of Fisher and Paykel Appliances Limited.

Steven Fitzgerald
Director
BEc, MAICD

Steven Fitzgerald was appointed to the TransGrid board on 1 July 2018. Steven is the Head of Asset Management for HRL Morrison & Co with responsibility for the performance of private market investments made on behalf of clients. He joined Morrison & Co in 2011 after thirteen years of senior executive experience at Wellington International Airport, Infratil Airports Europe and Sydney Airport.

Steven is Chair of Perth Energy, and a Director of Perth and Queensland Airports.

Bénédicte Colin
Director
MBA, GAICD

Bénédicte Colin was appointed to the TransGrid Board on 19 April 2017. Bénédicte has over twenty years' experience in infrastructure, project finance and corporate governance in both Australia and France.

Prior to joining Caisse des Depots du Quebec in February 2017 as Director of Asset Management and Infrastructure, Bénédicte was the CEO of Keolis Downer, operator of Yarra Trams. Bénédicte worked on the Victorian Desalination project from its bid phase in 2009 to leading its $3.7 billion first refinancing in 2013.

Bénédicte was co-founder and partner at law firm De Gaulle Fleurance & Associate in Paris, where she handled large merger and acquisition transactions. Bénédicte holds a Baccalaureate with distinction in Mathematics and Science, and an MBA from ESSEC in Paris. She holds a postgraduate degree in Business and Tax Law from the University of Strasbourg.

Bénédicte is a director of Plenary Group Holdings, a specialist in public-private partnership infrastructure projects.

Gordon Hay
Director
B.Eng (Hons), MBA

Gordon Hay was appointed to the TransGrid board on 1 July 2018. Gordon is an Executive Director at Morrison & Co, where he holds the role of Portfolio Performance Director for the Utilities Trust of Australia. Gordon has a broad infrastructure background, with specific expertise in energy markets and regulated utilities. His experience spans investment management, corporate governance, and corporate advisory.

Prior to joining Morrison & Co, Gordon was a senior member of QIC's Global Infrastructure business, where he led the Energy & Utilities investment team and had responsibility for asset management across QIC's infrastructure portfolio. Gordon previously served on the board of Powerco Limited, New Zealand's largest regulated energy network. Prior to QIC, Gordon was an Executive Director at an Australian boutique investment bank where he was responsible for origination and execution of M&A transactions, debt financings and equity raisings across the infrastructure, energy and resources sectors.

Performance Culture

Our leadership team

Our leaders set the standard for a solution-oriented, high performance future, driving business operations and managing a safe, diverse and highly skilled workforce.

Paul Italiano
Chief Executive Officer
B.Bus, MBA, FAIM, FLWA, FCPA

Paul Italiano is the Chief Executive Officer of TransGrid, the operator and manager of the NSW high voltage transmission network. Paul joined TransGrid in May 2016 after serving as the Chief Executive Officer of Western Power since 2012. Paul's career includes time with Wesfarmers General Insurance as General Manager Business Services; at HBF Health Funds as General Manager Financial Services and Strategic Development; and at the RAC as Chief Financial Officer.

Paul is a CPA and holds a Bachelor of Business and an MBA. He is also a Fellow of CPA Australia, Leadership WA and the Australian Institute of Management.

Tony Meehan
Interim Chief Financial Officer
B.Com (Accounting, Finance and Systems) FCPA

Tony Meehan has extensive experience across many Executive roles at TransGrid having previously held the roles Executive General Manager Finance Information Systems and Chief Information Officer. Tony has overseen TransGrid's last two regulated revenue determinations and the development of TransGrid's unregulated revenue stream.

Tony is a Fellow of CPA Australia and prior to joining TransGrid held senior positions with the NSW Electricity Generator, Pacific Power.

Michael Gatt
Executive Manager, Works Delivery
Dip Elec Eng, B.Com (Business)

Michael Gatt has worked at TransGrid for fourteen years and is Executive Manager of Works Delivery. He has more than twenty years' experience in the electrical supply industry across a diverse range of responsibilities; from technical roles to policy development and senior management. Michael currently manages TransGrid's field facing workforce, together with the functional areas of Health Safety and Environment.

