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ANNUAL REPORT 2015-16

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1 INTRODUCTION

1.1 TECHNICAL REGULATION

2015-16 was the first full year in which the Access Canberra Utilities Technical Regulation Team (UTR) operated under the *Utilities (Technical Regulation) Act 2014* (the Act). The Act became effective on 1 March 2015, transferring technical regulation of regulated utility services from the *Utilities Act 2000*. 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:
 - c the public
 - c people working on regulated utility networks and regulated utility services
 - c property near regulated utility networks and regulated utility services; and
 - c 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 2015-16 included:

| Electricity Transmission | TransGrid |
|--|--|
| Electricity Transmission, Distribution and Connection | ActewAGL Distribution (ActewAGL) |
| Gas Transmission | East Australian Pipeline Limited |
| Gas Distribution and Connection | ActewAGL |
| Water and Sewerage Supply | lcon Water Limited |

1.3 LICENSED UTILITY COMPLIANCE

The Technical Regulator may issue a written direction to require compliance by a regulated utility when satisfied that the utility has contravened, or is likely to contravene, a Technical Code. Whilst there were areas of non-compliance with various requirements of Technical Codes by licensed utilities during 2015-16, none were serious enough to warrant the issue of a direction by the Technical Regulator under section 18 of the Act. However, there are a number of important issues identified in this report that will be



Williamsdale SolarFarm

closely monitored by the Technical Regulator. These include:

- Electricity ActewAGL's supply standards noncompliance (section 3.5) and quality of supply (section 3.6)
- > Gas Increase in the number of reported serious gas accidents and incidents (section 5.1) and safety of gas meters in medium-density high-rise apartments (section 5.4)
- > Water Adequacy of demonstration of the safety of some Icon Water Dams (section 7.3) and ability to deliver full fire flows to some customers under all operating circumstances (section 7.7).

1.4 UNLICENSED REGULATED UTILITY SERVICES COMPLIANCE

As well as regulating licensed electricity, gas and water utility services; the Act provides for regulation of unlicensed services suchas:

- > solar farms
- inner north Reticulation Network (an existing recycled water network)
- owning of registrable dams (there are 30 existing dams known to UTR)

From 1 March 2015 Part 6 of the Act has required that Operating Certificates be issued by the Technical Regulator for unlicensed regulated utility services provided in the ACT. A transition period of two years was included in the Act where a regulated utility service had been operational at the time the Act was assented. For the unlicensed regulated utilities that were operating when the Act became effective to remain compliant, they will be required to have an operating certificate in place by 1 March 2017.

In June 2016 the Technical Regulator approved the first Operating Certificate under the Act. It was for a Design and Construct Operating Certificate for the Majura Solar Farm. This solar farm will have a peak generating capacity of 2.3 MW. Other applications for Operating Certificates in relation to solar farms were also pending as at 30 June 2016.

2 LEGISLATION AND POLICY

2.1 NEW LEGISLATION ENACTED DURING 2015-16

Light Rail

The following legislation was introduced to cover aspects of the light rail currently under construction:

- > Utilities (Technical Regulation) (Light Rail Regulated Utility Service) Regulation
- > Utilities (Technical Regulation) (Light Rail Regulated Utility (Electrical) Network Code)
- > Utilities (Technical Regulation) Light Rail Regulated Utility (Electrical) Network Boundary Code

Operating Certificates

The following legislative instruments were introduced to enable the recovery of costs for assessing operating certificate applications. Operating Certificate guidance was finalised and published in September 2016 summarising the process.

- > Utilities (Technical Regulation) Operating Certificate Fees Determination
- > Application for operating certificate Approved Form

Electricity Transmission Supply Code

The *Electricity Transmission Supply Code* was approved by the Minister for the Environment and Climate Change on 11 July 2016. This Code establishes a regulatory requirement for TransGrid to deliver a geographically separate transmission supply point for the ACT by 31 December 2020. This will ensure continuity of supply should the existing Canberra Substation point of supply experience a complete failure, a special contingency event.

