

Other Non- Network Expenditure – Plant and Equipment

Regulatory Business Case (RBC) 2024-29

Contents

Endorsement	Error! Bookmark not defined.
1. Summary	2
1.1 Business need	2
1.2 Options analysis	3
1.3 Recommendation	3
2. Identified need	5
2.1 Background	5
2.2 Strategic alignment	5
2.3 Current management programs	7
2.4 Risk assessment	8
2.5 Summary	9
3. Options analysis	10
3.1 Comparison of credible options	10
3.2 Non-credible options	13
4. Recommendation	14
4.1 Strategic alignment	14
4.2 Benefits	15
4.3 Dependent projects	15
4.4 Deliverability	15
4.5 Expenditure profile	16
Appendix A. Cost estimation	17
Appendix B. Benchmarking	19

1. Summary

This business case has been prepared to support the 2024-29 Regulatory Proposal. The business case demonstrates that Power and Water has undertaken appropriate analysis of the need for the expenditure and identified credible options that will resolve the need and ensure that Power and Water continues to meet the National Electricity Objectives and maintain the quality, reliability, and security of supply of standard control services and maintain the safety of the distribution system.

The proposed expenditure identified in this business case will undergo further assessment and scrutiny through Power and Water's normal governance processes prior to implementation and delivery.

This business case addresses the condition, compliance and obsolescence risks of plant and equipment to ensure that Power and Water continues to manage the network prudently and efficiently.

1.1 Business need

Power and Water is a Northern Territory Government-owned Corporation that is responsible for the provision of electricity, water and sewerage services across the Northern Territory, an area of more than 1.3 million square kilometres. The three regulated networks in the Northern Territory that Power and Water is responsible for are:

- The northern network grid, which services about 150,000 people and stretches from Darwin to the south of Katherine including Batchelor, Adelaide River, Pine Creek, Mataranka and Larrimah
- The Tennant Creek network grid, which services about 7,000 people in and around Tennant Creek
- The southern electrical grid, which services the Alice Springs area which is home to about 28,000 people.

As the Network Service Provider for the local electricity systems in the Northern Territory, Power and Water is responsible for planning, building, operating and maintaining safe, efficient, reliable and cost-effective electricity networks to transmit electricity between generators and consumers, supporting the growth of the Northern Territory economy.

Plant and equipment addressed in this business case is directly attributable to the replacement, installation, maintenance and operation of non-network assets such as:

- Non road registered motor vehicles (e.g. forklifts)
- Mobile plant and equipment
- Tools
- Trailers
- Elevating work platforms not permanently mounted on motor vehicles
- Mobile generators
- Furniture and fittings.

The Plant and Equipment expenditure is essential to supporting network investment, asset maintenance and system operation activities and the forecast aims to promote the National Electricity Objective by ensuring the efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to the price, quality, safety and reliability and security of supply of electricity.

As the assets within scope in this business case age and are utilised, the likelihood of failure increases, creating safety, performance, and compliance risks. The purchase and maintenance of plant and equipment is essential to the safe operation, management, and maintenance of the Power and Water regulated electricity network. Failure to provide employees with safe and fit-for-purpose plant and equipment presents a number of risks including, failing to ensure the safety of employees, and risk project deliverability. Further, failure to provide adequate and fit-for-purpose plant and equipment may have severe implications for the ability to deliver distribution services for our customers.

1.2 Options analysis

The options considered to resolve this need are shown in the table below.

Table 1 Summary of options

Option No.	Option name	Description	Recommended
1	Restore and Repair	This option would provide minimal budget for the maintenance of plant and equipment and no budget for the purchase of new plant and equipment (i.e. 'fix on failure')	No
2	Lease or hire	This option is to not purchase or own any plant and equipment but rather lease items from a third-party supplier (where available).	No
3	Replace at end-of-life (own)	This option provides for Power and Water to replace plant and equipment at the end of useful life where it is no longer 'fit-for-purpose'. Power and Water purchases and owns the assets.	Yes

1.3 Recommendation

The recommended option is Option 3 (Replace at end of life) at an estimated cost of \$9.87 million (real 2021/22), including capex of \$9.62 million (real 2021/22). This option has superior benefits compared with the other options assessed, at a lower cost. This option will adequately address the business need.

