



# **2019–24 TasNetworks Works Delivery Plan**

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# 1 Introduction

Tasmanian Networks Pty Ltd (TasNetworks) owns and operates the electricity transmission and distribution network in Tasmania. Our core business is providing safe, reliable and efficient electricity transmission, distribution and telecommunication services in a national market.

TasNetworks' vision is to be "Trusted by our customers to deliver today and create a better tomorrow". Customers are one of the three key pillars fundamental to the achievement of the TasNetworks' strategy and vision. As a business TasNetworks will aim to deliver consistent, repeatable and exceptional customer service and first contact issue resolution.

TasNetworks, through its distribution network reliability strategy is focused on ensuring network reliability performance whilst also:

- providing lowest sustainable network prices and maximising the value of our services to our customers;
- maintaining a safe and secure electricity supply;
- complying with regulatory, code and legislative responsibilities; and
- efficiently managing the distribution network with respect to resourcing, cost effectiveness and reliability.

TasNetworks will position its business in such a manner that it retains the right skills to deliver its proposed works programs, and delivers these programs in a safe, reliable and efficient manner.

TasNetworks is confident that its internal workforce and external contractors together provide the efficient level of competent and skilled resources that will enable us to deliver the forecast work programs.

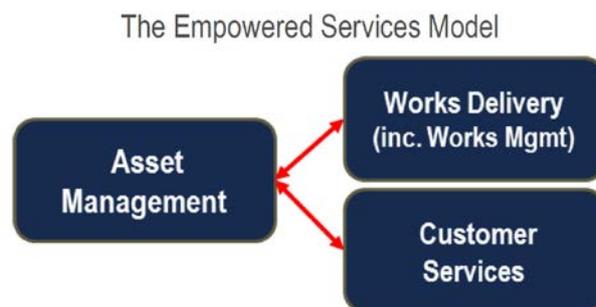
The primary purpose of this document is to provide an overview of TasNetworks' ability to source the physical labour required to undertake the planned level of activity of the forecast works program that forms part of TasNetworks' 2019-24 Regulatory Proposal.

## 2 TasNetworks Operating Model and Resources

### 2.1 Empowered Services Model

TasNetworks has been established to operate as an 'Empowered Services Model' as indicated in the figure below:

**Figure 1 – TasNetworks' operating model**



Under the empowered services model, Works Management is combined with Works Delivery (Works and Service Delivery Group) which is subsequently empowered to decide how the program is actually delivered. Asset Management has a relatively narrow functional remit, focusing its efforts entirely on developing strategic asset management related priorities and the definition of what work needs to be undertaken, and by when.

Within this model we utilise a hybrid service delivery model where services are undertaken by either internal capability or outsourced to one or more external providers. Works and Service Delivery Group is made up of the following groups and is accountable for the planning, facilitating, monitoring and delivery of the works program for TasNetworks:

- Programming and Planning (Resource and Materials Coordination/Planning/Program Management)
- Engineering and Design (Engineering, Design and Estimation)
- Projects and Contract Delivery (Project and Contract Management)
- Field Operations (Delivery of Maintenance, Construction and Fault Response)
- Health, Safety, Environment & Technical Competency (a key activity in ensuring the safe, compliant and efficient delivery of the work program, this group manages all HSE matters and training)

## 2.2 Internal Resourcing Arrangements

Developing and maintaining the capability and availability of skilled resources is fundamental to delivery of any work program. Whilst Tasmania is small in geographical terms, it has quite a dispersed customer base, often in isolated or difficult to reach areas. As an island, it also has to be relatively self-sufficient in meeting the requirements of the customer base for reliability of supply. It is these challenges that have led to the establishment of a number of Major Resource Centres and Response Centres around the state, as shown in Figure 4.

**Figure 4: Location of TasNetworks' operations**

### Location of TasNetworks' operations



Corporate staff and office-based operational employees are located in the Hobart head office at Maria Street, Lenah Valley, and at the northern operations centre at Rocherlea. Field-based employees are located at major resource centres at Cambridge and Rocherlea and regional depots known as response centres. Some employees are located at the TasNetworks Training Centre in Mornington.

