



**ACT**  
Government

# UTILITIES TECHNICAL REGULATION ANNUAL COMPLIANCE REPORT 2019–20

## **Acknowledgment to Country**

Yuma  
Dhawura Nguna Dhawura Ngunnawal  
Yanggu ngalawiri dhunimanyin  
Ngunnawalwari dhawurawari  
Nginggada Dindi yindumaralidjinyin  
Dhawura Ngunnawal yindumaralidjinyin

Hello,  
This is Ngunnawal Country  
Today we are meeting on Ngunnawal  
country  
We always respect Elders, male and female  
We always respect Ngunnawal Country

The Environment, Planning and Sustainable Development Directorate acknowledges the Ngunnawal people as Canberra's first inhabitants and Traditional Custodians. We recognise the special relationship and connection that Ngunnawal peoples have with this Country. Prior to the dislocation of Ngunnawal people from their land, they were a thriving people whose life and culture was connected unequivocally to this land in a way that only they understand and know, and is core to their physical and spiritual being. The disconnection of the Ngunnawal people from Culture and Country has had long-lasting, profound and ongoing health and well-being effects on their life, cultural practices, families and continuation of their law/lore. The Environment, Planning and Sustainable Development Directorate acknowledges the historic dispossession of the Ngunnawal people of Canberra and their surrounding regions. We recognise the significant contribution the Ngunnawal people have played in caring for Country as for time immemorial they have maintained a tangible and intangible cultural, social, environmental, spiritual and economic connection to these lands and waters.

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# 1. INTRODUCTION

## 1.1 Technical Regulation

The Utilities Technical Regulation (UTR) within Access Canberra operates under the Utilities (Technical Regulation) Act 2014 (the Act). The statutory office holder under the Act is the Technical Regulator, a role held by the Director-General of the Environment, Planning and Sustainable Development Directorate. The Technical Regulator reports to the Minister for Water, Energy and Emissions Reduction.

The objects of the Act are to:

- ensure the safe, reliable and efficient delivery of regulated utility services
- promote the long-term serviceability of regulated utility networks and services
- promote design integrity and functionality of regulated utility networks
- ensure the safe and reliable operation and maintenance of regulated utility networks and regulated utility services to protect the following:
  - > the public
  - > people working on regulated utility networks and regulated utility services
  - > property near regulated utility networks and regulated utility services
  - > the environment.

Regulated utility services include services delivered by licensed utilities as well as small and medium scale electrical generation, registrable dams, some district energy services and regulated utility services prescribed by the Minister.



## 1.2 Licensed Utility Providers

Within the Australian Capital Territory (ACT) utilities are licensed by the Independent Competition and Regulatory Commission (ICRC) under Part 3 of the Utilities Act 2000. Licensed utilities operating in the ACT during 2019–20 included:

- Electricity transmission
  - > TransGrid
- Electricity transmission, distribution and connection
  - > Evoenergy
- Gas transmission
  - > East Australian Pipeline Limited
- Gas distribution and connection
  - > Evoenergy
- Water and sewerage supply
  - > Icon Water Limited

No additional utilities were licensed in the ACT during 2019–20.

## 1.3 Utility Compliance

The UTR was satisfied of the compliance of all regulated utilities of the ACT during the 2019–20 reporting period. While there were some minor areas of non-compliance with various technical codes, none were deemed serious enough to warrant the issue of a direction by the Technical Regulator under section 18 of the Act. A number of important issues have been identified in this report that will be closely monitored by the Technical Regulator to ensure improvement in the following areas:

- **Electricity**—accuracy and quality of data provided by Evoenergy, and focus to address continued improvements to PV connection, safety monitoring and management systems, quality of supply strategies and service line insulation condition monitoring.
- **Gas**—timeliness, accuracy and quality of data reported by Evoenergy and focus to address continued improvements in incident reporting and customer location and metering equipment data.
- **Water**—inability to deliver full fire flows to some customers under all operating circumstances as well as opportunities for improving the general accuracy and quality of advice provided by Icon Water in its long-term Service Capability Projections.
- **Dams**—progression of agreed program of works to demonstrate the safety of some Icon Water dams and Transport Canberra and City Services (TCCS) dams.

The Act requires that Operating Certificates be issued by the Technical Regulator for unlicensed regulated utility services provided in the ACT. Unlicensed utilities include solar farms, the Inner North Reticulation Network (INRN—an existing recycled non-potable water network), the owning of registrable dams and the light rail network.

The Technical Regulator had no compliance issues with unlicensed utilities during the reporting period.





MT MAJURA SOLAR FARM

## 2. UTILITY CODE REVIEW PROGRESS 2019–20

Following the commencement of the Act on 28 November 2014, a major focus of UTR has been a thorough revision of technical codes approved under the Act.

Revision of the codes spans each of the licensed utility sectors (electricity, gas and water) with the objective of rationalising existing disparate and contradictory codes and incorporating consistency of general requirements across all sectors. Provision will be made for sector-specific requirements where appropriate. UTR specifically recognises the opportunity of working with industry to create a new regulatory framework. During the reporting period:

- significant engagement took place between Evoenergy and UTR to develop revised gas technical codes. These were issued for industry consultation on 25 February 2021
- significant engagement took place between Major Projects Canberra (MPC), TCCS, Canberra Metro and UTR to develop revised light rail technical codes. These were issued for industry consultation on 19 October 2020
- significant engagement took place between Icon water and UTR to establish the parameters of revised water and sewerage technical codes. Consultation and engagement activity is ongoing
- the development of revised electricity distribution technical codes remained on hold.

### 3. ELECTRICITY UTILITY PERFORMANCE 2019–20 —EVOENERGY

Electricity utility services are provided to the ACT via TransGrid, Evoenergy and Essential Energy. Evoenergy is the main distribution network service provider in the ACT, holding a licence with the ICRC for both transmission and distribution services.

UTR held concerns in the previous reporting period regarding the general accuracy and quality of data provided by Evoenergy. While UTR notes a renewed effort by Evoenergy to improve its performance, the accuracy and quality of data and associated management systems will continue to be a focus of the UTR to determine performance to the licence and codes. Areas of concern include incident reporting, safety management, asset management and solar PV installations. For the latter, the network penetration and capacity installed as advised via the annual questionnaire provided to UTR does not appear to correlate with data stated in Evoenergy's Annual Planning Report.

During the 2019–20 reporting period Evoenergy made significant progress towards satisfying code requirements for power quality requirements. This is largely in response to poor performance in previous years and findings of an audit that demonstrated Evoenergy did not comply with all power quality code requirements, predominantly due to over voltages arising from inadequate voltage management of its network and in response to increased PV penetration on the network. During the reporting period, Evoenergy worked toward finalisation of its Electricity Network Safety Management System (ENSMS) to satisfy code requirements, including making significant progress toward completion of its Formal Safety Assessments for Bushfire, Environment, Loss of Supply, Worker Safety, Public Safety and Property. Evoenergy has demonstrated commitment to improve some of its systems, such as those for safety management and power quality, by developing Formal Safety Assessments to support the Electricity Safety Plan, enhanced PV databases, and an action plan to address power quality issues.

Evoenergy's performance in delivering electricity distribution services during 2019–20 was overall satisfactory, with some noted areas of improvement. The more salient performance issues are reported below.