The forecast expenditure for the next regulatory control period is outlined in Table 2.

Table 2 Forecast annual capital and operational expenditure (\$m, real FY22)

Item	FY25	FY26	FY27	FY28	FY29	Total
Capex	2.01	2.29	1.88	1.68	1.76	9.62
Opex	0.05	0.05	0.05	0.05	0.05	0.25
Total	2.06	2.34	1.93	1.73	1.81	9.87

The forecast expenditure for the next regulatory control period allocated to Standard Control Services as per the CAM is outlined in Table 3.

Table 3 Forecast annual capital and operational expenditure – allocation to SCS (\$m, real FY22)

Item	FY25	FY26	FY27	FY28	FY29	Total
Capex	1.62	1.85	1.50	1.33	1.40	7.69
Opex	0.05	0.05	0.05	0.05	0.05	0.25
Total	1.67	1.9	1.55	1.38	1.45	7.94

Note. Opex for preventative maintenance on the larger items of plant and equipment is typically between \$20,000 – \$50,000 p.a. and assumed to be a direct cost to Power Services for delivery of regulated services.

2. Identified need

The purpose of this section is to demonstrate and provide the background information for the need to invest and that the investment is aligned to the Power and Water's strategic objectives.

2.1 Background

Power and Water distributes electricity to over 244,000 people, while maintaining 37,500km of poles and towers across 1.3 million km² of the Northern Territory. Such an extensive network requires constant management, operation, and maintenance. As assets are utilised, they depreciate and their likelihood of failure increases, which creates compliance, safety, and performance risks.

The Other network assets within the scope of this business case include the plant, tools and equipment associated with the maintenance of the network, such as:

- Forklifts
- Testing Equipment
- Trade tools
- Ladders
- Protective Equipment
- Mobile Generators
- Specialised Operational Plant
- Trailers
- Furniture.

The replacement of such items may be:

- On a cyclical, recurrent basis to meet compliance requirements or regulatory standards
- On an 'as needs', non-recurrent basis, when the need to replace at 'end of life' has been identified to meet safety requirements
- To meet specific project requirements.





Throughout the course of maintaining the network, plant and equipment periodically require upgrading and replacing for a variety of reasons, including:


- General wear and tear, as equipment becomes unserviceable
- Asset obsolescence (such as 'end of support' notifications from vendors)
- To meet community expectation and ensure equipment is 'fit for purpose' (for example this can include with respect to reducing emissions, noise, dust)
- To upgrade to current technology to ensure efficient work practice and minimisation of errors
- To minimise manual handling components of activities, thereby reducing likelihood of workplace injuries and death
- To ensure the plant and equipment remain compatible with assets and the network standards.

2.2 Strategic alignment

Prudent and efficient purchase of plant, tools and equipment aligns with the following strategic pillars of Power and Water's Corporate Strategy.

Table 4 Alignment to Corporate Strategy

Power and Water Strategic Pillar	What are we doing differently?	What does this mean for Plant, Tools and Equipment?
<p>One Power and Water</p> 	<p>Power and Water is committed to implementing its Operating Model and uplifting its culture to become fit for the future</p>	<p>We will operate as one Power and Water enabled by a sustainable operating model. Power and Water's focus is on uplifting its culture, improving capabilities, and enhancing the way it works through a new organisational structure and embedding a continuous improvement mindset.</p> <p>This pillar will be reflected in prudent and efficient plant and equipment expenditure, which enable Power and Water to provide its services.</p>
<p>Always Safe</p> 	<p>Power and Water puts its people and customer safety first in all that it does</p>	<p>Safety is Power and Water's priority to its people and all Territorians. We will continue to deliver on safety targets and proactively improve our safety culture to better ensure safety for our people and for all Territorians.</p> <p>Having plant and equipment that is up to compliance standards and is safe and effective to operate is critical to achieving this pillar.</p>
<p>Customer and Community at the Centre</p> 	<p>Power and Water places its customers and community at the centre of its attention</p>	<p>Customers and community are at the centre of the business. Power and Water's focus is on improving customer experiences, cultivating relationships and being a trusted partner with its customers, community and stakeholders.</p> <p>Functioning plant and equipment are vital to customer and community. Plant and equipment enable Power and Water to provide its services.</p>
<p>Living Within Our Means</p> 	<p>Power and Water lives within its means to ensure commercial sustainability</p>	<p>We will continuously strengthen our financial management practices and optimises revenue generation. We will spend money wisely and practice prudent cost management.</p> <p>For plant and equipment this means ensuring a balance between repairing and replacing assets based on which is the more cost-effective option.</p>

