TasNetworks Pricing Strategy Stakeholder Information Pack

Pricing Reform Working Group
9 May 2019

Small Business Customer Analysis

TasNetworks Pricing Strategy 2019-24

Based on the pace of pricing reform Australia-wide and stakeholder feedback, we are preparing for in the 2019-24 period:

✔ From 1 July 2019 consumption based ToU network tariffs will become the default network tariffs for all new small business and residential connections.

✔ The decision includes a 12 month delay to be applied to each customer for the 2019-24 regulatory period.

✔ At the conclusion of the delay period, TasNetworks will begin billing the customer's retailer on a ToU basis, unless the customer elects, through their retailer, to opt out of the default ToU network tariff.

Change triggers

Replacement meters

All new small business and residential

Meter upgrades

Tariff Comparison: TAS22 Typical Customer

Background

- Currently we have access to a very limited number data pool of interval data relating to **Business low voltage general (TAS22)** customers (approx. 0.5 per cent of 31,000 customers).
- We therefore need to rely on **typical customer** assumptions and average profiles to calculate network tariff comparisons for our **TAS22** customer group.
- As the advanced meter rollout progresses, we will continue to expand our data set and be able to undertake more in-depth analysis of our **TAS22** customers.
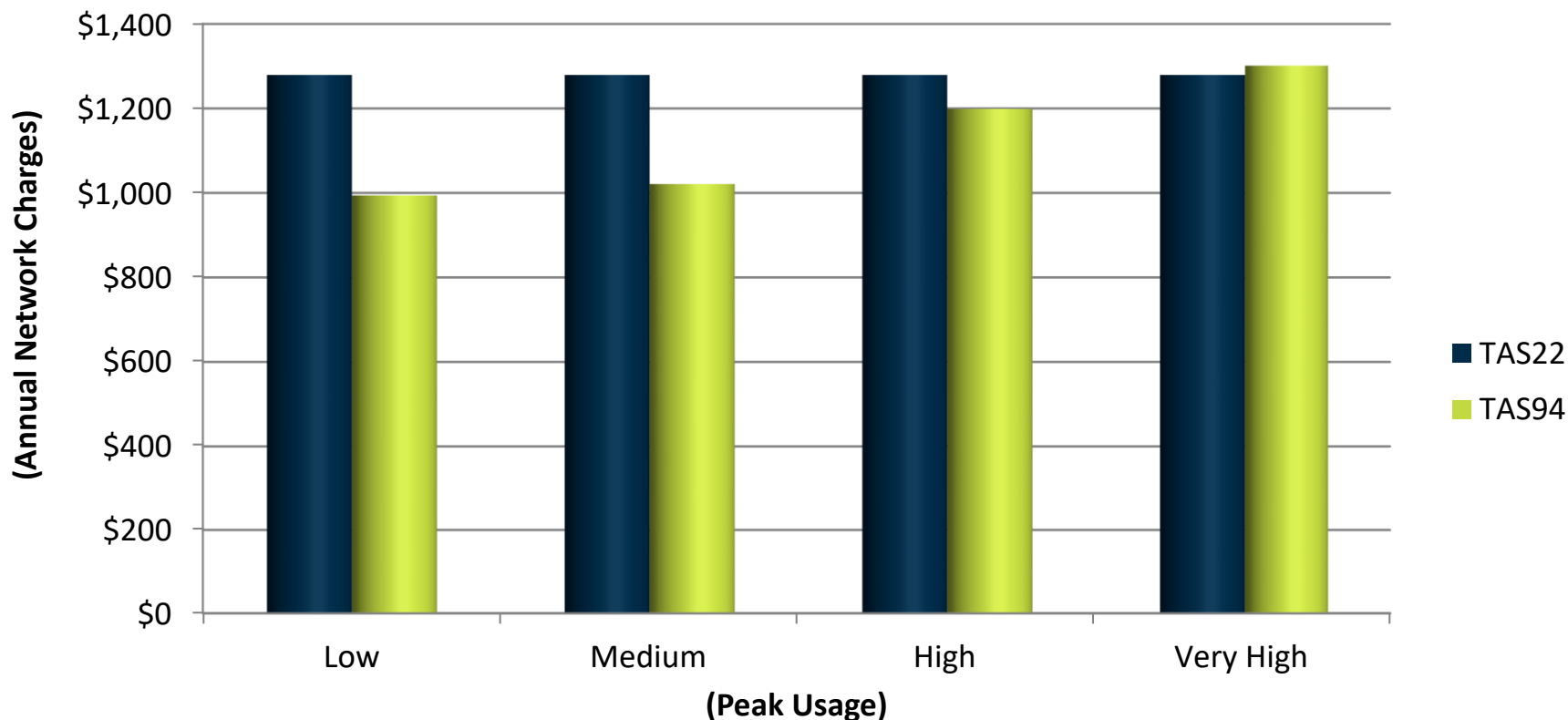
Approach

- The analysis undertaken considers five categories of Peak Usage: Low to Very High.
- These categories have been derived based on available **TAS22** interval data and represent the following percentiles of Peak Usage amongst all included NMI:

Category	Percentile of Peak Usage
Low	25th percentile
Medium	50th percentile
High	75th percentile
Very High	95th percentile

