Schedule 3.10 – Load Forecast Summary

March 3, 2023

Load Forecast Summary

Overview

In Matter 478, the Board ordered Liberty to provide a report detailing its load forecasting methodology and formulae by May 31, 2021. Liberty was also required to organize a technical session of stakeholders prior to the 2022 rate application.

In compliance with the Board's order, Liberty filed a load forecast methodology on May 31, 2021, and delivered a technical stakeholder session on January 6, 2022.

In Matter 494, Liberty forecasted its 2022 load using the methodology used in Matter 478. The Public Intervener's expert, Mr. Knecht, recommended that Liberty use three-year averages of customer consumption in the benchmarking process. Mr. Knecht also suggested using a 20-year simple average, instead of a weighted average, to reflect normal heating degree days (HDD). However, Liberty clarified through IRs during Matter 494 that it has been using a 20-year simple average normal HDD.

The benchmarking process was discussed in the stakeholder session on January 6, 2022. Benchmarking involves calculating the three-year average of adjusted weather normalized consumption.

In Matter 533, Liberty has modified its forecast methodology, based on feedback from the stakeholder session. The methodology will now use a benchmarking approach, rather than relying on the Forward Volume Projection (FVP) system, utilized in previous matters. Liberty has opted to utilize a benchmark calculated based on a five-year average of customer consumption, rather than the three-year average suggested by Mr. Knecht. Liberty believes the impact of COVID-19 throughout 2020 and 2021 justifies the use of this longer averaging period.

The methodology will be further reviewed for subsequent matters once the implications of the Customer First project are understood.

Comparison Between Two Methods

Previous Methodology: FVP Method

In Matter 494 and prior proceedings, Liberty utilized the FVP system for load forecast. In the FVP system, future load is the total of base load and temperature-sensitive load. The base load is forecasted by multiplying the base load factor (lowest annual daily consumption) by the number of days in the year (365 or 366 days). Temperature-sensitive load is forecasted by multiplying the temperature-sensitive load factor (average consumption per HDD) by normal weather HDDs. Normal weather is defined as 20 years average weather. Liberty calculates a benchmark (three-year average of adjusted weather normalized

consumption) to compare with the FVP system forecast. A threshold is set to limit the deviation from benchmark. This method is referred to as the "FVP method".

New Methodology: Benchmark Method

In Matter 533, Liberty has discontinued using the FVP system for load forecasting purposes. Instead, a benchmark was calculated and used as the load forecast. The benchmark used is a five-year average of adjusted weather normalized consumption. In Liberty's view, a five-year average is more appropriate than a three-year average, as a longer historical range would limit the impact of anomalies, such as the impact COVID-19 had on 2020 and 2021 consumption. This method is referred to as the "Benchmark Method".

The following table provides a breakdown of key differences between the two methods:

	FVP	Benchmark
Description	FVP forecast, adjusted using 3-year benchmark	5-year benchmark
Process		
FVP forecast	Yes	No
Calculating benchmark	Yes	Yes
Calculating thresholds	Yes	No
Adjust FVP forecast	Yes	No
Benchmark calculation		
Adjusted WN consumption	3 years	5 years