

Gas Network

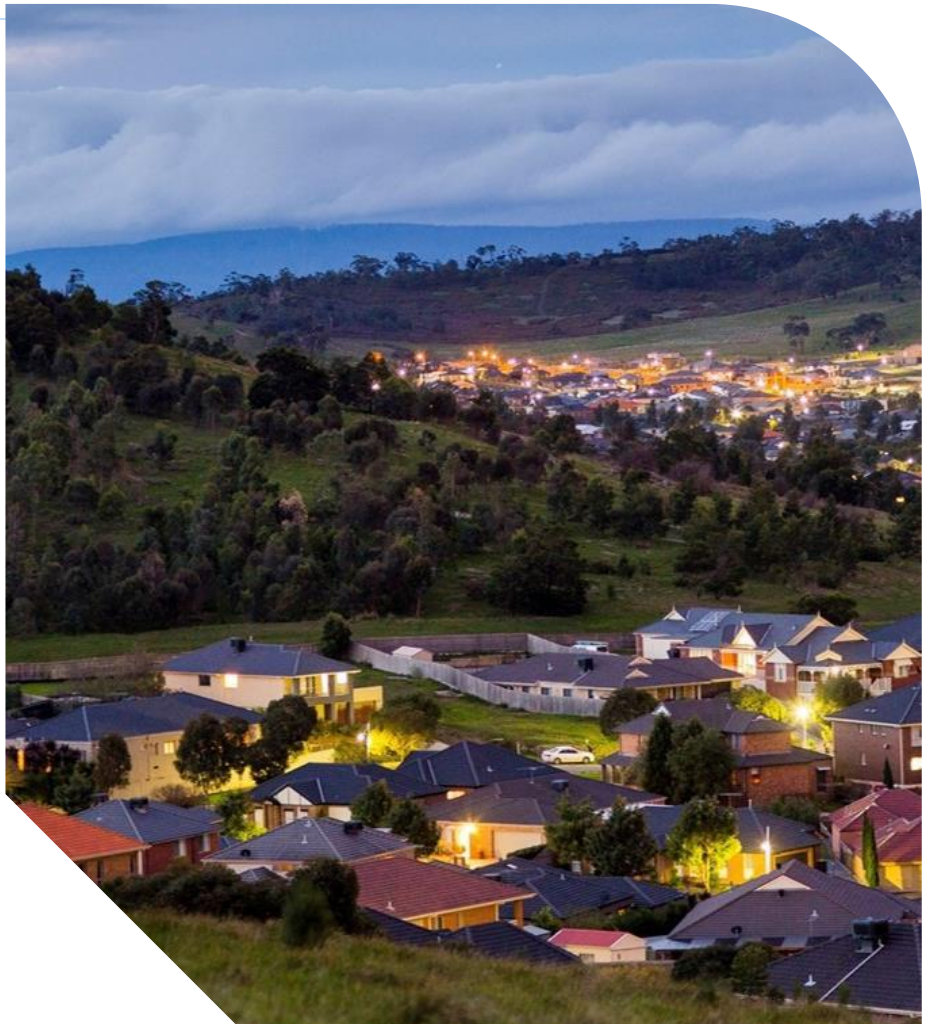
Accelerated Depreciation

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Executive Summary

It is proposed to reduce the “standard life” value used by the AER for 3 asset classes. This will result in accelerated depreciation of assets, bringing the financial assumptions into line with engineering assumptions regarding useful life of assets. The three proposed reductions are Mains and Services from 60 years to 50 years, and Cathodic Protection Units from 60 years to 30 years.

1. Background

The AER uses assumed values of standard life in order to model expected depreciation of network assets. This forms an input into the post-tax revenue model required for a regulatory submission. Some of the assumed values are inconsistent with the engineering values proposed by subject matter experts, the values used internally by AusNet Services' finance team, and observed age profiles.

2. Proposal

Table 1 shows the current and proposed standard lives of various assets in the regulated assets base.

Table 1. Useful Life of assets

	MAINS PIPELINES	SERVICES	CATHODIC PROTECTION UNITS
AER Modelling	60 years	60 years	60 years
AMS 30-01	60 years	60 years	30 years
Asset Register	60 years	60 years	25 years
Age Profile Step Change	50 years	50 years	30 years
SME Proposal	50 years	50 years	25 years

3. Mains and Services

Services are replaced at the same time as the corresponding mains is replaced. Hence, it is assumed that services have similar age and useful life profiles as distribution mains assets.

