

Sunvale Place Villas

Electrical Costs for 2018

The total electrical cost for Sunvale Place Villas in 2018 was \$6,402 which was \$3,402 in excess of budget. Research into the costs has shown several factors which are explained below:

1. It took some months for the electrical costs to be moved from the Developer to the Condo Corporation. As a result, we repaid the Developer approximately \$600 for November & December 2017 and this amount was included in the total electrical for 2018. In addition, a deposit of \$1,300.00 was charged for the new account. This deposit will be refunded after 12 months of on time payments and should happen in May or June of this year. If the refund to the Developer and the deposit amounts are subtracted from the total electrical of \$6,402, the actual cost of electricity for 2018 was \$4,502 or an average of \$375.00 per month.
2. The cost per kWh increased from 4.576 cents/kWh to 6.8 cents/kWh in April which was an increase of almost 50%. Of course, it is the delivery charges which make up the greater part of the monthly bill and reducing consumption does not reduce all of those charges. In April the fixed delivery costs were \$130.42 out of a total bill of \$371.65. Reducing consumption will not change those distribution costs. (Some costs such as the High River Municipal cost *are* based on consumption.)
3. The main consumers of electricity are 4 – 1.5 HP pumps rated at 230V maximum. There are 2 pumps on each end of the complex for the radiant floor heating. There two more smaller (.04 HP) 115V pumps (one on each side) to circulate the domestic hot water.
4. The street lights appear to be 100 W LED lamps. Six street lights would therefore consume 600 Watts or .6 kW. At 6.8 cents per kWh, the total cost to operate the six lights is approximately 4.08 cents per hour. Each hour they remain on longer than what is deemed “necessary” costs about 4.1 cents for the actual consumption. Delivery charges that are based on consumption would add slightly to this cost.
5. The street lamps are controlled by a sensor which has a photocell. This sensor is pre-set to switch lights on when it detects 1- 5 fc (foot-candles). It deactivates the lights in the morning when the detected light reaches between 5-15 fc. The morning deactivation is set higher to prevent flickering during dawn hours. The sensor is located (see picture on next page) under the eaves in the south-east corner of the northside mechanical room (it faces south-west). It is tucked under the eaves to prevent non natural sources of light affecting the operation. This is the best location to prevent city street lights, residential home lights, etc. from affecting the operation. It does face south-west so may be remaining on longer than necessary in the morning. One adjustment has been made to

a shield which was installed to shade the photocell. The lights are now shutting off earlier in the morning and appear to be coming on at an appropriate time in the evening. The on/off times will continue to be monitored in case more "tweaking" is necessary.