Power and Water Strategic Pillar	What are we doing differently?	What does this mean for Plant, Tools and Equipment?
Sustainable Solutions for the Future 	Power and Water has clarified the big shifts required based on the challenges it will face over the next 10 years	Maintaining serviceable plant and equipment also reduces the risk of fines or Work Health and Safety issues. Power and Water proactively enables sustainable services in the Northern Territory for the future which includes consideration of the purchase plant and equipment that are built for the future, be it through electric mechanisms or updated software.

2.3 Current management programs

Power and Water has an ongoing program to replace plant and equipment to deliver on its services to customers. The table below provides an overview of the actual and estimated expenditure in the current regulatory period.

Table 5 Actual / estimated capex for current regulatory period (\$m, real FY22)

Item	FY20	FY21	FY22	FY23	FY24	Total
Actual/estimated	1.53	2.30	1.68	1.50	1.40	8.41
Actual/estimated allocated to SCS	1.44	2.12	1.36	1.22	1.13	7.27

The table below outlines some of the more significant purchases made in the current regulatory period.

Table 6 Examples of significant expenditure for the current regulatory period (\$, real 2022)

Timing	Item	Cost
2021/22	Safety lights	\$28,000
2021/22	SF6 Gas Cart	\$150,000
2021/22	Gas extraction unit	\$40,000
2021/22	Minor New Works – Mitchell Centre Furniture replacement	\$75,000
2022/23	CMC test kits	\$265,000

Timing	Item	Cost
2022/23	Tennant Creek Low Load Trailer	\$130,000
2022/23	150-200kVA Portable Genset	\$120,000
2022/23	ARCO Recloser test kit	\$56,000
2022/23	TESTRANO 600 Transformer Test System	\$100,000
2022/23	Water carts (Darwin)	\$18,000
2022/23	Water carts (Alice Springs)	\$20,000
2022/23	Trailer mounted 200kVA single phase continuous use diesel generator with long run time tank	\$75,000

2.4 Risk assessment

According to Power and Water's Enterprise Risk Management Standard, failure to properly maintain plant, tools and equipment represents at least 5 of the 12 risk categories, which are outlined below.

Table 7 Risk Assessment

Risk	Impact
Work Health and Safety	<p>Failure to provide safe and serviceable equipment risks the health and safety of technicians and operators who might be working on the assets.</p> <p>Failure to provide safe and serviceable plant and equipment for employees risks Power and Water's ability to attract and retain talent and fails to provide a safe and constructive culture with physical security.</p>
Risk and Compliance	Failure to maintain safe and serviceable equipment risks Power and Water's ability to maintain its 'License to Operate' due to not complying with various OH&S standards.
Operations	Plant and equipment that is not serviceable risks not being able to appropriately service network assets which could lead to the network becoming damaged or falling into disrepair.
Security, Reliability & Quality	Failure to provide safe and serviceable plant and equipment in a timely manner can impact service delivery. For example, a delay in procuring a vital piece of equipment could delay rectification of a service disruption.

2.5 Summary

The Plant and Equipment expenditure is essential to supporting network investment, asset maintenance and system operation activities and the forecast aims to promote the National Electricity Objective by ensuring the efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to the price, quality, safety and reliability and security of supply of electricity.