The internal field based workforce required to operate and maintain the distribution and transmission networks is made up of approximately 358 FTEs, comprising of Asset Inspectors, Distribution Operators, Dual-Trade Electricians/Lineworkers, Distribution Lineworkers, Live Line Workers, Meter Readers and Electricians.

Future FTE requirements will be driven by the scope and composition of future work programs. TasNetworks has the systems and processes in place to assess the skill sets and resources required to deliver our forecast work programs, and to fine-tune the current resourcing strategy to enable us to deliver those work programs efficiently.

## 2.3 External resourcing arrangements

TasNetworks has an appropriate mix of service providers across both distribution and transmission disciplines with some service providers currently providing services across both areas. Through its legacy businesses, TasNetworks has established a robust service provider market in Tasmania with some service providers mobilising satellite operations from mainland Australia. Service providers have become very knowledgeable and experienced in dealing with TasNetworks' equipment standards, design standards, technical specifications, processes, work practices, accreditations and compliance requirements.

Within Works and Service Delivery Group, Project Delivery and Contracts facilitates the efficient delivery of:

- TasNetworks' outsourced capital works programs; and
- those works identified to be in excess of the internal resource availability.

Projects/Programs contracted for external delivery are managed through the Project Delivery and Contacts Group which operates under ISO 9001 quality accredited processes.<sup>1</sup> We utilise commercial procurement and contract management principles to ensure TasNetworks is achieving the most efficient delivery of the required service. These arrangements ensure that all outsourced work is delivered efficiently and at the lowest cost to TasNetworks.

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<sup>1</sup> ISO 9001 Quality Accreditation

## 3 Program of Work Delivery

### 3.1 Program Management Framework

An End to End (E2E) process review (efficiency and effectiveness) of the practices associated with the delivery of TasNetworks' operational capital programs of work was implemented in December 2015.

As part of this review a Program Management Framework was established with the following vision:

*“To safely and efficiently develop, execute on and monitor our network works program utilising good industry processes and practices to deliver the lowest sustainable costs to customers and the community.”*

In principle the framework sets out responsibilities in the areas of overarching program management, strategic assessment of need (concept), preliminary options analysis, project initiation, through to implementation, review and closure.

Works program management involves the following key functions:

- fully integrate all activities (capex and opex) in the rolling works program, taking into consideration priority, time, cost, packaging/amalgamation, internal/external resourcing **(integration)**;
- ensure comprehensive scope definitions exist for all activities in the rolling works program, with scope change managed through a centrally controlled process to ensure the program is delivered within the defined constraints **(scope)**;
- ensure all activities in the rolling works program are scheduled and managed in an accurate and timely manner, with the appropriate level of detail to ensure the overall program is on track and delivered within the defined constraints **(time)**;
- ensure actual and forecast costs associated with the delivery of all activities in the rolling works program are managed in a timely and accurate manner to ensure the most effective and efficient use of resources and to ensure the overall program is on track and delivered within the defined constraints **(cost)**;
- apply mature program/project governance processes to ensure decision-making and delivery management activities are focused on achieving program goals in a consistent manner