- The resulting splits of annual Peak, Shoulder and Off-Peak usage were then applied to a typical **TAS22** customer with an annual usage of approximately 11,000 kWh to calculate network charge outcomes (based on 2018/19 network tariffs).
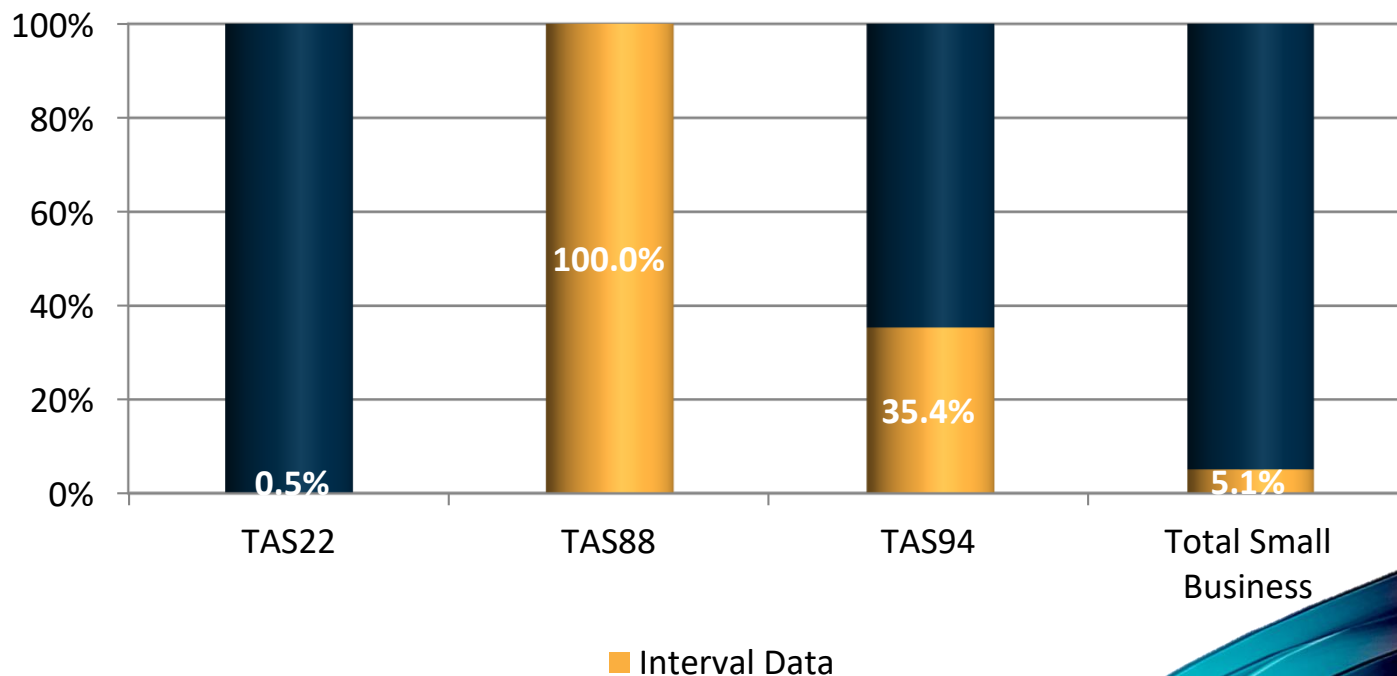
Tariff Comparison: TAS22 Typical Customer

Findings

- Under the assumed level of annual consumption, only TAS22 customers with a **very high** Peak usage are likely to incur slightly higher network charges under TAS22.
- Customers with low to high peak usage are all likely to incur lower network charges under TAS94.
- If a higher annual consumption (approx. 35,000 kWh pa) is assumed, even customers with a very high peak usage are likely to benefit from a time of use tariff (TAS94).
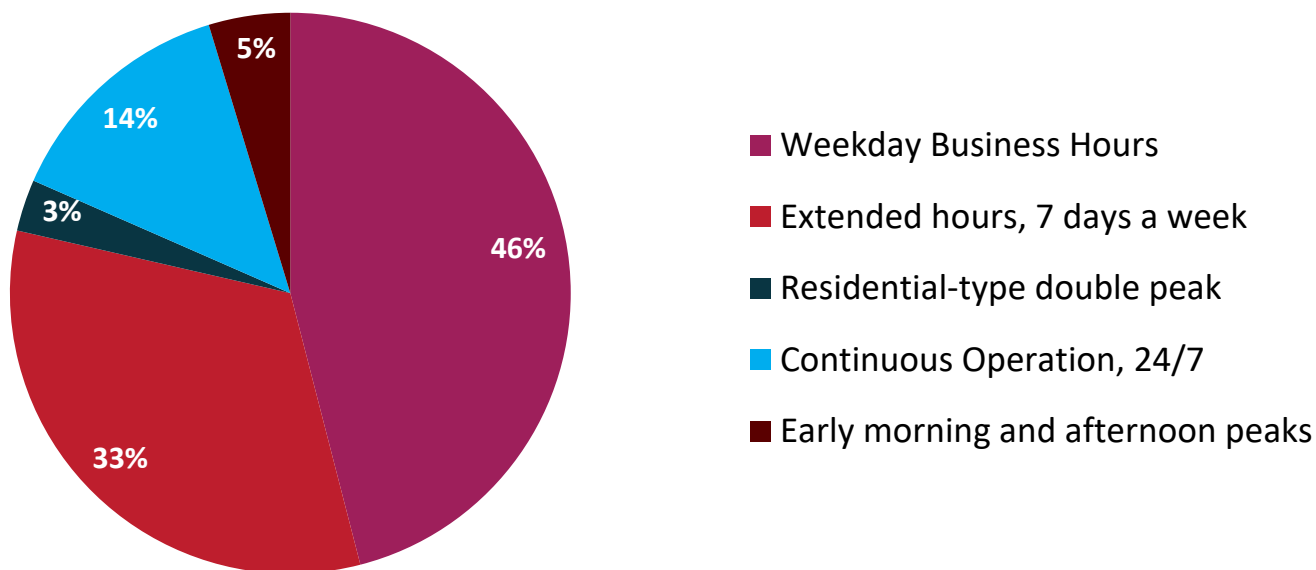
Business Clustering Analysis

- We know that small business customers use electricity in different ways and therefore have different load profiles.

- In light of the recent AER final decision, we have undertaken further analysis based on available small business interval data to identify these load profiles (also referred to as "**Clustering**").

- This will help our stakeholders better understand the different usage patterns within the Small Business customer base and what these patterns might mean in terms of potential network charge outcomes.

