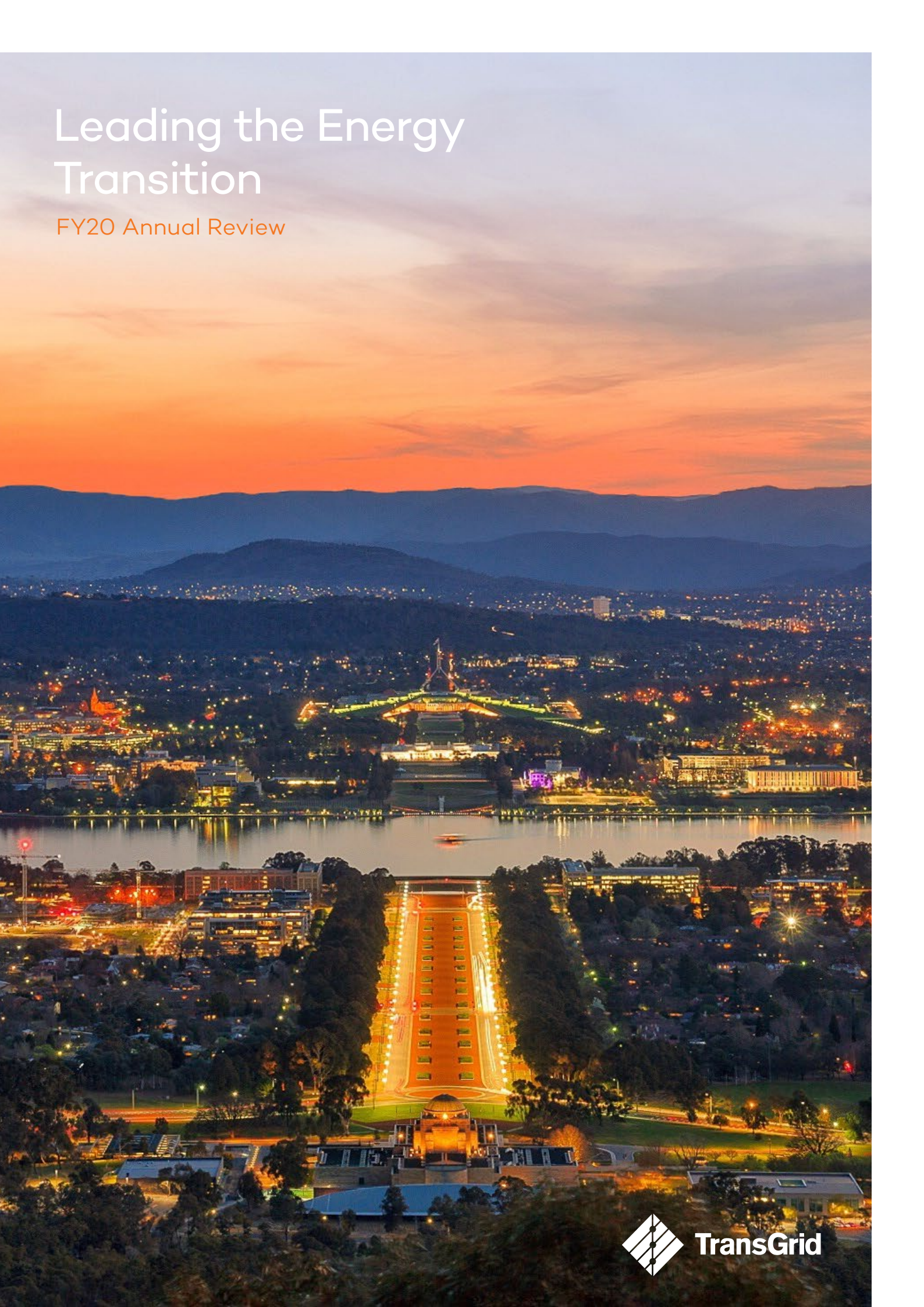


# Leading the Energy Transition

FY20 Annual Review



**TransGrid**

# Contents



FY20 highlights	2
Chairman's message	4
CEO's report	6
<b>Our role</b>	
Who we are	8
Strategy	10
<b>Safety</b>	
Safety as our first priority	12
Living our safety values	15
<b>Affordable</b>	
Improving customer outcomes	16
<b>Reliable</b>	
Delivering value to customers	18
Best practice asset management	20
Easement enquiries	23
<b>Sustainable</b>	
Environmental vision	24
Sustainable advantage	26
Bushfire prepared	29
<b>Future</b>	
Modernising our network	30
Supporting low-cost generation	33
Future grid	34
<b>Customers</b>	
Renewable energy projects	36
New connections	39
Telecommunications	40
<b>Community</b>	
Community engagement	42
Delivering community benefits	45
<b>Collaboration</b>	
Investing in our people	46
Supporting reconciliation	48
Leadership	50
<b>Performance</b>	
Key indicator review	56
Key financial indicators	57



# Building on a proud past. Creating a smarter, low carbon future.



FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

Performance

## FY20 highlights



Achieved

# 99.9997%

network reliability

Lowered prices for energy customers

## 1.1<sup>c</sup> per kWh<sup>1</sup>



Electricity transmission costs comprising

## 4%

of an average bill<sup>2</sup>

A safer place to work

employee lost time injury frequency rate 1.0



Renewable energy connected by TransGrid assets supplies

## 26%

NSW households

Total renewable energy transferred by TransGrid assets

## 5,700<sup>GWH</sup> p.a

supplies 810,000 homes

Investment pipeline:

## more than \$10bn

through major projects



Revenue

## \$864.98m



Prescribed capital expenditure invested in the network

## \$260.62m



Prescribed asset base

## \$6.6bn

across the ACT and NSW

## 50%

females in our graduate program

Aboriginal and Torres Strait Islander

## 2% employment



Founding member Regional Australia Council 2031



1. AER - TransGrid - Post-tax revenue model - 2019-20 Return on debt - April 2020  
2. AEMC price trends report 2019

Telecommunications  
revenue growth

**25%**  
year-on-year

**13,103km**

of high voltage  
transmission lines and  
underground cables

Delivered capital  
expenditure savings of

**\$14.2m**



## Chairman's message



In a year of great change and uncertainty due to the impacts of the COVID-19 pandemic, TransGrid has demonstrated its ability to be agile and responsive. Despite many new challenges, we continued to provide our essential service to our customers while also advancing transformation of the National Energy Market.

TransGrid ended the last financial year in a very different environment to which we started it. In Australia, we witnessed devastating bushfires on a scale not seen before. Then, with the rest of the globe, we faced the threat of COVID-19. The pandemic has had an unimaginable impact globally on the ways we live and work and brought the value of resilience into sharp focus.

As Chairman, I am proud to report that TransGrid has demonstrated over the last financial year the resilience of our business and people and our ability to persevere in the face of immense challenge. In difficult times, we have not just sustained but continued to advance plans to deliver safe, reliable electricity at the lowest possible cost to customers.

### Improved electricity security for customers

Despite the extraordinary nature of the year and the impacts felt so far on the Australian economy and the energy sector, TransGrid has reported another year of strong financial performance. During the year, both the regulated and the contestable businesses met their targets and we also achieved the approval of major projects, the Queensland NSW Interconnector (QNI) and Powering Sydney's Future, and a solid pipeline of customer connections.

The extreme heat and terrible bushfires over the last summer underscored the critical importance of grid security in the National Electricity Market (NEM). Victoria and South Australia again suffered supply interruptions on key transmission lines and some of our lines, in southern NSW in particular, were hit hard, requiring a planned short separation from Victoria. It was a clear reminder of the need for a coordinated approach to transmission and interconnection within the NEM.

This is why the approval of the QNI upgrade during the year was so important. It represents a strong step forward for the NEM, providing improved security for electricity customers in NSW and Queensland as the energy transition continues.

### Regional economic stimulus delivery

Among the changes and challenges of this past year, one thing has remained constant - the need for energy businesses to deliver value for our customers. As a founding signatory to the Energy Charter, TransGrid released its first disclosure report in 2019/20, painting a full picture of our performance against the Charter principles, and we reaffirmed our commitment to deliver more for customers.

The resilience of TransGrid means we are also well positioned, given the right conditions, to provide vital economic stimulus to the national and regional economies through delivering a pipeline of major projects which provide benefits to customers through lower wholesale electricity prices. Our business stands ready to invest more than \$10 billion in these projects, which would, if approved, create thousands of jobs which will be essential to driving economic recovery after the recessionary impact of the pandemic.

Looking ahead, delivering safe, reliable and affordable electricity to customers remains TransGrid's objective. I look forward to reporting back next year on how our business has continued to achieve this goal.



REVENUE

**\$864.98m**

“

TransGrid will continue to play a collaborative and central role in driving the transition to a more robust and sustainable national electricity market.

”

Jerry Maycock  
Chairman



## CEO's report



Over the last year, our community has been tested by great forces and suffered deep impacts caused by natural disasters, an international health crisis and a global recession. Through it all our people have performed our critical role and fulfilled our commitment with great distinction, maintaining continuity of the electricity supply to the communities we serve.



To support the energy transition and Australia's economic recovery, we have an investment pipeline of more than \$10 billion through our major projects, creating 7,000 jobs.

**Paul Italiano**  
Chief Executive Officer



Early in the year, we received the support of the Australian and NSW Governments to advance work on the Queensland NSW Interconnector and on HumeLink, both essential to safeguarding the future supply of safe, reliable and affordable electricity to customers in NSW and the ACT. We continued to plan these and other major projects in the nation's transmission master plan, including EnergyConnect, and we worked hard to maintain the extensive high voltage grid which spans the state and is at the heart of the NEM.



BUSINESS REVENUE  
SURPASSED OUR TARGET BY

**\$14.4m**

When the worst bushfires in recorded history swept across regional NSW last summer, our people did everything they could - working around the clock in our control room, in the field and in co-operation with the Rural Fire Service, other agencies and the community to keep the power and the lights on. This devastating event overran almost everything in its path and many Australians are still living with its tragic circumstances. A number of our transmission lines were badly damaged, most notably in the Snowy region. However, even as the weather turned cold and wet, our teams and contractors worked safely and efficiently to replace charred poles and melted cables with new structures. When parts weren't available due to COVID-19 supply chain impacts, our teams improvised and made high-quality spares that were needed for the job. This determined attitude is part of the character of TransGrid. It carries across our business units, helping to sustain and focus us all as we've learned to live and work with the community health crisis of COVID-19 since the first months of this year.

Transgrid responded swiftly and effectively to the challenges of the pandemic. In the March and June quarters of 2020, our people transitioned quickly and effectively to working from home and to new COVID-19 safe measures for working in the field.

We demonstrated the strength of our business model by sustaining our historically strong financial performance. Business revenue surpassed our target by \$14.4m and we delivered a capital expenditure saving of \$14.2m, which we reinvested in delivering additional value to our customers. Our non-regulated business also continued to perform, delivering above-target growth.