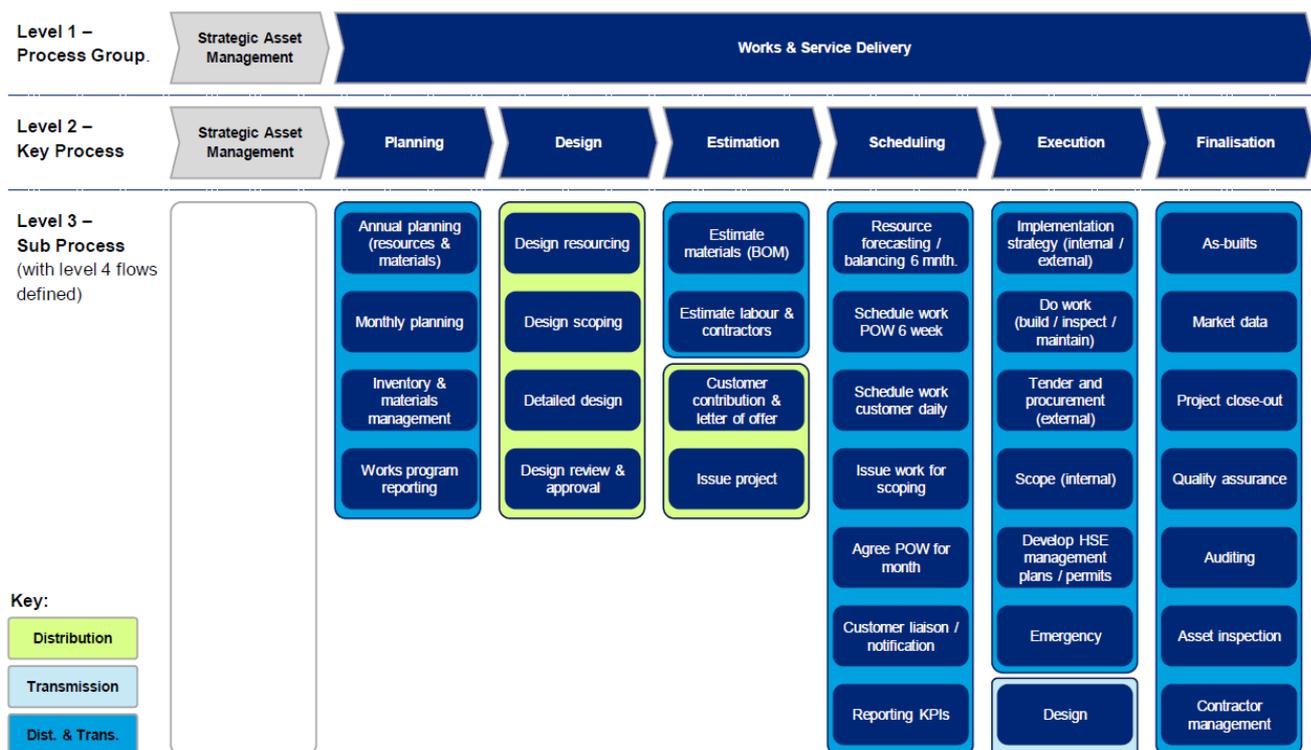
(governance);

- apply good industry program/project management processes/methodologies based on Project Management Body of Knowledge or PMBOK principles; **(methodology)**;
- provide reports, KPI's and benchmarking tools to foster a culture of continuous improvement **(quality)**;
- Develop delivery plans and forecasts to identify the most appropriate human resource (internal or external) for delivery of the works program; and develop and implement materials planning to support the delivery of all activities in the rolling works program **(resourcing)**;
- be the single source of truth for reporting on all activities in the rolling works program to all stakeholders **(communications)**; and
- ensure that project/program/business risk is assessed and this information is used to guide decisions in the context of the organisation's overall risk tolerance **(risk)**.

### 3.2 High Level Process

Figure 2 shows the high level process employed by TasNetworks for planning and delivery of its work programs.

Figure 2 – TasNetworks' delivery process



## 4 Planning Process

Within the Works and Service Delivery Group of TasNetworks, planning of the program of work is undertaken on an annual (rolling 1-3 year) and monthly basis, to ensure appropriate physical resourcing and material are available to deliver programs and projects.

Planning of the program is supported with the use of purpose built works planning and materials planning tools<sup>2</sup>, as well as WEBMap.<sup>3</sup>

In February 2018 the planning tools and works management system will be superseded by the introduction of SAP across the asset management and works planning disciplines. This will provide a single platform for establishing and managing both the transmission and distribution works programs and will provide the ability to extend these functions across the work crews through a planned field mobility project.

The planning process determines the efficient mix of internal and external labour resources, and programs are planned at a macro level on a one month basis to optimise works program delivery, and to maximise efficiencies in relation to:

- work priority;
- resource availability;
- location and travel;
- skill set requirements;
- outages; and
- customer requirements.

As already noted, TasNetworks employs a mix of internal and external labour resources to deliver the works program. Typically, the outsourced work to external contractors involves activities that:

- are low in complexity but high in volume;
- can be packaged as a single project e.g. design and construction of major assets;

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<sup>2</sup> REGIONAL PLAN – Annual Planning Tool, CROSS TAB – Monthly Planning Tool and INSTOC – Materials Management System

<sup>3</sup> WEBMAP – Geospatial interface

- require civil maintenance and construction;
- are restrictive (limited timeframes and/or outage window); and
- involve vegetation maintenance.