The *Electricity Transmission Supply Code* also establishes requirements for ActewAGL and establishes the contingency planning required in the event of a special contingency event prior to the second point of transmission supply being established.

2.2 UTILITY CODE REVIEW PROGRESS 2015-16

During the reporting period UTR commenced the review of existing technical codes that support the safe, reliable and efficient operation and management of utilities. The review seeks to update and consolidate existing technical codes into a single new code for each licensed utility sector whilst establishing a common framework across the different sectors (e.g. electricity, gas and water).

3 ELECTRICITY UTILITY PERFORMANCE 2015-16-ACTEWAGL

Electricity utility services are provided to the ACT via TransGrid, the transmission service provider, which supplies ActewAGL as the distribution service provider.

The utilities' performance in delivering these services during 2015-16 were largely satisfactory, however some aspects of ActewAGL's performance did not fully comply with Technical Code requirements. The more salient performance issues are reported below.

3.1 NOTIFIABLEINCIDENTS

ActewAGL reported the following Notifiable Incidents during 2015-16:

TABLE 1: NOTIFIABLE INCIDENTS

| Deaths | 0 |
|--|----|
| Dangerous Incidents (Includes: 17 Fires;36 Electric Shocks) | 53 |
| Serious Property Damage | 13 |
| Serious Environmental Damage | 3 |
| Total Notifiable Incidents | 69 |

It is not possible to compare this performance with previous years as this is the first full year since commencement of the Act in which this information has been reported.

UTR and ActewAGL are working together to improve the clarity of reporting requirements to ensure the comprehensive reporting and investigation of incidents and measures to avoid their occurrence.



Timber power pole

3.2 POLE INSPECTION AND MAINTENANCE

A key risk factor to ActewAGL's operations and the community is the structural integrity of their power poles. To control this risk they have a rolling condition testing program for power poles. The purpose of the program is to confirm that poles in their network remain safe (structurally adequate). 'Condemned' poles are deteriorated poles that represent an increased public safety risk. ActewAGL procedures require that 'condemned' poles are replaced or remediated within 12 months. This procedure is based on the assessment by ActewAGL that if left for a longer period the risk to the community from a falling pole becomes unacceptable.

Advice provided by ActewAGL and summarised in **Table 2** indicates that during 2015-16 it continued to improve its timeliness attending to condemned poles thereby reducing the number not remediated or replaced within 12 months from 51 to 33. This represents a continuing encouraging trend in pole management.

TABLE 2: CONDEMNED POWER POLES IN ACTEWAGL NETWORK

| | 2013-14 | 2014-15 | 2015-16 |
|---|-----------------|---------------|------------------|
| Total number poles | 50,911 | 50,704 | 50,683 |
| Number of poles tested | 16,243 | 11,103 | 13,501 |
| Number of poles condemned (as a % of poles tested) | 1,547 (9.5%) | 837 (7.5%) | 1,091 (8.08%) |
| Number of condemned poles replaced or remediated within 12 months | 1,225 | 1,520 | 1,106 |
| Number of condemned poles not replaced or remediated within 12 months. | 934 | 51 | 33 |

3.3 VEGETATION MANAGEMENT

Management of vegetation clearances within close proximity of power lines is an important element to mitigating bushfire risks and power supply reliability.

ActewAGL is responsible for managing vegetation to power line clearances on urban leased land and rural areas, whilst the ACT Government is responsible for vegetation clearances to power lines in urban unleased land.

ActewAGL has a rolling inspection and clearance cycle for vegetation management, and advised that

all scheduled areas were inspected.Bushfire risk issues identified were mitigated/actioned prior to the commencement of the bushfire season.

3.4 PHOTOVOLTAIC ELECTRICITY GRID PROTECTION REQUIREMENTS

Privately owned solar panels have been installed widely throughout the ACT in past 10 years. Photovoltaic (PV) Inverters are an essential component of all these installations and automatically operate to disconnect PV-generated electricity supply from the ActewAGL 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 ActewAGL 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 for maintenance staff.