A CAPITAL EXPENDITURE  
SAVING OF

**\$14.2m**

We successfully prioritised the safety of our workforce with the need to continue to bring power to more than three million homes and businesses as they went into lockdown. We put in strict conditions around our control rooms to keep our operators safe and changed the way we undertake essential maintenance to ensure the continued health and safety of our staff. In mid-March, we also adapted our working practices and improved our communication capabilities so all office-based staff could work from home. I am pleased to report these changes were adopted swiftly, with staff adapting quickly to deliver business as usual.

As Australia works through its energy transition, TransGrid continues to support transformation and contribute to planning the future energy system.

During the year, we achieved the major milestone of gaining approval for the QNI upgrade. This critical project will support lower wholesale prices for NSW customers as well as improving the security of the network. As the first project approved as part of the Australian Energy Market Operator's Integrated System Plan (ISP), this represented a significant achievement for the business. Together with securing debt refinancing, it places TransGrid in a strong position to deliver future ISP projects. Work is already continuing on other ISP projects within NSW. We will work constructively with governments, regulators and customers to ensure all these projects deliver maximum benefit to our stakeholders.

Final approval of our Powering Sydney's Future project was another significant achievement for customers, providing security of supply to the CBD of Sydney - one of Australia's key GDP drivers.

DIRECTLY CREATE

**7,000**

new jobs

As a proud signatory to the Energy Charter, during the year, TransGrid released our first disclosure report along with the other signatories. We are committed to the Independent Accountability Panel's six recommendations, especially to truly know our customers and communities and go above and beyond compliance.

The resilience of our business means we stand ready to support Australia's economic recovery. We have an investment pipeline of \$10 billion through our major projects, which will directly create 7,000 new jobs. We are working closely with federal and state governments to determine how else we can assist the country's economic recovery. A number of our projects have already been identified as providing stimulus value to the state. As we look towards next year, we will continue to explore how we can further support our communities as we rebuild our economy together.

INVESTMENT PIPELINE  
OF MORE THAN

**\$10bn**

through our  
major projects

## Our role



### Who we are

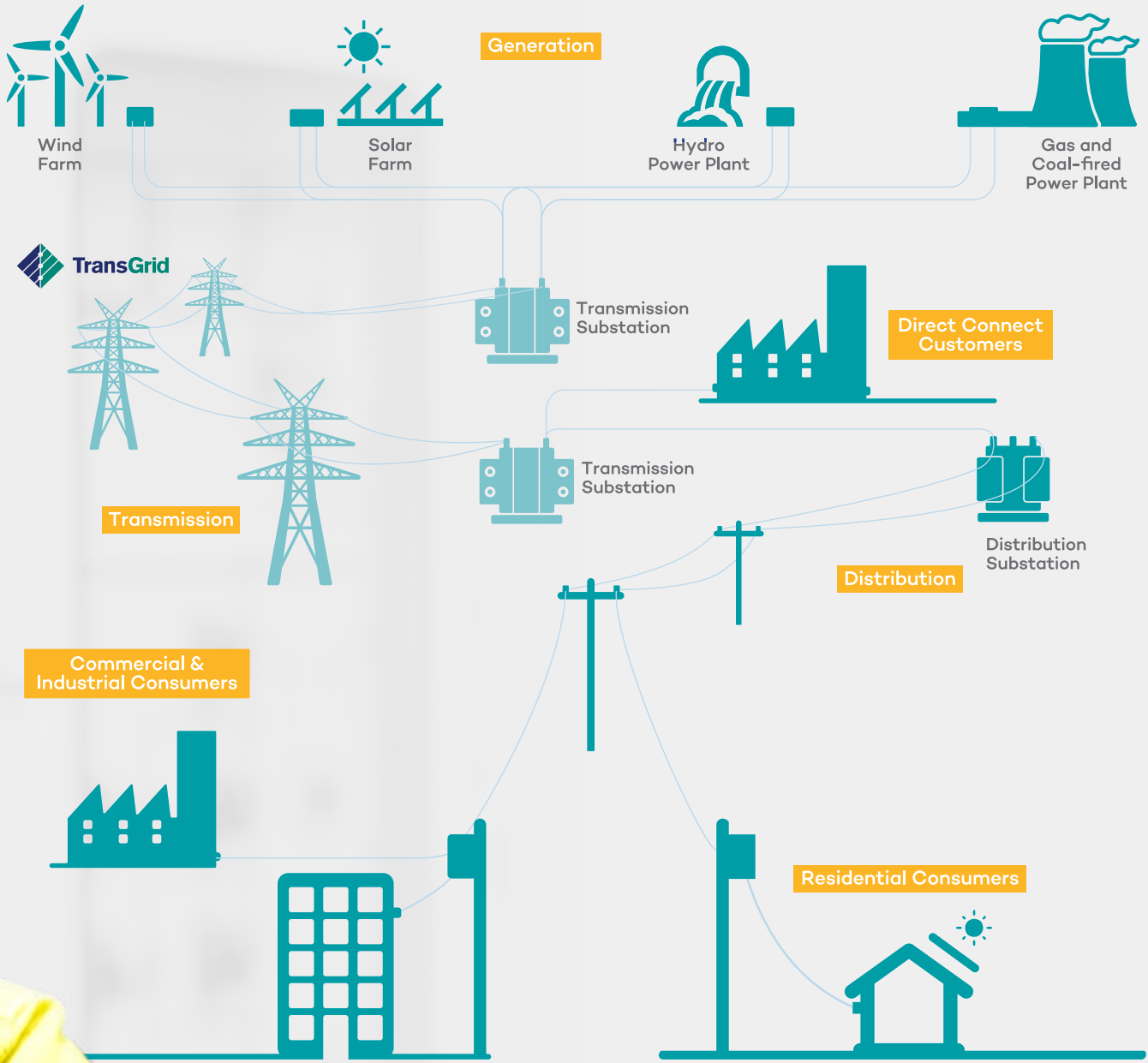
Electricity is central to almost every part of our lives, and the transmission network is the backbone of the power system. TransGrid is playing a key role in planning Australia's energy future. We deliver a range of essential infrastructure and services, providing customers with options to source lowest cost generation.

Our network transports electricity from generation sources such as wind, solar, hydro, gas and coal power plants to large directly connected industrial customers and the distribution networks that deliver it to homes and businesses. Comprising 110 substations, over 13,103 kilometers of high voltage transmission lines and underground cables and five interconnections to QLD and VIC, the network is instrumental to the electricity system and economy and facilitates energy trading between Australia's largest states.

The NEM is currently undergoing a period of transition as the generation mix changes to include more renewables and technology, allowing greater participation from customers in the energy market. We are working with our customers, energy customers, the energy supply chain and decision-making bodies to ensure customers see the benefits of this transition.



# TransGrid within the electricity supply chain




 Danielle Walker  
 Second Year Apprentice, Tamworth

- FY20 highlights
- Chairman's message
- CEO's report
- Our role
- Safety
- Affordable
- Reliable
- Sustainable
- Future
- Customers
- Community
- Collaboration
- Performance

## Our role



### Strategy

At TransGrid, our central principle is to deliver safe, reliable and affordable power to customers.

Thomas Lane

Apprentice Electrical Fitter – Tamworth



**Deliver safe, reliable power**



Maintain high standards of system reliability for the benefit of energy customers and safety for our workforce and the general public.

**Create an efficient, high-performing business**



Transform TransGrid to be fit for the future to make our business safer, simpler and smarter.

**Invest in transmission to support the energy transition**



Pursue new transmission projects, including interconnectors, renewable energy zone augmentations and links within and outside NSW.



**Grow our infrastructure and services business**



Capitalise on the opportunities that align with our competitive advantage, including generator connections and telecommunications.

**Advocate for the energy system and policy environment of the future**



Deploy our engineering, regulatory and policy expertise to advocate for a sustainable energy future.

**Seek innovations and new technologies**



Seek new technologies, ways of working and utilising technology developments in the energy sector to drive growth opportunities.

# Safety



## Safety as our first priority

At TransGrid, the safety and welfare of our people and the broader community is our highest priority. In FY20, we continued to focus on injury prevention, health and safety risk management during the unprecedented COVID-19 crisis.

In March 2019, TransGrid introduced our FY19-22 Health Safety and Environment (HSE) Strategic plan, focussing on our five key areas of: Injury Prevention, Leadership and (Safety) Culture, Risk Management, Sustainability and Climate Change and Good Systems.

### Building a safety culture

During the year, we conducted an assessment on our overall safety culture maturity level. The assessment identified opportunities to improve our safety culture and HSE performance. To engage the business with these findings, the survey results were presented to all employees and feedback gathered on ideas of how TransGrid could improve its safety culture. We continue to work through the resultant initiatives and will conduct another survey in FY21 to gauge any improvements.

### Supporting health and wellbeing

In FY20, TransGrid conducted a Mental Health and Wellness Assessment to create an evidence base from which to measure our progress in this important area. We used the assessment to develop our own Mental Health and Wellness Strategy, with the objectives of:

- › promoting and supporting good mental health and wellbeing for all TransGrid employees, both in the field and in the office
- › playing our part in reducing risk and promoting mental health resilience among employees
- › creating a culture that facilitates early identification of mental health issues and encourages help seeking behaviour
- › promoting programs that enable and encourage employees to manage their physical health

Next year, we will execute our Mental Health and Wellness Strategy with training and systems that grow our resilience and wellness culture.

### Safety best practice

During the year, TransGrid launched a Contractor Safety Management System. The system delivers a compliant, industry-leading, end-to-end worker safety, training and authorisation platform. It supports risk management and delivers efficiencies by improving visibility of all workers' qualifications, skills and competencies. The majority of the workers involved in hazard and near miss reporting in FY20 were current contractors, this has played a major role in driving our HSE culture and performance. It allows us to manage the potential risks before it arises and provides an understanding of the emerging risks our people face. TransGrid's HSE culture is heading in the right direction with an increasing number of hazards reported: 104 in FY18, 197 in FY19 and 751 in FY20.

Lost time and medical treatment injuries are TransGrid lag indicators. TransGrid's lost time injury frequency rate (LTIFR) was 1.0 for period ending June 2020, and the total recordable incidents frequency rate (TRIFR) was 2.4 at period ending June 2020.



To be a team member you need to live the four safety values – committed, collaborative, enterprising and caring.



# 1.0

EMPLOYEE LOST TIME  
injury frequency rate



FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

Performance





## Safety



### Living our values

"I started working at TransGrid six years ago and there have been a lot of positive changes in my role during this time. TransGrid provides a very collaborative work environment; it's a business that is forever moving and evolving.

My favourite part of coming to work is knowing each day is going to be different, and I'll be faced with new challenges. I have a great team; the comradery is really important to me, and we all support each other to achieve our personal and strategic business goals.