We also use contractors to supplement internal resources to meet peak workloads from time to time. The planning process seeks to optimise the mix of internal and external resources, to maximise efficiency in the delivery of the works program, and to ensure efficient risk management.

## 5 Program Reporting

Monitoring and reporting on delivery of programs and projects is provided centrally within Works and Service Delivery Group by the Program Management Team. The team is responsible for providing the whole business with the single source of truth on program/project status including costs incurred to date vs. budget, forecasting, works completed, works on time/delayed etc.

A comprehensive suite of reports exist which support day to day project/program management (delivery against plan), financial and volume reporting, unit rate analysis, monthly progress reporting, board reporting and reporting relating to design progress and field operations.

Weekly meetings are held to monitor program delivery, and the functioning of the End 2 End Works Program Management Process.

## 6 Past Delivery Performance

The current regulatory control period required the delivery of the following works program.

<b>Regulatory Allowance</b> (\$, nominal)	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Distribution (standard control)</b>							
Opex allowance	75,191,252	76,085,515	78,916,938	80,811,611	82,241,621	68,271,654	68,416,540
Capex approved (net)	105,871,825	112,086,599	107,367,065	104,098,043	107,040,521	116,124,019	107,492,076
Total	181,063,077	188,172,114	186,284,002	184,909,654	189,282,142	184,395,673	175,908,617
<b>Transmission (prescribed)</b>							
Opex allowance			45,054,570	45,497,292	46,831,381	48,195,529	48,796,677
Capex approved (net)			52,865,626	68,868,950	57,718,537	49,867,165	38,994,508
Total			97,920,197	114,366,243	104,549,918	98,062,694	87,791,185

In the 2016-17 Financial Year WSD Group successfully delivered the forecast operational program and capital programs and, as at the end of September 2017, is on track to deliver the 2017-18 programs of

work.

The major strategies employed over this period to ensure deliverability of the program included:

- Improvements in planning processes – enhancement in workload forecasting and levelling of the capital program to gain optimum design and construction efficiency within the program delivery;
- Internal services focus –TasNetworks has directed its focus on delivery of its distribution work programs and reduced the amount of external work being undertaken with the exception of Hydro (Bass Strait Islands) and Telstra (complementary work e.g. shared services on poles). Consequently this has enabled TasNetworks to meet the increasing distribution work program, but has not required any increase in overall FTEs in the delivery area;
- TasNetworks identifying projects that could be both entirely or partly outsourced to ensure delivery of the entire work program and assist in meeting peak workloads; and
- TasNetworks outsources other works via market contract arrangements particularly where:
  - i. the internal model is not cost competitive;
  - ii. there is insufficient internal capability; or
  - iii. there is an increase in customer demand.

In applying these strategies, TasNetworks has successfully employed both internal and externally-sourced service providers to deliver a work program that is similar to that proposed for the next regulatory period.

# 7 Forecast Program of Work Requirements

## 7.1 Internal Resourcing

Given Tasmania’s geographic isolation from the mainland contractor market, and the relatively small size of the local contractor market, we maintain a base level of internal resources to ensure that our competency in delivering the core elements of the works program is maintained.