Michael has previously held board positions with the NSW Energy and Water Ombudsman. Prior to joining TransGrid, Michael held senior roles with the Department of Energy Utilities and Sustainability, and worked as a Senior Adviser for the NSW Government.

Caroline Taylor
Executive Manager, Policy & Corporate Affairs
BEc, MPP

Caroline Taylor has over ten years of experience within the energy industry both domestically and internationally, having developed an extensive knowledge of energy policy, regulation and market reform. Prior to joining TransGrid, Caroline was the Director of Infrastructure Investment at Infrastructure Australia, and has also held positions within the Australian Energy Market Commission and Commonwealth Government.

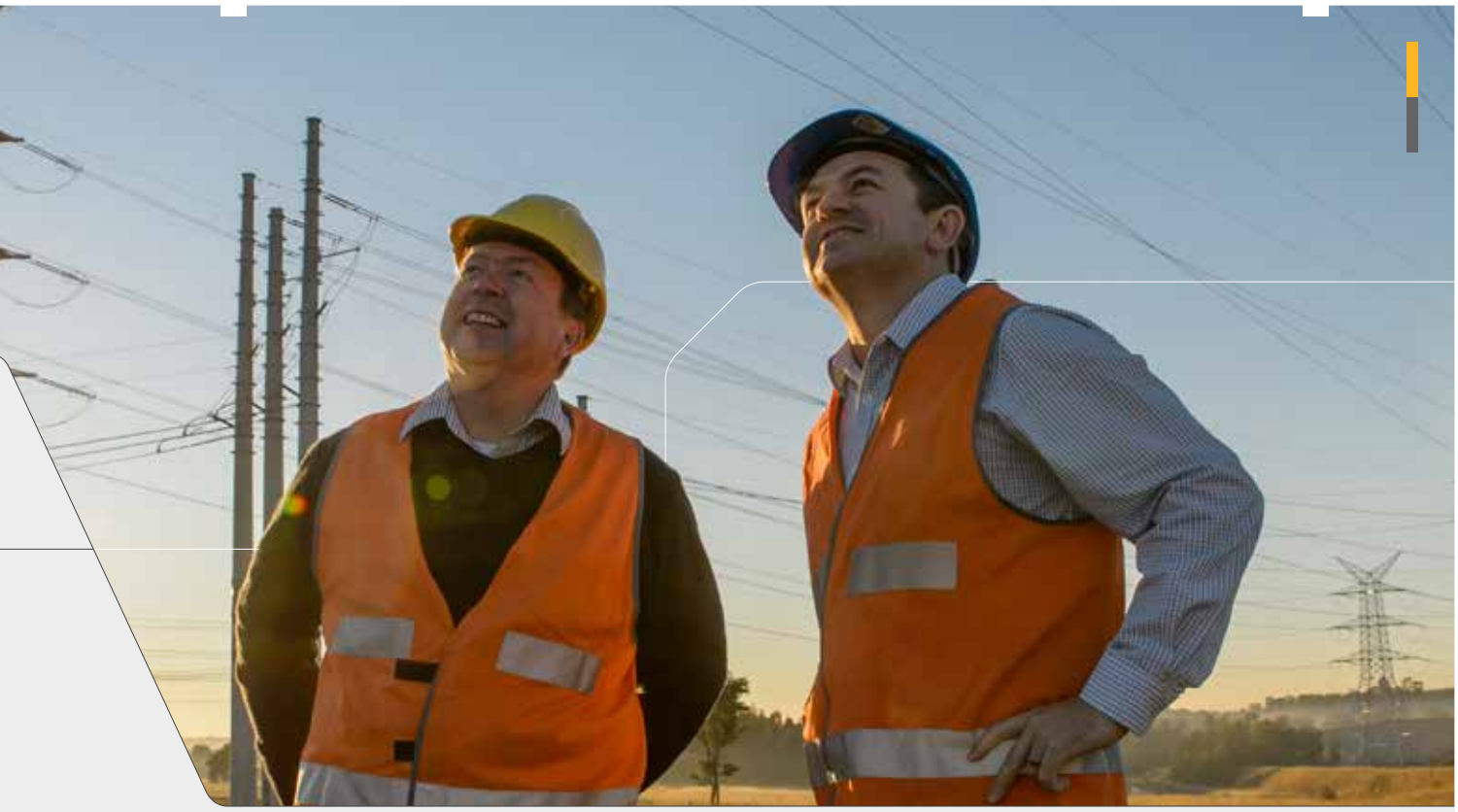
Caroline has extended her knowledge of energy regulation through work at Ofgem, the UK's energy regulator, where she built valuable understanding of the RIIO framework.