What I enjoy about my current role is the diversity. I'm not 100 per cent in the office, or 100 per cent on site and it's one of the few roles in the business that relates to everyone. While we of course have our set KPIs, the role is totally dynamic. We work across boundaries, interacting with everyone from the design teams to the linespeople maintaining the towers. The Health, Safety and Environment (HSE) team has a part to play in all of it.

The HSE team believe safer people act on their reasons to stay safe. We help TransGrid people develop safer ways to live and work, get home safe and well, to the people and things we love the most, every day. We call it the Personal Big5 (PB5).

My PB5 has changed from three years ago, previously it would have included my wine collection! I have a one-year-old daughter now Adeline, and my priorities have shifted greatly. My wife Sarah always laugh's, because she has now dropped from PB1 to PB2.

We live and work in an atmosphere of high risk, and that includes public safety, so our people understand the importance of staying safe. We know that to establish a mentally healthy workplace everyone has a role to play. The HSE team's Mental Health and Wellness Strategy, is providing a comprehensive program of support to our people during the COVID-19 pandemic.

As part of the HSE team, I'm in a position to influence change for the better."



Joel McMurtrie  
Health and Safety Advisor -  
Wallgrove

## Affordable



### Improving customer outcomes

The efficient development of the transmission network will provide economic benefits. The needs of our customers are at the center of TransGrid's business and the energy system.

As the energy industry continued to move through unprecedented change, TransGrid worked hard with our customers as, together, we progressed on the journey towards more renewable energy.

Our generator customers are exploring various renewable energy technologies that including hydro, solar, wind and battery energy storage systems. Meanwhile, our major load customers seek to understand how renewables will impact their businesses and how we can help them ensure system security and reliability.

During the year, we continued to engage regularly across all our customer groups to strengthen our relationships and build trust. This included running CEO customer roadshows across regional NSW and quarterly TransGrid Advisory Council (TAC) forums. Our dedicated customer engagement team increased its focus on coordinating with customers around projects and network maintenance. We also held regular joint planning meetings with our distribution network partners to ensure their customers have confidence in the extended network access and capacity available to them.

This year, our annual reputation survey maintained a trust score of over 80 per cent as well as a reputation score of over 75 per cent. While we are on the right path in delivering customer satisfaction and performance, these scores tell us we still have many opportunities to continue to improve the way we interact with our customers and keep them informed about our interaction with the energy industry.

### Responsibly connecting with our stakeholders

The TAC is TransGrid's principle stakeholder engagement forum, allowing our CEO and executive leaders to engage directly with customers and industry stakeholders on important issues. The TAC facilitates regular and essential two-way communication between TransGrid and its stakeholders, providing a trusted forum for sharing information and ideas. The TAC provides advice on strategic policy topics and TransGrid's business plans, ensuring that when we make decisions we take into account customer perspectives.

In FY20, we held quarterly meetings with the TAC, and gained important insights into how our electricity transmission business can provide more value to customers. Key topics for consultation during the year included the 2019/20 bushfires, the COVID-19 pandemic and the major transmission projects identified in AEMO's Integrated System Plan. We also engaged with the TAC to help inform and develop our position on regulatory policy and to inform the actions we will take to meet our obligations under the Energy Charter.

REPUTATION SCORE

# 80%

for direct customers



Lia Wakim

HR Business Partner - Ultimo

## A proud supporter of the Energy Charter

We are a proud signatory to the Energy Charter, working alongside other signatories to drive cultural change throughout the industry. We are committing our workforce to deliver continual service improvement and add value for customers.

Last year, we delivered our first Energy Charter disclosure, reporting on how our businesses was working to meet the five Energy Charter principles.

As we prepare to lodge our FY20 disclosure, we are continuing to work to improve customer service and consumer outcomes, focussing on areas we identified for improvement. We look forward to reporting on our progress against these areas in September 2020.

## Reliable



### Delivering value to customers

The transmission network is the backbone of the power system. It provides the capacity to transport large volumes of electricity cost-efficiently at high voltages from large generators to regions where it is used.

PEAK OPERATIONAL DEMAND:

# 13,835MW

NETWORK RELIABILITY

# 99.9997%

GIGAWATT HOURS  
OF ELECTRICITY MOVED

# 68,591GWh

### Sustainable management of assets

Network reliability depends on TransGrid effectively managing, maintaining and replacing assets along 13,103 kilometers of transmission lines. In FY20, we continued to manage our assets sustainably and responsibly, delivering ongoing value to energy customers and TransGrid's shareholders. During the year, we efficiently maintained the network and achieved 99.9997 per cent reliability with three outages with

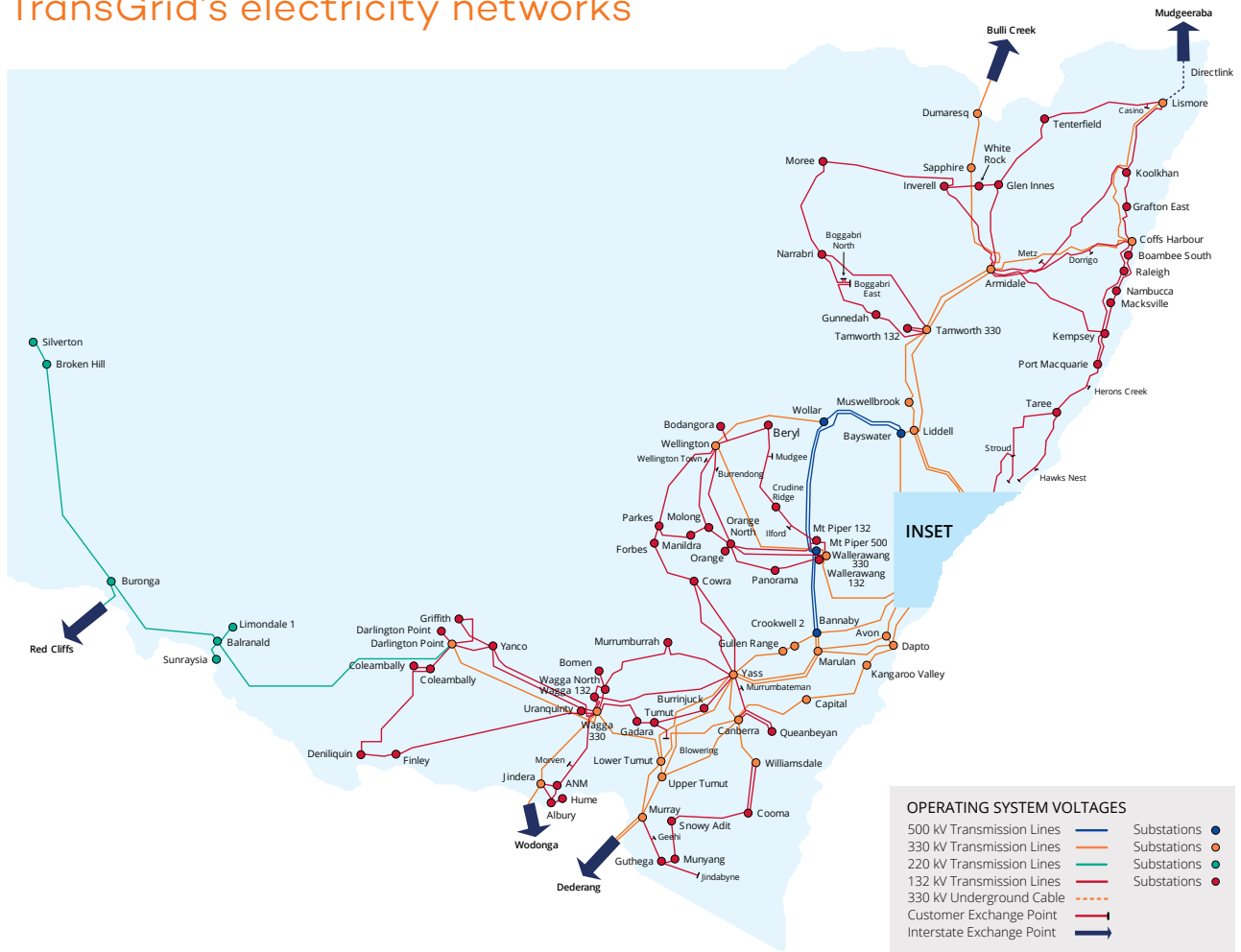
0.92 system minutes lost. Importantly, zero fires were started from network assets.

During the year, the strength of our asset management system was recognised by an external independent review. We developed a whole-of-network risk index and continued to deliver our \$208 million asset replacement program, improving core elements and capability to meet the safety, bushfire and reliability expectations of customers. This included installing replacement 445 transmission line structures and asset renewal works at 41 substations.

We also removed aqueous film forming foam (AFFF) from our substation sites. AFFF was historically used for firefighting but has recently been identified as an emerging environmental risk. Once this risk was identified, we quickly removed the foam and replaced it with a safer modern solution.

Investment in transmission represents less than 10 per cent of the cost of transformation of the power system going forward. Prudent and timely transmission development will ensure that investment in generation and storage, which makes up the remaining 90 per cent, is cost-effective.

# TransGrid's electricity networks



## Reliable



### Best practice asset management

Operation of a secure and reliable power system requires innovative approaches and technologies to improve the operation of our existing network.

# \$157.9m

asset replacement capex  
in FY20

### Innovating our approach to asset monitoring

During the year, we adopted new technologies to improve our ability to identify asset issues and risks before they cause network interruptions. During transmission line inspections, we began using sub-millimetre resolution data capture and deep learning algorithms to better understand the condition of conductors.

To enhance our annual asset and vegetation inspections, we deployed high-resolution photography and infrared and ultraviolet cameras to identify issues outside the visual spectrum and in a single flight. This helps us to identify emerging defects before a failure occurs. We also deployed a real-time monitoring system on our Sydney CBD underground transmission cable to identify unauthorised activities in the vicinity of the cable.

### Asset management programs completed in FY20

- › Replacement of Sydney North secondary system
- › Refurbishment work of line 20 from Sydney West to Sydney North
- › Various transformer refurbishment works for Kemps Creek No. 1 and No. 2, Ingleburn No. 1, Sydney North No. 3 and No. 4
- › Cable 41 voltage control project to address the high voltage issues.
- › Renewal works to address end-of-life condition of various Munmorah 330/132 kV Substation assets.
- › Grafton East 132 kV Substation
- › Installation of an Under Voltage Load Shedding Scheme (UVLS) at Orange North Substation.
- › A cross-tripping control scheme in Southern SW and ACT network
- › Increased the summer day contingency rating of line 990 from 114 MVA to 137 MVA
- › Removal of equipment limiting the rating on Line X5 Darlington Point to Balranald
- › Removal of equipment limiting the rating on Line X3 Balranald to Buronga
- › The 99T line capacity upgrade

### Rapidly mobilising to make urgent asset repair

In May 2020, an asset inspection a damaged transmission tower between Yass and Cowra. The steel was bent, and the structure appeared to be on its way to failure. Our crew mobilised quickly to organise repairs and were on site that night to monitor the damaged tower around the clock until work could begin. In just 12 hours, cranes and a demolition crew arrived to replace the damaged structure with two concrete structures, putting it back into service.





FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

Performance





Reliable

## Easement enquiries

Almost 17,000 individual landowners have TransGrid assets, or easements, on their properties. We engage closely with these landholders to maintain and operate these assets and easements so we can provide safe and reliable transmission services to the community.

In FY20, we received approximately 600 enquires and applications from members of the public seeking to carry out developments within or near our easements – a number we expect to increase as development projects progress in the Greater Sydney area.

During the year, we revised our online Easement Guidelines, helping people to better understand how to live and work safely when they have electricity transmission lines on their land. The guidelines clarify what activities can and can't be carried out inside or next to transmission line easements – and when and how to contact TransGrid for permission.

We also launched a TransGrid Property Acquisition Policy, which focuses on fairness and transparency in easement negotiations.

To streamline the process for our landowners, we operate an Easement Portal so the community can lodge and track their enquiries and applications online. Following an annual review of the portal during the year, we are updating it to make it more responsive and in line with customer expectations.

## Sustainable



### Environmental vision

In FY20, TransGrid continued to monitor our environmental performance and improve our disclosure, so our customers, our people and the broader community can be confident that we operate in a responsible manner.





Our environmental vision is to be a strong enabler in the transition to a low carbon energy system and economy.



### Establishing our Environmental Social Governance strategy

In FY20, TransGrid began the process of formalising our many sustainability and community initiatives into a robust Environmental, Social and Governance (ESG) strategy to help us prioritise and act on the material risks and opportunities critical for our future viability.

Completing an independent materiality assessment to identify and prioritise our ESG issues, was an important first step in developing our ESG strategy. The assessment included a peer benchmarking exercise, focus groups with employees and interviews with stakeholders, including our customers, regulators, government and TransGrid's Advisory Council. It was conducted in an impartial manner under the auspices of an external consultant and adhered to the requirements of the Global Reporting Initiative (GRI) standards, the International Integrated Reporting Framework and the Sustainability Accounting Standards Board standards. To support the ESG strategy development, we also established a Sustainability Working Group with representation from around the business.

During the year, TransGrid continued to participate in the annual Global Real Estate Sustainability Benchmark survey, with results due for release in October 2020.

In the coming year, we will finalise the materiality assessment and develop and communicate TransGrid's corporate ESG Strategy. Our first report is expected for publication in 2021.

### Developing our climate change adaptation strategy

In FY20, we continued to develop TransGrid's first network climate change adaptation strategy, including completing our network resilience assessment using current climate data and reviewing our engineering design standards. The network resilience assessment was completed in early 2019 and following on from this a review of engineering design standards was undertaken. Both pieces of work informed the development of our network climate change strategy.

This strategy will allow us to estimate physical impacts that climate change will have on the NSW and ACT transmission network over the next 30 to 50 years and beyond. It will help our business to understand how to adapt our substations and transmission lines to withstand climate change, and guide planning of the potential steps required to improve network reliability as Australia faces a more volatile and hotter climate.

### Assessing the environmental impact of our projects

In FY20, TransGrid continued to ensure the environment was considered at the forefront of every project from the early planning phase through to on-ground delivery. Throughout this process, we engaged constructively and transparently with the communities in and around our projects.

Our approach is to use environmental constraints and risks, along with property, community, economic, technical and regulatory considerations, to guide site and route selection to develop solutions with the least environmental and community impacts. We identify environmental and social values during the environmental impact assessment (EIA) stage of the project, with the aim of further avoiding and minimising impacts wherever possible. We implement any avoidance, mitigation and management measures into project design, construction, operation and maintenance methods and procedures to achieve environmental protection of the values identified from the EIA.

## Sustainable



### Sustainable advantage

Protection of the environment is important for business success and is a key consideration in everything TransGrid does.

#### Enhancing our sustainable work practices

We continued to improve conservation measures in our offices and depots. Following the introduction of smart printing in June 2018, TransGrid's print volume reduced by at least one tonne of paper in FY20. During the year, most of TransGrid's office and depot lighting was controlled via a timing and sensor app, ensuring lights are only on when needed.

At the end of 2019, we launched electronic waste tracking as part of our Incident, Risk and Audit and Compliance management system. In the coming year, we are hoping to capture all major waste streams generated through TransGrid's construction and maintenance activities.

To reinforce our commitment to safe and sustainable work practices, TransGrid is planning to have its Energy Connect project assessed via the Infrastructure Sustainability Rating tool developed by the Infrastructure Sustainability Council of Australia.

In FY19, we generated around 13,997 tonnes of direct greenhouse gases. This was a 65 per cent increase on the previous year, partly due to

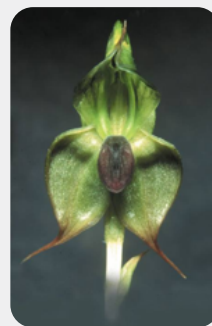
larger than expected gas losses from the network but mainly due to more accurate reconciliation of gas movements over the year.

We also generated 1,226,978 tonnes of indirect greenhouse gases, a 13 per cent increase on the previous year, as a result of transmission losses. As energy transmission becomes cleaner, we anticipate indirect emissions will reduce. We are currently collating emissions data for FY20.

#### Supporting conservation of endangered species

For more than a decade, TransGrid has been supporting the Illawarra District Orchid Society and the NSW National Parks and Wildlife Service to conserve an endangered native ground orchid, the Illawarra Greenhood, on our land at Dapto.

Only thriving in two recognised colonies, the Greenhood population had collapsed in recent years. In FY20, thanks to rainfall, weed control and protecting the colony from cattle, its numbers began to recover, with the potential for more seedlings to emerge next year.



#### Preserving the Australian landscape

Our partnership with the Royal Botanic Gardens & Domain Trust has been in place for more than a decade, giving us the opportunity to make a positive environmental impact over the longer term.

In 2010 TransGrid sponsored the construction of the Seed Processing Room at the Australian Botanic Garden Mount Annan and from 2014 continued its commitment to this facility's plant conservation programs. Our continued sponsorship of this initiative is a vital part of our effort to preserve the landscape across NSW and the ACT.

Ongoing funding from TransGrid helps the Royal Botanic Gardens & Domain Trust to collect and store native plant seeds in a protected environment so that scientists can use them for research, reference and conservation purposes in future.

Storing these seeds at the Australian PlantBank serves to extend the longevity of many native species, which would otherwise be at risk of extinction.



The Seed Processing Room is proudly supported by



**TransGrid**

“

TransGrid's support for the Australian PlantBank has enabled our scientists to work towards the global target of conserving and seedbanking 75 per cent of NSW threatened plant species by 2020.

”

**Dr Brett Summerell**  
 Director, Research and Chief Botanist  
 Australian Institute of Botanical Science  
 Royal Botanic Gardens and Domain Trust

FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

Performance



Dave Robinson  
Lines Field coordinator – Newcastle



## Sustainable



### Bushfire prepared

Our annual inspections are an important part of our comprehensive maintenance program, and help us identify and manage bushfire risk, ensuring the transmission network is safe for our staff and the community.

#### Maintaining network resilience

TransGrid sustained a high level of reliability through an unprecedented bushfire season. The year's extreme bushfire activity had a significant impact on our network, damaging transmission lines, disconnecting substations from the network and destroying communications infrastructure. Pleasingly, our network resilience and rapid emergency response meant our customers experienced minimal disruption.

After the fires, we engaged an outside expert to undertake a strategic review of our bushfire risk controls. Their report indicated our controls and practices are keeping impacts to the community as low as reasonably possible.

#### Repairing bushfire-damaged transmission lines

After the devastating January 2020 bushfires, TransGrid crews raced to repair the transmission line running from Upper Tumut at Cabramurra to the Snowy Hydro Limited Tumut 1 Power Station. The plan was to install a spare conductor temporarily while a new one was ordered from overseas. With steep terrain and no helicopters able to fly, a team from Infravision and the TransGrid line crew strung a rope using a drone and the team winched through a steel draw wire large enough to pull the conductor through.

But, when COVID-19 closed our borders, the crew realised the conductor wouldn't arrive on time before winter shut the Cabramurra area. Instead, the crew removed the temporary conductor and installed twin conductors between several towers. All this was achieved in a three-week window, involving working through the Easter break and during extreme weather conditions, including snow.



Infravision Drone

## Future



### Modernising our network

We know energy affordability is a priority for customers and we are committed to delivering electricity at the lowest possible cost.

#### Delivering customer benefits

During the year, we continued to work to improve the affordability of electricity by progressing transmission projects that will improve competition within the wholesale market, support the connection of more low-cost generation and reduce congestion on the network. This will help to reduce prices for customers.

We also provided relief to customers impacted by COVID-19 by waiving the transmission charge of bills through the Energy Networks Australia relief package.

#### Improving energy affordability through innovation and advocacy

During the year, we continued to advocate for better customer outcomes through regulatory platforms. This included working on a rule change that aimed to relieve inefficient cost burdens on generators regarding system security, that ultimately flow through to customer bills. We also continued to explore non-network options, such as demand management and batteries, to defer the need for network investment, including using new Smart-Wires technology on the upgrade of the Victoria-NSW interconnector.

While we are making progress in improving energy affordability, we recognise this is an area where a continual focus on improvement is essential. We are investigating ways to measure the outcomes and benefits of our investments to ensure that they are providing value to energy customers.

#### Modernising our network

During the year, our major network developments continue to address emerging constraints, supporting the connection of new renewable generation, ensuring future demand can be supplied. Major projects identified below and on page 21.



#### › QNI – Queensland to NSW Interconnector

On 28 April 2020, the AER approved the upgrade of the QNI, which will increase the transfer of electricity between the states and provide customers with access to reliable, lowest cost energy. The QNI project has been fast tracked with the support of the Federal and NSW Governments, which provided a joint agreement to facilitate the upgrade.

The upgraded interconnector will increase the transfer capacity of electricity between Queensland and NSW, enabling more efficient sharing in the National Energy Market.

The project, which involves upgrades to substations, transmission towers and lines, is expected to provide net benefits of \$170 million to electricity customers and producers and create 155 jobs during construction, which began in May 2020.



#### › VNI – Victoria to NSW Interconnector

This project, to increase the electricity transfer capacity between Victoria and NSW, will deliver benefits for customers in both states and enable the efficient transfer of generation resources between the two states. This increased interconnection capacity will also help to improve the reliability and resilience of the power system.