- However interval data availability is still somewhat limited at this stage - particularly for smaller customers on TAS22:

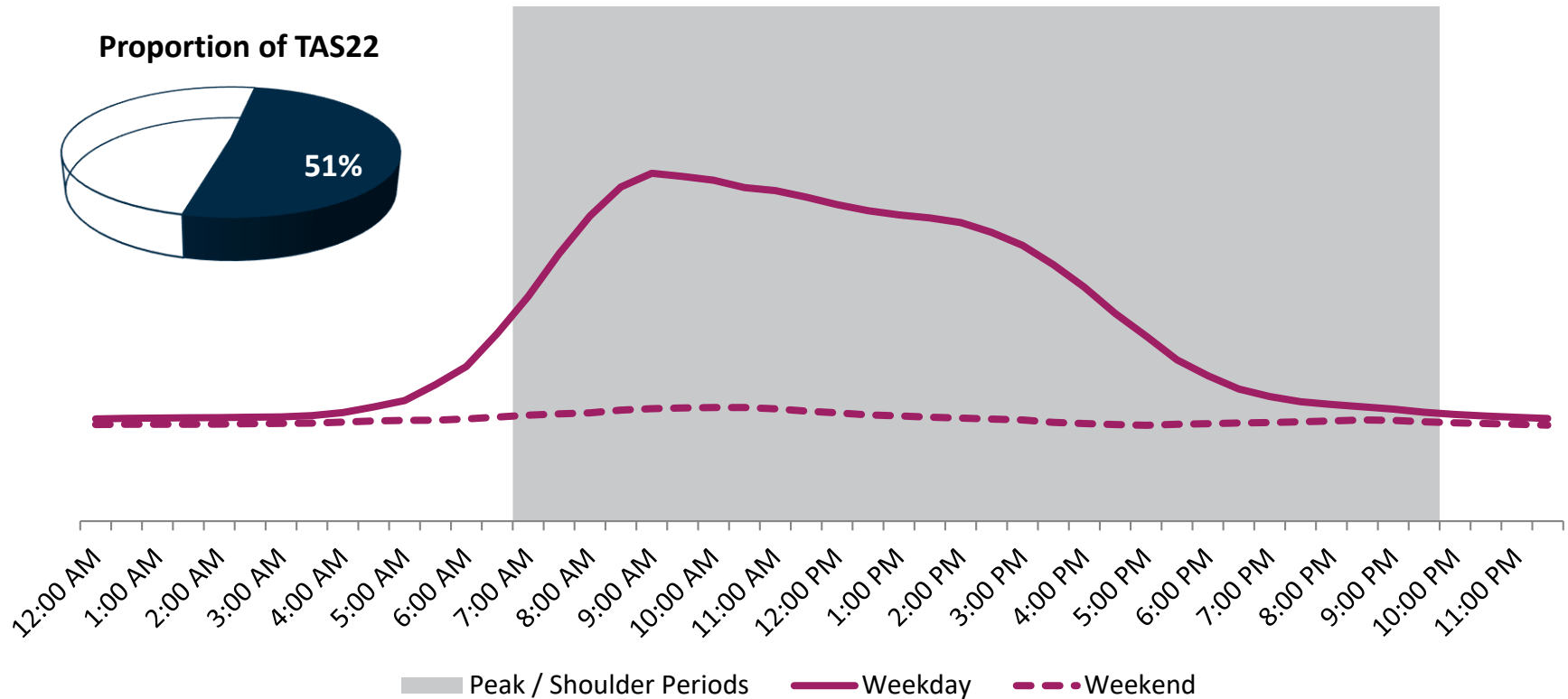Interval Data

Business Clustering Analysis

We conducted the Business Clustering analysis using the following steps:

1. Customers who had sufficient interval data were grouped based on their **business type**.

2. For each business type, average weekday and weekend **load profiles** were generated using the interval data of those customers who make up this particular business type.

3. Business types with similar load profiles were grouped into **customer segments** (or **"Clusters"**). This identified the following distinct customer groups:

- Weekday Business Hours
- Extended hours, 7 days a week
- Residential-type double peak
- Continuous Operation, 24/7
- Early morning and afternoon peaks

4. For those customer segments which have sufficiently large numbers of customers, tariff comparisons were conducted based on the methodology introduced above.
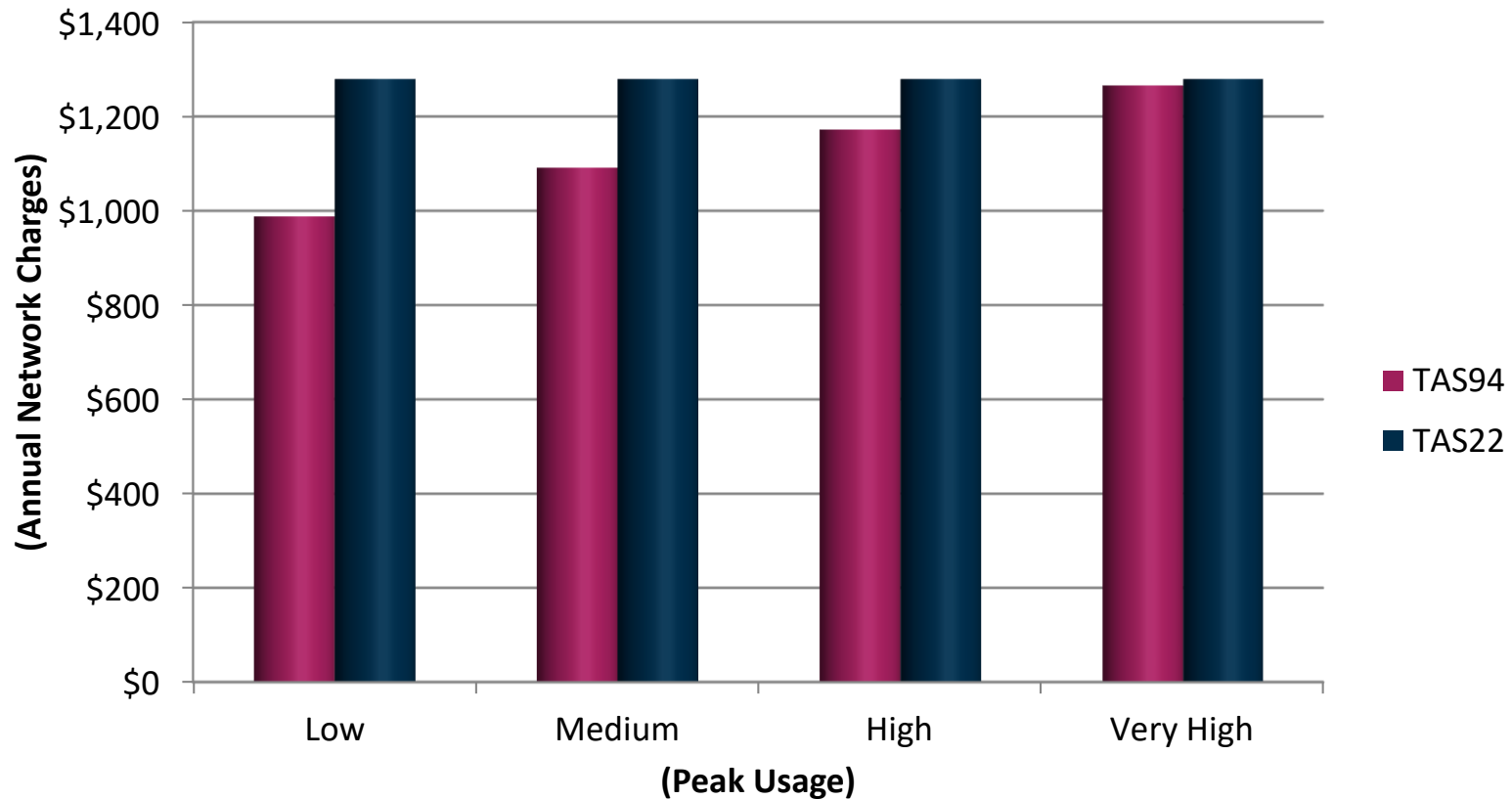
Weekday Business Hours