3.1. Useful life profile

Figure 1 shows the useful life assigned to AusNet Services' Mains and Services in its Asset Register. It shows that the most frequent useful life recorded against the network Mains and Services is 60 years. It is suggested that this be reduced to 50 years for the GAAR submission.

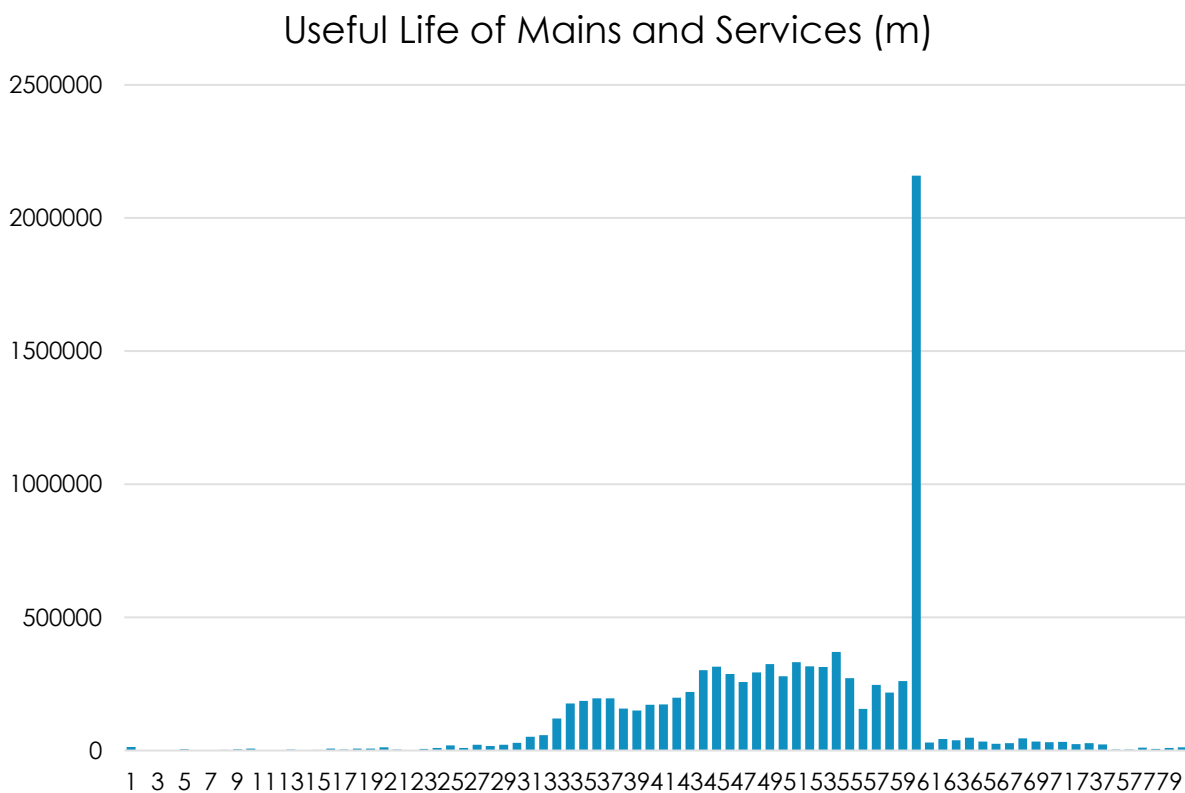


Figure 1. Useful Life recorded against Mains and Services in the Asset Register

3.2. Age Profile

The age profile of Mains (by number of assets) shows that the majority of assets are under 50 years of age as shown in Figure 2. It is assumed that the profile for Services has the same shape as that for Mains as they are replaced at the same time. The age profile is also shown by length in Figure 3 (updated as of Dec 2021) which shows a similar profile and shape.