Our plan is to invest more than \$10 billion to build transmission infrastructure, creating 7,000 jobs in regional NSW and \$25 billion in economic activity over the next 5 to 10 years.



› **Powering Sydney's Future**

On 18 May 2020, TransGrid received planning approval for the Powering Sydney's Future project, which will ensure a safe, reliable and affordable electricity supply for more than 800,000 people living and working in Sydney's CBD and surrounding areas. The project, to install a new 20 kilometre 330kV underground circuit from Potts Hill to Alexandria and upgrade substations at Potts Hill, Alexandria and Picnic Point, will create 140 jobs during construction. To cater for future electricity demand growth, conduits for a second supply cable will be laid at the same time. Construction began in August 2020, with completion due by November 2022.



› **EnergyConnect**

During the year, hundreds of NSW and Australian businesses registered their interest in working with TransGrid on EnergyConnect, one of the nation's largest energy infrastructure projects. On 29 June 2020, a Contingent Project Application was lodged with the AER for final project approval.

The proposed development of the 900 kilometre electricity interconnector will enable NSW, Victoria and South Australia to share energy, lower wholesale energy costs and support growth in renewable energy generation. The project will provide around 1,500 jobs and deliver an economic benefit to NSW of \$4 billion. If approved, construction will start in late 2021.



› **HumeLink**

During the year, community consultation and preliminary environmental impact assessment started for the HumeLink project, which will reinforce the transmission network in southern NSW to improve the flow of electricity between new generation sources and the state's major demand centres. This cost-effective project will maximise the grid's capacity to deliver electricity where it is needed, including options for new transmission connections between substations at Wagga Wagga, Bannaby and Maragle. HumeLink will provide a crucial hub for the flow of electricity in the NEM. The project will enable high volume energy transfer around the NEM improving access to affordable electricity.

Paul Italiano CEO TransGrid, seen here alongside NSW Minister for Energy and Environment Matt Kean, at the press conference on the 23 June 2020, to announce funding for the development of Australia's first Renewable Energy Zone (REZ).





## Future



### Supporting low-cost generation

In late 2019, the NSW Government approached TransGrid to work together to deliver Australia's first ever coordinated renewable energy zone, a 3,000 megawatt pilot in the Central-West Orana

#### Central-West Orana Renewable Energy Zone (REZ) Transmission Link

The project is a key part of the NSW Government's Electricity Strategy, and supports the implementation of the Australian Energy Market Operator's Integrated System Plan - ensuring a reliable, affordable and sustainable electricity future and to help replace NSW's ageing power stations as they retire.

Development of Australia's first Renewable Energy Zone (REZ), to be located in Central-West Orana, the REZ:

- › will unlock at least 3,000 megawatts of new electricity capacity by the mid-2020s and be worth around \$4.5 billion in private sector investment once fully developed
- › is expected to support 450 construction jobs in the local region
- › will deliver affordable energy ahead of the retirement of NSW's coal fired power stations.

The \$5 million funding agreement with the Australian Renewable Energy Agency (ARENA) will enable TransGrid to undertake feasibility and planning works. We will begin engaging with local communities over the coming months to discuss elements like environmental surveys and route identification. Construction is due to begin in 2022.

# Future



## Future grid

During the year, forecast energy consumption began declining due to the economic effects of COVID-19. We are currently forecasting average growth of 0.8 per cent per annum over the next 10 years, an average reduction of around 4 per cent.

We also received an unprecedented level of generation connection enquiries from more than 55,000 megawatts of potential solar, wind and hydro projects at various stages of development. Most of these enquiries were seeking to connect to remote locations where the existing network capacity is limited.

As this renewable generation comes in and fossil-fuel generators retire or move to flexible operation, the levels of inertia and system strength in NSW will also reduce.

In FY20, we had four summer days where the AEMO had to intervene to maintain reliability activating demand reductions through the Reliability and Emergency Reserve Trader (RERT) mechanism. Had an additional 900 megawatts of renewable generation been available, activation of the RERT would not have been required.

The use of the RERT indicates that the wholesale electricity market is not delivering efficient outcomes, highlighting the need for timely investment in transforming the power system to improve access to existing generation and integrate new low-cost generation.

Without this investment, the grid will reach the point where downstream congestion will mean connecting additional renewable generation will simply serve to displace existing renewables, resulting in poor outcomes for customers.

To avoid this outcome, in FY20, we continued to plan to improve system strength to support the evolving generation mix. Based on scheduled retirement dates, system strength remediation will be required in the late 2020s and inertia remediation in the early 2030s.



FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

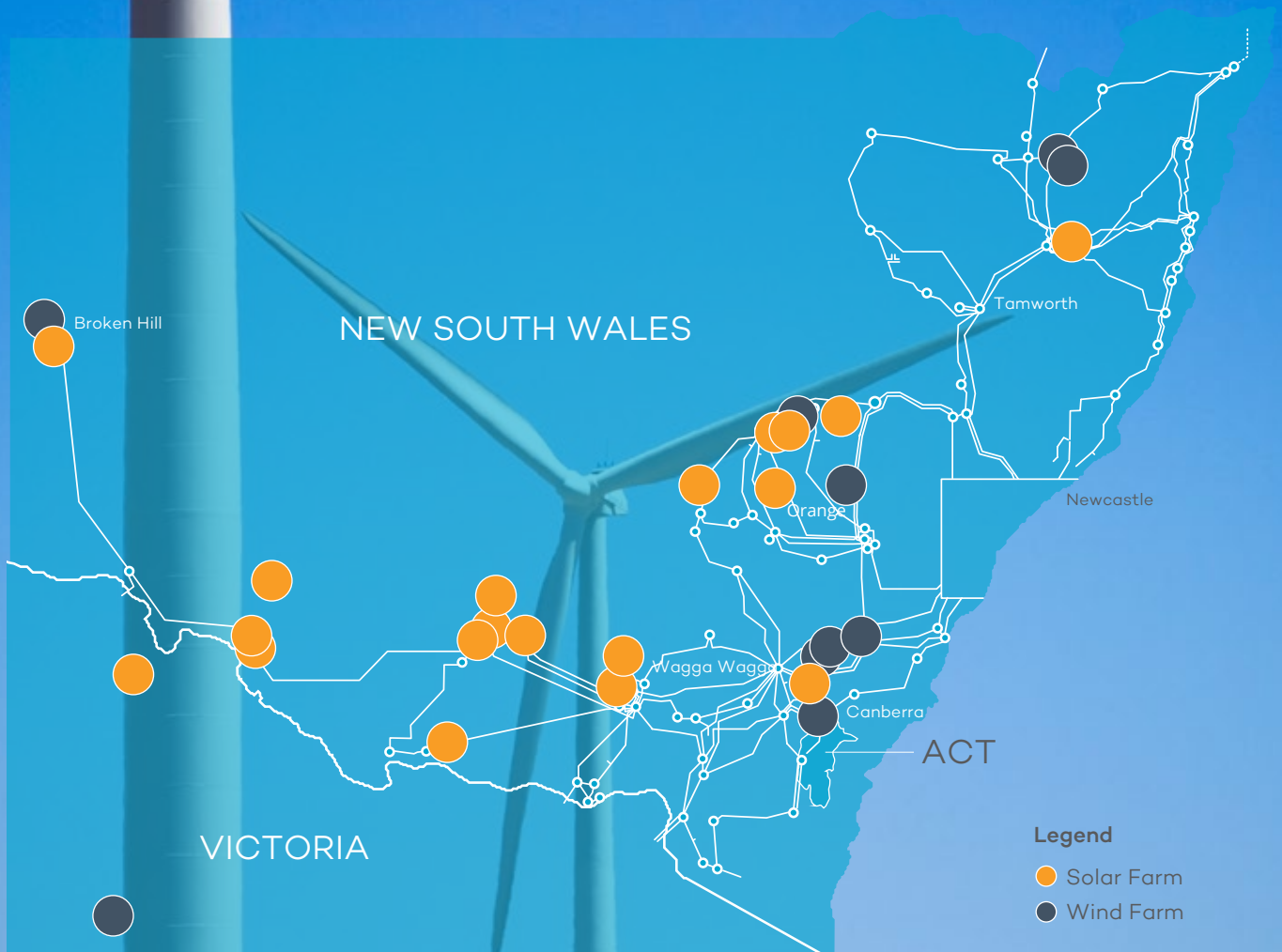
Performance

# Customers



## Renewable energy projects

In FY20, TransGrid completed 13 transmission connections and associated customer energy and telecommunications infrastructure services, supporting 1,690 megawatts of new renewable generation projects in NSW and Victoria. High capacity load supply services were also completed for new key regional facilities in NSW. This exceeded budgeted expectations by more than 50 per cent.



## Renewable Generation Project Highlights

- ▶ The Finley Solar Farm, with a capacity of 133 megawatts connecting at the Finley 132kV bus was registered on 30 July 2019. This solar farm has the first generator owned synchronous condensers connected to the NEM.
- ▶ Limondale No.2 Solar Farm, with a capacity of 29 megawatts connecting at Balranald was registered on 24 December 2019.
- ▶ Bomen Solar Farm, which is 100 megawatts connecting at Wagga North achieved AEMO registration on 17 March 2020.
- ▶ Goonumbla Solar Farm, which is 70 megawatts, connecting in at Parkes achieved AEMO registration on 12 May 2020 and is currently not commissioning its site.
- ▶ The Biala extension to the Gullen Range Wind Farm, which adds 106 megawatts to the existing solar and wind farm generation and brings the total to 281.5 megawatts achieved AEMO registration on 15 May 2020, with an effective date of 19 May 2020. This project is an example of a number of projects we have been seeing in the network, where generators are growing in size by adding more wind turbines, batteries or solar to their existing generation plants.



This year saw the team respond to an increasingly complex market environment while taking on larger projects than in previous years.



### Innovation and business growth

Many generators are growing in size by adding more wind turbines, batteries or solar to their existing generation plants. New challenges during the year included combining solar generators to existing windfarms, installing battery storage at solar farms and integrating increasing wind turbine capacities. TransGrid responded with innovative approaches to design, planning, procurement and financial structuring, using the breadth of capability within the business.

To support and enable the energy sector's transition into a decarbonised future, TransGrid brought together industry leaders, customers and stakeholders for open discussions about the opportunities and challenges of a sustainable grid. This included our inaugural "customer insights" session in November 2019, with a keynote by the CEO of the Clean Energy Finance Corporation.

### New England Connection Capacity Auction

In June 2020, TransGrid began assessing an innovative commercial model to develop transmission infrastructure that unlocks new renewable energy investment in the New England area of NSW. The infrastructure will be directly funded by renewable energy participants in exchange for firm capacity to connect to the NSW grid. The New England Transmission Infrastructure (NETI) development will comprise a purpose-built 330kV transmission line, which will enable up to 1400 MW of new renewable energy generation capacity.