#### 3.1 Notifiable Incidents

Evoenergy reported the following Notifiable Incidents during 2019–20:

**Table 3.1 Notifiable Incidents**

	2016–17	2017–18	2018–19	2019–20
Deaths	0	0	0	0
Dangerous incidents includes:	0	0	0	0
- Fires	16	8	4	13
- Electric Shocks	43	64	54	53
- Other	-	1	47	248
Serious Property Damage	0	0	0	0
Serious Environmental Damage	0	0	0	0
<b>Total Notifiable Incidents</b>	<b>59</b>	<b>73</b>	<b>105</b>	<b>314</b>

Evoenergy has advised that the most likely reason for the significant increase in notifiable incidents 'Other' is due to improved reporting of issues, rather than a deterioration of work practices. Evoenergy has also increased its public safety awareness campaign; this is likely to have resulted in an increase in the community calling to report issues or reporting via social media. 'Other' notifiable incidents may include collapse or partial collapse of any structure and any other event identified in a technical code or regulation.

In its 2019–20 report, the UTR had requested a breakdown of the category of person (employee/worker, external contractor, public) at risk from these incidents. Evoenergy collates incident data based on the cause of the incident and consequence such as to network, asset, environment, worker etc. While Evoenergy provided the cause of incidents, Evoenergy did not respond to UTR’s standing question for the category of person at risk from these incidents. This is required so the UTR can determine if appropriate mitigation measures have been applied to the person at risk.

Evoenergy notes the majority of the reported incidents were attributable to third party damage outside its control. UTR and Evoenergy are working together to improve the clarity of reporting requirements to ensure the reporting and investigation of incidents meets the requirements of the Act, as well as improving measures to avoid their occurrence and risk exposure.

## 3.2 Pole Inspection and Maintenance

**Table 3.2 Condemned power poles in Evoenergy Network**

TYPE OF POLES	2016–17	2017–18	2018–19	2019–20
Total number poles	50,319	50,574	50,585	50,373
- Distribution	48,846	49,101	49,112	48,896
- Transmission	1,473	1,473	1,473	1,477
Number of poles tested	12,521	13,419	10,348	11,130
- Distribution	11,945	13,198	9,984	10,774
- Transmission	576	221	364	356
Number of poles condemned	834	436	281	332
(as a % of poles tested)	(6.66%)	(3.25%)	(2.72%)	(2.98%)
- Distribution	773	436	281	320
- Transmission	61	0	0	12
Number of condemned poles replaced or remediated during year	1,163	612	390	307
- Distribution	1,162	610	386	304
- Transmission	1	2	4	3
Number of condemned poles not replaced or remediated within required 12/24 months period.	135	51	0	0
- Distribution	135	51	0	0
- Transmission	0	0	0	0
Dangerous poles and pole failures (requires urgent action)	4	0	6	0
- Distribution	3	0	6	0
- Transmission	1	0	0	0

A key risk factor to Evoenergy’s operations and the community is the structural integrity of its power poles. To control this risk, Evoenergy has a rolling condition testing program for power poles. The purpose of this program is to confirm that poles in its network remain safe (structurally adequate). ‘Condemned’ poles are deteriorated poles that represent an increased risk to public safety and supply continuity. Evoenergy procedures require that condemned poles are replaced or remediated within reasonable timeframes. This procedure is based on the assessment by Evoenergy that if left for a longer period the risk to the community from a falling pole becomes unacceptable.



Advice provided by Evoenergy and summarised in the above table indicates that during 2019–20 Evoenergy continued to attend to condemned poles in a timely manner. UTR will continue to monitor Evoenergy's performance in managing pole safety risk, and underlying factors such as inspection frequency.

### 3.3 Vegetation Management and Bushfire Risk Management

UTR is focused on ensuring the risk of fires originating from electricity distribution and transmission utilities is thoroughly mitigated through planning, maintenance and ongoing inspection regimes.

Vegetation management is a critical aspect of bushfire mitigation. During the unprecedented 2019–20 bushfire season, UTR maintained a close relationship with each of the regulated electricity utilities to ensure the risk of bushfires originating from their networks was minimised.

Evoenergy reported completion of all bushfire inspections and actioned defects prior to commencement of the bushfire season.

A UTR audit undertaken in late 2019 found deficiencies in Evoenergy's vegetation and bushfire management practices. UTR worked with Evoenergy through 2019–20 to address the outstanding audit actions. A follow up audit is scheduled for the 2020–21 reporting period.

During the reporting period, Evoenergy strengthened its mitigation of risks by installing Remote Area Power Supplies and removing 15km of overhead lines in rural areas, installing Intelliruptors on high-risk lines to improve fault detection sensitivity, and using Aerial Bundled Cable (ABC) insulated conductors where vegetation cutting is not appropriate for achieving required clearances.

### 3.4 Photovoltaic Electricity Grid Protection Requirements

Privately owned solar panels have been installed widely throughout the ACT for more than 10 years. Photovoltaic (PV) inverters are an essential component of all these installations and automatically operate to disconnect PV-generated electricity supply from the Evoenergy electricity network if supply from the grid is disrupted for any reason.

To ensure the safety features of inverters continue to operate satisfactorily in the event of a power failure in the Evoenergy grid, the Electricity Service and Installation Rules require inverters to be tested every five years to ensure they are functioning correctly and will not cause a safety hazard to the network and Evoenergy workers, or other maintenance workers in close proximity to the network such as vegetation and telecommunication workers.

Evoenergy has advised via its UTR Compliance Report that there are now 30,094 small scale (< 200 kVA) PV installations in the network with 4,852 added in 2019–20, and that 2611 Inverters were last tested more than five years ago.

Evoenergy has advised that PV Inverter re-test reminders have been sent to customers with PV installations last tested more than five years ago as they are a potential safety hazard for maintenance workers. Evoenergy has considered this safety hazard and resolved that if a customer fails to respond after a third reminder they are instructed to have their PV installation disconnected from the electricity network.

UTR will continue to monitor progress regarding this management strategy to ensure the safety risk to maintenance workers is minimised. An ACT Civil Administration Tribunal (ACAT) hearing in 2017–18 found that Evoenergy was authorised to disconnect a particular solar system that had not been tested, however such systems are outside of the network boundary and Evoenergy does not work on the customer side of a meter point. Evoenergy has not yet disconnected any customers' PV installation for non-compliance with the retesting requirement. The UTR and Evoenergy will continue to work together to develop appropriate processes to enable the safe enforcement of this compliance program.

## 3.5 Quality of Supply Annual Survey

The [Electricity Distribution \(Supply Standards\) Code](#) identifies the required quality of supply parameters to be met by Evoenergy, and monitoring and reporting requirements.

Evoenergy undertakes the Steady State Voltage (SSV) compliance assessment reporting in line with the methodology set out in the Australian Standard 61000.3.100. The following table outlines Evoenergy's SSV compliance assessment results for the last three financial years, starting FY 2017–18.

**Table 3.5 Quality of supply**

Compliance Parameter	Voltage Limit	2017/18 Random Site Survey <i>(measured values)</i>	2018/19 Random Site Survey <i>(measured values)</i>	2019/20 Random Site Survey
V99%	253 Volts	256.06 Volts	254.954 Volts	251.995 Volts
V50% (UPPER)	244 Volts	253.06 Volts	250.554 Volts	248.290 Volts
V50% (LOWER)	225 Volts	239.23 Volts	230.479 Volts	231.615 Volts
V1%	216 Volts	227.96 Volts	221.463 Volts	224.616 Volts

Evoenergy undertook SSV compliance assessment on 100 randomised sites from the distribution network. Evoenergy's performance on SSV compliance assessment in respect of V99% and V1% limits has improved in FY 2019–20 and complies with the limits set out in the standard. However, the V50% (Upper) results are reported above the preferred performance limits set out in the standard.

