



Solar Demonstration Centre Fact Sheet

ENMAX Energy is committed to evaluating alternative or new energy technologies that have the potential to fundamentally change the way our customers consume energy. Our Solar Demonstration Centre on the roof of ENMAX Place provides us with the ability to test Solar Photovoltaic (PV) and Solar Thermal for Heating or Domestic Hot Water (SDHW) technologies.

Solar Domestic Hot Water Technologies



Thermal evacuated tube (single-wall) – A copper heat pipe, vacuum-sealed within a glass tube, transfers solar heat up to a manifold. Antifreeze is circulated through the manifold to transfer the heat to a hot water tank.



Thermal glazed flat plate – Antifreeze is circulated through piping attached behind a dark aluminum sheet which is protected by a sheet of glass. The antifreeze is circulated through the collector to transfer heat to a hot water tank.



Thermal evacuated tube (double-wall) – Similar to the single-walled evacuated tube, but with the copper heat pipe placed within a thermos-style double-walled glass tube.

For more information on other new technologies ENMAX is evaluating, go to www.enmax.com/innovation





Solar Photovoltaic (PV) Technologies



Silicon PV – This model is manufactured by drawing a wire through a bath of molten silicon to create a long, thin ribbon of silicon. PV panels convert solar energy into electricity.



Thin Film PV – Thin film solar panels contain less than one per cent of the raw material (silicon or other light absorbers) used in silicon-based panels. The thin film is applied to a backing material that forms the PV panels.



Building-Integrated PV (BIPV) – These PV panels are designed to replace the function of a building's components such as roofing, windows or exterior wall surfaces. In this case, the BIPV panels replace sections of a concrete tile roof.



Tracking Tower – The tracking tower follows the sun's trajectory from East to West during the day to increase the PV array's direct exposure to the sun. With tracking, electricity output is expected to increase by up to 30 per cent.