# Customers



## New connections

TransGrid supports and promotes the development of new renewable generation and is well placed to collaborate with proponents ensuring projects achieve financial and revenue objectives.

Infrastructure Services projects completed or scheduled for completion FY20 include:

Project	MW
Bomen Solar Farm	100
Clarence Correctional Centre	—
Darlington Point Solar Farm	275
Finley Solar Farm	133
Goonumbla Solar Farm	70
Sunraysia Solar Farm	200
Wagga North Solar Farm	50
Limondale 1 Solar Farm	250
Limondale 2 Solar Farm	30
Metz Solar Farm	200
Kiamal Solar Farm	257
Beryl Solar Farm	95
Molong Solar Farm	30
<b>Total</b>	<b>1,690</b>

Projects accelerated to FY20:

- Suntop Solar Farm
- Wellington Solar Farm
- Snowy Load Connection
- Bango Solar Farm

NEW GENERATION CONNECTIONS UNDER CONSTRUCTION

**1900**  
**MW**  
12 projects

NEW GENERATION CONNECTIONS UNDER DEVELOPMENT

**6980**  
**MW**  
25 new projects

NEW GENERATION CONNECTIONS UNDER COMMISSIONING

**1320**  
**MW**  
10 projects

TOTAL NEW GENERATION CAPACITY

**540**  
**MW**  
7 projects  
new generation capacity

- FY20 highlights
- Chairman's message
- CEO's report
- Our role
- Safety
- Affordable
- Reliable
- Sustainable
- Future
- Customers
- Community
- Collaboration
- Performance

## Customers



### Telecommunications

Over the past 12 months, our telecommunications business has been transforming to provide faster, more reliable and secure services for our customers.

During the year, our wireless co-location service – which leases space on our towers and radio repeater sites to mobile carriers and government agencies – has been automated to provide a faster and more efficient service for customer applications. We have also deployed new carrier grade equipment to our innovative ‘fibre-in-the-sky’ telecommunications network, which covers more than 4,000 kilometers.

Extending across NSW, the ACT and Victoria, our fibre optic network uses TransGrid’s existing transmission towers. In FY20, we deployed our new Carrier Ethernet Multi-protocol label switching network, enabling us to deliver above-the-ground telecommunications services directly to customers.

Broughton Webb  
Resources Manager – Yass



### Enhanced service offerings

By leveraging our existing network, and offering organisations a viable alternative to underground data transmission, we provide competition and choice in the market and offer greater value for money to our wholesale, government, enterprise, energy and renewables customers. We also partner with several providers, including the nbn™. During the year, we added the nbn™ Enterprise Ethernet service to enhance our service offering and further extend our network reach to customers in a streamlined and cost-efficient way.

### Investing in services

In FY20, revenues have grown by more than 25 per cent year-on-year as we invested further in resources and partnerships to evolve our service proposition. As a result, we have expanded our customer base, adding major new customers including: Western Sydney Airport, Essential Energy, Water NSW, NSW Police and Berrybank Wind Farm to name just a few.

In August 2019, in response to increasing demand for higher bandwidth, we started building fibre to key Points of Interconnect (POI's) across NSW the ACT and

Victoria, extending our reach and service offering to customers in both metropolitan and regional areas.

We also launched a Software Defined-Wide Area Network (SD-WAN) solution, which allows customers to leverage any combination of services. Now, our customers can choose fixed, mobile data or broadband internet services to securely connect to their applications to the public, private and hybrid clouds AWS, Azure, Oracle and Google Cloud.


FIBRE OPTIC NETWORK

**4,000+ km**  
across NSW, the ACT and VIC +

GROWTH IN REVENUE

**25%**  
in FY20 ↑

MORE THAN

**130**   
telecommunication towers and 37,000 high voltage transmission towers across NSW and the ACT

## Improving the customer experience

In collaboration with our Energy Infrastructure business, we provided a growing number of renewable energy customers with telecommunications services, delivering Internet and Ethernet services to more than 14 combined projects over the past two years. We also saw increased take-up of our data backhaul and co-location bundling services, delivering competitive solutions for clients, including Vodafone and the NSW Government Telco Authority, where an expansion project involved more than 20 pilot sites as part of the Government Radio Network state wide initiative.

During the bushfire season, the resilience of our infrastructure and commitment of our workforce enabled us to adapt our delivery model to provide essential telecommunications services to our customers against tighter deadlines. In early 2020, in response to the COVID-19 pandemic, we collaborated with Optus to successfully deliver multiple 100 gigabyte additional data services from Sydney to Melbourne in fewer than five days – an unprecedented timeframe for our industry.

Customer service has continued to be one of our priorities. Having established ServiceNow and our service portal in the previous financial year, we have seen a growing number of customers use this digital workflow platform to log and track their queries. Customers have reported a better end-to-end experience with greater efficiency and ease of use.

In FY21, we will continue to invest in our network, technology, automation, digitisation and, most importantly, our people, to continue our ongoing growth and long-term success.

# Community



## Community engagement

TransGrid's high voltage transmission network flows through and serves communities in all urban, regional and rural areas of NSW and the ACT.

### Increasing consultation

TransGrid aims to increase the positive impact we have on the local communities our projects touch. The year saw an increasing number of major projects, requiring extensive landowner and community engagement and consultation to ensure people are informed early about, well prepared for and kept safe during project work.

In FY20, as part of our EnergyConnect project, we consulted with more than 900 residents, landowners and community organisations along 700 kilometers of transmission lines from the South Australia border up to Wagga. This included community engagement sessions in Euston/Robinvale and Moulamein before the COVID-19 restrictions. We then ran communications campaigns on social media, via local print news and through direct email to interested parties.

In October and November 2019, we exhibited the Environmental Impact Statement (EIS) for our Power Sydney's Future project. The EIS was put on static display at various locations, accompanied by a community guide to help people easily grasp the important information. We also communicated these messages by newspaper adverts, community information sessions, industry briefings and doorknocking conversations. During this time, we engaged with the community via emails and letters to stakeholders and a newsletter distributed to 24,000 properties. Our social media campaigns included the community engagement platform, social pinpoint, which helped us gain interactive feedback from the community on the original and revised routes for this project.

During the year, we contacted more than 200 landowners along 300 kilometres of transmission lines about the coming work on the Queensland to NSW interconnector. Our project team visited all 39 property owners to discuss the work on the easement within their property. We also wrote to residents in the vicinity of our Armidale, Dumaresq and Tamworth substations with information about the upgrades and what to expect during construction. As the project crosses substantial agricultural land and six local government areas, we held briefings with NSW Farmers and local councils, who we are keeping up to date with progress.

In FY20, the HumeLink project began working with more than 700 private landowners along the 600 kilometers route corridor from Bannaby to Maragle and Wagga Wagga. We also met with local government and members of parliament. Planned face-to-face landowner and community engagement was delayed by the bushfires and then COVID-19. Despite the restrictions, we had more than 2,500 contacts with individual landowners and 615 landowner comments on the interactive map. The interactive map allows landowners to share information about their farm businesses, privately and in real time, directly with the project team for inclusion in the route refinement process. It will remain open until late 2021.





**Kath Logan**  
Community Engagement  
Lead – Humelink



**Kath Elliott**  
Community Relations Manager  
Snowy 2.0 Connection

FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

Performance



In FY20, through our Community Partnerships Program, we awarded a major sponsorship of \$50,000 to the Ethnic Community Services Co-operative, which provides multicultural services and support to meet the needs of culturally and linguistically diverse people. This grant provided funding towards a community bus initiative to help disadvantaged people visit vital services in Sydney's Inner West.

Over the past 12 months we have also invested in 26 other initiatives that will have a tangible and lasting impact on local communities in areas where our assets are located or under development.

# Community



## Delivering community benefits

We strive to provide lasting benefits to our customers, community and the environment as part of our commitment to building a sustainable future.

### Beneficiaries awarded in June 2020 are:

Organisation	Location	How the funding is being used
Awards Australia	NSW/ACT	Supporting NSW/ACT Regional Achievement and Community Awards
Barkindji Maraura Elders Environment Team	Dareton	Equipment to support rangers with cultural and environmental protection work.
Bega Local Aboriginal Land Council	Bega	Safety equipment for a portable firefighting unit.
Bottle Bend Reserve Land Managers Trust	Monak	Installation of a visitor information board for Bottle Bend Reserve.
Cancer Council NSW	Wagga Wagga	Support for the annual Cancer Council Wagga Wagga Relay For Life community event.
Carevan Wagga Wagga	Wagga Wagga	Safety equipment for delivery of meals to those in the community experiencing food insecurity and social isolation.
Cerebral Palsy Alliance	Wagga Wagga	Early development resources for children with Cerebral Palsy and other neurological disabilities.
Country Education Foundation of Australia	Balranald and Coleambally/ Darlington Point	Contribute to educational grants for young people in the community who are seeking post-secondary education.
Cypress View Lodge	Coleambally	Contribute to the installation of an internet server for aged care residents.
Deniliquin Rescue Squad	Deniliquin	Safety equipment and warning lighting.
ErinEarth	Wagga Wagga	Equipment to build a garden bed, providing local produce for community meals.
Euston Regional Landcare	Buronga	Installation of an air conditioner for the Benanee Community Hall.
Firsthealth	Wagga Wagga	Upgrade equipment for a sensory garden for people with disabilities.
Hay Junior Rugby League Club	Hay	Support for an educational program on the environment and local Indigenous culture.
Hunter Wetlands Centre Australia	Shortland	Assistance for access track upgrade.
Jaliigirr Biodiversity Alliance	Bellingen	Funding for the canine scent detective program which helps find injured koalas.
Kurrajong Waratah	Wagga Wagga	Purchase of a defibrillator for Hildasid Farm.
Lake Albert Pony Club	Lake Albert	Installation of a semi-automatic defibrillator and training course for instructors.
Menshed Wagga Wagga	Wagga Wagga	Supporting Menshed community programs and electrical works for a new shed.
Merrimans Local Aboriginal Lands Council	Wallaga Lake	Contributing to the Wallaga Lake Koori Village Youth Development Program providing training and personal development.
Rotary Club of Wentworth	Wentworth	Provision of PA equipment for the main street of Wentworth.
Sunnyfield	Blacktown	Equipment for the Cooking up a Storm program which supports people with disabilities.
The Rock & District Meals on Wheels	The Rock	Purchase of portable devices to assist meal deliveries for elderly members of the community.
The Smith Family	Wagga Wagga	Support Girls at the Centre, an educational program which encourages girls to become leaders.
Tumut & District Historical Society	Tumut	Assist with production of a large collection of historic photographs for the Millet Farming Photographic Showcase.
Wiradjuri Aboriginal Corporation Community Child Care Centre	Wagga Wagga	Purchase of defibrillator and training course.
Yanco Creek and Tributaries Advisory Council	Yanco Creek	Assessment and monitoring of local native wildlife.