Mains and Services Age Profile

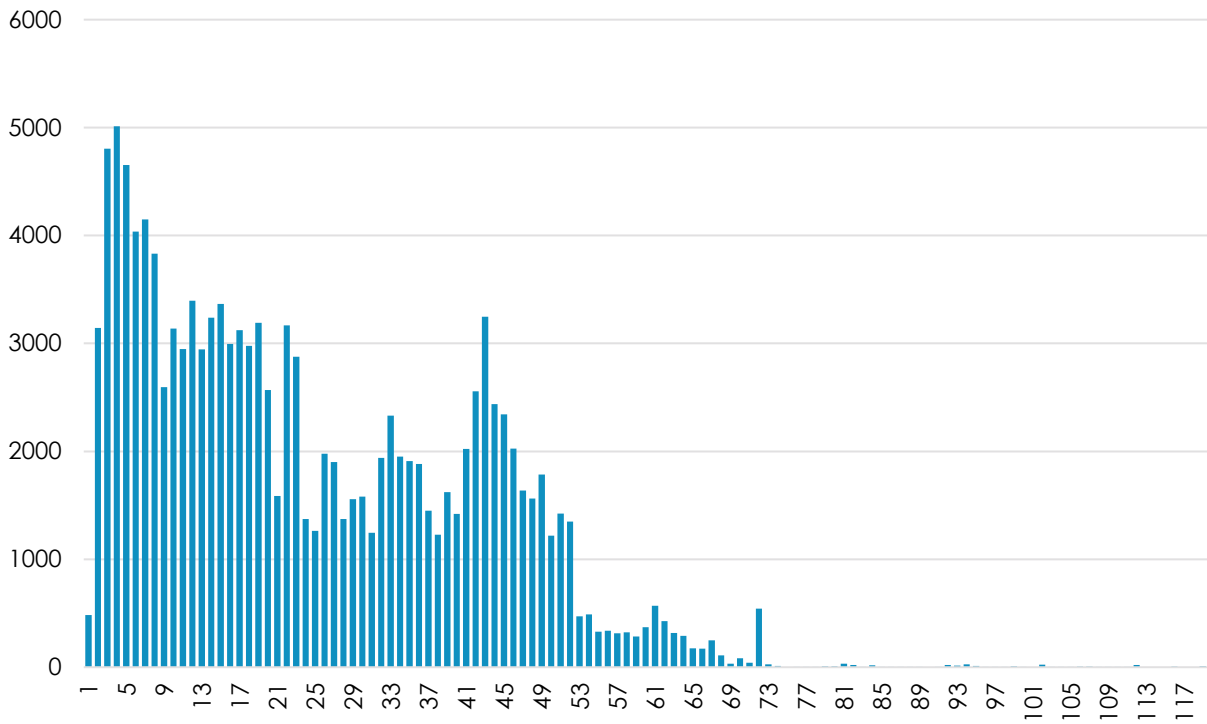


Figure 2. Age profile of Mains (measured in equipment units, not km)

Mains and Services Age Profile (km)

