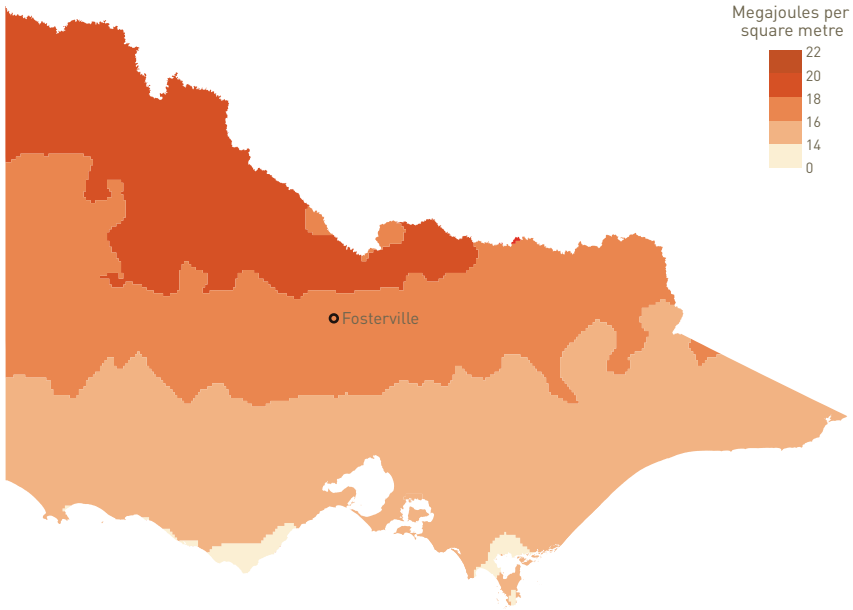
Renewable energy: solar and wind

Average annual solar daily exposure[1]



Solar energy

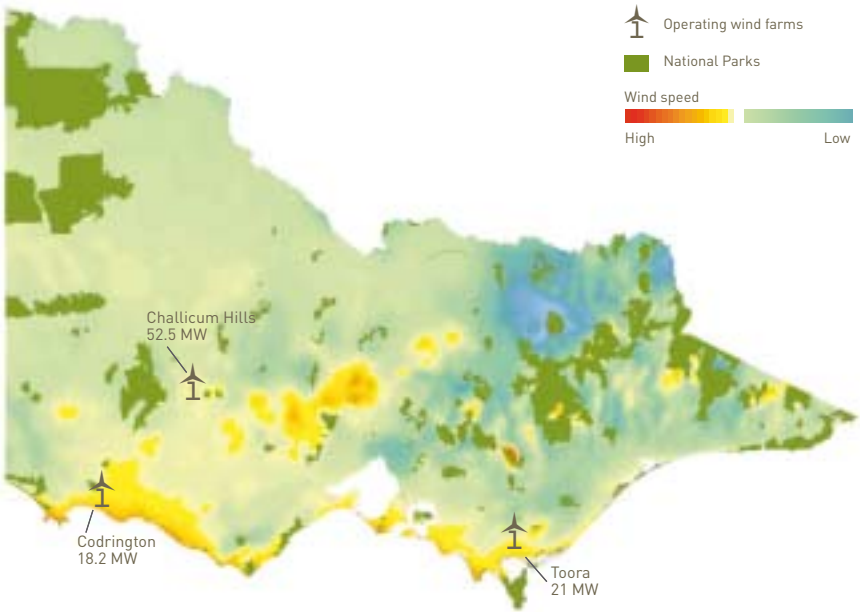
Victoria, like most of Australia, is well endowed with solar energy potential. Solar energy does not directly cause air pollution nor does it require large scale extraction processes. The limitations of solar energy production lie largely in the manufacture of photovoltaic cells that convert sunlight to energy, the efficiency of the energy transfer process and the large areas of cells needed to produce commercial quantities of power. Large scale production may involve a hectare or more of solar cells linked to the national electricity grid, such as that in Singleton NSW. In Victoria, a system proving facility has been installed by a Victorian company at Fosterville near Bendigo. Solar energy has proven most popular at smaller scales where it can be used for domestic hot water heaters or in remote areas for lighting or phone facilities.[2]

Wind energy

At a local level, wind energy may be seen to have a long history in regional Victoria where, since the late 19th century, it has been used to operate farm bore water pumps.

A century later, commercial scale wind farms began to be developed – two along the Victorian coast and one inland. Regional Victoria contains substantial wind energy resources, especially along coastal areas as well as in the Central Highlands. Nevertheless, there is growing recognition that the location of windpower facilities needs to be sensitive to potential impacts in areas of high cultural and landscape amenity, and the degree to which turbines might have a negative impact on bird life in the vicinity.

Wind resource assessment[3]



Sources [1]Australian Bureau of Meteorology 2005 [2]SEAV 2004 *Annual Report* [3]SEAV 2004 *Victorian Wind Atlas*