# Collaboration



## Investing in our people

We are committed to building a high-performance culture where everyone can reach their potential, while contributing to the success of the business and the role we play in the community.

The year saw employee engagement increase significantly for the second year in a row, from 51 per cent in 2018 to 70 per cent in 2020. According to our engagement survey, this increase has been led by people: feeling more connected to a bright future, with TransGrid's strong business performance and major renewables project; and feeling valued, particularly on the back of our fast and decisive COVID-19 response and increasing support for wellbeing and work/life balance.

### Building capability

Our approach to managing and developing employee capability focuses on balancing immediate capability requirements with longer-term sustainability. During the year, we built key workforce capabilities, including commercial acumen and core business skills, and began a new senior leadership development program. A new, internally run graduate program, with a 50 per cent female intake, led to high calibre talent being deployed to manage projects.

In FY20, our focus on promoting internal talent paid off. Internal promotions increased from 17 per cent to 35 per cent, reducing employee turnover from 14 per cent to 10.3 per cent. The year also saw recruitment, development and training requirements now aligned with our capability framework, bringing into line employee lifecycle talent, and development requirements.

### Creating a diverse and inclusive workplace

TransGrid recognises the value that diversity of thought, experience and background can bring to our workplace.

In FY20, we continued to embed our Diversity and Inclusion strategy across the organisation. A growing number of employees are involved in creating a culture of belonging, through their voluntary involvement in supporting our STEM scholarships, being part of the Diversity Council and supporting our journey towards reconciliation with Aboriginal and Torres Strait Islander peoples.

In FY20, our focus on working towards gender equality continued, establishing a new Women in Engineering Scholarship through UNSW. As part of our ongoing commitment to supporting families, TransGrid refreshed its parental leave offering to meet the changing demands of work and family life, launching a "Share the Care" option for partners wishing to take up a primary care role. Since its launch in 2019, a number of dads have accessed this leave, allowing parents more choice in how they juggle work and home responsibilities. To help close Australia's superannuation gender gap, which is largely due to the time women take out of the workforce to raise a family, TransGrid introduced a super top up payment for full and part-time employees taking unpaid primary care leave.

Our focus on LGBTI inclusion continues to grow with Council members and the HR team undertaking awareness training early in 2020 and support for TransGrid employees to take part in the Mardi Gras Parade.

### Promoting ethical compliance

In FY20, the TransGrid Board Audit and Risk Committee re-endorsed our Compliance Management Framework and governance model for compliance management. During the year, we reviewed our compliance with key obligations following the effective date of contestability in the provision of transmission services and planned revision of Transmission Ring-fencing Guidelines by the Australian Energy Regulator. We also revised and rolled out to all employees our Code of Ethics and Conduct, reflecting our continued commitment to ethical and lawful business conduct.

Year	Women	Aboriginal and Torres Strait Islander
2015	18%	1.0%
2016	19%	1.0%
2017	20%	1.3%
2018	20%	1.0%
2019	22%	1.8%
2020	23%	2%



## Valuing our people

In FY20, TransGrid further strengthened our commitment to employee health and wellbeing with initiatives to foster positive physical and mental health during the COVID-19 crisis. During the year, our existing wellbeing initiatives, such as discounted gym memberships, skin cancer checks, flu vaccinations, health checks and an Employee Assistance Program, were expanded to include new elements, such as access to on demand wellness, movement and exercise videos and training to equip employees with skills and strategies to manage personal resilience.

We also raised awareness around stress, depression and anxiety to remove the stigma around mental health conditions, providing employees with education, self-care strategies, support and resources. This included leveraging off campaigns such as R U OK? Day and National Mental Health Month.

TransGrid continued to support flexible working arrangements, enabling people to work in a more adaptive way, not just working from home but adjusting work schedules to accommodate personal commitments.

By the end of FY20, we had developed a mental health and wellbeing strategy that will deliver initiatives focused on building psychological and physical wellbeing that support a healthy and resilient workforce. Our approach in the coming year will focus around prevention and early intervention, increasing awareness, supporting recovery and work design and culture.



●●●● Louise Poole  
Project Engineer – Wallgrove


Shahpar Ahmed ●●●●  
Senior Project Developer – Ultimo

## Collaboration



### Supporting reconciliation

TransGrid has an important role to play in creating a more equitable future. Our aspiration is towards a future where Aboriginal and Torres Strait Islander peoples' deep knowledge of, and connection to, land is respected and celebrated by all who live here.



Members from Native Title and Barkindji Maraura Elders Environment Team, working alongside Archaeologists who are undertaking a cultural heritage field survey for geotechnical studies, in Phase One of EnergyConnect from the NSW-SA border to Buronga.

### Building confidence for the future

The Clontarf Foundation is a charitable organisation that works to improve the education and employment prospects of young Aboriginal and Torres Strait Islander men. The program works on building students' self-esteem and confidence to help them complete year 12 in school and encourages them to participate in education, work and society in a positive way.

This is one of our most recent partnerships, established in January 2020. There are Clontarf Academies in all our regional locations, which will provide opportunities for our people across the business to support these young Aboriginal and Torres Strait Islander students through volunteering and community engagement programs.

### Reconciliation Action Plan (RAP) initiatives

Since launching our first RAP in FY19, we have embedded more than 40 actions and initiatives across the business to increase respect towards Aboriginal and Torres Strait Islander peoples, build relationships with the community and create opportunities to support reconciliation.

In February 2020, we launched our Innovate RAP and established a working group to support the RAP Advisory Committee in the day-to-day delivery of our RAP initiatives.

We look forward to building this relationship in academies across NSW with our volunteer employee network. Last year, we again welcomed two Aboriginal and Torres Strait Islander students to TransGrid as part of our Career Tracker program and were excited to be able to offer ongoing employment to one student at the end of their internship.



## Collaboration



### Leadership

Our directors and executives have significant expertise and a combined wealth of experience, providing strong thought leadership across the energy industry and other markets.

## Board of Directors



**Jerry Maycock,  
Chair**

B. Eng Mech (Hons), FAICD,  
FEngNZ

Jerry was appointed as Chair of TransGrid on 22 February 2018. He has spent more than 35 years in business leadership roles and, as a senior executive, has worked principally in the building and construction materials industries. 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 20 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 was appointed a Director of TransGrid on 16 December 2015. He has more than 18 years' experience in the Australian energy and infrastructure industries, and has been the Managing Director and Chief Executive Officer of Spark Infrastructure since May 2012. Prior to that, he was Chief Financial Officer at the ASX listed gas transmission and energy infrastructure business APA Group for four years. He also spent more than eight years at Origin Energy Limited in a number of senior management roles including Group Financial Controller and Operations Manager, Energy Trading.



**Jean-Étienne Leroux,  
Director**

B.Com, MFE

Jean-Étienne Leroux was appointed to the TransGrid Board on 16 December 2015. He has been Regional Director, Transactions & Asset Management in the Infrastructure team of La Caisse de dépôt et placement du Québec (CDPQ) since 2006. In this role, he has a mandate to develop a portfolio of quality infrastructure holdings in Australia, while managing specific assets within the portfolio. This includes the Port of Brisbane, for which he led the acquisition process at the end of 2013. Jean-Étienne is a director of the Port of Brisbane and sits on the Oversight Committee of Fiera Axiom Infrastructure (Québec). He has served on the Boards of InTransit BC (Vancouver, British Columbia), the Budapest Airport and South East Water (United Kingdom).



**Charles-Edouard  
Mariolle, Director**

MBA, GAICD

Charles-Edouard has a long standing experience in energy infrastructure, project finance and corporate governance. Prior to joining CDPQ in 2018, Charles-Edouard participated to numerous transactions in the energy sector in Europe, successively as a senior manager with Deloitte, as the founder of renewable energy developer ECDS ultimately sold to an infrastructure fund in 2011, and as deputy head of Natixis' Mirova renewable energy funds between 2011 and 2018 where he also acted as a board member for the funds' portfolio companies. Over that period, Mirova added more than 3.5GW of new renewable generation across Europe and received multiple awards for its leading ESG approach and investment strategy.

*TransGrid also thanks Bénédicte Colin for her contribution to the board for the 2019/20 financial year.*



As Chairman, I am proud to report that TransGrid has demonstrated resilience of our business and people in difficult times. We have not just sustained but continued to advance plans to deliver safe, reliable electricity at the lowest possible cost to customers.



**Jerry Maycock**  
Chairman



## Board of Directors



**Steven Fitzgerald,**  
Director  
BEc, MAICD

Steven Fitzgerald was appointed to the TransGrid Board on 1 July 2018. He is Head of Asset Management for HRL Morrison & Co with responsibility for the performance of private market investments made on behalf of clients. Steven joined Morrison & Co in 2011 after 13 years of senior executive experience at Wellington International Airport, Infratil Airports Europe and Sydney Airport. Steven is also a Director of Queensland Airports and Perth Airport.



**Gordon Hay,**  
Director  
B.Eng (Hons), MBA

Gordon Hay was appointed to the TransGrid board on 1 July 2018. He is an Executive Director at Morrison & Co, and he is the 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. Previously, Gordon led the Energy & Utilities investment team at QIC, and he served on the Board of Powerco Limited, New Zealand's largest regulated energy network. Gordon was also 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.



**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. He has held senior executive roles in the airports industry in both Australia and Europe and has worked for McKinsey and Company, the Reserve Bank and the WA Treasury Corporation. He recently retired as a Commissioner on the Australian Productivity Commission after six years of service. Warren is currently a director of the Sydney Desalination Plant, the trustee of the Energy Industry Superannuation Scheme, and the National Health Co-Operative. He previously served on the Board of Airservices Australia as Deputy Chair. Warren is the Chair of both the Regulatory Committee and of the trustee of the NSW Electricity Networks Assets Trust.

# Collaboration



## Board of Directors



**Dr Keith Turner,  
Director**

BE (Hons), ME, PhD, Elec Eng,  
FIEE, FIPENZ, FNZM

Keith was appointed to the TransGrid Board on 16 December 2015. He possesses extensive experience in the New Zealand energy sector, and 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. Keith has served in senior roles at Contact Energy, the Electricity Corporation of New Zealand, and the New Zealand Electricity Department. He had also held many industry reform roles. Keith is currently a Non-Executive Director of SA Power Networks, Victoria Power Networks, CitiPower and Powercor and a Director of Chorus NZ Limited. Keith has previously been Deputy Chair of Auckland International Airport, and Chair of Fisher and Paykel Appliances Limited.



**Julie Stanley  
Director**

GAICD, CA, B.Com

Julie Stanley was appointed to the TransGrid Board on 16 December 2015. She is a former Assurance and Advisory Partner at Deloitte, and has been a Director on the Regional Arts Victoria Board since 2015. Julie has extensive experience as a Registered Company Auditor. She has a deep understanding of the energy sector, having audited a variety of clients, and has gained auditing exposure in the energy sector in Australia and the United Kingdom. She continues to specialise in the energy sector in Australia.

