

## Innovation in greenfield housing development to push the green further

WALLAN, 15 Jan 2021 – Local development company Crystal Group embarked on crucial first steps towards introducing geothermal heating and cooling to Mitchell Shire. At their property in Wallan, Victoria they conducted the first geothermal testing to ensure the ground is suitable for the technology. This follows on from boreholes that were sunk on 2 Jan 2021 at the nearby Wellington Square shopping centre.

Geothermal energy is a reliable and effective solution to combat rising energy costs for heating and cooling that has traditionally relied on electricity, gas or wood heaters. There are significant savings from using reusable energy from the earth and its available 24/7 unlike other renewable technologies. High density plastic pipe is inserted into boreholes that are drilled into the ground. This pipe then creates a network within the streets via closed loop of condensing water. The water is kept at suitable temperatures to match the seasonal heating and cooling requirements. It is utilised by heat pumps in each home in a similar manner to conventional reverse cycle air conditioners that uses the outside air. Ground source heat pumps (GSHPs) use the water temperature from underground pipes instead of air from outside, helping to vastly reduce energy requirements on very hot and cold days and nights. Geothermal systems typically deliver 40% to 60% savings for the end user for cooling and heating respectively.

“We have the scale, opportunity and appetite to bring an embedded geothermal network to the market. Our masterplanned community St Hilaire will deliver around 6500 homes. This is the largest landholding in the Wallan South PSP which is being fast tracked by the Victorian State Government through the Victorian Planning Authority (VPA).”

“Once the PSP has been gazetted we plan to move into the construction phase. With VPA approval anticipated by the end of June, we expect to be breaking ground by the end of 2021.

There are a number of steps to ensure that the geothermal network is successful and the successful completion of the initial borehole testing is the first.”

1. The use of geothermal energy is not a new technology – for example heat pumps are used to warm swimming pools and provide hot water for household consumption
2. The use of geothermal as a replacement for gas is also consistent with local, state and federal government policies and targets all of which identify targets for switching fuel sources away from non-renewables such as gas and electricity towards more sustainable energy sources.
3. Geothermal can improve sustainability through emissions reductions and user cost savings. It is leveraging the natural capital of the land for both the end user and the planets benefit.

Of critical importance to achieving these targets is being able to work quickly and effectively with various levels of government to sort through the current legislative and policy roadblocks that restrict rather than promote the use of heat pumps in new housing, and to enable residents in Victoria to adopt greener ways of living already available in other states.

More information from Crystal Group at our website: [www.crystalgroup.com.au](http://www.crystalgroup.com.au)

<https://www.infrastructurevictoria.com.au/wp-content/uploads/2020/12/Victorias-Draft-30-Year-Infrastructure-Strategy-Volume-1-1.pdf>