Evoenergy reported via its UTR Compliance Report 140 complaints related to network connections with small photovoltaic systems (PVs up to 30kVA) regarding quality of supply (QoS) issues, primarily relating to over-voltage incidents.

In its 2020 Annual Planning Report, Evoenergy stated that the following power quality enquiries from customers were investigated and resolved, including:

- 159 high voltage level issues associated with solar PV installations
- 99 other instances relating to the level of voltage
- 31 low voltage level complaint.

Note that over-voltage issues can result in the automatic disconnection of PV solar systems from the distribution network.

Though the SSV compliance assessment results for FY 2019–20 have improved and are reported compliant with the limits set out in the Australian Standard, the number of QoS related complaints from distribution network customers is not insignificant and UTR still holds concerns regarding Evoenergy's QoS monitoring programs and its efficacy and network management methodologies. Note that Evoenergy reported compliance to Australian Standards requirements but its V50% (Upper) results exceeded the preferred performance limit documented in Australian Standard 6100.3.100. UTR continues to scrutinise Evoenergy's strategies and programs to ensure QoS compliance is effective.

A QoS audit was completed in August 2018. Following the audit Evoenergy provided a comprehensive action plan to address the non-conformances in March 2020. During FY 2019–20 Evoenergy has addressed the critical action items by developing new procedures and revising its QoS strategy to close out the critical non-conformances from the QoS audit. Evoenergy also continued to install voltage monitoring at select distribution substations in the network. It is anticipated Evoenergy will start rolling out some technical measures identified in the revised strategy in FY 2020–21.

Additionally, Evoenergy has closed out a majority of the non-critical non-conformances by undertaking changes in its existing plans/procedures to address the gaps noted in the audit and/or developing new monitoring formats for effective management of the QoS management processes.

## 3.6 Defective Neutral

Defective neutrals can be hazardous and cause electric shock. They are of concern because they increase the risk of electric shock, personal injury and equipment damage.

The UTR has noted the number of neutral defects reported in 2019–20 has significantly increased and raised concerns with Evoenergy. In response, Evoenergy has committed to undertake an in-depth analysis of these incidents to understand the reasons for the higher reported incidents and will take actions accordingly. UTR will continue to monitor Evoenergy's performance in managing this safety risk.

**Table 3.6 Defective Neutrals**

	2016–17	2017–18	2018–19	2019–20
Defective neutrals	28	18	15	88

## 3.7 Reliability Indicators

The [Electricity Distribution \(Supply Standards\) Code](#) sets supply reliability targets for Customer Average Interruption Duration per interruption (CAIDI), Interruption Frequency (SAIFI), and System Average Interruption Duration per customer (SAIDI).

The target for SAIDI and SAIFI was met but, as shown in Table 3.7, the CAIDI target was not met. CAIDI is considered a secondary reliability indicator, and therefore a minor non-conformance.

The results indicate that compared to last year, customers experienced supply interruptions less frequently but outage durations were longer. UTR will continue to work collaboratively with Evoenergy to ensure reliability continues to be a priority for the 2020–21 period.

**Table 3.7 Electricity Supply Reliability**

Parameter	TARGET	2016–17	2017–18	2018–19	2019–20
Average Interruption Duration per outage (CAIDI) minutes	74.6	92.84	126.72	96.92	114.33
Interruption Frequency (SAIFI) Number	1.2	0.90	0.79	0.95	0.72
Average Interruption Duration per customer (SAIDI) minutes	91	83.74	99.97	92.53	81.7

## 3.8 Emergency Planning

During 2019–20 Evoenergy submitted its annual update of the *Electricity Networks Emergency Management Plan* as required by the [Emergency Planning Code](#).

The plan submitted integrates with Evoenergy's Crisis and Emergency Management Framework and was approved as meeting the code requirements.



EVOENERGY DISTRIBUTION TRANSFORMER



## 3.9 Network Safety Management System (ENSMS)

During 2019–20 Evoenergy developed a more comprehensive Electricity Network Safety Management System (ENSMS) consistent with the Australian Standard identified in the Management of Electricity Network Assets Code.

This work includes development of an ENSMS guideline document, a Safety Plan, and Formal Safety Assessments. Substantial progress was made in their development.

UTR will continue to monitor implementation of the ENSMS and work collaboratively with Evoenergy to ensure Code compliance.

## 3.10 Overhead Service Conductor Insulation Failures

Around half of residential customers are supplied by an overhead insulated service conductor that is strung from a pole in residents' backyards to the house connection point. A significant number of these service conductors have been failing, predominantly due to defective insulation.

When the insulation fails, a shower of sparks is emitted that can fall on and injure persons nearby the conductor and potentially start a fire. This conductor arcing can also result in the conductor falling to the ground and remaining live in the backyard and presenting a further safety hazard to people and pets. For both single and three phase service conductor insulation failure, customers may also experience electric shocks from taps and metal appliances.

Whilst based on failure reports in recent years Evoenergy had been effectively addressing this safety issue, it is concerning that there has been a significant increase in failures during 2019–20 as shown in Table 3.10.

Evoenergy has committed to undertake an analysis of its aging service conductors to inform a future program of work. UTR will continue to monitor Evoenergy's performance in managing this safety risk.

**Table 3.10 Overhead Service Conductor Failures**

	2015–16	2016–17	2017–18	2018–19	2019–20
Defective neutrals	298	304	45	4	51





CONSTRUCTION OF TRANSGRID 330KV TRANSMISSION LINE, GINNINDERRY

## 4. ELECTRICITY TRANSMISSION SERVICE PROVIDER PERFORMANCE 2019–20—TRANSGRID

TransGrid reported being compliant with its licence to provide electricity transmission services under the [Utilities Act 2000](#) for the reporting period and being compliant to code requirements under the [Utilities \(Technical Regulation\) Act 2014](#).

Following approval of the [Electricity Transmission Supply Code in 2016](#) TransGrid has been working with Evoenergy and the ACT Government toward delivery of an additional and geographically separate transmission supply point for the ACT, the Stockdill Substation, and is on track for completion by 31 December 2020 as required by the code.

### 4.1 Vegetation Management and Bushfire Risk Management

UTR is concerned with ensuring the risk of fires originating from electricity distribution and transmission utilities is thoroughly mitigated through planning, maintenance and ongoing inspection regimes.

Vegetation management is a critical aspect of bushfire mitigation. During the unprecedented 2019–20 bushfire season UTR maintained a close relationship with each of the regulated electricity utilities to ensure the risk of bushfires originating from their networks was minimised.

TransGrid submitted its 2020 Bushfire Risk Management Plan to UTR, as per section 8 of the Electricity Transmission Supply Code. During the lead up to the bushfire season, TransGrid confirmed that all high-risk defects were rectified prior to commencement of the bushfire season and that some low-risk defects would be carried over but would be escalated in terms of prioritisation level. TransGrid also confirmed that all pre-summer inspections relating to its infrastructure in the ACT were completed on time.