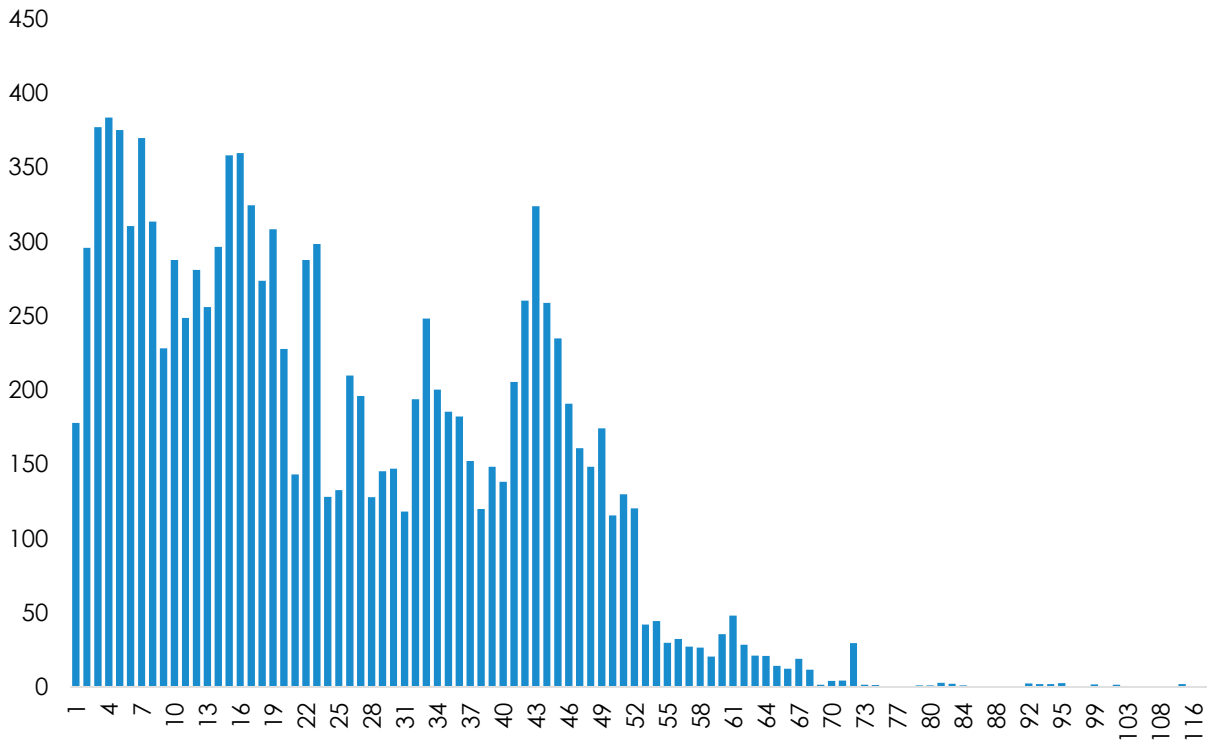


Figure 3. Age Profile of Mains by length (Dec 2021)

3.3. Disposed Assets Age Profile

There are 191 records of disposed Mains assets with start-up dates in SAP. Figure 4 below shows their ages at time of disposal. Very few assets were replaced at 60 years with an apparent ceiling occurring at 50 years.

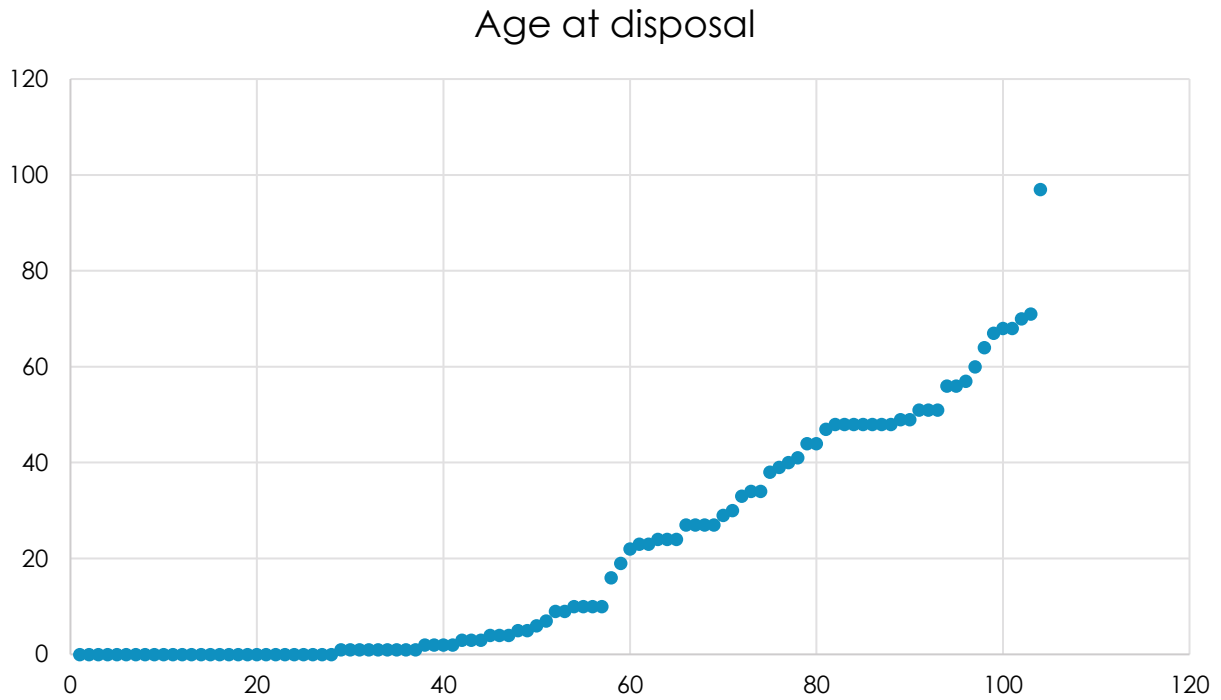


Figure 4. Age at disposal of Mains and Services

4. Cathodic Protection Units

Cathodic Protection is used to protect steel pipelines against corrosion. As steel pipes are progressively removed from the network, the corresponding protection systems become redundant. This greatly reduces the expected useful life of Cathodic Protection Units.

4.1. Useful life profile

Figure 5 shows the useful life assigned to AusNet Services' Cathodic Protection Units in its Asset Register. It shows that the most frequent useful life recorded against the network Mains and Services is 25 years. It is suggested that this value be used for the GAAR submission.

