

## Introduction

The City of Lethbridge's Load Settlement System is designed in accordance with Rule 021 - the Settlement System Code (SSC) - established by the Alberta Utilities Commission (AUC). As per Sections 2.8 and 11.1.1 of SSC, the Load Settlement Agent (LSA) for the City of Lethbridge is responsible for publishing on its website the procedures and methods used to conduct load settlement, in particular where the design of such processes is open to the discretion of the LSA or are otherwise not transparent to market participants.

Therefore, the following procedures and methods for performing load settlement are outlined in this document:

- Load Profiling
- Distribution Losses
- Profiling Cap
- Settlement Zones
- Estimated Consumption – Cumulative Sites
- Deemed Consumption – Unmetered Sites

## Load Profiling

As per section 11.1.1(1) of the SSC, the LSA must provide disclosure about profiling methodologies used in the load settlement process. In the City of Lethbridge wires service area, profiling is used to allocate energy usage to an hourly value for non-interval sites. Specifically, a Net System Load Shape (NSLS) profile and two deemed profiles are used. Both of these methodologies are defined in Section 3.1(1) of the SSC as acceptable methods for calculating load profiles.

The following table lists the load profile classes used for non-interval sites:

Profile Class	Profile Type	Meter Type	Profile Class Code
Lethbridge NSLS profile	NSLS	Cumulative	LTH_NSLS
Lethbridge Flat profile	Deemed	Unmetered	LTH_FLAT
Lethbridge Streetlight profile	Deemed	Unmetered	LTH_STRTLT

## Distribution Losses

As per section 11.1.1(2) of the SSC, the LSA must provide disclosure about loss calculation methodologies used in the load settlement process. In the City of Lethbridge wires service area a single loss multiplier (with a value of 0.046 or 4.6%) is used for all sites for each settled hour. The loss

multiplier times the hourly consumption (estimated/actual/deemed) results in the allocated distribution loss.

### Profiling Cap

As per section 11.1.1(3) of the SSC, the LSA must provide disclosure about the profile cap used in the settlement zone. In the City of Lethbridge wires service area profiles are only used for sites that are not equipped with interval meters, the demand requirements for which are outlined in the City's currently approved rate schedule. All interval-metered sites will be settled according to their own interval data regardless of whether their demand is above or below a prescribed cap.

### Settlement Zones

As per section 11.1.1(4) of the SSC, the LSA must outline the rules for assigning sites to settlement zones. In the City of Lethbridge wires service area all sites are assigned to a single settlement zone.

### Estimated Consumption – Cumulative Sites

As per Section 2.6(3) of the SSC, the LSA must estimate cumulative consumption amounts where the consumption calculated from meter readings is not yet available. If there is no prior consumption history for the site, an initial estimate of zero is used. If there is a prior consumption history for the site, the estimate is based on the site's energy consumption for the most recent period combined with an adjustment factor. The adjustment factor is developed by comparing the system loads for the day(s) being estimated to the system load for the most recent period for which the LSA has consumption data for a site.

### Deemed Consumption – Unmetered Sites

As per Section 3.1(3)(a) the LSA must estimate hourly consumption data for all unmetered sites. The City of the Lethbridge load settlement system uses estimates provided by the City of Lethbridge Wires Service Provider (WSP). The demand component of these estimates are derived from information including the number of devices (e.g. lights) and their respective wattage. The load profile component of these estimates is derived from the operating schedules for the unmetered sites, which indicates when the power for the sites is on/off.