

Solar electricity makes good financial sense

A recent report by the Global Commission on the Economy and Climate found that renewable energy (RE) sources have emerged with stunning and unexpected speed as large-scale, and increasingly economically viable, alternatives to fossil fuels.



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Until now, environmentalists have made 'it's good for the planet', the reason for turning to renewable energy, but according to juwi Renewable Energies, first and foremost, it makes good financial sense.

Matthew Turner, business development manager at juwi, says solar electricity is becoming cheaper than local grid power in many instances. "Even when competing against some of Eskom's cheapest rates, we're seeing that a well-engineered system with smart financial structuring can deliver immediate cash flow savings to clients, with substantial electricity cost reductions over the operating life of the plant.

"That's before you factor in security of supply and the positive sustainability message, which strengthens the business case for solar photovoltaics (PV)," he adds. Turner says there are three major reasons that RE is becoming cheaper than conventional (coal) energy:

- the reduction in PV system costs;
- · private sector efficiency; and
- increasing operating and maintenance costs associated with coal fired generation.

Although PV has traditionally been viewed as an expensive source of electricity, recent technology improvements and increased production of PV components have driven system prices down significantly. As RE growth has slowed slightly in European markets over the past few years, these lower prices have been passed on to emerging RE markets like South Africa.

'Self-consumption' market

In South Africa, juwi is widening its focus to include the 'self-consumption' market, the privatised model of ownership and generation aimed at commercial and industrial customers. Local business has been heavily impacted over the past few years by electricity supply disruptions. And it is becoming apparent that supply issues are likely to continue, even after Eskom's new generation power supplies come on line over the next few years. Decreasing system costs, combined with the high levels of sunlight experienced locally, led to South Africa being ranked as 'the most attractive emerging country for solar energy' earlier this year.

"The costs of renewable energy technology are largely misunderstood by industry's decision makers, many of whom still believe that fossil-fuel derived electricity is more cost effective. We are currently finalising deals for a number of private 'self-consumption' PV plants, and these clients will benefit from correctly engineered PV plants that provide electricity at higher-than-grid reliability and lower-than-grid costs.

"Despite the infrastructure investment of smaller private 'self-consumption' PV plants, we are currently seeing economies in the rooftop PV market space that are enabling RE to undercut all but the cheapest Eskom tariffs," says Turner.

Safe investment

With higher-than-inflation Eskom tariff increases predicted for the next few years, and the phasing in of carbon tax from 2016, an investment in a 'self-consumption' PV plant will pay itself back many times over the life of the plant.

Turner says that an added benefit of 'self-consumption' PV plants is the certainty it brings to executives and investors when doing long-term strategic planning. "Knowing that you will have power when you need it for production - and knowing how much that electricity will cost at any future period - should enable businesses to make large-scale investments with far more clarity", he says.

Solar energy has many benefits, the main ones being the real cost advantage against traditional energy supply, protection against unpredictable energy price hikes, security of energy supply (in light of an increasingly unstable grid) and sustainability in a time when consumer purchases are influenced by corporate responsibility towards the environment.

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