

Summary Validation, Estimation and Substitution Rules for HH Interval Metering

ESB Networks

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CONTENTS

1. **Introduction** 4
2. **Validation** 5
3. **Data Estimation & Substitution** 6

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Introduction

This document covers the rules to be followed, for both validation and estimation of data, for customers with remotely read HH (half hour) interval metering.

A complete set of data for all HH sites is to be provided on D+1, where actuals are unavailable estimates will be generated

Where an estimate is required, it is generated based on the rules in this document.

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Validation

2.3 Validation of Meter Interval Data

On receipt of the collected meter interval data, the following additional automatic checks are completed. Any data files not meeting the criteria are rejected, and the problem is corrected:

2.3.1 Interval Tolerance

If the calculated number of time intervals between the start and stop times of the file doesn't match the actual intervals recorded, investigation is carried out .i.e. 48 intervals or 46 & 50 for short and long dates

2.3.2 Sum Demand Check

Determine if the sum of the interval values is equal to (within a configurable tolerance) the difference of the register reads at the start and end of the day.

2.3.3 Time Error

If internal meter clock error results in invalid date or time, data are rejected.
Meter checks for correct time during communications for correct time,
If incorrect it changes it and an Event is recorded

2.3.4 Short /Long Interval

If time length of an interval identified as different from other intervals (too long or short) in the data file – data rejected.
Head end flags all Short/ Long Intervals as suspect for further Investigation

2.3.5 Consecutive Zeros

This method checks for meters that have no usage for a defined period of time. When the number of consecutive intervals with no usage exceeds the Consecutive Zero Threshold parameter, the check fails.

3 Data Estimation & Substitution

3.1 Requirement for Data Estimation and Substitution

Data estimation is required to be undertaken in situations where metered data are incomplete, has been irretrievably lost or cannot be obtained within the timeframes required. Data substitution is required where the data obtained are erroneous.

3.2 Data Estimation & Substitution Rules

A full day's data will be estimated / substituted when required using one of the following methods in the order specified below:

Holiday Historical Estimation Method

The estimation process uses interval history to find "like days". Like days are only considered if all intervals for that day are in a VAL status (validated). It uses three different algorithms such as Same Day, Like Day and Holiday to get the reference days from the historical data.

Holiday Historical Second Pass Estimation Method

The "Second Pass" description is used because this method would typically be configured to execute only for days where "like day" ("First pass") failed to find VAL-only reference data.

Like Day Historical Estimation Method

The estimation process uses interval history to find "like days". Like days are only considered if all intervals for that day are in a VAL status (validated). It uses three different algorithms such as Same Day, Like Day and Holiday to get the reference days from the historical data.

Like Day Historical Second Pass Estimation Method

The "Second Pass" description is used because this method would typically be configured to execute only for days where "like day" ("First pass") failed to find VAL-only reference data.

Same Day Historical Estimation Method

The estimation process uses interval history to find "like days". Like

Days are only considered if all intervals for that day are in a VAL status (validated). It uses three different algorithms such as Same Day, Like Day and Holiday to get the reference days from the historical data.

Same Day Historical Second Pass Estimation Method

The "Second Pass" description is used because this method would typically be configured to execute only for days where "like day" ("First pass") failed to find VAL-only reference data.

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