As the assets within scope in this business case age and are utilised, the likelihood of failure increases, creating safety, performance, and compliance risks. The purchase and maintenance of plant and equipment is essential to the safe operation, management, and maintenance of the Power and Water regulated electricity network. Failure to provide employees with safe and fit-for-purpose plant and equipment presents a number of risks including, failing to ensure the safety of employees, and risk project deliverability. Further, failure to provide adequate and fit-for-purpose plant and equipment may have severe implications for the ability to deliver distribution services for our customers.

3. Options analysis

This section describes the various options that were analysed to address the identified need and identify the recommended option. The options are analysed based on ability to address the identified needs, prudence and efficiency, commercial and technical feasibility, deliverability, benefits and an optimal balance between long term asset risk and short-term asset performance.

3.1 Comparison of credible options

Credible options are identified as options that address the identified need, are technically feasible and can be implemented within the required timeframe. The following options have been identified:





- Option 1 – Restore and repair. This option proposes to restore and repair the plant and equipment beyond end of life, with no capex provision for the purchase of new plant and equipment.
- Option 2 – Lease or hire. This option proposes to lease or rent plant and equipment through a third-party provider.
- Option 3 – Replace at end of life (own). This option proposes to replace with new equipment at end of life, or when required. Power and Water purchases and owns the assets.

A comparison of the three identified options and the issues they address in the identified need is depicted in the table below. A detailed discussion of each option is provided below.

Table 8 Summary of options analysis outcomes

Assessment metrics	Option 1	Option 2	Option 3
Capex (\$m, real FY22)	< Option 3	> Option 3	9.62
Opex (\$m, real FY22)	>> Option 3	>> Option 3	0.25
Meets customer expectations	○	◐	●
Technical Viability	○	◐	●
Deliverability	◐	◐	●
Preferred	✗	✗	✓
Ranking	2	3	1

n/a = not available

-  Fully addresses the issue
  Adequately addresses the issue
  Partially addresses the issue
  Does not address the issue

3.1.1 Option 1 – Restore and Repair

This option is based on continual maintenance and repaired until the item is no longer functioning (i.e. unable to be repaired and/or unable to be made safe).

Costs

While in the short term this option would reduce capital costs, in the long term it is not a cost-effective option and would increase operating costs. Plant, tools and equipment, such as trailers, that are continually repaired beyond their identified asset life, are likely to end up costing more than replacement. As assets get older, they are likely to require increased servicing, thereby increasing expenditure on the asset over its lifetime. Overall, 900 tests are conducted annually on all plant, tools and equipment.

Additional costs would likely be incurred due to:

- Failing to deliver system projects and network investment which may result in licence condition or service quality penalties
- Failing to comply with regulation and OH&S requirements, which could incur regulatory penalties
- Delaying repair or replacement of assets, which could lead to further deterioration of plant, tools and equipment and greater expenses in the future.

Customer Expectations

Failure to properly maintain assets will prevent the successful servicing of the network, thereby not meeting customer expectations. This option does not align with Power and Water's vision to be a 'proud and trusted modern multi-utility delivering value now and into the future.' It fails to ensure Power and Water is maintaining and modernising its network assets.

Technical viability

While it is often possible to repair and restore plant, tools and equipment, there are a number of factors that make this option limited from a technical viability perspective. The plant, tools and equipment are often technically complex and built to special specifications, which may make sourcing repairs or restoration parts difficult.

This option does not account for circumstances in which plant, tools and equipment are no longer interoperable with other assets and require replacement to be fully compatible. For example, newer equipment might operate using software that is simply not possible to access via repair or restoration.

This option will incur capex to replace plant, tools and equipment that is broken beyond repair, or no longer fit for purpose, or simply does not exist. This will incur in an unplanned manner, and potentially incur higher unit costs.

Deliverability

Power and Water has the resources and connections to continue repairing and renewing equipment. However, the consistent repair needs of equipment that could be considered past end of life incurs an administrative burden. Project managers must manage assets in need of repair on projects potentially more frequently than is necessary. Waiting on repairs for complex machinery can cause delays to the delivery of critical network projects.