ActewAGL have updated their previous records and advise there are now 17,298 PV installations in the network as shown in **Table 3**.

TABLE 3: PHOTOVOLTAIC INVERTERS (PV) CONNECTED TO THE ELECTRICITY NETWORK

| Year | Number of PV systems connected each year |
|------------------|--|
| 2015-16 | 1,274 |
| 2014–15 | 1,240 |
| 2013-14 | 2,062 |
| 2012-13 | 1,723 |
| 2011-12 | 4,823 |
| 2010-11 | 3,537 |
| 2009-10 | 1,881 |
| 2008-09 | 445 |
| 2007–08 | 226 |
| Prior to 2007–08 | 87 |
| Total installed | 17,298 |

ActewAGL advise that they have now improved their administration of inverter testing and have sent 7,870 PV Inverter re-test reminders to customers with PV installations over five years old, but have only received 3,127 test reports.

This leaves approximately 3,000 PV installations more than five years old where the condition is unknown. If faulty, they are a potential safety hazard for maintenance staff.

ActewAGL has considered this safety hazard and resolved that if a customer fails to respond after a third reminder, that their PV installation will be disconnected from the electricity network. UTR will continue to monitor progress regarding this management strategy to ensure that the safety risk to ActewAGL maintenance staff is minimised. To date ActewAGL has not disconnected any customer's PV installations.

3.5 SUPPLY STANDARDS

The Electricity Distribution (Supply Standards) Code requires ActewAGL to provide a supply voltage of 400/230 volts +10% -6% in accordance with AS 60038. However, ActewAGL has an internal performance benchmark that deems it acceptable to meet this regulatory requirement for only 95% of the time. UTR is working with ActewAGL to encourage full compliance with supply voltage requirements.

3.6 QUALITY OF SUPPLY

Annual Survey

The *Electricity Distribution (Supply Standards) Code* requires ActewAGL to report annually on quality of supply parameters within its network, as referenced in the Code. However, they have only reported survey results for some quality of supply parameters, and the survey monitoring points are not compliant with the requirements of the Code and AS 61000. The monitoring points selected by ActewAGL may give more favourable results than is actually the case. Notwithstanding this, the percentage of noncompliant sampled sites is high at circa 50%.

In 2015-16 the number of sites sampled has significantly decreased, to the point where it is considered insufficient to provide a statistically valid representation of network performance.

UTR is continuing discussions with ActewAGL regarding the parameters of the sampling program. It is recommended that sampling involve an adequate sample size for the whole of the Canberra electricity network, considers all variables that contribute to the quality of supply and that the sample sites selected and monitoring points are representative of the quality of supply that customers will receive.



Trees overhanging powerlines in the urban area

Table 4 summarises survey results for the past 3 years and shows that there is a high percentage of overvoltage at sampled sites. Overvoltage can cause premature equipment failure and possibly injuries. More effective management of this issue by AAD is required to improve performance and compliance.

TABLE 4: QUALITY OF SUPPLY

| | 2013-14 | 2014-15 | 2015-16 |
|---|-------------|-------------|------------|
| Number of sites where voltage levels were recorded | 40 | 44 | 19 |
| Number of sites requiring remedial action due to overvoltage | 10 (25%) | 25 (57%) | 8 (42%) |

3.7 DEFECTIVE NEUTRAL

Defective neutrals are of concern because they increase the risk of personal injury and equipment damage.

It is therefore pleasing to report that the number of neutral defects reported has decreased from 65 in 2014/15 to 39 in 2015/16.

3.8 RELIABILITYINDICATORS

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 targets for SAIFI and SAIDI were met but as shown in **Table 5** the CAIDI result, whilst an improvement on past years, again failed to meet the target. This is considered a minor non-conformance as CAIDI is considered a secondary reliability indicator.