**Figure 2 – Internal resourcing for Transmission and Distribution Works Program**

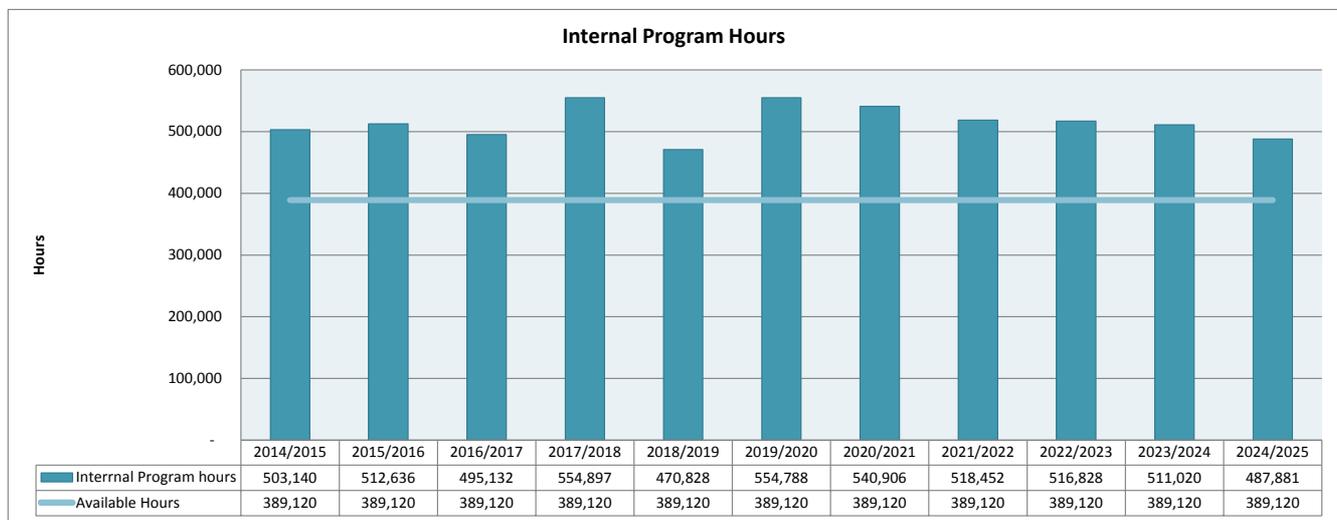


Figure 2 shows that:

- The forecast volume of work for the forthcoming five year regulatory period (2019/20 to 2024/25) is consistent with the level that we expect to deliver in 2016/17 and 2017/18. Our delivery performance in the current period demonstrates our ability to deliver in the forthcoming period.
- Planned hours of work over the forthcoming regulatory period exceeds available hours by approximately 80,000-100,000 hours per year on average, or 25 per cent of available internal labour. This observation, coupled with our delivery performance in the current regulatory period indicates that the present level of internal resourcing remains appropriate for the forthcoming period. Increased resource capability from external service providers has already been implemented to cover the increased workload.

**Figure 3 – Distribution and Transmission Works Program hours by skillset**

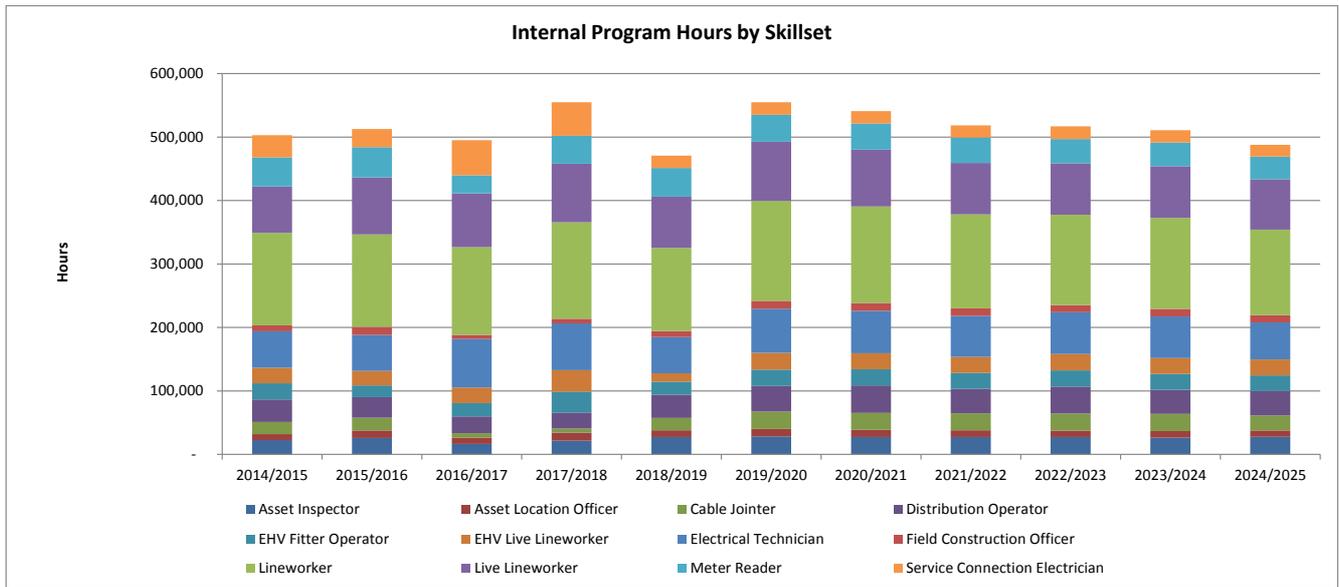


Figure 3 gives an indication of the skillsets required to deliver the Distribution and Transmission Program of Work.

