

Pool Price Forecast Calculation Methodology

The AESO provides two near-term forecast reports that rely on forecasting price. They are the [Actual/Forecast report](#) where the pool price is forecast two hours ahead of the settlement interval, and the [Supply Surplus report](#) which indicates if the forecast system marginal price (SMP) in the next six hours foretells a supply surplus event (SMP = \$0/MWh). The intention of this document is to describe the calculation methodology that underpins the forecasting of pool price and the SMP.

The AESO's systems calculate a SMP forecast for every 10 minute clock period over the current hour and the following six hours. For each forecast hour a forecast pool price is determined by averaging the six SMP forecasts. This pool price forecast is then presented publicly at T-2 in the [Actual/Forecast report](#). The forecast SMPs are also used to determine if, in the next six hours, any of them are forecast to be \$0/MWh and this information is indicated in the [Supply Surplus report](#).

The forecast methodology uses a profiled load shape based on a forecast “like-day” to determine six ten minute load levels for each hour ending. Each ten minute period’s forecast load is then used to predict a SMP for each 10 minute clock period in the forecast period using the following steps:

1. Determine the difference between the current load and the forecast load
2. Apply the change in forecast load to the current dispatch level in the energy market to determine the forecast dispatch level
3. Using the forecast dispatch level and the expected energy merit order for the forecast settlement interval, the highest priced block dispatched to meet the forecast dispatch level determines the forecast SMP

The AESO recognizes that the position of the current regulating range can affect price, therefore the price forecast determines the current position in the regulating range and applies an adjustment to the forecast dispatch level to adjust for this difference. The intent is to forecast a pool price that will take us back to mid range.

Further details include:

- Imports and exports that are offered/bid for the forecast settlement interval and that do not exceed the ATC are included in the determination of the price forecast
- The current level of wind is persisted through the forecast implicitly as it affects the current dispatch level
- The forecast is run every five minutes, and self corrects for any changes in load, wind, position in the regulating range and restatements

For further information on the forecast price methodology please contact market.analysis@aeso.ca.