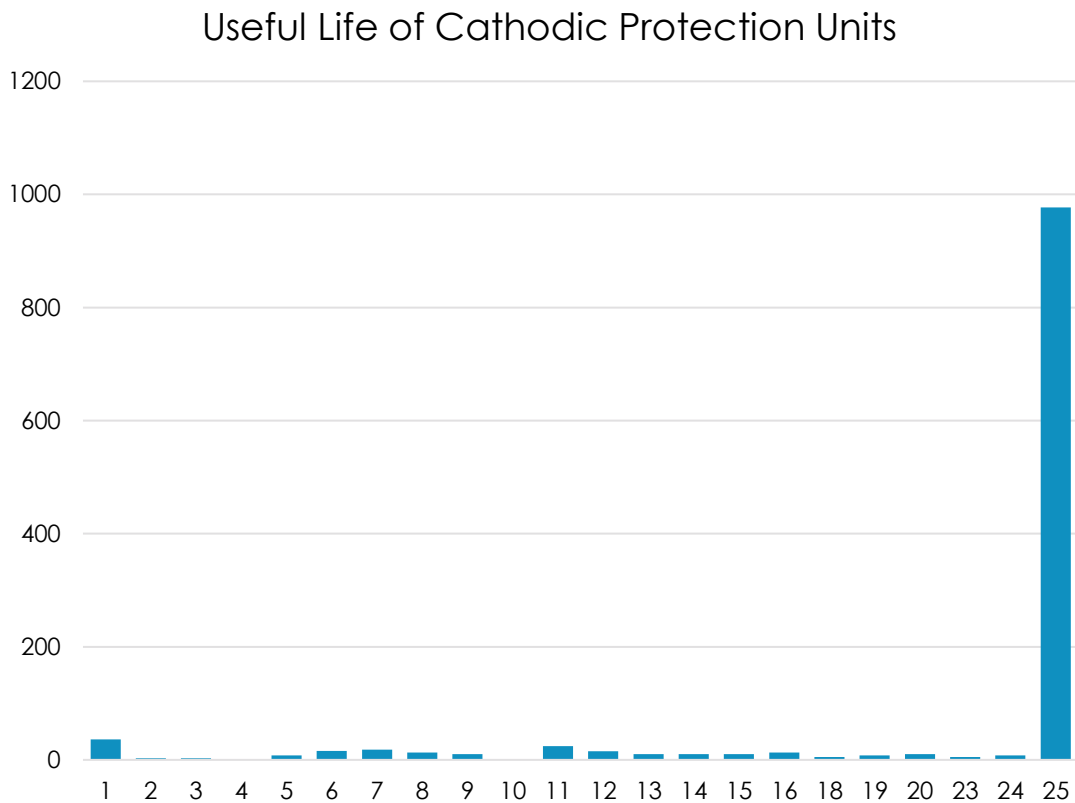


Figure 5. Useful Life recorded against Cathodic Protection Units in the Asset Register

4.2. Age Profile

The age profile of Cathodic Protection Units shows that the majority of assets are under 30 years of age as shown in Figure 6.