## 7.2 External Resourcing

As explained in section 2.3, we use contractors for those areas of the works program that are not considered core to the business, or where demand for labour exceeds internal capability. Functions will only be fully outsourced if there is no strategic benefit in having them in-house, and delivery risk can be managed effectively.

Outsourced programs are packaged in a manner that supports optimisation and efficient delivery. In the next regulatory period, a number of ‘doing’ functions will continue to be fully or predominately outsourced, and these include:

- vegetation management, including a vegetation management system (VMS) ;
- meter replacement programs, meter reading and meter testing;
- street lighting;
- civil works;
- construction;
- pole testing and pole staking; and
- routine maintenance.

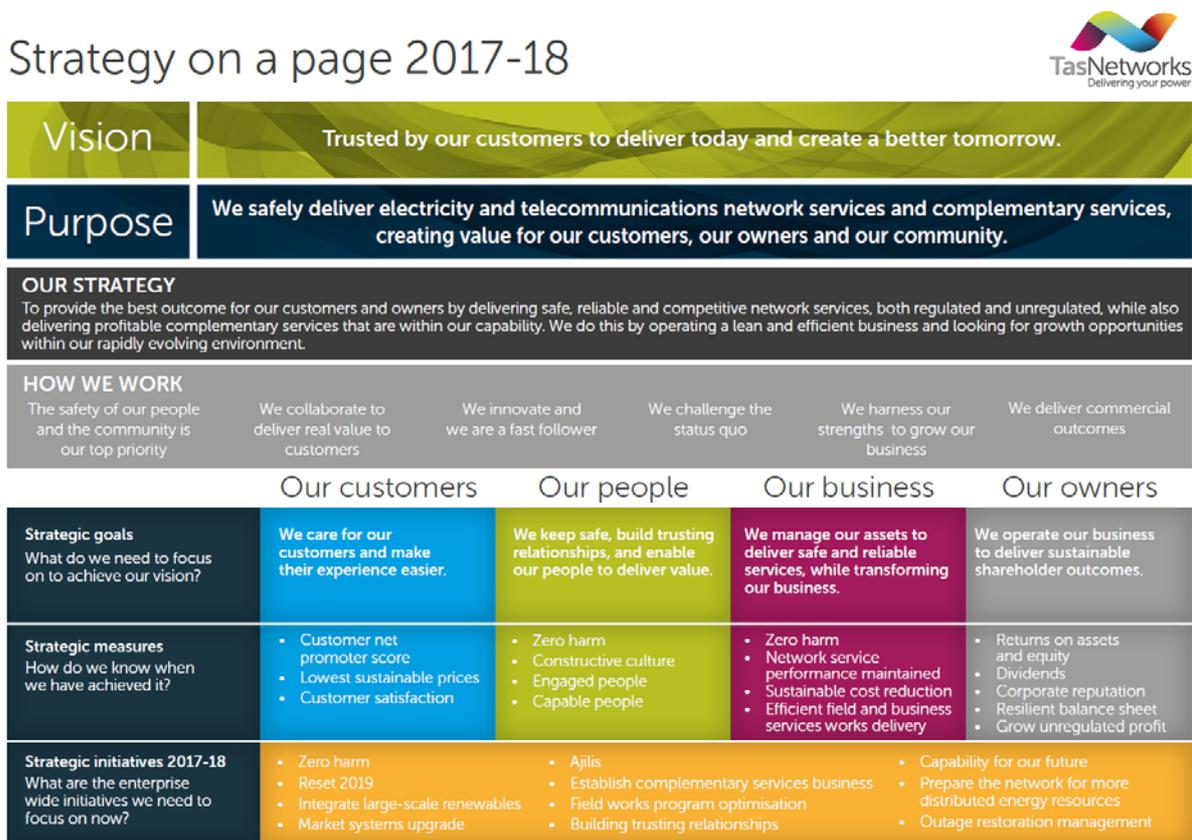
All works relating to access track maintenance, trenching, underground cabling requirements and subdivisions will continue to be delivered by civil contractors.