Proportion of TAS22

51%

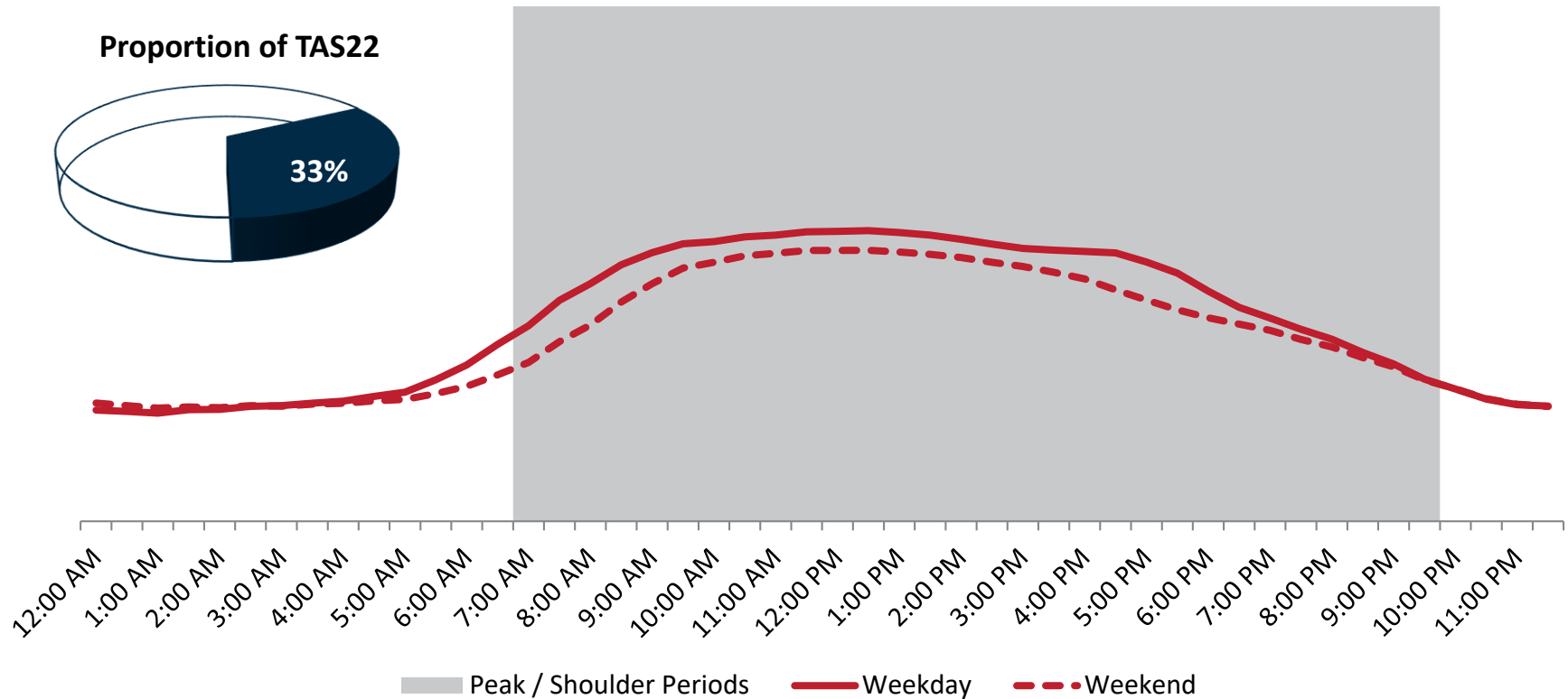Peak / Shoulder Periods — Weekday ---- Weekend

Key characteristics

- Businesses in this group operate mostly during standard business hours and on weekdays only.
- Consumption tends to peak around mid-morning and then gradually decreases throughout the day.
- The most common business types in this group are **Offices, Schools, Warehouses, Factories**.