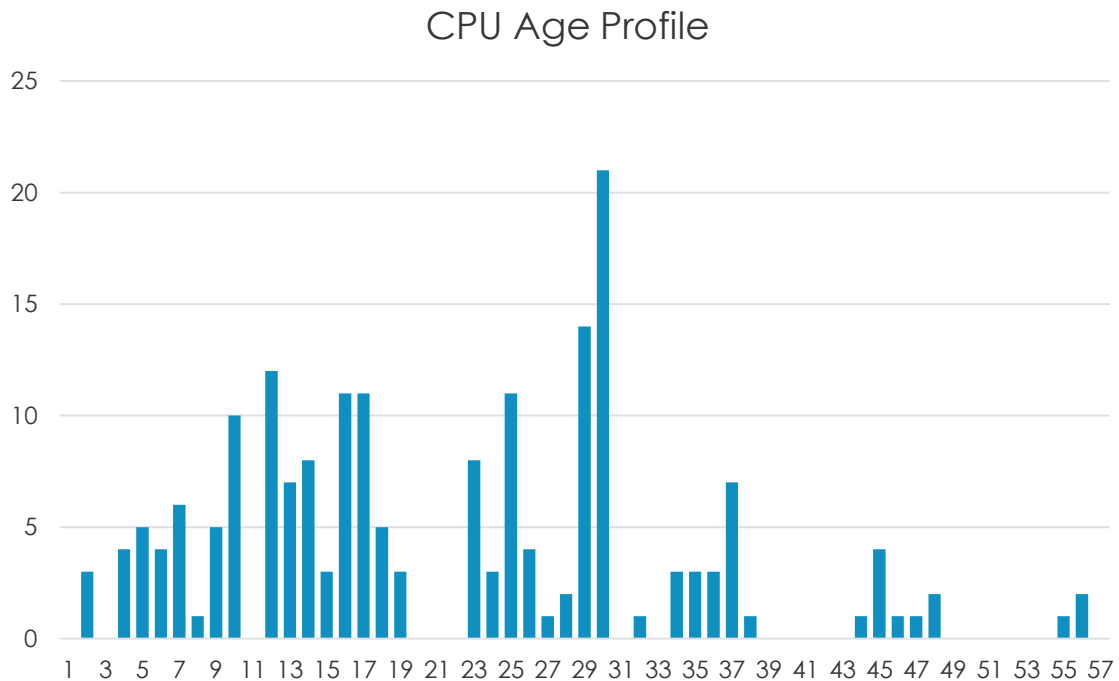


Figure 6. Age Profile of Cathodic Protection Units

4.3. Disposed Assets Age Profile

There are 2 records of disposed Cathodic Protection Units in SAP as shown in Table 2. Their ages when removed were 24 and 28 years old.

Table 2: Age at disposal for Cathodic Protection Units

OBJECT	TECHID	FLOC	FIREZONE	START UP DATE	USER STATUS	CHANGED	AGE AT CHANGE
CPU	CPU-239	GDCPCPSU-0011002023	LBRA	16/04/1991	DISP	26/09/2019	28.5
CPU	CPU-400	GDCPCPSU-0011002080	LBRA	01/04/1996	DISP	11/06/2020	24.2

5. Forward looking disposed assets

The following groups of assets are proposed to be disposed off in the next regulatory period. This is not an exhaustive list.

5.1. LP Mains

The remaining LP mains network will be removed. The age profile (Figure 7 below) shows that these assets have an average life of 47 years so on average they are not being replaced much earlier than their proposed economic life.