Gerard Reiter
Executive Manager, Network Planning & Operations
B.Eng (Hons) RPEQ

Gerard Reiter is the Executive Manager, Network Planning & Operations at TransGrid. Gerard is responsible for determining TransGrid's strategic asset management decisions, investment strategies in addition to asset performance, environmental approvals and non-network solutions.

With more than twenty six years of experience in the Australian electricity supply industry, Gerard has worked in a number of areas including design, project management as well as procurement and contractor engagement. His continued professional interest is focused on the development of technology in the energy industry.

Gerard was Chairman of the Australian Power Institute (API) from 2012 to 2016 and is currently on the board of Directors. API is a not-for-profit organisation dedicated to furthering power engineering education.



Peter Horton
Executive Manager, Legal, Governance & Risk
BA LLB

Prior to joining TransGrid in February 2017, Peter Horton's career included Group General Counsel and Company Secretary for QBE Insurance Group Limited (2014-2016), Group General Counsel and Company Secretary of Woolworths Limited (2005-2014), General Manager Legal and Company Secretary of WMC Resources Limited (1993-2005) and a Corporate Lawyer then Principal Solicitor at BHP Petroleum Pty Limited.

Peter was awarded a Lifetime Achievement Award for service to corporate law and in house legal by Global Leaders in Law in September 2018. He was the ACLA Australian Corporate Lawyer of the Year in 2002 and his teams were awarded the ACLA Australian Law Award for In-House Legal Department of the Year in 2004 and 2005 (WMC) and 2013 (Woolworths).

Peter is also a member of ACC ASX GC 100 Executive Committee and a non-Executive Director with not for profit company Business for Development (B4D).

Chris Pemberton
Chief Information Officer & Executive Manager, Corporate Services
BEng (Hons), MBA, AGSM, GAICD

Chris Pemberton joined the TransGrid Executive team in February 2017 and has extensive experience in improving business performance, service delivery and transformation, supported by his diverse background in corporate and business strategy, infrastructure, operations, IT, purchasing, property and engineering.

Most recently as the Group Head Corporate Services for Downer, Chris led the engineering services company's IT, procurement, shared services, property and Fit for Business cost reduction program. Prior to joining Downer, Chris ran his own consulting practice and held a number of senior leadership roles with Qantas.

Richard Lowe
Executive Manager, Business Growth
LL.B

Richard Lowe has over twenty five years' experience in Australian and international capital markets in mergers and acquisitions, financing and operations across the infrastructure sector. In a career spanning commercial law, project finance and investment banking, Richard has led successful bids and financed major projects and acquisitions valued at more than $100 billion.

Richard is responsible for setting the strategy for and growing TransGrid's non-regulated businesses including new connections and network expansion, telecommunications and property, and strategic acquisitions and commercialising new technology initiatives.

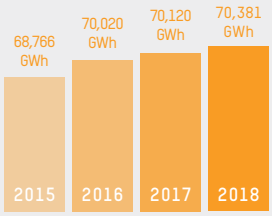
Prior to joining TransGrid in March 2017, Richard was Managing Director for Macquarie Infrastructure's $2 billion infrastructure portfolio in India which included significant businesses in the energy, telecommunications and transportation sectors.

Performance Culture

Key indicator review

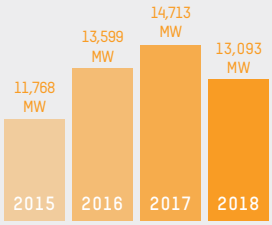
TransGrid is committed to creating and sustaining long-term value. We delivered a strong financial performance this year, driven by revenue from our non-prescribed business totalling $119.2 million.