The results indicate that compared to last year customers experienced supply interruptions more frequently but for a shorter duration.

TABLE 5: ELECTRICITY SUPPLY RELIABILITY

| Parameter | Target | 2013-14 | 2014-15 | 2015-16 |
|---|--------|---------|---------|---------|
| Interruption Duration per outage(CAIDI) minutes | 74.6 | 98.9 | 100.3 | 85.71 |
| Interruption Frequency (SAIFI) Number | 1.2 | 0.69 | 0.82 | 0.92 |
| Interruption Duration per customer (SAIDI) minutes | 91 | 67.8 | 82.5 | 79.04 |

3.9 EMERGENCY PLANNING

During 2015-16 ActewAGL submitted its annual update of the Electricity Networks Emergency Management Plan as required by the *Utilities (Emergency Planning Code).*

The Plan submitted integrates with ActewAGL's Crisis and Emergency Management Framework and was approved as meeting the Code requirements.

4 ELECTRICITY TRANSMISSION SERVICE PROVIDER PERFORMANCE 2015-16 - TRANSGRID

TransGrid submitted a satisfactory Electricity Network Safety Management Plan and associated supporting documents, and advised the following statistics in relation to the ACT for 2015-16:

TABLE 6: TRANSGRID PERFORMANCE STATISTICS

| Energy not served events (reliability) | Nil |
|--|-----|
| Major asset failures | Nil |
| Environmental breaches | Nil |
| Public injuries | Nil |
| Worker & contractor injuries | Nil |
| Fire starts | Nil |

5 GASUTILITY PERFORMANCE 2015-16-ACTEWAGL

ActewAGL's performance in delivering gas utility services was largely satisfactory during the 2015-16 reporting period. Over the period of this report there has been a significant improvement by the utility in its gas meter set installation practices. UTR acknowledges ActewAGL's improved metering installation compliance and application of the relevant technical standards during the reporting period.

ActewAGL reported being compliant with its licence to provide gas distribution and connection services under the *Utilities Act 2000* for the reporting period.

5.1 NOTIFIABLE INCIDENTS

ActewAGL reported eight serious gas accidents or incidents during 2015-16. Seven (7) were as a consequence of third party excavation activities, whilst one (1) related to leakage from a gas meter set. All incidents were responded to, made safe and rectified in accordance with ActewAGL's Gas Networks Emergency Management Plan and response times.

As a part of its commitment to public safety ActewAGL undertook public gas safety awareness programs via the general media together with industry specific training sessions for construction industries. All programs are designed to mitigate the occurrence of serious gas accidents or incidents.

5.2 GAS SAFETY AND OPERATING PLAN

The Gas Safety and Operating Plan Code 2000 (Code) requires ActewAGL to prepare and periodically update a Safety and Operating Plan (SaOP). The SaOP describes how ActewAGL plans to safely operate and manage the gas network. The Code requires implementation and compliance with provisions of the endorsed SaOP. Accordingly, this document assists with assurance to the ACT Government and community that ActewAGL will operate its gas network in a safe manner.

ActewAGL submitted a revised SaOP to UTR in June 2016 as permitted under Section 6 of the Code. The SaOP was reviewed by UTR with minor amendments being requested. Recognising that the SaOP is subject to a regular cycle of update and review these amendments are to be finalised as part of the 2017 review cycle. ActewAGL reported being compliant with the *Gas Safety and Operating Plan Code 2000* for the reporting period.

5.3 EMERGENCY PLANNING

In April 2016 ActewAGL submitted its annual update of the Gas Networks Emergency Management Plan (Plan) as required by the <u>Utilities (Emergency Planning</u> <u>Code)</u>. The Plan submitted integrates withActewAGL's Emergency Management System.

The Plan was reviewed by UTR and accepted as providing the coverage intended by the Code.