Weekday Business Hours

Typical Customer Analysis

Extended hours, 7 days a week

Proportion of TAS22

33%

Peak / Shoulder Periods   Weekday   Weekend

12:00 AM 1:00 AM 2:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM 11:00 PM
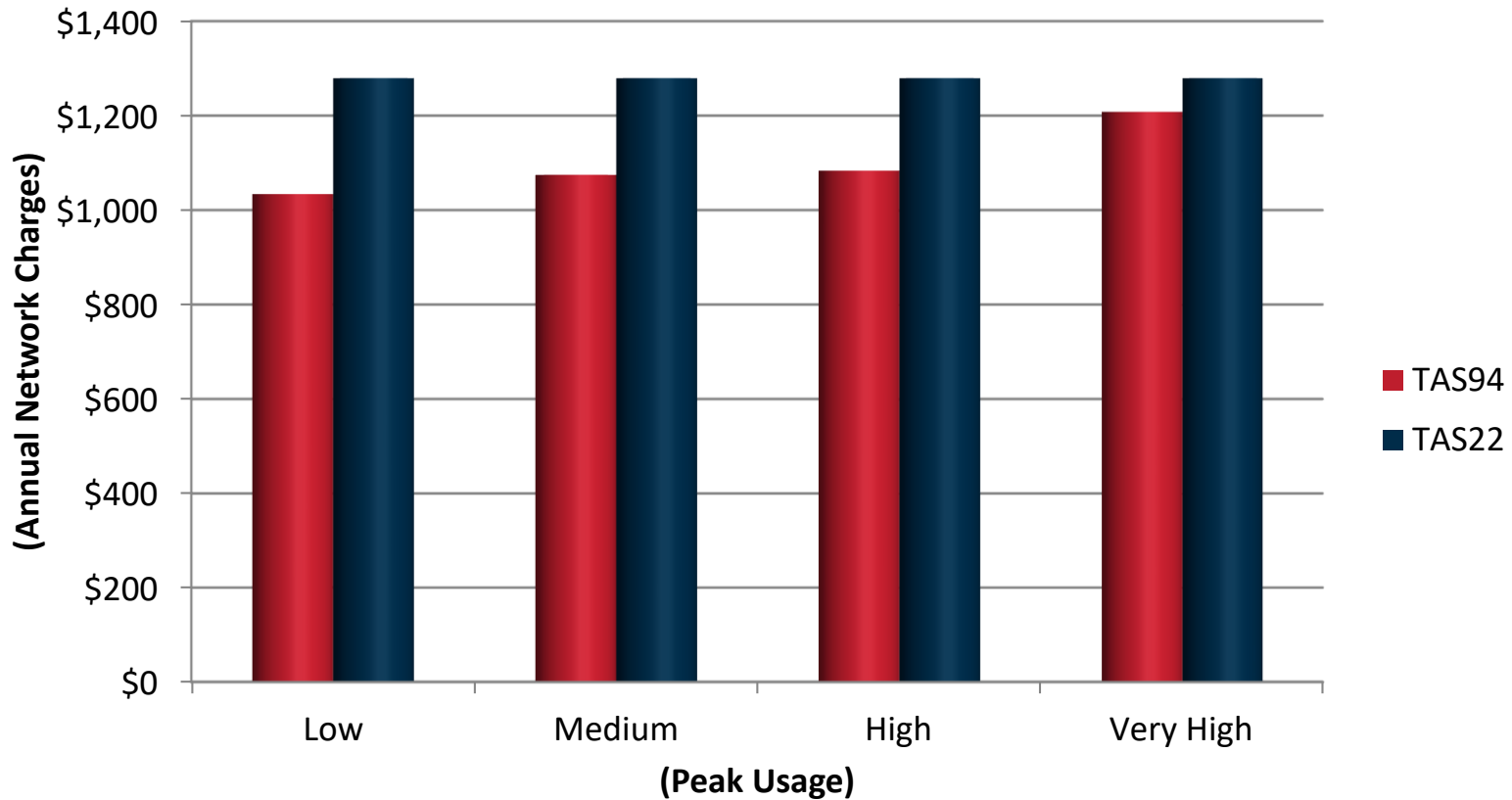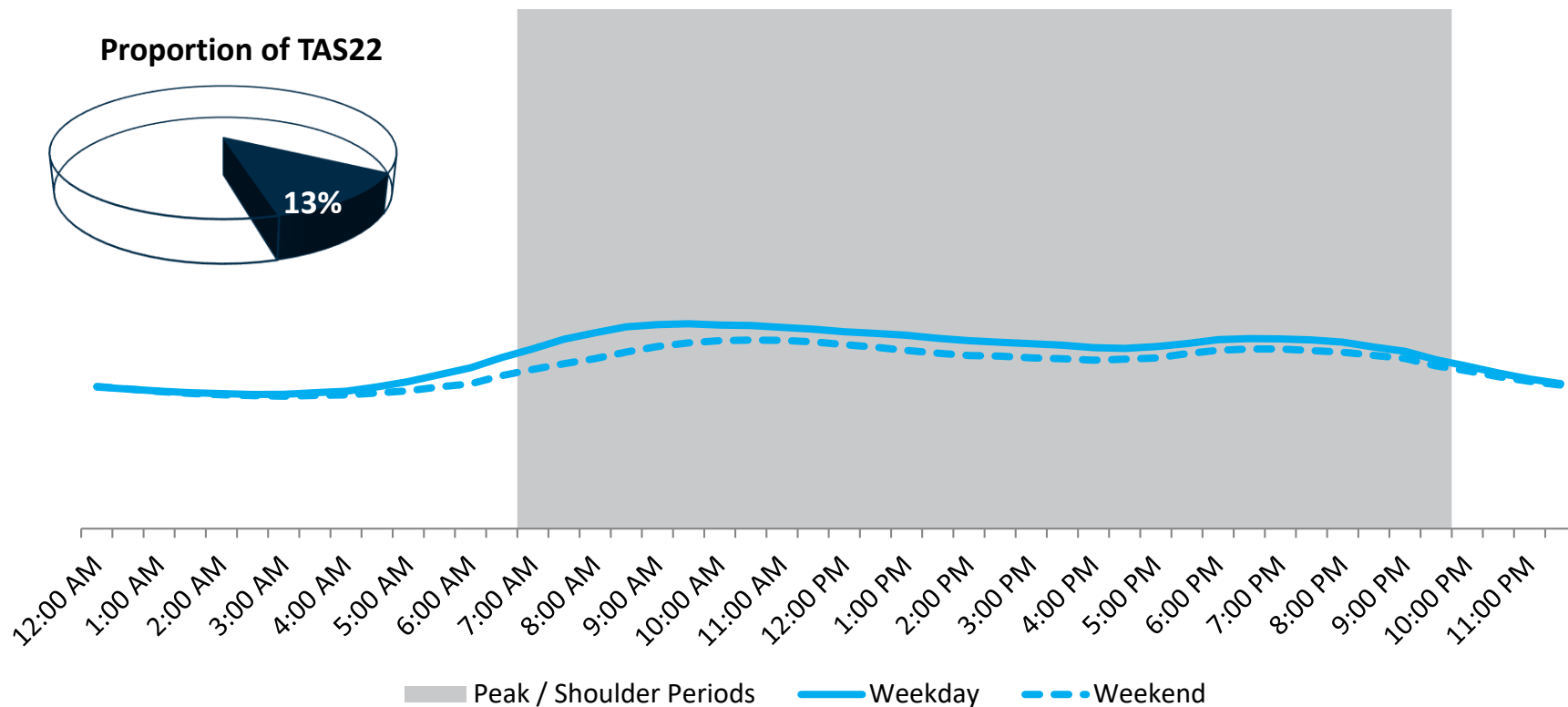
Key characteristics
- Businesses in this group operate during extended business hours, 7 days a week.
- Consumption tends to peak in the late morning and then remain consistent until early evening.
- The most common business types in this group are **Shops, Hotels, Restaurants**.