Network throughput (energy sent out)



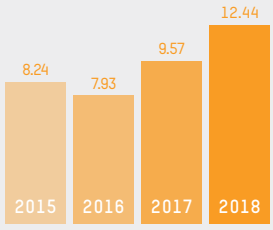
0.4%
Increase from FY17 to FY18

Peak operational demand



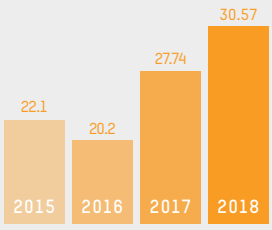
11%
Decrease from FY17 to FY18

Wholesale price c/kWh



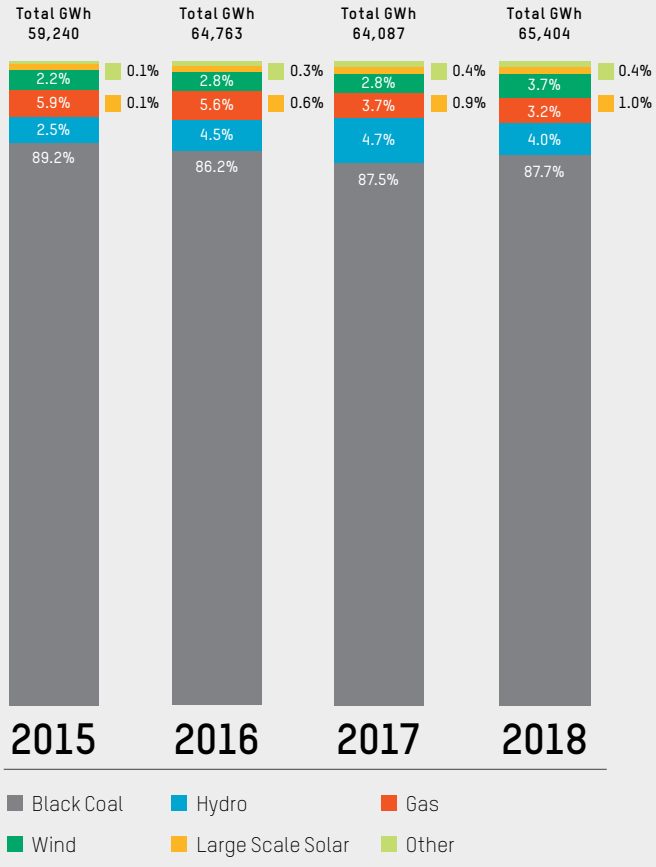
30%
Increase from FY17 to FY18

Market offer retail price c/kWh



10%
Increase from FY17 to FY18

NSW generation output



KEY FINANCIAL INDICATORS

	FY18	FY17
Prescribed revenue	713.1	726.9
Non-Prescribed revenue	119.2	55.8
Total revenue	**832.3**	**782.7**
Operational expenditure (opex)	(216.1)	(186.4)
Earning before interest, taxes, depreciation, and amortization (EBITDA)	**616.2**	**596.3**
Net profit after tax (NPAT)	**(47.5)**	**(28.0)**
Prescribed capital expenditure (capex)	230.8	186.7
Non-Prescribed capital expenditure (capex)	108.0	57.4
Total capex	**338.8**	**244.1**
Total property plant and equipment (PP&E)	7,577.9	7,576.2
Intangible assets, investment property, & other assets	2,997.7	2,929.5
Total assets	**10,575.6**	**10,505.7**
External debt*	(5,634.2)	(5,616.6)
Other liabilities*	(349.6)	(238.6)
Net assets	**4,591.8**	**4,650.5**

* Excludes debt raising costs and fair value adjustments
* Excludes shareholder loans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TransGrid

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NSW Electricity Networks Operations Pty Limited

(ACN 609 169 959), as trustee for NSW Electricity Networks Operations Trust (ABN 70 250 995 390). Registered business name is TransGrid (ABN 70 250 995 390).

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Cover image: Circular Quay during Vivid Sydney 2018. Image courtesy of Destination NSW. TransGrid was a proud supporter of Vivid Sydney in 2018.

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