## 4.2 Performance Statistics and Notifiable Incidents

**Table 4.2 TransGrid Performance Statistics and Notifiable Incidents**

TransGrid Performance Statistics	2016-17	2017-18	2018-19	2019-20
Energy not served events (reliability)	Nil	Nil	Nil	Nil
Major asset failures				
Primary	Nil	Nil	1	Nil
Secondary	Nil	Nil	18	8
Number of Poles/Towers				
Owned	407	407	414	408
Due for Test/Inspection	406	407		
- Aerial*			238	240
- Ground*			313	348
Tested/Inspected	406	407		
- Aerial*			238	240
- Ground*			313	348
Condemned	Nil	Nil	2	0
Number of Vegetation				
Encroachments	5	16	33	12
Encroachments not cleared prior Bushfire Season	Nil	Nil	11	Nil

\*Previous data does not split test/inspections into aerial and ground.



TRANSMISSION TOWER CONSTRUCTION

# 5. GAS UTILITY PERFORMANCE 2019–20—EVOENERGY

Evoenergy's performance in the provision of gas utility services was satisfactory during the 2019–20 reporting period.

Evoenergy reported being compliant with its licence to provide gas distribution and connection services under the [Utilities Act 2000](#) for the reporting period and being compliant to code requirements under the [Utilities \(Technical Regulation\) Act 2014](#).

## 5.1 Ownership and Operation of the ACT Gas Distribution Network

Evoenergy is a partnership between Jemena Networks (ACT) Pty Ltd and Icon Distribution Investments Ltd. Evoenergy manages the ACT's gas distribution network, which comprises more than 4700 kilometres of network. Evoenergy's gas network asset management functions are provided under contract by Jemena Asset Management Pty Ltd (JAM). JAM in turn has a service agreement with Zinfra Pty Ltd for the provision of operations, field services and network construction activities.

## 5.2 Notifiable Incidents

Evoenergy reported three dangerous incidents during the reporting period 2019–20, none involving injury to a person:

- The first incident involved damage to a high-pressure steel main as a result of adjacent excavation activity in Emu Bank, Belconnen. Emergency services were involved assisting in securing the site via road closures and traffic control. Incident duration was 3.5 hours.
- The second incident involved storm damage, with the storm bringing down a tree resulting in damage to a medium-pressure nylon main and the loss of supply to 183 customers in the suburb of Campbell. Incident duration was 5.5 hours.

- The third incident involved damage to a medium-pressure nylon main as a result of excavation activity resulting in the loss of supply to 23 customers in the suburb of Florey. Incident duration was 4.5 hours.

## 5.3 Compliance with Existing Codes

### 5.3.1 Gas Network Boundary Code

Evoenergy reported no breaches of the [Gas Network Boundary Code](#) during the reporting period.

### 5.3.2 Gas—Safety and Operating Plan Code

During the reporting period, Evoenergy submitted a revised SaOP. The SaOP was submitted to UTR accompanied by an independent audit report and certificate of conformance as required under the Code. The certificate of conformance issued by the independent auditor states the SaOP 'generally' conforms to the requirements of the Safety and Operating Plan Code.

UTR reviewed the SaOP for the purpose of confirming code compliance and conditionally approved the SaOP upon the inclusion in the next update version of minor requirements (regarding meter inspections and maintenance).

### 5.3.3 Emergency Planning Code

Evoenergy submitted its annual update of the Gas Networks Emergency Management Plan (plan) as required by the Emergency Planning Code 2011.

The plan was approved as providing the coverage intended by the code.

### 5.3.4 Gas Service and Installation Rules Code

Evoenergy reported being compliant with the Gas Service and Installation Rules Code for the reporting period.

During the reporting period UTR prepared a draft update of the Gas Service and Installation Rules Code 2014 (GS&I Rules Code). As previously reported, the draft code addresses safety concerns associated with existing gas metering equipment located inside residential apartments.

Evoenergy's existing GS&I Rules continue to support the continuous improvement of the quality, compliance and gas meter installation practices in the ACT, demonstrating Evoenergy's on-going commitment to consumer safety.

## 5.4 Gas Metering

### 5.4.1 Gas meter maintenance

Evoenergy reported being compliant with meter management requirements during the reporting period.

### 5.4.2 Aged gas meter testing and replacement

Evoenergy undertook a review of meter populations reaching the end of their 15-year in-service life. These aged meter populations may be tested, via sample testing, for assessment as to whether their performance (e.g. accuracy and integrity) supports an extension of their in-service life ('life extension').

Testing was undertaken in accordance with AS 4944: 2006 Gas meters – in-service compliance testing.

Evoenergy is yet to formally lodge with UTR (where appropriate) a 'Meter Life Extension request', which is to be accompanied by a Domestic, Industrial and Commercial Meter Life Extension Report. The report shall detail the methodology used and justification for extending the operational life of any compliant domestic gas meters by five years beyond their 15-year life.

It is understood that Evoenergy has again specified aged meter replacements and/or life extensions in their current year's meter management program. Evoenergy has indicated that 'in-service life extension' of 2,776 residential and 303 I&C meters and the replacement of 9,527 residential meters and 2 I&C meters are to be included in the current period's program.

## 5.5 Asset Management

### 5.5.1 Network capacity

Evoenergy confirmed the network's capacity and supply performance as being satisfactory as a result of its annual network pressure survey. Evoenergy is presently finalising the 2020 Network Supply Validation Reports and is to provide them to UTR by 30 December 2020.

Evoenergy's annual network pressure gauging programs indicated no immediate supply issues in the network, with pressures within and at network terminal points being above the required minimum operating pressures.

### 5.5.2 Gas leakage survey

Evoenergy reported low levels of network mains leakage as a result of its annual network leakage survey program. Survey results also indicated that the number and severity of leaks at meter installations identified were also low, being consistent with the previous five years of reporting.

### 5.5.3 Pipeline protection – Cathodic Protection

Evoenergy reported as being compliant with the protection criteria under AS2832.1 Cathodic protection of metals for Cathodic Protection Systems (CP) and CP performance during the reporting period.

CP systems are required for the on-going integrity and protection of the steel network.

## 5.5.4 Safety Management Systems

As a result of its internal audit and compliance regimes, Evoenergy reported low levels of non-compliances against its safety management systems relating to both network construction and operations and maintenance activities during the reporting period.

The nature of non-compliances reported ranged from general administrative and minor works defects/ omissions. All non-compliances identified are recorded and are to be closed out as part of Evoenergy's on-going safety, audit and compliance regimes prescribed under its Safety and Operating Plan.

## 5.6 Asset Records, Data and Records Management

UTR acknowledges Evoenergy's continued work in the areas of the provision and quality of Evoenergy asset information, and that such information has improved during the reporting period.



FYSHWICK NATURAL GAS METER SET



# 6. GAS TRANSMISSION PERFORMANCE 2019–20—APA GROUP

East Australian Pipeline Limited (a wholly owned subsidiary of APA Group) is licensed for one of two transmission pipelines entering the ACT. APA Group operates and maintains the Moomba to Sydney pipeline system including the Dalton to Canberra pipeline.

In conjunction with the UTR annual compliance reporting, APA Group also submits an annual report to the NSW Regulator for the Sydney to Moomba pipeline which includes the Dalton to Canberra licensed pipeline performance information.

APA Group's performance in the operation, maintenance and supply management of the Dalton to Canberra licensed pipeline for the reporting period was considered by UTR as satisfactory.

## 6.1 Notifiable Incidents

APA Group reported no serious gas accidents or incidents during the reporting period.

As a part of its commitment to public safety APA Group undertakes routine landholder and local council gas safety awareness programs. These programs seek to mitigate the occurrence of serious gas accidents or incidents.

APA Group also continues to monitor activities on, over and near the pipeline easement via aerial and land patrols to protect the pipeline from third party activities that have the potential to impact the pipeline's integrity or operation.