External gas meters at medium density apartment complex

5.4 SAFE GASMETERING

UTR continues to hold safety related concerns for domestic gas meter set installations located inside medium and high density multi–unit apartments completed prior to July 2014.

Such gas meter set installations are designed to operate without any form of utility intervention (either inspection or maintenance) for the term of their service life. The ActewAGL service life for such installations is 15 years.

UTR continues to hold concern that this operating regime may in the event of an internal gas meter set fault expose occupants of an apartment to gas escaping into occupied areas within the service life of the installation.

While odorant added to gas aids with leak detection, it does not aid the control mechanism to stop or decrease the volume of potentially escaping gas. The adequacy of apartment ventilation, first response access, and ability to isolate the gas supply for these installations remains of concern to UTR.

As previously reported, UTR developed the <u>Gas Service</u> <u>and Installation Rules Code</u> in 2013 which includes the new requirement that the gas distributor's metering installations must be external to a customer's building. This requirement seeks to address gas leakage safety concerns via requiring more appropriate location, ventilation, access and gas isolation requirements for new gas meter set installations.

In 2014 ActewAGL issued its Gas Service and Installation Rules as required by the GS&I Rules Code. During the reporting period ActewAGL commenced a review of its GS&I Rules. This review recognises the opportunities for improvement within the GS&I Rules and the need to obtain further engagement and input from the gas and building industries. The review seeks to further enhance the quality and practical application of ActewAGL's GS&I Rules.

Since the implementation of the GS&I Rules, their quality, compliance and gas meter installation practices have improved demonstrating ActewAGL's commitment to consumer and general public safety.

ActewAGL reported being compliant with both the Gas General Metering Code and Gas Service and Installation Rules Code for the reporting period.

5.5 ASSET MANAGEMENT

Gas meter maintenance

As reported previously, ActewAGL's current maintenance practice requires that only large capacity gas meter set installations (greater than 10m³/h capacity) are periodically maintained or inspected. This practice leaves the majority of gas meter set installations not scheduled for any form of maintenance or inspection whilst in service. UTR holds concerns with this approach for gas meter set installations located within medium density high rise apartments. In the event of an emergency where gas is released, options for termination of supply and utility access to equipment for gas isolation can be restricted. During 2014-15 ActewAGL undertook to confirm the appropriateness of its maintenance practices for all classes of gas meter setinstallations via the completion of independently facilitated Formal Safety Assessments (FSAs). However the final FSAs and report have not been received by UTR. UTR continues to seek resolution of this safety concern.

Domestic gas pressure regulators

ActewAGL has reported a three-fold increase in the number of domestic gas pressure regulators replaced in the last three years as a result of a potential design fault in the spindle and plastic cap of regulators that could lead to a gas leak. When asked for evidence of the fault to allow assessment of the public safety risk, the utility did not provide adequate supporting information. UTR requested that ActewAGL undertake a testing regime to confirm the extent of the risk, validate any faults and to substantiate the appropriate level of replacements. The outcome of the testing regime remains outstanding. UTR will again seek resolution of this matter in the next reporting period.

6 GAS TRANSMISSION PERFORMANCE 2015-16 - APA GROUP

East Australian Pipeline Limited (a wholly owned subsidiary of APA Group) holds a utility licence for one of two transmission pipelines entering the ACT. The APA Group (APA) operates and maintains the Moomba to Sydney pipeline system (MSP) including the Dalton (NSW) to Canberra (ACT) spur line. APA's performance of operating, maintenance and quality of supply on the gas transmission for the reporting period was considered by UTR as satisfactory.

6.1 NOTIFIABLEINCIDENTS

APA reported no gas incidents during 2015-16.

As a part of its commitment to public safety APA undertakes landholder and local council gas safety awareness programs. These programs are designed to mitigate the occurrence of gas incidents.

