differently than assumed in the forecast, consumption will be affected by the corresponding sensitivities. These sensitivities are described below:

- The primary risk to the general service annual demand forecast is the underlying weather normal heating degree day ("HDD") forecast. Approximately 77% of the Union rate zones' general service volume is driven by weather. Regression analysis indicates that a 10% deviation from the weather normal assumption underlying the forecast results in almost an 8% change to demand. During the last five years (2014-2018), weather patterns have shown a wide range of variance relative to the Board approved weather normal. The actual annual heating degree days have fluctuated between -6.8% (warmer) to +14.7% (colder) relative to normal. Table 20 below provides the actual and normal HDD for the past 5 years.

Table 20 – Historical HDD Variance

Union Gas Heating Degree Days	Actual	Board Approved	Weather % Variance
2014	4,506	3,929	14.7%
2015	4,104	3,969	3.4%
2016	3,789	4,068	-6.8%
2017	3,879	4,066	-4.6%
2018	4,147	4,064	2.0%

- Regression analysis also provides consumption sensitivities for the other demand drivers in the general service models:
  - Variance of 2,000 in the customer forecast impacts total volumes by about 0.1%;
  - 10% change to the CAD/USD exchange rate impacts total volume by about 0.6%;
  - 10% change to the total bill amount (price) impacts total volumes by about 0.3%;
  - and,
  - 1% change to the efficiency index[33] impacts total volumes by about 0.5%.

- There is also a risk that factors outside of the models (customer behavior changes/thermostat settings, natural disasters, etc.) will affect consumption and cause a variance to the forecast. Because these outside factors are not included in the models, it is very difficult to estimate related consumption impacts.

Contract Market

EGI's contract market forecast for the Union rate zones is segmented into several sectors, including natural gas-fired power generation, steel, refinery and petrochemical, greenhouse, wholesale, and broad-based large commercial and industrials ("LCI"). The forecast for these contract market customers is developed using two methodologies. For the small- to mid-size customers, represented

[33] The efficiency index is based on historical customer survey data from EGI's market research department, and is meant to represent natural efficiency and conservation saving trends for residential customers.