## Executive Team



**Paul Italiano,  
Chief Executive Officer**

B.Bus, MBA, FAIM, FLWA, FCPA

Paul joined TransGrid in May 2016 after serving as the Chief Executive Officer of Western Power since 2012. His 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.



**Jason Conroy,  
Chief Financial Officer**

B.Com (Accounting), MBA, FCA

Jason is an experienced senior finance executive and non-executive director with a track record of generating significant value for shareholders. Notably, Jason was Chief Financial Officer of the ASX-listed energy utility operator DUET Group for nine years, where he co-led a significant transformation through mergers and acquisitions, recapitalisations and restructuring. This resulted in its \$7.4 billion takeover in May 2017.



**Brian Salter,  
Executive Manager,  
Legal, Governance  
and Risk**

BA (ANU), LLB (Hons) (ANU),  
LLM (Hons) (Syd)

Brian is a highly experienced legal executive, and has practised commercial law for over 35 years. He is a specialist in regulatory, compliance and governance issues. Brian was a partner at a major first tier law firm for 19 years. Brian is the former Chair of the Australian Securitisation Forum, the General Counsel 100 and SCECGS Redlands. He was a long-time member of the Legal Committee of the Australian Institute of Company Directors (AICD) and the Corporations Committee of the Business Law Section of the Law Council of Australia.



**Michael Gatt,  
Executive Manager,  
Works Delivery**

Dip Elec Eng, BCom (Business)

Michael has more than 20 years' experience in the electrical supply industry across a diverse range of responsibilities including technical roles, policy development and senior management. He currently manages TransGrid's capital and operating works programs together with Health, Safety and Environment. Michael previously held board positions with the NSW Energy and Water Ombudsman; held senior roles with the Department of Energy Utilities and Sustainability; and worked as a Senior Adviser for the NSW Government.



**Seán McGoldrick,  
Executive Manager,  
Major Projects, Acting  
Executive Manager,  
Network Planning and  
Operations**

BA (Mathematics), BAI  
(Engineering), PhD (Molecular  
Physics)

Seán has over 30 years' experience with electrical power systems globally, and consulting on EU, World Bank and EBRD funded projects. He joined TransGrid in 2019 and oversees major projects across NSW and the ACT. In February 2020, Seán became Acting Executive Manager, Network Planning and Operations, with responsibility for asset management and investment strategies, environmental approvals, non-network solutions and system operations. Seán was previously Executive Manager of Asset Management at Western Power, with responsibility for a \$10.2 billion asset.



**Chris Pemberton,  
Executive Manager,  
Corporate Services**

BEng (Hons), MBA, AGSM,  
GAICD

Chris has extensive experience in improving business performance, service delivery and people engagement supported by a diverse background in corporate and business strategy, infrastructure, operations, IT, purchasing, property and engineering. In his previous role as Group Head Corporate Services for Downer, Chris led the IT, procurement, shared services, property and business system transformation and the business cost reduction program. Prior to joining Downer, Chris ran his own consulting practise and held a number of senior leadership roles with Qantas.

# Collaboration



## Executive Team



**Richard Lowe,**  
Executive Manager,  
Business Growth  
LLB

Richard has more than 25 years' experience 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. He is responsible for growing TransGrid's new connections and network expansion, property, telecommunications, strategic acquisitions and commercialising new technology initiatives. Before joining TransGrid, Richard was Managing Director of Macquarie Infrastructure's \$2 billion infrastructure portfolio in India.



**Eva Hanly,**  
Executive Manager  
Strategy, Innovation  
& Technology  
BEng (Hons), BA, MBA, AICD

Eva has 18 years' experience in the infrastructure industry. She has a strong background in procuring and delivering infrastructure and in establishing new businesses, driving growth and leading transformational change. Before joining TransGrid, Eva was General Manager NSW Development at TransUrban, responsible for the growth pipeline, and was part of the leadership team responsible for acquiring WestConnex. Prior to that, Eva was General Manager Commercial at Origin Energy. Eva sits on the Deans Advisory Council for the Faculty of Engineering at UNSW.



**Graeme Wedderburn,**  
Head of Corporate  
Affairs  
BA Comm

Graeme has more than 30 years experience working in business and government at the highest levels. Before joining TransGrid in November 2018, Graeme's career included Director of Specialised Capital Group, Westpac's investment banking arm, General Manager, Government and Corporate Affairs with Origin Energy and consulting for business and governments in Australia and Asia with a range of firms including KPMG. In government, Graeme served in a number of roles including senior adviser to Australia's Minister for Foreign Affairs and as Chief of Staff for the longest continuously serving NSW Premier.





FY20 highlights

Chairman's message

CEO's report

Our role

Safety

Affordable

Reliable

Sustainable

Future

Customers

Community

Collaboration

Performance

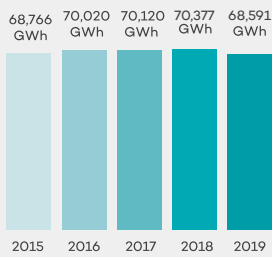
# Performance



## Key indicator review

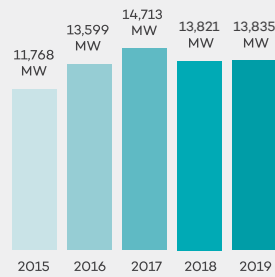
TransGrid is committed to creating and sustaining long-term value. We delivered a strong financial performance this year, driven by revenue from our non-prescribed business totaling: \$109.10 million.

Network throughput (energy sent out)



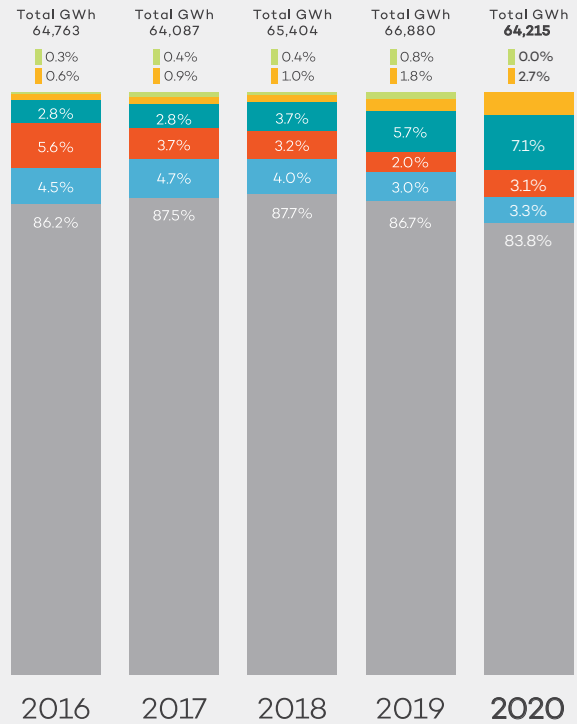
**-2.60%**  
Decrease from FY19 to FY20

Peak operational demand



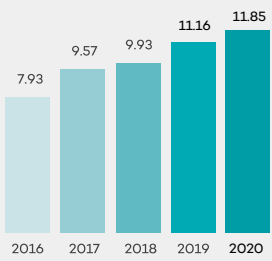
**0.1%**  
Increase from FY19 to FY20

NSW generation output



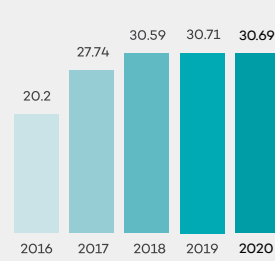
■ Black Coal ■ Hydro ■ Gas  
■ Wind ■ Large Scale Solar ■ Other

Wholesale price c/kWh\*



**6.2%**  
increase from FY19 to FY20

Market offer retail price c/kWh\*



**0.1%**  
decrease from FY19 to FY20

## Key financial indicators\*

	FY20	FY19
Prescribed revenue	\$755.88m <sup>2</sup>	\$749.05m <sup>2</sup>
Non-prescribed revenue	\$109.10m	\$142.52m
<b>Total revenue</b>	<b>\$864.98m</b>	<b>\$891.57m</b>
Operational Expenditure (opex) <sup>6</sup>	(\$198.78m)	(\$203.28m)
<b>Underlying Earnings before interest, tax, depreciation and amortisation (EBITDA)</b>	<b>\$666.20m <sup>1</sup></b>	<b>\$688.29m <sup>1</sup></b>
<b>Net profit/(loss) after tax (NPAT)</b>	<b>\$12.07m</b>	<b>(\$49.72m)</b>
Prescribed capital expenditure (capex)	\$260.62m	\$209.25m
Non-prescribed capital expenditure (capex)	\$238.70m	\$140.07m
Major Projects (capex) <sup>7</sup>	\$73.98m	\$7.00m
<b>Total Capex</b>	<b>\$573.30m</b>	<b>\$356.32m</b>
Total property plant and equipment (PP&E)	\$7,800.60m	\$7,570.89m
Intangible assets, investment property and other assets	\$3,433.75m	\$3,080.77m <sup>3</sup>
<b>Total assets</b>	<b>\$11,234.35m</b>	<b>\$10,651.66m <sup>3</sup></b>
External debt <sup>4</sup>	(\$5,954.75m)	(\$5,695.06m)
Other liabilities <sup>5</sup>	(\$1,214.92m)	(\$734.02m) <sup>3</sup>
<b>Net assets</b>	<b>\$4,064.68m</b>	<b>\$4,222.58m</b>

1) Underlying EBITDA differs from the statutory audited accounts as it excludes timing differences in prescribed revenue due to over/under collection, accounting mark to market gains/losses, and some opex items.

2) Prescribed revenue excludes revenue over/under collection and includes network support costs pass-through offset and accrued rebates under the ENA COVID-19 Network Relief package.

3) Restated FY19 comparatives for derivative assets and liabilities.

4) Excludes debt raising costs and fair value adjustments.

5) Excludes shareholder loans.

6) Operational Expenditure excludes bushfire remediation costs, securityholders' allowance and defined benefits superannuation actuarial adjustment.

7) Major projects capex comprises Integrated System Plan (ISP) projects and excludes Powering Sydney's Future (PSF). The PSF project is included in prescribed capex.

\*TransGrid Group aggregated financials.

# Leading the **energy** transition

## Contact details

### Sydney

180 Thomas Street  
Sydney NSW 2000

PO Box A1000  
Sydney South NSW 1235

Telephone: 02 9284 3000  
Freecall: 1800 222 537  
Emergencies: 1800 027 253  
Facsimile: 02 9284 3456

### Business Hours

8:30am – 5:00pm

### ©TransGrid 2020

All rights reserved.

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).

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



**TransGrid**