Summary

In summary, the advantage of this option is that it is likely to incur less capex over the course of the next RCP than the other options considered. However, a significant disadvantage is the increase in opex and the risk-cost of failure of plant and equipment disrupting delivery of major projects and general standard control services. Whilst this cost has not been quantified, experience in Power and Water and general

industry experience has led to the conclusion that this option represents a poor risk-cost tradeoff compared to the recommended option.

This option does not fully meet any of the desired outcomes regarding prudent and efficient investment and would likely fail to successfully deliver on strategic objectives. Therefore this option is not recommended.

3.1.2 Option 2 – Lease or hire

In this option, plant and equipment is leased or hired from a third-party provider when new plant and equipment is required.

Costs

As with continued repair and restoration, continued leasing of plant, tools and equipment is not likely to be the most cost-efficient method. This is because, with the exception of trailers, which are standard models and easily available, the remoteness of the Northern Territory and the limited suppliers offering the larger, specialised plant and equipment required by Power and Water is likely to mean that, if the equipment was available for lease, premiums are likely to be high. If the lease costs are capitalised, it would likely lead to a much higher cost than the preferred, traditional approach and ownership model that Power and Water currently employs (i.e. Option 3).

Customer Expectations

Failure to properly maintain assets will prevent the successful servicing of the network, thereby not meeting customer expectations. The limited leasing potential for much of the plant, tools and equipment makes it likely this option would fail to maintain assets. This option does not align with Power and Water's vision to be a 'proud and trusted modern multi-utility delivering value now and into the future.' It fails to ensure Power and Water is maintaining and modernising its network assets.

Technical viability

This option does not fully meet the requirements for technical viability. This option does not account for circumstances in which the highly specialised plant, tools or equipment must be custom made to fulfil a unique role. In this circumstance, leasing is unlikely to be a commercially viable option.

Deliverability

Power and Water has the internal resources to lease plant, tools and equipment, however finding external suppliers that can provide the specialised equipment would be challenging if not impossible. Attempting to source plant, tools and equipment through leasing is likely to cause delays to the delivery of critical network projects.

Summary

In summary, this option does not fully meet any of the desired outcomes regarding prudent and efficient investment and would likely fail to successfully deliver on strategic objectives. It is therefore not recommended.

3.1.3 Option 3 – Replace at end of life (ownership model)

In this option, Power and Water would continue the practice of devoting capital expenditure to purchase and own the necessary plant, tools and equipment on a recurrent and non-recurrent basis. The estimated

capex is \$9.62 million (2021/22) over the next RCP. This option satisfies all six of Power and Water's strategic pillars.

Cost

The forecast cost is derived from a bottom-up build of the large, individual items of plant and equipment plus an estimate of the recurrent capex required for small assets based on historical spend rates.

Purchasing new plant, tools and equipment at end of life:

- Ensures that employees are operating with the most efficient assets.
- Minimises maintenance and repair costs.
- Significantly reduces the risk of plant and equipment failure leading to the significant costs associated with work, health and safety incidents, compliance breaches, and disruptions to operations.

Customer Expectations

This option puts 'customer and community at the centre.' By purchasing new plant, tools and equipment when required Power and Water ensures plant, tools and equipment are available to service the network. Additionally, the purchase of plant and equipment demonstrates prudent and efficient expenditure, which is to the benefit of our customers.

Technical viability

This option meets the requirements for full technical viability. Due to the highly technical and sometimes unique nature of the plant and equipment, purchasing the assets – some of which must be custom made to specifications – is the only option for full technical viability.

Deliverability

Power and Water has the resources to purchase new plant, tools and equipment. Maintaining assets through the purchase of new plant and equipment ensures dependent projects can be delivered successfully.

Summary

In summary, by continuing the current practice of purchasing and owning the plant and equipment, Power and Water has confidence that employees and contractors have a safe working environment, and projects can be completed and delivered efficiently and to required timeframe, which in turn ensures customers receive the full benefits of the network.