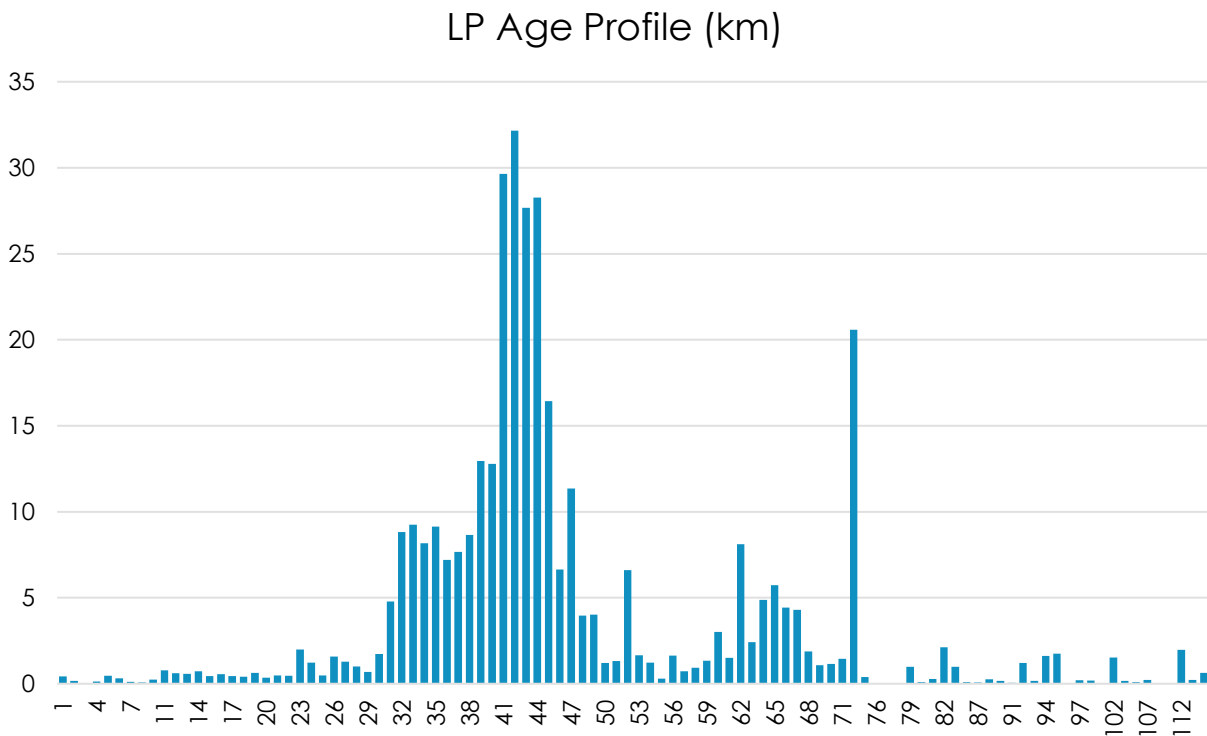


Figure 7: Age profile of LP network proposed for replacement (by km)

5.2. MP Mains

The proposed MP replacement program focuses on 6 postcodes which have the following age profile shown in Figure 8. Only Unprotected Steel, P4 Polyethylene and Cast Iron are presented. The average age of these assets is 45.5 years.

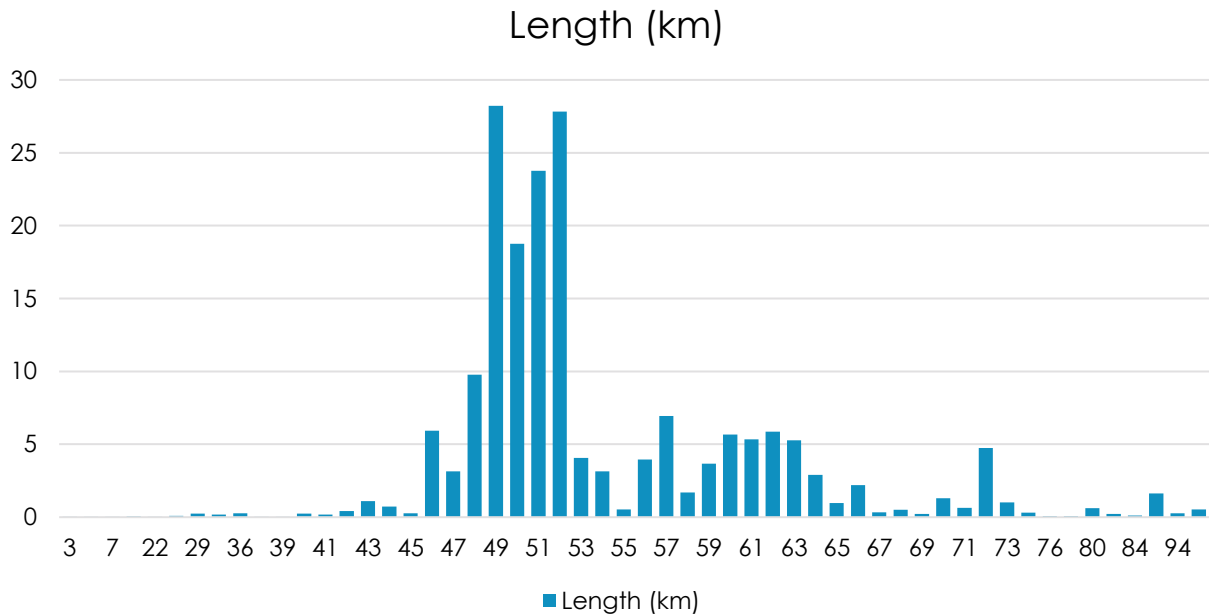


Figure 8. Age profile by km of the 6 MP Program postcodes

5.3. HP Mains

The proposed HP replacement program focuses on poor performing P2 pipes in Melton, which have the following age profile shown in Figure 9. The average age of these assets is 35 years. 35km out of 128km (27%) is to be replaced. The oldest 35km is highlighted in orange.