Based on the current delivery strategies the forecast external resource requirements show a continuation of this model where it can be shown that external resources can satisfactorily deliver the work in a timely, cost efficient fashion. Any new programs (or significant expansion of existing programs) will be assessed to ensure the most effective delivery methodology is implemented.

## 8 Strategic improvement initiatives

TasNetworks' Works and Service Delivery Group has implemented a number of strategic initiatives to improve its operations, in support of the TasNetwork Strategy for 2017/18, which is shown in Figure 3.

Figure 3: TasNetworks Strategy for 2017/18



The following initiatives within Works and Service Delivery Group will enable us to achieve further efficiency improvements in delivering the works program:

- Works Delivery Framework Review;
- End to End (E2E) Process Review;
- Develop and Grow our People; and
- Customer Contestability.

Further details on each of these initiatives are provided in the sections below.

## 8.1 Works Delivery Framework Review

We are reviewing our works delivery framework<sup>4</sup>, to ensure that it provides an optimal mix and level of resources. The scope of the review includes:

- Analysing and developing a wide range of options for delivery of future works programs.
- Assessing the mix of internal and external resources and skill set requirements, to ensure that our delivery capability is matched to future works programs.
- Assessing the level and type of future resource requirements, to inform decisions on employee intake and contracting arrangements.
- Enhancing our contracting model to strengthen performance incentives and commercial arrangements.
- Improved asset inspection and assessment techniques leading to more efficient works planning and increased workforce utilisation and effectiveness.

Our works delivery framework review takes into consideration the following factors:

- TasNetworks' current resourcing strategy (to meet corporate objectives and responsibilities);
- TasNetworks' operational and capital expenditure forecasts (for the 2019 to 2024 period);
- The Tasmanian service provider market (in terms of skill-sets and sustainability);
- TasNetworks' regulatory environment (specifically, efficiency benchmarking of work practices); and
- Improvements in the operational and capital delivery practices of other Australian network service providers.

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<sup>4</sup> TasNetworks Works Delivery Framework 2015-16 to 2018-19

Once completed, the recommendations of this review will enable us to achieve further efficiency improvements in the delivery of our transmission and distribution programs of work, for the remainder of the current regulatory period, and for the next period and beyond.

## **8.2 End to End (E2E) Process Review**

As noted in section 3.1, TasNetworks has undertaken an 'end to end Program of Work (POW) process review'. This activity was a work stream under 'Business excellence framework and initiatives', a 'One business' initiative in TasNetworks' Business Plan for 2015-16.

To provide clarity of roles and responsibilities to employees, and to ensure that TasNetworks responds to the challenges of developing and delivering its Capex and Opex program of work efficiently and prudently, a review of the following processes was undertaken:

- rolling works program management, including integrated concept, initiation and development, and associated program management function;
- defect management process;
- metering program management;
- maintenance and inspection management process;
- incident management process; and
- audit.

The objective was to review the systems, processes and performance within the processes listed above to identify improvement opportunities, taking into account the combined distribution and transmission works programs, to ensure year on year delivery against baseline plan.

This project is an ongoing joint venture initiative between Strategic Asset Management (SAM) and Works and Service Delivery (W&SD). It commenced in May 2015 with an intensive two-week consultant's review, and evolved into a large business change project aiming to update and improve the core business processes and accountabilities of the SAM and W&SD teams.

The project consisted of two discrete phases:

- 1 Review Phase – a two-week intense diagnosis facilitated by consultants Partners in Performance (completed).

2 Implementation Phase – six month business change project to implement actions identified during the review phase (complete).

The main improvements resulting from the project included:

- clearly identified roles and responsibilities in identifying network needs and alternatives, project governance and implementation;
- a triage exercise early in the project life cycle to identify and manage implementation risks;
- providing implementation flexibility through establishing a rolling works program across a number of years, instead a fixed 12 month view.

The project has now in a post implementation/continuous improvement phase with on-going review and improvement of the process as needed. The next review will be undertaken after the implementation of SAP.

### **8.3 Develop and Grow our People**

This initiative provides training opportunities (including in-house programs) to build a constructive TasNetworks culture through developing strong leadership, engagement of our people, and supporting our business through change.