The estimated cost for Option 3 is similar to the level of expenditure that is expected to be incurred in the current regulatory period, within 15% (and only 6% higher for regulated SCS).

This option is the preferred option because it is the most prudent and efficient use of expenditure, and the only option that meets the identified need.

3.2 Non-credible options

No non-credible options were identified.

4. Recommendation

The recommended option is Option 3 (Replace at end of life) at an estimated cost of \$9.87 million (real 2021/22), including capex of \$9.62 million (real 2021/22). This option has superior benefits compared with the other options assessed, at a lower cost. This option will adequately address the business need.

Although purchasing new plant, tools and equipment requires upfront capital cost, over the lifetime of these assets, this cost is prudent and efficient. The purchase of plant, tools and equipment as and when required, is anticipated to be more cost effective than the cost of continually repairing and maintaining aging equipment or trying to locate a third-party supplier to lease the items. The purchase of plant, tools and equipment will also help ensure Power and Water remains compliant with safety and environmental regulations and can deliver on its approved program of work.

The proposed program is consistent with the National Electricity Rules Capital Expenditure Objectives as the expenditure is required to maintain the quality, reliability, and security of supply of standard control services and maintain the safety of the distribution system.

4.1 Strategic alignment

The “Power and Water Corporation Strategic Direction” is to meet the changing needs of the business, our customers and is aligned with the market and future economic conditions of the Northern Territory projected out to 2030, as described in the table below.

Table 9 Alignment with corporate strategic focus areas

No.	Strategic Direction Focus Area	Strategic Direction Priority	What does this mean for Plant, Tools and Equipment?
1	Always Safe	Embed a Proactive Safety Culture	The purchase of new plant, tools and equipment ensures employees are always working with safe equipment that fulfills its requirements.
2	Customer and the community at the centre	Enhance Customer Experience and Engagement	The purchase of new plant, tools and equipment ensure Power Services’ puts its customers first by ensuring plant, tools and equipment can fulfill the necessary tasks, thereby ensuring projects are completed efficiently and that Power Services is able to meet community expectations of service.
3	Living within our means	Live within means to ensure commercial sustainability	The option is efficient regarding expenditure, by purchasing plant, tools and equipment when necessary, Power Services invests in the long-term life of the asset and

No.	Strategic Direction Focus Area	Strategic Direction Priority	What does this mean for Plant, Tools and Equipment?
			reduces costs of repairing and restoring old and failing equipment.
4	Sustainable solutions for the future	Shift for the challenges of the next 10 years	The purchase of new plant, tools and equipment allows Power Services to be on the front foot of the energy transition by supporting energy efficient plant, tools and equipment.

4.2 Benefits

The table below provides an overview of the benefits that Option 3 will deliver.

Table 10 Summary of Benefits

Benefits	Description and Measurement
Improved operational efficiency and reduction of opex	The reduction in maintenance costs as items are replaced at end of life.
Improved Safety	The prevention of safety incidents and unsafe work practices
Improved Productivity	This is an indirect benefit as staff productivity is expected to improve with access to fit-for-purpose equipment and tools.
Network is maintained to customer expectation	Maintained plant, tools and equipment ensures employees can effectively carry out the operation and maintenance of the network.
Compliance with all rules and regulation	Maintained plant, tools and equipment ensures compliance with all rules and regulations, thereby avoiding fines and fees.

4.3 Dependent projects

All network and non-network projects rely on the use of plant, tools and equipment.

4.4 Deliverability

Access to plant, tools and other non-network equipment when required is important to ensure that Power and Water can continue to deliver distribution services to its customers. Purchasing new equipment and furniture will ensure deliverability of regulated activities. The purchasing of new equipment and furniture is a more reliable sourcing option than repair, or leasing. Whilst there are still procurement barriers, such as

the remote nature of the orders, with proper planning procurement is achievable in a way that it is not for leasing or repair.

4.5 Expenditure profile

The forecast expenditure for the next regulatory control period is outlined in Table 11.