## 6.2 Gas Safety and Operating Plan

APA Group reported being compliant with the Gas Service and Installation Rules Code for the reporting period.

The Gas Safety and Operating Plan Code 2000 requires APA Group to prepare and periodically update a Safety and Operating Plan (SaOP).

APA Group utilises the Pipeline Management System (PMS) within the Australian Standards (AS 2885 Pipelines – Gas and Liquid Petroleum) as the basis for satisfying the requirements of the Gas Safety and Operating Plan Code. APA Group's PMS details how APA Group safely operates and manages gas transmission assets.

APA Group's PMS undertook an independent audit in the 2019–20 reporting period, for which a certificate of conformance was issued. UTR notes a number of minor non-conformances identified by the audit and will liaise with APA Group to ensure these are addressed in the upcoming periods.

## 6.3 Emergency Planning

APA Group reported being compliant with the Emergency Planning Code for the reporting period and that its Transmission National Emergency Response Management Plan (plan) remained compliant as required by the Emergency Planning Code 2011.

The plan was previously accepted by UTR as providing the coverage intended by the code.



# 7. WATER UTILITY PERFORMANCE 2019–20—ICON WATER

## 7.1 Utility Code Review Progress

UTR and Icon Water are working collaboratively to develop revised water and sewerage Technical Codes. Meetings were suspended at the onset of the Covid-19 Public Health Emergency, impacting progress of the Codes review. Discussions occurred on the following aspects:

- Understanding Icon Water's regulatory framework
- Setting out the principals of the technical review of the Code
- Asset Management
- Water and Sewerage Supply Standards and Design and Maintenance
- Water Metering
- Extent of Network and Network Boundary
- Emergency and Safety Management
- Environmental Management

## 7.2 Emergency Planning

In April 2020, Icon Water submitted updates of the draft Water Supply and Sewerage Emergency Management Plan (WSSEP) and Dam Safety Emergency Plans (DSEPs) as required by the [Emergency Planning Code 2011](#) and the [Dam Safety Code 2018](#). A draft DSEP for seven in-ground reservoirs was also submitted to the Technical Regulator for consideration. The emergency plans integrate with Icon Water's Australasian Inter-Service Incident Management System (AIIMS) and were accepted as meeting requirements of the codes. In accepting the plans, the Technical Regulator requested:

- the 2021 WSSEP incorporate lessons learnt from the 2020 emergencies
- a copy of the annual audit of procedures that are relevant to the emergency events of 2020

- minor improvements to the updated DSEPs to facilitate Icon Waters compliance with relevant technical codes
- improvements to flood mapping and clarification of certain details for the draft DSEP.

## 7.3 Emergencies and Notifiable Incidents

### 7.3.1 Territory Declared Emergencies

#### Bushfire

In April 2020, Icon Water advised that the WSSEP was activated in response to threats associated with the 2019–20 bushfire season and subsequent Orroral Valley Bushfire. An incident management team was formed to coordinate the business's response and the Business Continuity Plan (BCP) was also later activated, becoming the primary plan once the immediate emergency had dissipated.

As far as practicable, Icon Water maintains its assets to minimise impacts from bushfire. Bushfire hazards are managed in accordance with the Bushfire Operational Plan which is submitted to the ACT Emergency Services Commissioner in accordance with the Emergencies Act 2004 (ACT).

#### COVID-19

In March 2020, Icon Water notified UTR that it was enacting its BCP in response to the Covid-19 Public Health emergency. Icon Water later advised that regulatory requirements in the following areas of its business could potentially be impacted:

- Water Metering including the introduction of separate water metering for new units
- Dam surveillance
- Capital works program
- Trade Waste Management Systems

- Water Supply and Sewerage Technical Code development
- Water network modelling project
- Annual testing of emergency plans
- Various reporting requirements

In the reporting period, the Technical Regulator:

- noted the regulatory obligations that were at risk of being impacted and the proposed adjustments and measures that Icon Water was taking
- accepted that the Territory declared emergencies of 2019–20 constituted live testing of the WSSEP (required under Section 8 of the EPC) over an extended period, meeting the intent of the Code.

Icon Water has advised that the BCP is being audited, noting the plan was activated during both Territory declared emergencies.

## 7.3.2 Notifiable Incidents

During the reporting period, UTR was notified of nine water asset related notifiable incidents under the Utilities (Technical Regulation) Act 2014. Worksafe ACT was also advised of eight of the incidents. Four of the incidents related to Icon Water staff/contractors, with the remainder relating to third party hits on Icon Water assets during construction activities. Where Icon Water assets had been struck during construction activities, all had been marked out prior to excavation, reflecting prudent process; however, the asset was not located where it was marked.

It should be noted that the number of water asset related notifiable incidents is not necessarily a reflection on Icon Water's assets or staff; changes in the number of notifiable incidents from year to year reflect the type and nature of work being undertaken in the ACT.

## 7.4 Service Delivery Targets for Sewers

Over several years in its Business Strategy, Icon Water has noted that the most significant environmental risk it manages is the uncontrolled release of raw sewage, given the potential environmental and health impacts of uncontrolled sewage releases. Key performance indicators measuring the incidence of uncontrolled release of sewage from the sewer network for 2019–20 and monitoring systems for uncontrolled releases are given in the following sections.

### 7.4.1 Key Performance Indicators

#### Sewer main breaks and chokes

The incidence of breaks and chokes in the Icon Water sewer network continues to be much higher than the industry average as noted in Table 7.4.1 below.

**Table 7.4.1 Sewer main breaks and chokes (per 100 km of sewer main) reported by Icon Water**

Industry <sup>(1)</sup> Average 2018–19	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20
33	57	52	54	49	56	72	84

Bureau of Meteorology, National Performance Report 2019–20: urban water utilities, Part B, February 2021 (ISBN: 978-1-925738-21-6)

Icon Water has consistently reported a rate for breaks and chokes in its sewer network 60–80% above the average incidence reported by other major urban utilities. The result for the past two reporting periods is greater than twice the industry average. In 2019–20, Icon Water's sewer breaks and chokes was reported to be the worst of the major urban utilities.

Icon Water believes that the extended dry weather, which continued during the first half of the year, was a major contributor to the sewer breaks and chokes reported. In 2019–20, rainfall was below average across much of Australia; it was the sixth driest year on record and the second consecutive year of below average rainfall. During the latter part of the reporting period, La Nina conditions began to emerge. This climate driver results in above average rainfall across eastern Australia and is anticipated to substantially lower the sewer main breaks and chokes in the next reporting period.

After UTR questions, Icon Water advised that a strategic review of the sewer main renewals program for the period 2018–2023 was recently undertaken. This program was originally established in 2015 to maintain the then current levels of service noted in Table 7.4.1. Following a significant increase in construction costs between Stage 1 and Stage 2, the review was undertaken to determine possible options to reduce the cost of renewals.

Six options were considered with the preferred option being to defer stages 4 and 5 of the renewals programs whilst maintaining current maintenance services activities in their current capacity. This option provided the greatest cost saving in the current regulatory period whilst returning only a slight increase from targeted long term blockage rates.

### **Sewer overflows and repeat overflows**

Sewer overflows generally decreased slightly from the previous year but increased substantially from four years ago. Properties subject to repeated overflows, unexplained overflows and complaints also increased substantially. Icon Water has advised:

- the large increase in unexplained overflows corresponded with the implementation of a new data capture system, which resulted in information identifying the cause of overflows not being recorded. Changes have been made to the system to ensure such information is captured in the future
- to reduce sewerage complaints and address blockages, Icon Water is using a sewer modelling program to identify hot spots and proactively clean these hot spots and will establish a team to improve scheduling, resourcing, customer communication and overall outcomes.