Through this initiative, TasNetworks aims to build a high performance culture and strengthened employee engagement, to ensure that a sustainable and flexible workforce exists that can meet the future demands of the business.

Further information on training and competency is provided in section 9 below.

### **8.4 Customer Contestability**

TasNetworks is currently implementing a “connections choice” strategy. For some services the customer will be able to choose the provider for design and/or construction services. To date “connections choice” has been rolled out for the development of underground residential and commercial subdivisions. This initiative should lead to greater customer satisfaction, and lower overall costs for customers.

## 9 Training and Competency

TasNetworks will continue to invest in developing its team members and their workplace competencies. There is a large body of work taking place throughout the organisation that is focused on developing our workforce to achieve improved safety, productivity and efficiencies and where necessary new skills required to meet the changing electrical environment. Some of these initiatives include:

- Career Pathways – Creating clear pathways for team members to progress from apprentices through to technical leaders, team leaders and advisory positions with supporting competency based training, secondment opportunities, on the job learning and assessment.
- Multi-Skilling – Creating a field workforce capable of completing a majority of electrical network activities without creating duplication – an example of this is training lineworkers to be able to undertake defined activities at a customer’s switchboard to increase efficiency and utilisation of the workforce.

TasNetworks will continue to focus on resource flexibility, in particular, dual-trade for new recruits and as a transition program for current employees to enable them to work with greater flexibility. By multi-skilling its workforce, TasNetworks plans to increase workplace interest and challenges, provide a visual career path for both trade and non-trade specific employees and deliver the increasingly diverse range of work programs that are evolving in the distribution, transmission and communication industries.

TasNetworks’ organisation-wide commitment to training and development is seen through its corporate policies but also recent work in leadership enhancement, performance development and career and succession planning.

Workforce accreditation is also vital to TasNetworks’ ongoing activities and TasNetworks will continue to provide an environment where staff can progress their skills and experiences. The TasNetworks Training Centre has Registered Training Organisation (RTO) accreditation, delivering

nationally recognised training in Certificate III Distribution Overhead, Certificate III Distribution Transmission and Certificate III Distribution Cable Jointing. The value of having an RTO as part of TasNetworks' internal training activities cannot be understated. While the nationally accredited courses must meet stringent quality and auditing standards, it ensures that other courses and training provided, even though they don't require the same level of documentation and oversight, are treated in much the same manner, thereby driving continued excellence in the delivery of training services, regardless of the course undertaken. That said, all risk-based activities (for example, pole top rescue, polarity testing) are reviewed yearly to ensure that all staff maintain the highest level of preparation for potential workplace issues.

Resource flexibility allows TasNetworks to reduce its costs by means of increased work delivery capacity and improved career opportunities for staff, while not relinquishing the importance of specialist roles to maintain risk mitigation and safety levels. TasNetworks ensures that it is educating and maintaining the skills of its workforce and that the continuous improvement process with its employees will not only deliver a program of work safely, but also provides its people with the highest level of career satisfaction.

## **10 External Works**

As Tasmania's primary service provider committed to a long term presence in the state there are benefits in creating a critical mass to offset fixed overhead costs and maximise efficiencies. The opportunities presented by other external work, such as National Broadband Network (NBN) provides a complementary business model that can be incorporated seamlessly into the business. This balance is continually monitored through business planning processes and adjusted through changes identified in resource planning and external work opportunities.

## **11 Conclusion**

Our works delivery strategy for the next regulatory period and beyond aims to optimise the mix of internal and external resources we use to deliver the works program. Our delivery strategy seeks to maximise efficiency in the delivery of the works program, with clear roles and responsibilities in project development, governance and implementation, whilst ensuring efficient risk management.

Our internal resources provide us with an on-going capability and competency to deliver the core elements of the works program. These resources are complemented by our use of outsourced service providers in the cost-effective delivery of a range of 'doing' functions. External service providers also increase our flexibility in managing peak workloads, by providing supplementary resources.

Our forecast work program for the next regulatory period is consistent with volumes in the work program we have delivered successfully in the current period.

We are committed to continually improving our works delivery arrangements, and we have a number of initiatives underway that will enable us to achieve further efficiency improvements.

We are confident that our works delivery strategy will enable us to deliver the forecast works program prudently and efficiently in the forthcoming regulatory period.