6.2 GAS SAFETY AND OPERATING PLAN

The Gas Safety and Operating Plan Code 2000 requires APA to prepare and periodically update a Safety and Operating Plan (SaOP). APA utilises the "Pipeline Management System" (PMS) within the Australian Standard 2885 to meet and exceed the requirements of this code. The PMS describes how APA plans to safely operate and manage the gas transmission assets undermanagement.

6.3 EMERGENCY PLANNING

APA has a national emergency planning model to cover multi jurisdictional requirements. APA's Transmission National Emergency Response & Security Manual (320-MN-ER-0001) has been deemed as acceptable by UTR as meeting the requirements intended by the Emergency Planning Code.

6.4 ASSET MANAGEMENT

APA has reported that there has been no deviation from their Asset Management Planning for the reported period.

7 WATERUTILITY PERFORMANCE 2015-16-ICON WATER

Icon Water's performance in delivering water and sewer utility services and its co-operation with UTR were both satisfactory during 2015-2016. The organisation has committed significant resources toward the development of an ISO55001 compliant asset management system, which is expected to rationalise the capex and opex programs as it is vertically integrated within the business. It is pleasing to see an early outcome in the application of sophisticated analysis to the sewer renewal program. Reportable items for the year include:

- Four of the five Scheduled Dams are not fully compliant with <u>Utilities (Dam Safety Code)</u>.
- > Icon Water is unable to fully comply with the conditions of its 2004 agreement with the ACT Fire Brigade. This has potential impacts for 4,000 water customers (3% of customers).
- > Performance in relation to sewer main breaks and chokes continues well below the industry average
- > Icon Water advises that development of a user pays system for trade waste continues, but without commitment to an implementation date.

The audit for this year was conducted on the processes for approval and acceptance of gifted assets through Greenfield development (subdivision for land release).



Googong Dam overflow

7.1 NOTIFIABLE INCIDENTS

UTR recognises that the nature of the water and sewer network is such that, when compared with the gas or electricity networks, the risk profile for Icon Water staff and the public is generally lower. Nevertheless, Icon Water has an established means of reporting accidents and incidents directly to UTR when they do occur as required by the Act.

During 2015-2016 Icon Water reported no serious accidents or incidents.

7.2 EMERGENCY PLANNING

During 2015-2016 Icon Water submitted updates of the draft Water Supply and Sewerage Emergency Management Plan and Dam Safety Emergency Plans as required by the <u>Utilities (Emergency Planning Code)</u> and the <u>Utilities (Dam Safety Code)</u>. The plans integrate with Icon Water's Emergency Management System (EMS) and were accepted as meeting requirements of the applicable codes.

7.3 DAM SAFETY

Icon Water owns 16 'registrable' dams as defined in Part 8 of the Act. The largest five are also 'Scheduled Dams' under the ACT Dam Safety Code. Icon Water is fully responsible for the safety of all of its dams. In order to mitigate the substantial consequences of a dam failure it conducts an inspection and surveillance program for all of its dams which generally complies with the requirements of ANCOLD (Australian National Committee on Large Dams).

During 2014-2015 Icon Water acknowledged that it could not demonstrate the current safety of its 'Scheduled Dams' in the manner required by the <u>Utilities (Dam Safety Code)</u> due to historical shortcomings in its surveillance program. Italso committed to demonstrate full compliance of the five 'Scheduled Dams' by December 2018. At 30 June 2016 Icon Water has confirmed that it remains on track to meet this commitment. However the advised dates to demonstrate full safety compliance of Bendora Dam and the LMWQCC Storage Dam have slipped 18 months and 24 months respectively since reporting in 2014-2015. Dam anchor inspections for three dams are scheduled for 2017-2018. If these inspections or pending dam safety reviews reveal defects, the necessary remedial works will extend the dates when Icon Water is able to demonstrate full safety compliance of its 'Scheduled Dams'.

Currently only one of the five Icon Water 'Scheduled Dams' is fully demonstrated as safe as noted in **Table 7** below.