### **Monitoring Systems for Uncontrolled Discharges of Sewage**

Recently, major urban water utilities have begun exploring and trialling the use of various new types of monitoring equipment on their sewerage networks to help identify network blockages, potential sewage overflows and leaks from the network.

UTR would like to see Icon Water investigate improvements to its management of sewage overflows, including increased monitoring of potential overflow points, sewer rising mains and trunk sewers. Such an approach is consistent with Icon Water's 2020–21 to 2023–24 Business Strategy (Statement of Corporate Intent) to:

- build a smarter network, and to 'focus on piloting and understanding how smart meters and network sensors (IoT devices) can support our ability to meet our service obligations, reduce the risk of crucial asset failures, and create a safer working environment
- undertake real time monitoring of the network.

Improvements in monitoring of the sewerage network would also minimise the consequences of sewerage discharges; sewer assets may be located close to sensitive environments, including waterways, and such discharges can go undetected for some time when relying on public reporting to alert Icon Water of any issues. When available, this data will increase:

- certainty around the frequency and volume of sewer overflow events from the trunk section of the sewer network, resulting in improved environment management outcomes
- confidence around the timing of augmentation of major sewer assets. This is consistent with the objectives of the UTR Act which requires Icon Water to ensure the safe, reliable and efficient delivery of regulated sewer services.
- UTR anticipates that Icon Water will investigate the opportunities in this area further.

## 7.5 Network Design and Maintenance

The Water and Sewerage Network (Design and Maintenance) Code 2000 prescribes minimum standards for the design, construction, operation and maintenance of Icon Water's water and sewerage networks to demonstrate that Icon Water can reliably and efficiently provide water and sewerage services. It also requires Icon Water to prepare Service Capability Projections (SCPs) for its water and sewerage networks.

In 2018, Icon Water provided updated SCP reports for its water and sewerage networks to UTR. UTR asked Icon Water to improve reporting consistency with the Water and Sewerage Network (Design and Maintenance) Code and to demonstrate linkages with the Water and Sewerage Capital Contribution Code 2017. Icon Water has committed to amend the content and format of the reports to improve this linkage. UTR has also recently provided additional clarity as to the detail required on capital investments included in the SCP.

Icon Water has recently advised that the 2018 SCPs are being updated in Growth Servicing Plans. Augmentations to the network models to accommodate growth are due to be completed by July 2021, with the water and sewerage network plans being updated by 2023. A separate document covering the requirement of a SCP for the LMWQCC plant is also being prepared.

UTR looks forward to the receipt of the updated SCPs that improve the visibility for the UTR for future capital works.

## 7.6 Trade Waste

The Liquid Trade Waste (LTW) area was heavily impacted by the Covid-19 public health emergency due to the sudden closure of businesses and social distancing requirements preventing inspections and maintenance. Icon Water took this opportunity to undertake a thorough review of the LTW customer database. This review highlighted some discrepancies in Icon Water's record keeping in this area, with duplication of records or expired approvals to discharge liquid trade waste to sewer being identified. The changes to the data reported combined with the impacts of Covid-19 in the LTW area makes it difficult to meaningfully compare data between years or derive any conclusion. UTR will be monitoring the recovery of this area of the business to normal operational practices.

UTR has also agreed to work with Icon Water to review the questions in the Annual Questionnaire to measure LTW performance and develop clear definitions on reporting parameters. This is anticipated to require:

- review of reporting requirements in NSW
- categorising customers based on agreed risk criteria
- establishing targets for the percentage of customers' premises to be inspected annually for each risk category.

Icon Water has previously advised that LTW management is a potential area for review in 2020–21. Network protection, customer education and acceptance guidelines as areas of LTW management were identified for review in 2020–23.

UTR recommends that Icon Water completes this review in 2020–21 and focuses on improving customer compliance with Icon Water Liquid Waste Acceptance Guidelines. This will help ensure that LTW customers do not have an adverse impact on Icon Water's ability to manage a safe, efficient, and reliable sewerage system.

## 7.7 Water Network Design

In 2016, Icon water prepared models to assess the performance of the network to meet fire flow requirements, against the Water Supply and Sewerage Standards (WSSS) and the agreement in place with ACT Fire and Rescue. Icon Water later advised that the network modelling showed that during periods of peak water network demand it was unable to simultaneously provide full fire flow capability to approximately 4000 water customers across ACT as required by its agreement with the ACT Fire and Rescue. Recognising inadequacies of current practice and to restore network capacity, Icon Water committed to four initiatives. Two initiatives involved opening previously closed network valves and were readily completed. Progress against the remaining two initiatives required significant work and is described in the table below.

**Table 7.7 Progress against Water Network Design Initiatives**

Initiative	Actions	Status / Timeframe
Complete replacement of ~23km of undersized unlined water mains in inner north and inner south of Canberra	<ul style="list-style-type: none"> <li>→ As of 30 June 2020, 16.9 km of mains had been replaced.</li> <li>→ In 2019, Icon Water advised sections of the Pialligo water network are undersized for firefighting purposes. ACT Fire and Rescue were advised of the issue and a zone valve at Pialligo has been opened, improving flow and pressure but not achieving compliance. Augmentation to rectify the issue is underway.</li> </ul>	<ul style="list-style-type: none"> <li>→ In progress. To be completed by July 2021.</li> <li>→ In progress. To be completed in September 2020.</li> </ul>
Fire Flow Modernisation project—Implementation of actions from the consultant's report on Water Network Design Practices	<ul style="list-style-type: none"> <li>→ Update modelling governance.</li> <li>→ Update the Deed of Agreement with ACT Fire and Rescue.</li> <li>→ Build new models to align with industry practice, incorporating current usage patterns and ensuring appropriate validation.</li> <li>→ Update the design standards.</li> </ul>	<ul style="list-style-type: none"> <li>→ Complete</li> <li>→ Complete</li> <li>→ Four models are complete; two are nearing completion; two are to be built. To be completed by April 2021.</li> <li>→ Included in Growth Servicing Project to be completed by April 2021. These will be available for use in the development of growth models in March 2021, and for developer use in July 2021.</li> </ul>

<sup>1</sup> Model building was delayed by the diversion of Water Modelling resources to support decision-making with intense source water modelling over the period of the drought and beyond.

Icon Water last updated its basis for design of the water network in the 1970s. In the intervening years, per capita water consumption in Canberra has decreased substantially because of Icon Water and ACT Government education and increased community awareness of the need to live more sustainably. Recognising the changed pattern of water consumption, Icon Water is planning to amend its design standards of the water network. Amending the design standards also has potential long-term benefits for Icon Water in that it may demonstrate an increased resilience in much of the existing water network, thereby permitting some level of urban infill without the need to augment the existing water network. There will also be a much higher level of confidence that all sections of the water supply network meet the requirements defined in the ACT Fire and Rescue agreement at all times. UTR anticipate the delivery of the design standards shortly.



## 7.8 Non-Drinking Water

The Water and Sewerage Network (Design and Maintenance) Code contains the following provisions for reuse of treated effluent:

- That a Water / Sewerage Utility must prepare SCPs for the next 15 years that consider (Section 3.2):
  - (3) anticipated changes in consumer demand resulting from relevant policies and initiatives, including water conservation measures
  - (5) resource gains through multiple uses of water such as effluent re-use.
- That the Sewerage Network is to be designed, so far as reasonable and practicable, to ensure all Customers' sewage is collected and moved to a Sewage Treatment Plant in such a manner as to (Section 4.3):
  - (6) enhance the potential for reuse of treated effluent.

