Harnessing the geothermal energy of the earth as a heating or cooling energy store with a CITY MULTI water cooled heat recovery (WR2) VRF system.

Project Info

Application
Residential

Location
Mornington Peninsula, VIC

The Team

HVAC Contractor
Nicholson Group

The Challenge

This large residential property is located on the Mornington Peninsula, south of Melbourne, in an area where natural gas is unavailable. There was a requirement for Heating and Cooling and also to provide for Hot Water for the home and in addition, to assist in the heating of the Pool and Spa. There was a requirement for Outdoor Units to be hidden from view rather than be dotted around the perimeter of the house. In addition, there was a desire to explore GEO THERMAL as there was sufficient land available for either bore holes or for a slinky type ground loop.

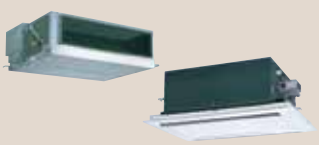
The Solution

A closed loop ground source slinky coil was linked to a Water Cooled Heat Recovery (WR2) VRF system, which allows the house to use the geothermal energy of the earth as a heating or cooling energy store. WR2 also transfers heat between the indoor units (including Air to Water units) to offer double heat recovery potential. System internally comprises City Multi ducted indoor units to provide space heating/cooling and Air to Water system to provide hot water.

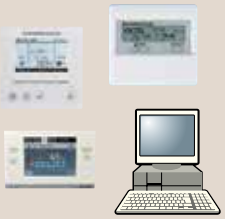
The tank water is heated by 1 x 12.5kw Air to Water Booster unit and also by Evacuated tubes (solar). This water is for home use. Spa gains additional heating from 2 x 25kw Air to Water Hex unit and a heat exchanger. Centralised controller AG-150A with Web Browser is installed which allows Remote access and operation.

UNIT INFORMATION

Outdoor Units
PQRY-P550YSHM-A x 1
PQRY-P300YHM-A x 1



Indoor Units
PEFY-P40VMH-E x 5
PEFY-P50VMH-E x 1
PEFY-P63VMH-E x 1
PEFY-P140VMH-E x 3



Controllers
AG-150A x 1
AG-150A Web Browser x 1
PAR-30MAA x 10
PAR-W21MAA x 3

Air to Water
PWFY-P100VM-E-BU x 1
PWFY-P200VM-E-AU x 2

For more information on our products
please visit www.mitsubishielectric.com.au

Phone:1300 651 808