Icon Water completed remediation works to Corin Dam during 2015-2016. This work rectified a known fault with the integrity of a small portion of the clay core of the Dam. The final report by the independent peer reviewer states, "I have no hesitation whatsoever in endorsing the construction of these upgrade works and of the small design changes that were made during this phase of the project".

Eleven (11) of the 'registrable' dams are not 'Scheduled Dams' and are not covered by requirements of the ACT Dam Safety Code. They are typically potable water storage tanks built on hills in the Canberra urban area. Some are quite high risk dams due to their location above existing residences. As a means of good risk management Icon Water is voluntarily working towards compliance with ANCOLD and ACT Dam Safety Code requirements for these dams.

TABLE 7: DEMONSTRATION OF SAFETY OF ICON WATER 'SCHEDULED DAMS'

| Dam | Dam Hazard Category | Adequately demon-strated current dam safety | Date Dam Safety will be demonstrated |
|----------------|------------------------|---|---|
| Corin | Extreme | No | December 2018 ⁽⁴⁾ |
| Bendora | High A | No | December 2018 ⁽⁴⁾ |
| New Cotter | Extreme | Yes ⁽¹⁾ | Demonstrated |
| Googong | Extreme | No ⁽²⁾ | September 2018 ⁽⁴⁾ |
| LMWQCC Storage | Low | No ⁽³⁾ | December 2018 ⁽⁴⁾ |

Notes to Table 7:

¹Safety of the New Cotter Dam was demonstrated as part of the commissioning and handover process for the dam.

²An independent peer review of the risk assessment completed for Googong Dam in 2015 concludes that further work is required to demonstrate the safety of Googong Dam with regard to earthquake risk. The NSW Dam Safety Committee also raised separate concerns about the structural integrity of Googong Dam and its Saddle Dam in its letter of 1 August 2014.

³A safety review has not been completed since the LMWQCC Storage Dam was constructed in 1995 and is now due.

⁴Dates are as advised by Icon Water in December 2016.



Sewer relining

7.4 SERVICE DELIVERY TARGETS – SEWER MAINS

In its 2014-2015 annual report UTR first noted that Icon Water experienced a frequency of sewer main breaks and chokes much worse than industry average. In 2015-2016 Icon Water has reported that the frequency of breaks and chokes has remained stable such that it was 60–80% worse than industry average in the three year period to 30 June 2016. **Table 8** below summarises yearly performance.

Icon Water's 2016-17 to 2019-20 Statement of Corporate Intent nominates that one of its key environmental risks for 2016-17 is the uncontrolled release of raw sewage. If Icon Water were able to reduce its frequency of sewer main breaks and chokes into line with Australian industry average it would go a long way towards reducing the frequency of uncontrolled release of raw sewage to the environment.

As approximately 90% of sewer main breaks and chokes in the Icon Water sewer network are attributable to tree root intrusion into sewers it is essential that Icon Water:

- > Identify and implement maintenance practices to reduce the frequency of sewer main breaks and chokes in its sewer network. Practices that are adopted need to recognise Icon Water's responsibility as asset owner to maximise the life of assets it manages on behalf of the ACT community. Therefore it is important that adopted maintenance practices do not damage the sewers in a manner that reduces asset life of the sewers. UTR is concerned that current maintenance practices of Icon Water in clearing sewer chokes are likely to damage sewer assets, particularly plastic sewers and shorten life of the asset.
- Research options for sewers that are more resistant to root intrusion in the Canberra environment and recognise these in its design standards where they provide an economical solution.

UTR is encouraged that Icon Water in early 2016-17 has engaged AECOM/SEAMS (UK) to develop an analytical model aimed at identifying and targeting the right mains for cleaning and internal inspection. This will allow Icon Water to more efficiently target its maintenance activities to reduce sewer chokes. However Icon Water also needs to review its maintenance practices as noted above, and also its design standards with the aim of moving towards best practice in sewer asset management.

