

Energy_Maintenance costs

| | Conventional Trucked Water Delivery | Individual Healthy House System existing water tanks | Communal Healthy House System Existing Potable Water | Communal Healthy House System Communal Potable Water | Communal water, additional costs |
|---|--|---|---|---|---|
| Consumer energy costs and additional maintenance costs as compared to Trucked water | | | | | |
| Consumer pressure pumping costs | \$477.12 | \$715.68 | \$357.84 | \$357.84 | |
| Consumer Recirculating pump costs | | | \$477.12 | \$1,399.55 | \$922.43 |
| Consumer heating/heat trace energy costs | | \$1,890.00 | | | |
| Consumer water reclamation energy cost | | \$1,717.63 | | | |
| Consumer additional maintenance costs | | | \$585.00 | \$735.00 | \$150.00 |
| Total Consumer energy and additional maintenance costs | \$477.12 | \$4,323.31 | \$1,419.96 | \$2,492.39 | \$1,072.43 |
| Energy Maintenance cost per litre - delivered water | 0.0002 | 0.0039 | 0.0013 | 0.0023 | 0.0010 |
| Water Bill if all residences | \$7,707.32 | \$3,853.66 | \$3,853.66 | \$3,853.66 | |
| Consumer Cost if all residences | \$8,184.44 | \$8,176.97 | \$5,273.62 | \$6,346.05 | |
| Water Bill if all Business/Government | \$22,020.91 | \$11,010.46 | \$11,010.46 | \$11,010.46 | |
| Consumer cost if all Business/Government | \$22,498.03 | \$15,333.77 | \$12,430.41 | \$13,502.84 | |
| Municipal pressure pumping energy costs | | | \$715.68 | \$1,073.52 | \$357.84 |
| Municipal Recirculating pump energy costs | | | \$546.62 | \$1,093.25 | \$546.62 |
| Municipal heating/heat trace energy costs | | | \$7,379.42 | \$9,019.30 | \$1,639.87 |
| Municipal water reclamation energy cost | | | \$1,374.10 | \$1,374.10 | |
| Municipal maintenance costs | | \$4,500.00 | \$1,800.00 | \$2,200.00 | \$400.00 |
| Total Municipal energy and additional maintenance costs | | \$4,500.00 | \$11,815.83 | \$14,760.17 | \$2,944.34 |
| Cost per litre - delivered water | | 0.0041 | 0.0107 | 0.0134 | 0.0027 |
| Loss of Revenue if all Residential | | \$3,853.66 | \$3,853.66 | \$3,853.66 | |
| Loss of Revenue if all Commercial/Government | | \$11,010.46 | \$11,010.46 | \$11,010.46 | |
| Assumptions | | | | | |
| Water deliveries, litres per year | 1101045.5 | | Water Rate Residential | | 0.0035 |
| Reclaimed water quantity, including disposal | 2202091 | | Water Rate Commercial | | 0.0100 |
| Number of Homes | 9 | | | | |
| Meters of Service duct | 600 | | | | |
| Service duct diameter for combined service | 8" | | | | |
| Service duct diameter for reclaimed/sewage service | 6" | | | | |
| Electricity per kWh | 0.26 | | | | |
| Energy required for 8" service duct assumed average | 6.6 Watts per meter | | | | |
| Energy required for 6" service duct assumed average | 5.4 Watts per meter | | | | |