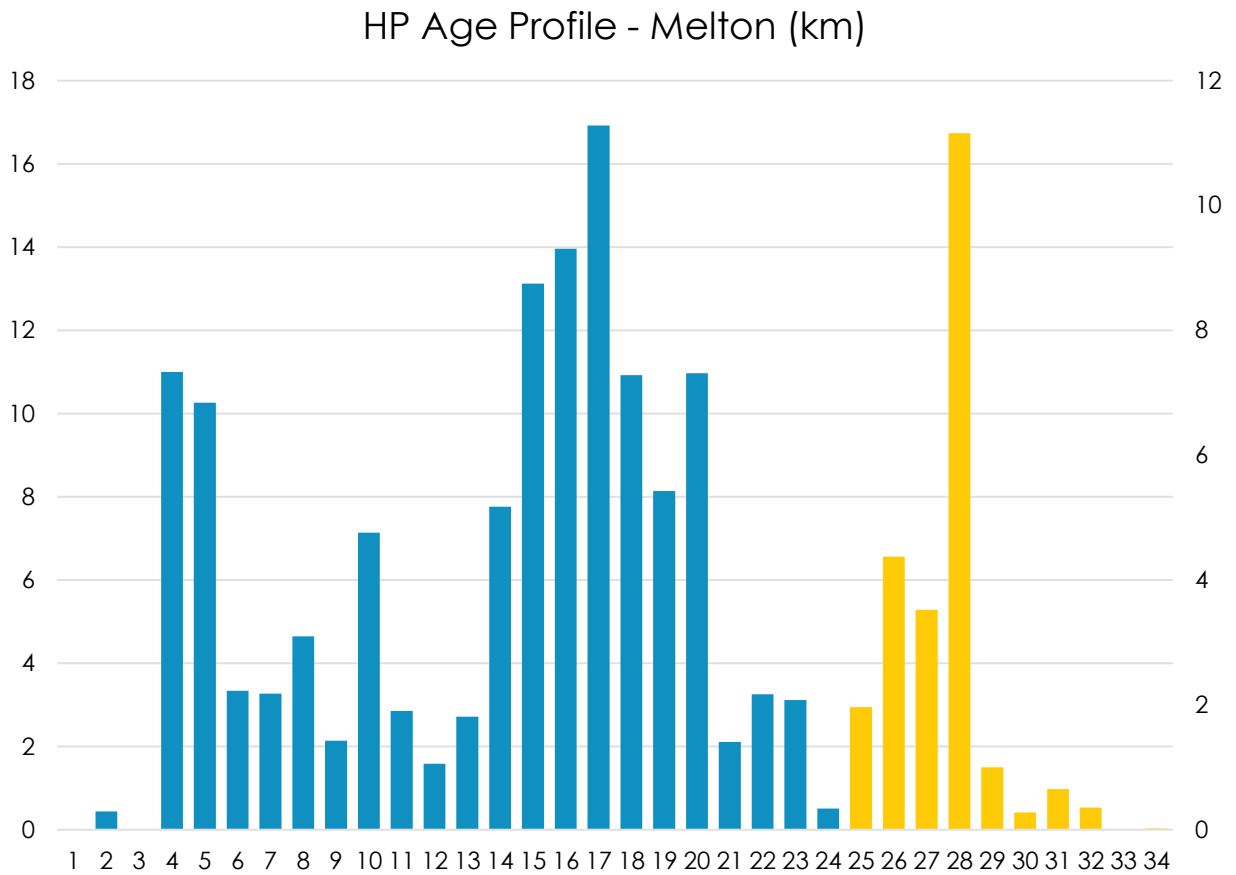


Figure 9. Age profile of P2 pipes in Melton by km

5.4. Regulators

[C.I.C] Regulators are proposed for replacement as shown in Table 3.

Table 3: [C.I.C] regulators for replacement

SITE	AGE
CITY GATE REG CORIO	51
CITY GATE REG WALLACE	38
CITY GATE REG PORTLAND	28
CITY GATE REG HAMILTON	26
FIELD REG MARKET ST	42

[C.I.C] regulators are still in use and are progressively being replaced as shown in Table 4.

Table 4: [C.I.C] regulators for replacement

ASSET	AGE
CITY GATE REG KYNETON	40
CITY GATE REG AVALON	35
FIELD REG HOLLAND PARK	48
FIELD REG CLARKS RD	46
FIELD REG SUNSHINE RD	46
FIELD REG RICHARDS ST & EUREKA ST	46
FIELD REG ROSAMOND RD	45
FIELD REG BRUCE ST	45
FIELD REG MACEY AV MMBW EASEMENT	45
FIELD REG KINGSLEY RD	45
FIELD REG TENNYSON ST	45
Raleigh St	40
Market Rd	43
Kororoit Creek Road	44

[C.I.C] field regulator is to be replaced on Alexander St & Eureka St – 48 years old

[C.I.C] City Gate Regulators have experienced poor performance and are to be replaced. One unit each at:

- Ararat
- Horsham
- Stawell
- Allansford

24 regulators in total are to be replaced in 2024-028 AA period; 10 are City Gates and 14 are field regulators.

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