> Identify more efficient methods to predict where

TABLE 8: SEWER MAIN KEY SERVICE DELIVERY TARGET FROM '2016–17 ICON WATER STATEMENT OF CORPORATE INTENT'

| Service standard | (1) Industry | Icon Water | | | | |
|--|--------------|----------------------------------|-------------------|-------------------|-------------------|-------------------|
| | 2014–15 | ⁽¹⁾ Target 2015–16 | Actual 2012–13 | Actual 2013–14 | Actual 2014–15 | Actual 2015–16 |
| Sewer main breaks and chokes (per 100 km of sewer main) | 31 | 40-66 (2) | 42 | 57 | 52 | 54 |

Note ⁽¹⁾ Taken from the 2016–17 Icon Water Statement of Corporate Intent ⁽²⁾ This target was 42 – 92 in the 2014-15 Icon Water Statement of Corporate Intent

7.5 TRADE WASTE

Icon Water moved further ahead with the implementation of its 2015 Liquid Waste Acceptance (LWA) policy. On-site inspections were undertaken on a planned basis and further effort was directed toward identifying the full range of businesses which require trade waste approval. A number of non-compliance letters have been issued to trade waste customers. UTR has not been notified of any further actions with these customers.

At the end of the 2015-16 financial year therewas no visible evidence of the development of a user pays regime to support the implementation and enforcement of the LWA policy. Icon Water continues to operate its LWA unit by cross subsidy from the general water rates base.

7.6 AUDIT OF GREENFIELD ASSETS

In 2015-16 UTR commenced an audit of Icon Water's design and acceptance standards for gifted assets from Greenfield developments. The audit was conducted by an experienced and independent water industry consultant. Initial findings are that some aspects of Icon Water's practices need review or strengthening. A list of agreed actions going forward will be negotiated during 2016-17.

7.7 FIRE FLOWS

Icon Water through a 2004 agreement with the ACT Fire Brigade is required to simultaneously deliver peak water demand in its potable water network and in addition provide fire flows in the event that the ACT Fire Brigade needs water to fight a fire within the urban areas of Canberra. The agreement provides fire flows greater than required in many major cities in Australia and is also generally greater than requirements specified in Australian Standard AS2419 Fire Hydrant Installations - Part 1 System design, installation and commissioning - 2005.

In its 2015/16 annual return Icon Water advised that during periods of peak water network demand it is unable to simultaneously provide full fire flow capability to approximately 4,000 water customers (3% of customers) as required by its 2004 agreement with the ACT Fire Brigade. Whilst recognising that fire flows required in the ACT are higher than in most Australian cities, Icon Water's inability to fully meet requirements in relation to fire flows is not in accordance with its agreement with the ACT Fire Brigade and remains a deficiency for the Canberra water network.

Icon Water has recently advised that the issue arises not from the way in which the water network is designed, but rather from the manner in which it has been configured in order to minimise the incidence of dirty water complaints from customers. Icon Water is actively reviewing options to enable it to fully comply with its agreement with the ACT Fire Brigade, and is preparing a project plan to address the known deficiencies.

8 FOCUS FOR 2016-17 WORK PROGRAM

8.1 UTILITY CODE REVIEW

The revision of Technical Codes approved under the *Utilities (Technical Regulation) Act 2014* remains a major focus for 2016-17. Consultation with utilities has commenced and will continue during the next reporting period.

8.2 OTHER PRIORITIES

Other priorities for UTR during 2016-17 include the following:

- Support utilities in meeting their regulatory obligations.
- Support utilities with delivery of their Emergency Management Plans.
- Prepare annual compliance and performance questionnaires for utilities.
- > Review utility compliance and performance reports.
- > Conduct various audits of utility performance focusing on known problem areas.
- > Provide regulatory support for the development of renewable energy in the ACT.
- > Support Icon Water and local businesses during the implementation of the trade waste policy.
- Development of a revised policy position on dam safety in the ACT.
- Development of a policy position on powerline fire safety.

9 CONTACT INFORMATION

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