Continuous Operation, 24/7

Proportion of TAS22

13%

12:00 AM · 1:00 AM · 2:00 AM · 3:00 AM · 4:00 AM · 5:00 AM · 6:00 AM · 7:00 AM · 8:00 AM · 9:00 AM · 10:00 AM · 11:00 AM · 12:00 PM · 1:00 PM · 2:00 PM · 3:00 PM · 4:00 PM · 5:00 PM · 6:00 PM · 7:00 PM · 8:00 PM · 9:00 PM · 10:00 PM · 11:00 PM

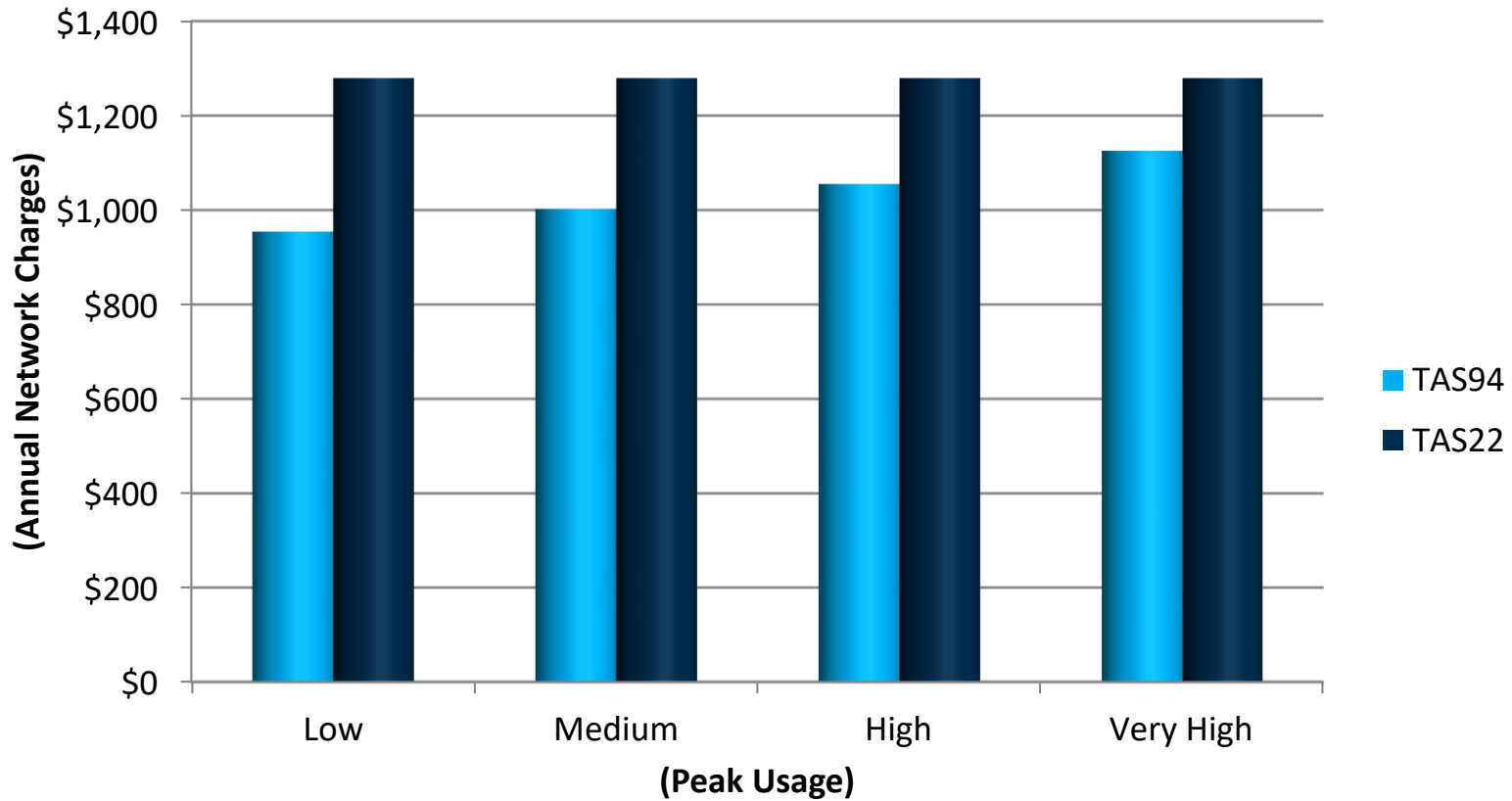▨ Peak / Shoulder Periods ⎯⎯ Weekday ⎯ ⎯ Weekend
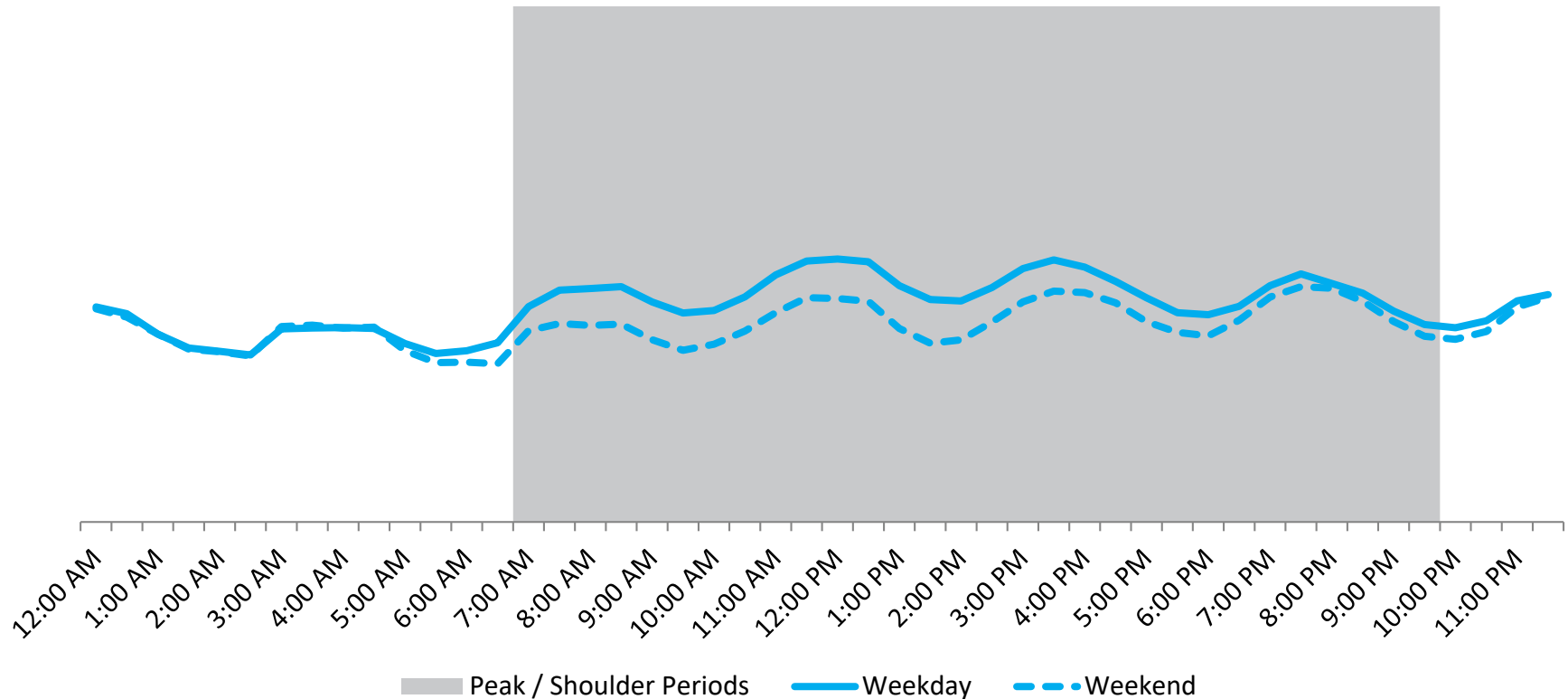
Key characteristics

