**Senate Standing Committee on Environment and Communications**
**Legislation Committee**
Answers to questions on notice
**Environment and Energy portfolio**

**Question No**: 199

**Hearing**: Budget Estimates

**Outcome**: Agency

**Program**: ARENA

**Topic**: Goldfields

**Hansard Page**: 29

**Question Date**: 23 May 2017

**Question Type**: Spoken

**Senator Ludlam asked:**

Senator LUDLAM: How do the Goldfields score in Western Australia, around Kalgoorlie, Coolgardie and that kind of area?
Mr Frischknecht: I do not know the answer to that. I am happy to take it on notice or happy to give your office a briefing on how to use the tool, so they can explore all the different sites themselves.
Senator LUDLAM: I am going to take you up on that offer rather than tying it up in committee now.

**Answer:**

The Australian Renewable Energy Mapping Infrastructure (AREMI) Platform (https://nationalmap.gov.au/renewables/) contains a number of datasets that can be used to determine DNI (direct normal irradiance) at any location within Australia. The AREMI platform is a free, publically available data portal developed and managed by Data61 (CSIRO), through funding provided by ARENA.

The 'Solar Satellite DNI & GHI' dataset (average maximum hourly DNI over a year) gives values of 934 W/$m^2$ and 939 W/$m^2$ for Kalgoorlie and Coolgardie respectively. The 'Annual climatology of daily exposure- Direct Normal Exposure' dataset (mean daily DNI, in a 24 hour period, over a year) gives values of 23.295 MJ/$m^2$ (270 W/$m^2$) and 23.014 MJ/$m^2$ (267 W/$m^2$) for Kalgoorlie and Coolgardie respectively.

The AREMI tool can be used to compare these DNI values with other locations around Australia, noting however that there are a number of factors in addition to DNI when considering site locations for a solar thermal project.