### 7.8.1 Reuse Activities

The total volume of recycled water annually supplied by Icon Water since 2017–18 is shown in Table 7.8.

**Table 7.8 Total volume of recycled water supplied (ML) by Icon water**

Year	2017–18	2018–19	2019–20
Volume of recycled water supplied (ML)	77	60	75

In the 2019–20 National Performance Report, Icon Water supplied the lowest volume of total recycled water of all major water utilities over the 2018–19 and 2019–20 reporting periods.



STROMLO WATER TREATMENT PLANT

## 8. DAMS REGULATION 2019–20

Section 57 of the Act defines dams greater than 5.0 metres high or with storage volume larger than 250 Megalitres as registrable dams. There are 40 such existing dams in the ACT as noted on the [ACT Register of Dams](#). The Technical Regulator has determined 32 of these dams as ‘listed dams’ in accordance with Section 69 of the Act. Listed dams are dams that the Technical Regulator considers present a risk of significant adverse effects on the community on the event of failure of the dam. Owners of listed dams must comply with all requirements of the ACT Dam Safety Code 2018 (the Code). The Code sets out minimum requirements for design, construction, operation, maintenance, surveillance and reporting in relation to listed dams to ensure listed dams meet the objects of the UTR Act.

The Code requires owners of listed dams to conduct an ongoing surveillance and monitoring program for the dams to demonstrate to the Technical Regulator their continuing safety. Using a risk-based approach the required frequency of surveillance, monitoring and reporting is generally more stringent for higher risk dams and is consistent with the Australian National Committee on Large Dam (ANCOLD) Guidelines.

There are three owners of existing listed dams in the ACT as noted in Table 10.1 below. Dam owners’ performance in the regulation of the safety of listed dams in the ACT was satisfactory during the 2019-20 reporting period.

**Table 10.1 Registrable and Listed Dams in the ACT**

Dam Owner (or custodian)	Registrable dams	Listed Dams
Icon Water	19	16
ACT Government (Transport Canberra and City Services)	18	14
Queanbeyan Palerang Regional Council (QPRC)	2	2
National Capital Authority <sup>(1)</sup> (NCA)	1	1

(1) The NCA is not subject to ACT Dam Safety Regulation but manages Scrivener Dam to the ANCOLD Guidelines

### 8.1 Dam Safety Reviews

In order to demonstrate the continued safety of listed dams in the ACT, the code requires formal Dam Safety Reviews to be completed periodically by dam owners. These are typically conducted for listed dams at intervals of 15 years, with the first review 15 years after a dam is commissioned.

### 8.2 Recently Listed Dams

In 2018–19 the Technical Regulator determined that a further 11 of Icon Water’s town water service reservoirs as well as 14 existing TCCS dams met the criteria as listed dams as they present a significant to extreme risk of adverse effects on the community in the event of dam failure. Following the Technical Regulator’s determination, owners are working to demonstrate the safety of these dams in accordance with requirements of the code, noting the transition period of up to five years allowed in the code.

More recently, two effluent ponds at the QPRC Queanbeyan Sewage Treatment Plant were listed by the Technical Regulator as they present a significant risk of pollution in receiving waters including Lake Burley Griffin in the event of dam failure.

There are two recently listed dams on the ACT Government Register of Dams. The Upper and Lower Deep Creek Dams are both in the suburb of Whitlam; one is under construction and the other still in planning.

Both Icon Water and TCCS have also requested the Technical Regulator to review the current Consequence Category Assessments for some listed dams. This review should be completed in 2020–21.

## 8.3 Details of Existing ACT Dams

This section summarises details of all registrable dams in the ACT

**Table 8.3.1 Icon Water Registrable and Listed Dams**

Consequence Category	Aranda Reservoir	Bendora Dam	Campbell reservoir	Chifley Reservoir	Corin Dam	Cotter Dam	Cotter Saddle Dam 1	Cotter Saddle Dam 2	Googong Dam	Googong Saddle Dam	Googong Reservoir	Higgins Reservoir	Kambah Reservoir	LMWQCC Bypass Dam	Mugga Reservoir	O'Connor Reservoir	Rivett Reservoir	Spence Reservoir	Stromlo Catch Dam
Current	H	H	H	L	E	E	H	H	E	E	L	H	H	S	H	H	L	H	S
Proposed	H	H	S	L	E	E	H	H	E	E	L	L	S	S	S	L	L	H	S
Listed Dam	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓
Safety Review		Y			Y	Y	Y	Y	Y	Y				Y					

Notes for Table 10.2 and 10.3

1. Consequence Category Ratings: E = Extreme; H = High; S = Significant; L = Low or Very Low
2. The dam Consequence Category is the assessed risk that a dam presents to the ACT community in the event that the dam was to fail. Please note that Icon Water and TCCS report that all dams are well engineered, are maintained in accordance with ANCOLD Guidelines and the likelihood of failure is very remote.
3. Current: Is the current Consequence Category as noted on the [ACT Register of Dams](#).
4. Proposed: Is the varied Consequence Category Assessment proposed following a recent assessment by dams engineers on behalf of the owner. A review of the proposed revised Consequence Assessments is in progress with Utilities Technical Regulation Team.
5. Reservoirs with a current Safety Review or less than 15 years old are designated with a 'Y'.

**Table 8.3.2 TCCS Registrable and Listed Dams**

Consequence Category	Coombs A	Coombs B	Cravens Ck	Fassifern	Ginninderra	Gungahlin	Isabella	Jaramalee	Jerrabomberra	Lower Stranger	Point Hut	Southwell Park	Tuggeranong Weir	Tuggeranong Dam	Upper Stranger	West Belconnen	Wrights	Yerrabi
Current	H	H	H	L	E	E	H	L	S	S	S	S	L	S	S	L	H	E
Proposed	L	L	S	L	H	H	L	L	S	L	H	H	L	H	L	L	H	H
Listed Dam	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓		✓	✓		✓	✓

The two QPRC Dams are both listed Significant Consequence Category Dams.

## 8.4 Icon Water Dams

In 2018–19 Icon Water reported that anchor testing at Bendora Dam (47 metres high) had identified deficiencies in a significant portion of right abutment passive anchors. It agreed to undertake further site investigations and a full dam safety review including structural assessment of the dam by 30 June 2021. Site investigations were delayed due to Covid-19 travel restrictions during 2020. Arising from this delay, Icon Water has advised a revised date for receipt of the full dam safety review of 30 June 2022. Included in the scope of the review is to determine if the right abutment anchors contribute to the structural integrity of the dam. Depending on the outcome of the safety review, remedial work may be required. Currently Icon Water has provisionally scheduled any work needed for the 2023–28 regulatory period. Urgency of any remedial works will be confirmed in the safety review. Icon Water considers that the societal risk for Bendora Dam is ‘Negligible’ and poses no immediate risk to the community.

Icon Water is also reviewing the need for the Stromlo Catch Dam (3.4 Megalitres). This small storage pond at the Stromlo Water Treatment Plant has known foundation deficiencies. It is generally kept empty, only used when the Stromlo Water Treatment Plant produces water out of specification or for collecting drainage during annual planned maintenance.