Table 11 Forecast annual capital and operational expenditure (\$m, real FY22)

Item	FY25	FY26	FY27	FY28	FY29	Total
Capex	2.01	2.29	1.88	1.68	1.76	9.62
Opex	0.05	0.05	0.05	0.05	0.05	0.25
Total	2.06	2.34	1.93	1.73	1.81	9.87

In addition to ongoing and recurrent plant, tools and equipment, there are a number of specific equipment items that are anticipated that will be required in the next regulatory control period. More information on the cost estimation methodology and the cost estimate is provided in Appendix A.

The forecast expenditure for the next regulatory control period allocated to Standard Control Services as per the CAM is outlined in Table 12.

Table 12 Forecast annual capital and operational expenditure – allocation to SCS (\$m, real FY22)

Item	FY25	FY26	FY27	FY28	FY29	Total
Capex	1.62	1.85	1.50	1.33	1.40	7.69
Opex	0.05	0.05	0.05	0.05	0.05	0.25
Total	1.67	1.9	1.55	1.38	1.45	7.94

Note. Opex for preventative maintenance on the larger items of plant and equipment is typically between \$20,000 – \$50,000 p.a. and assumed to be a direct cost to Power Services for delivery of regulated services.

Appendix A. Cost estimation

To help develop an accurate forecast of upcoming expenditure for the next regulatory period a 'bottom-up' approach was developed as follows:

- Identified individual large, highly technical and specialised equipment required in the next regulatory period (e.g. existing asset is at end-of-life or a new operational requirement has been identified) – budget-level costs from suppliers were acquired.
- extrapolation of the historical average for recurrent small plant and equipment assets – there are thousands of these assets purchased during the course of any regulatory period.
- identification of other non-recurrent items (e.g. furniture, trailers).

The table below summarises the components of the bottom-up estimate.

Table 13 Plant and equipment - bottom-up estimate for next regulatory period (\$m, real 2022)

Project name	FY25	FY26	FY27	FY28	FY29	Total
Ad hoc Plant, tools and Equipment	1.56	1.56	1.56	1.56	1.56	7.79
Alice Springs TTR/Thumper/VLF Test Set	0.19	-	-	-	-	0.19
19 Mile 3 tonne forklift	0.05	-	-	-	-	0.05
Glove Machine	-	0.30	-	-	-	0.30
Darwin TTR/Thumper/VLF Test Set	-	0.19	-	-	-	0.19
Conductor Recovery Plant	-	0.20	-	-	-	0.20
D15R1513 - T83544 MODERN 8x5 TANDEM DELUXE TRAILER	0.01	-	-	-	-	0.01
D15P0127 - T83545 FOREMOST TANDEM BOX TRAILER	0.01	-	-	-	-	0.01
D15P0132 - T83524 FOREMOST TANDEM BOX TRAILER	0.01	-	-	-	-	0.01
D15N0352 - T82460 TOP END S/METAL BOX CANOPY TRAILER	-	-	0.01	-	-	0.01
D15N0383 - T84051 FALCON 2 WHEEL BOX TRAILER	-	-	0.00	-	-	0.00
D15N0440 - T84073 WFO 2 WHEEL PLANT TRAILER	-	-	0.05	-	-	0.05
D15R0362 - T83003 HOME MADE CABLE DRUM TRAILER	-	-	0.18	-	-	0.18
A/Springs Generator trailer	0.06	-	-	-	-	0.06

ABC Cable trailer	0.06	-	-	-	-	0.06
Leased trailers and forklifts	0.07	0.04	0.00	0.03	0.11	0.24
Furniture replacement Program - MICHELL CENTRE	-	-	0.09	0.09	0.10	0.28
Total	2.01	2.29	1.88	1.68	1.76	9.62

The plant and equipment identified above will be used by the Power Services team and will be required for the delivery of day-to-day network activities. For example, the glove machine is a critical piece of equipment that allows for the electrical testing of gloves and other insulated PPE used in electrical work. This ensures the safety of employees working on the network in areas with live electrical components.

