



K&L GATES

SOLAR OPPORTUNITIES IN AUSTRALIA

“Australia has the highest average solar radiations per square metre of any continent in the world.”

-- climatechange.gov.au

PRIME SOLAR RESOURCE

The Australian continent enjoys the highest solar radiation per square metre in the world. Millions of Australian households have embraced the potential of our abundant solar resource with over 10% of the population living in solar rooftop homes. (Sources: climatechange.gov.au; [Clean Energy Regulator](http://CleanEnergyRegulator))

Scout out potential project development areas using a free online tool developed by the Australian Government which provides solar irradiation data, topographical and other information to assist with planning and financing: www.ga.gov.au/solarmapping.

AUSTRALIA'S ENERGY MIX

Renewable energy comprises about 5% of Australia's current energy production but this is forecasted to rise to around 40% by 2035. (Sources: [Bureau of Resources and Energy Economics](http://BureauofResourcesandEnergyEconomics); ret.gov.au)

THE RENEWABLE ENERGY TARGET

Australia's Federal Government has legislated a Renewable Energy Target (RET) aimed at ensuring 20% of Australia's electricity comes from renewable sources by 2020.

There are two schemes under the RET - the Large scale Renewable Energy Target (LRET) and the Small scale Renewable Energy Scheme (SRES). These schemes create a financial incentive for investment in renewable energy through the creation and sale of certificates.

The RET places an obligation on liable entities such as electricity retailers to buy a certain quantity of large-scale generation certificates (LGCs) and small-scale technology certificates (STCs) every year.

Solar plant operators can benefit from the RET scheme by creating certificates to sell to liable entities. These certificates can be sold and traded separately from the generated electricity.

LGC prices are currently around AUD33 per certificate and STC prices are around AUD38 per certificate. LGC prices are expected to rise to approximately AUD42 per certificate by 2017. (Source: [Australian Financial Markets Association](http://AustralianFinancialMarketsAssociation))

OTHER POLICIES

The Australian Renewable Energy Agency (ARENA) is an independent, federal authority tasked with increasing the supply of renewable energy in Australia and improving the competitiveness of renewable energy technologies. ARENA has provided funding for numerous solar energy projects throughout the country and intends to continue to do so until at least 2022.

An ARENA funded 'Regional Australia's Renewables – Industry' (I-RAR) program is seeking expressions of interest by December 2013 from businesses to provide renewable energy solutions in off-grid and fringe-of-grid locations where demand is increasing. In particular, the I-RAR has identified remote diesel minigrids as an ideal context for applying solar photovoltaic generation. I-RAR has up to AUD400 million in funding to allocate to projects that have co-investment from non-government sources. There is no minimum or maximum funding available per project.

The new Coalition Government has pledged to fund a million more solar roofs over the next decade by offering a AUD500 rebate to households installing solar hot water or solar panels. Customers may be eligible for state-based feed-in tariffs for feeding excess power produced back into the grid.

The Australian Capital Territory has legislated a target of zero net greenhouse gas emissions by 2060, with 90% of the Territory's electricity consumption to be sourced from renewable energy by 2020. An associated government strategy for staged investment in renewable energy is being implemented, which recently involved a large-scale solar reverse auction for funding. Further initiatives will be announced in due course.

Other states and territories have various schemes offering funding and support for the renewables industry, including the Victorian Energy Technology Innovation Strategy, the Tasmanian Renewable Energy Fund and RenewablesSA. New funding initiatives are announced periodically.

MARKETS

Australia's wholesale National Electricity Market (the NEM) is comprised of the world's longest interconnected power system. It delivers energy to New South Wales, Queensland, South Australia, Victoria, Tasmania and the Australian Capital Territory. Western Australia and the Northern Territory have their own, separate electricity markets.

Electricity trading between generators and retailers in the NEM is conducted as a spot market. Supply bids are aggregated and generators are instantaneously dispatched by the Australian Energy Market Operator to meet demand in the most cost effective way.

Wholesale electricity prices in the NEM currently average about AUD50 to AUD60/MWh and are expected to remain stable in the near future. (Source: [Australian Energy Market Operator](http://AustralianEnergyMarketOperator))

Modelling commissioned by the Australian Solar Institute reveals that solar power plants have the potential to achieve wholesale prices from 10 to 60% above the NEM average, depending upon generation levels and dispatchability. (Sources: [Australian Energy Market Operator](http://AustralianEnergyMarketOperator); [Australian Solar Institute](http://AustralianSolarInstitute))

Due to the volatility of prices in the NEM, generators and retailers typically enter into hedging contracts to protect against NEM price risk. There is also some (although limited) scope for direct power purchase agreements outside the NEM.

NETWORK CONNECTION

Network access regimes apply in Australia under which generators have rights of connection to the interconnected electricity networks. In the NEM, generators negotiate connection agreements with network operators in the context of a regulated access regime.

PROTECTION OF THE SOLAR RESOURCE

Rights to solar access in Australia are not addressed in a comprehensive suite of legislation, but rather are found in a combination of property law, planning law and other aspects of the common law. This area of law continues to develop along with the growth of renewable energy in Australia.