- Businesses in this group operate at more or less consistent levels 7 days a week.
- Consumption tends to remain flat throughout the day and only marginally decrease at night.
- The most common business types in this group are **Service Stations, Swimming Pools, Water Treatment Plants**.

Continuous Operation, 24/7
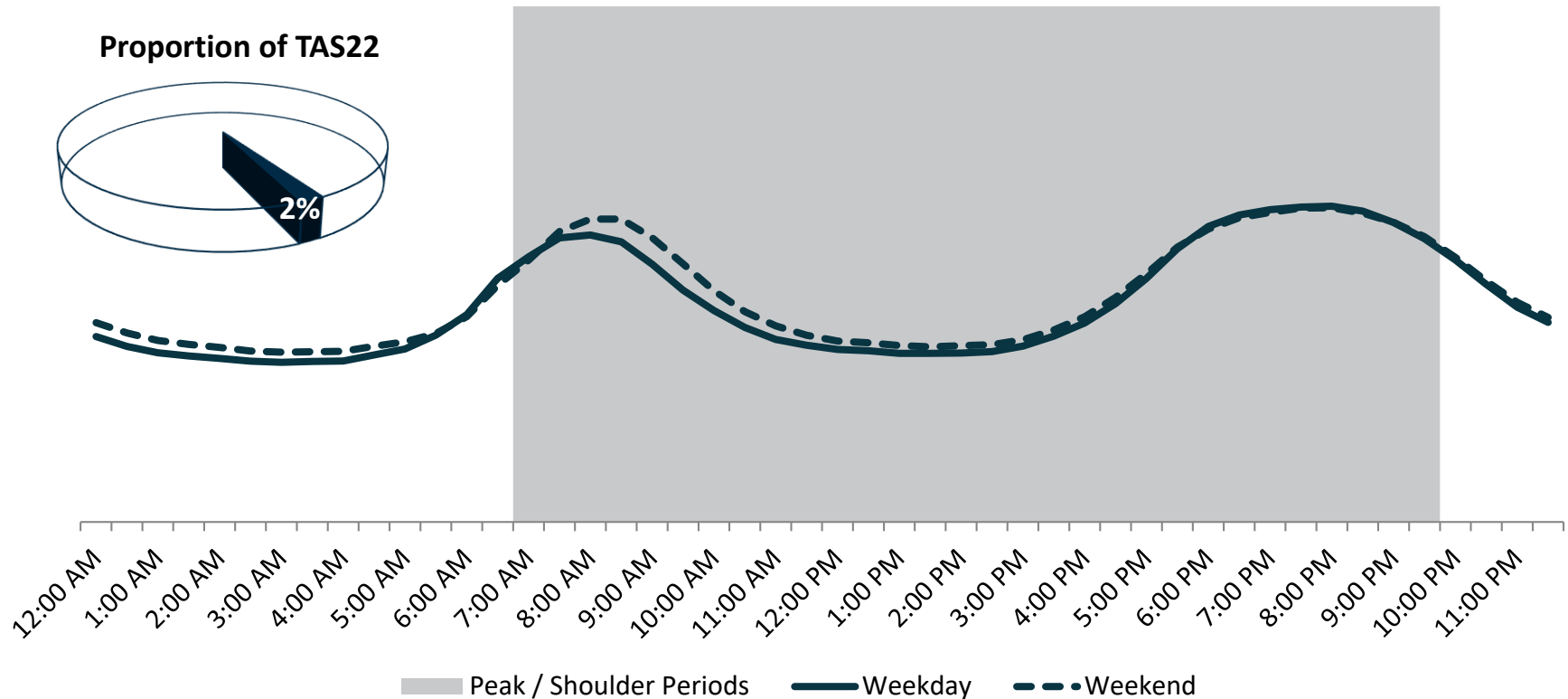

Typical Customer Analysis

Continuous Operation, 24/7 – Special Case

Peak / Shoulder Periods — Weekday — ● — Weekend

Key characteristics

- Businesses in this group operate in a continuous on / off pattern, both on weekends and during the week.
- Consumption tends to oscillate around its average level, depending on whether the businesses are in an interval of operation or non-operation at the time.
- The only business type in this group are **Water Treatment Pumps**, which only account for less than 0.1% of all TAS22 customers.
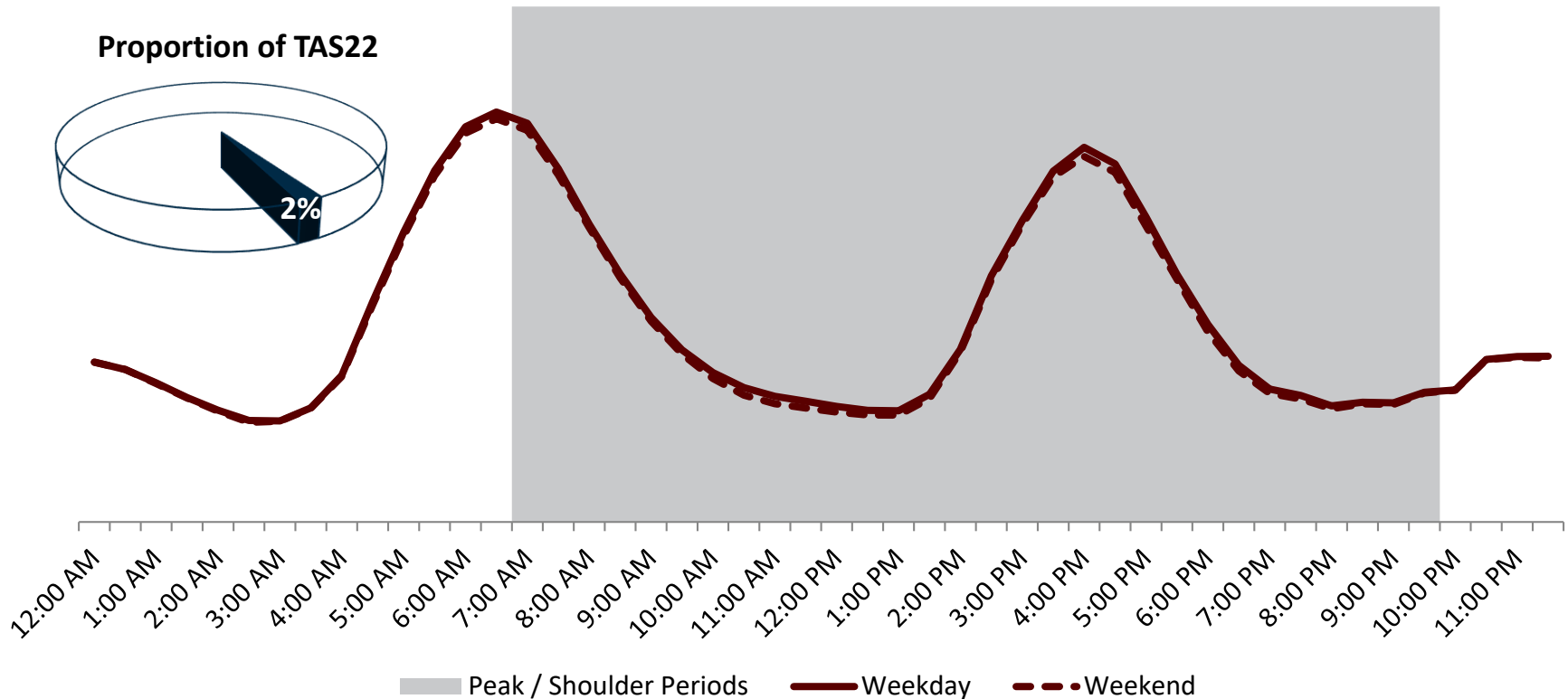
Residential-type double peak

Proportion of TAS22

2%

Legend:
- Peak / Shoulder Periods
- Weekday
- Weekend

(x-axis: 12:00 AM through 11:00 PM)

Key characteristics

- Businesses in this group show the typical residential double peaks, on weekends and during the week.
- There are two distinct peaks - in the morning and in the evening. Consumption tends to decrease in the middle of the day and at night.
- Businesses in this group provide accommodation for residential customers. The most common business types in this group are **Caravan Parks, Motels, Holiday Flats, Guest Houses**.

Early morning and afternoon peaks

Proportion of TAS22

2%

Peak / Shoulder Periods — Weekday — • Weekend

Key characteristics

- Businesses in this group show distinct peaks in the early morning and in the afternoon.
- Consumption tends to decrease in the middle of the day and at night. The differences between highs and lows are very pronounced.
- The only business type in this group are **Dairy Farms**.

Thank you

We looking forward to engaging with you further.

In the meantime, should you have any questions please don't hesitate to contact Ms Chantal Hopwood, Leader Regulation, at chantal.hopwood@tasnetworks.com.au or on (03) 6271 6511.