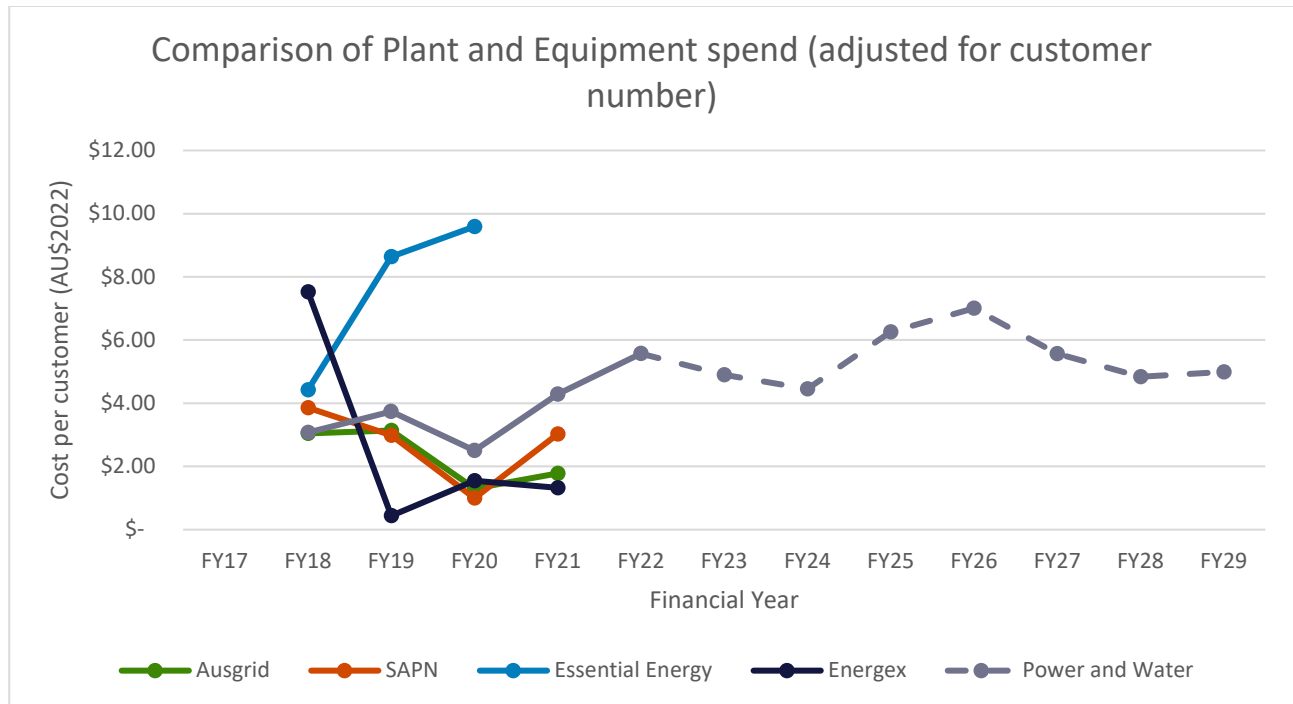
The conductor recovery plant is used to recover old overhead conductors when they are being replaced. This ensures Power and Water is being efficient with its resources by safely recycling components, while additionally ensuring network components are safely removed.

An assessment of 'end of life' considers when the machine / device has reached a lifespan deemed reasonable by the manufacturer and cannot be reasonably or economically extended. Items identified for replacement will be able to be sourced from third party suppliers when required.

Appendix B. Benchmarking

Figure 1 provides an overview of the benchmarking undertaken to compare actual and forecast expenditure against peer organisations. When taking account of the scope and scale of Power and Water's services, the level of plant and equipment expenditure on a per customer basis is generally in line with industry performance.

Figure 1 Benchmarking of Plant and Equipment capex spend per customer



Assumptions: customer numbers grow at rate of 2% per year; all \$ values are real \$2022, all numbers up to FY22 are based on publicly available CA RIN data, FY22 and beyond based on internal forecast spreadsheets