## 8.5 ACT Government Dams

Transport Canberra and City Services (TCCS) is the operational custodian of these dams on behalf of the ACT Government under a Provision of Service Operating Certificate which sets out how TCCS will manage and maintain these dams to ensure that they do not present an undue risk to the ACT community.

TCCS dams were first subject to regulation under the Code in mid-2018. TCCS is working to transition to full compliance with the code within the five-year transition period permitted by Schedule 3 of the code. The transition period requires investigations and a formal Dam Safety Review to confirm the current safety of each dam. Investigations to date indicate that spillway capacity of a couple of TCCS dams may not meet full requirements of the code. However, further review during the transition period, including the Dam Safety Review, is needed by TCCS to determine if upgrade of any dam spillways may be needed. Dams with higher Consequence Category Assessment have priority during the transition and their safety will be confirmed prior to that for lower risk dams.

## 8.6 Queanbeyan Palerang Regional Council (QPRC) DAMS

In 2019–20 the Queanbeyan Sewage Treatment Plant Maturation Ponds 2 and 3 (the Ponds) were listed on the Register of Dams in accordance with the UTR Act. Subsequently, QPRC submitted an application for a Provision of Service Operating Certificate for the Ponds. On 26 March 2020 a minor seepage event occurred from Maturation Pond 2 following heavy rainfall. UTR is satisfied with the stability of Pond 2 subsequent to discussions with QPRC’s dam safety engineer and is ensuring mitigation of the associated risks is included in QPRC’s regulatory plan. UTR continues to engage with QPRC to finalise a Provision of Service Operating Certificate for these dams as required by the Act.

## 9. UNLICENSED REGULATED UTILITIES

### 9.1 Solar Farms

Four solar farms were operational in the ACT during 2019–2020: Mugga Lane, Mount Majura, Royalla and Williamsdale.

It has been previously reported that the four solar farms combined would be capable of producing around 85 MWh of energy per year. During 2019–20, close to 104.7 MWh of energy was produced for the ACT, which is 16.2 MWh more than last year.

All solar farms operated under provisions of their operating certificates issued under the Act and no incidents were reported.

### 9.2 Stormwater Harvesting—Inner North Reticulation Network (INRN)

The INRN is a significant stormwater harvesting and irrigation scheme, utilising public assets under the control of TCCS. INRN operates under Ministerial exemption and a Provision of Service Operating Certificate, as required by the Act.

During the 2019–20 reporting period, TCCS (Roads ACT) continued to engage with the UTR team to ensure compliance of the INRN. In accordance with the Ministerial exemption issued on 22 December 2019, a revised Provision of Service Operating Certificate was applied for during the reporting period.

The INRN developed an Implementation Plan in June 2020 based on recommendations by its independent certifier to enhance the INRN's compliance with Operating Certificate requirements.

In 2019–20, the INRN reported harvesting 143.6 ML of water to service its customers.

### 9.3 Essential Energy

Essential Energy is a NSW government owned corporation with responsibility for building, operating and maintaining the largest electricity network in Australia. Essential Energy was granted an operating certificate by the Technical Regulator in 2018 for distribution and connection of electricity services for the portion of its network that is within the ACT, valid for an initial 10-year period and renewable at the end of that period.

Essential Energy's ACT assets consist of 281 poles in high bushfire risk areas and 30 poles in non-bushfire prone land (urban) areas. It is reported that there were no notifiable incidents relating to infrastructure in the ACT during the reporting period. Essential Energy reported that all pre-summer bushfire pole inspections and vegetation tasks were completed prior to the start of bushfire season in the ACT.



## 9.4 Light Rail

A Provision of Service (PoS) Operating Certificate for Light Rail Stage 1 was issued to Canberra Metro Operation (CMO) in April 2019, allowing CMO to commence light rail passenger services from Gungahlin to Alinga Street in the City. Due to a range of issues that arose during the construction phase of the project, several special conditions were added in the PoS Operating Certificate to ensure safe, reliable, and efficient delivery of the light rail services. During 2019–20, CMO has progressively demonstrated compliance with a number of special conditions. However, three special conditions are still outstanding.

One of the outstanding conditions relates to satisfying the independent certifier comments regarding the design packages relating to electrical infrastructure of the Light Rail Stage 1, and obtaining an unconditional design certification from the certifier. Over FY 2019–20, CMO has progressively closed out a number of conditionally certified design packages, leaving only one design package conditionally certified at the end of FY 2019–20. To address the independent certifier's requirements regarding this design package, CMO has finalised a resolution following multiple workshops with the relevant stakeholders. It is anticipated the proposed resolution will be completed by June 2021 pending Covid-19 restrictions.

The remaining outstanding conditions relate to an independent audit either from an IPART auditor, or alternative auditor whose independence and competency is acceptable to the Technical Regulator, to review the safety and performance of three key components of the electrical infrastructure of Light Rail Stage 1. The timeline to demonstrate compliance with this condition was revised to 30 June 2021 following CMO requests with the reasons explaining the delay in the audit. CMO is anticipated to commence the audit in April 2021.

Construction of a new light rail stop in Mitchell on the existing light rail corridor is underway, with the expected completion by August 2021.



LIGHTRAIL TRACTION POWER STATION, HARRISON

# 10. FOCUS FOR 2020–21 WORK PROGRAM

- Complete review of gas and light rail codes and ensure adequate management of the gas distribution network.
- Develop regulatory settings that require ongoing gas meter safety inspections undertaken in apartments with internal gas meter sets.
- Resolve risks from development approval being granted without considering impacts of critical utility infrastructure nearby, with an emphasis on gas transmission pipelines.
- Engage in the National Gas Regulators Forum and Energy Regulatory Authorities Council.
- Undertake audit of electricity utilities' bushfire preparedness.
- Ensure Evoenergy continues to improve management of quality of supply.
- Review Evoenergy's response into resolving issues identified in Evoenergy's 2017–18 audit on earthing, safety reporting and training.
- Continue to monitor TransGrid's performance in delivering the second point of transmission supply.
- Provide technical advice to EPSDD and CMTEDD to support the successful implementation of the ACT Big Battery project.
- Ensure the safe installation and operation of multiple large battery programs across the Territory.
- Track Light Rail Stage 1 progress in discharging conditions of operating certificate.
- Develop governance and legislative changes in preparation for Light Rail Stage 2a and 2.
- Review the Utility Networks (Public Safety) Regulation 2001.
- Monitor completion of Icon Water's Fire Flows Modernisation Project.
- Review the Water Supply and Sewerage Technical Codes and Emergency Plans for the water sector.
- Monitor progress and review of Growth Servicing Plans and associated deliverables for Icon Water.
- Monitor Liquid Trade Waste recovery from Covid-19 and development of performance metrics.
- Ensure Territory, Icon and QPRC large dams are managed in accordance with regulatory requirements.
- Develop and implement appropriate regulatory settings that support QPRC's replacement sewage treatment plant.
- Develop regulatory settings with Icon Water that support the introduction of water unit metering.
- Implement and improve the process for assessing applications for operating certificates for rooftop generators of 200kW and over.
- Review utilities' performance, compliance and incident reporting requirements.
- Enhance regulatory capacity through partnering arrangements with interjurisdictional regulators to harmonise regulatory environments.
- Further develop the capacity of engineering and regulatory staff through work with the ACT Chief Engineer and ANU RegNet School of Regulation and Governance.
- Provide advice to statutory office holders regarding the introduction of hydrogen.



TRANSMISSION LINE, GINNINDERY

