

# BEFORE YOU CATCH THE SUN

TEXT & IMAGES: NICHOLAS CARROLL

*Solarising the right way.*

A report published in 2015 stated that South Africa is one of the best places in the world to develop solar power - we experience about 1300 - 1450 kWh/kWp of solar irradiation annually.

“It makes no financial sense to keep paying for a resource like electricity that you can in fact generate for yourself with a solar asset that adds tremendous value to your property, hedges your costs for the next 20 to 25 years and will save you a massive amount of money over the cumulative lifespan of your solar investment”, says Doug Brazier. Give us a call for a professional risk-free assessment of your property and renewable energy opportunity.

## BASE YOUR DECISION ON COMBINED FINANCIAL AND ENERGY STRATEGY GROUNDS, NOT ONE OR THE OTHER. SOLAR WILL BE MORE VIABLE AND IMPORTANT IN SOME AREAS OF OPERATION THAN OTHERS

Europe is the largest installer of solar power, with greater climate change awareness, more money and a higher general cost of electricity. They only experience about 800 – 900 kWh/kWp solar irradiation per annum. (kWh - Kilowatt hours, the amount of electricity the solar system generates in a year. kWp - is the rating given to a particular solar system).

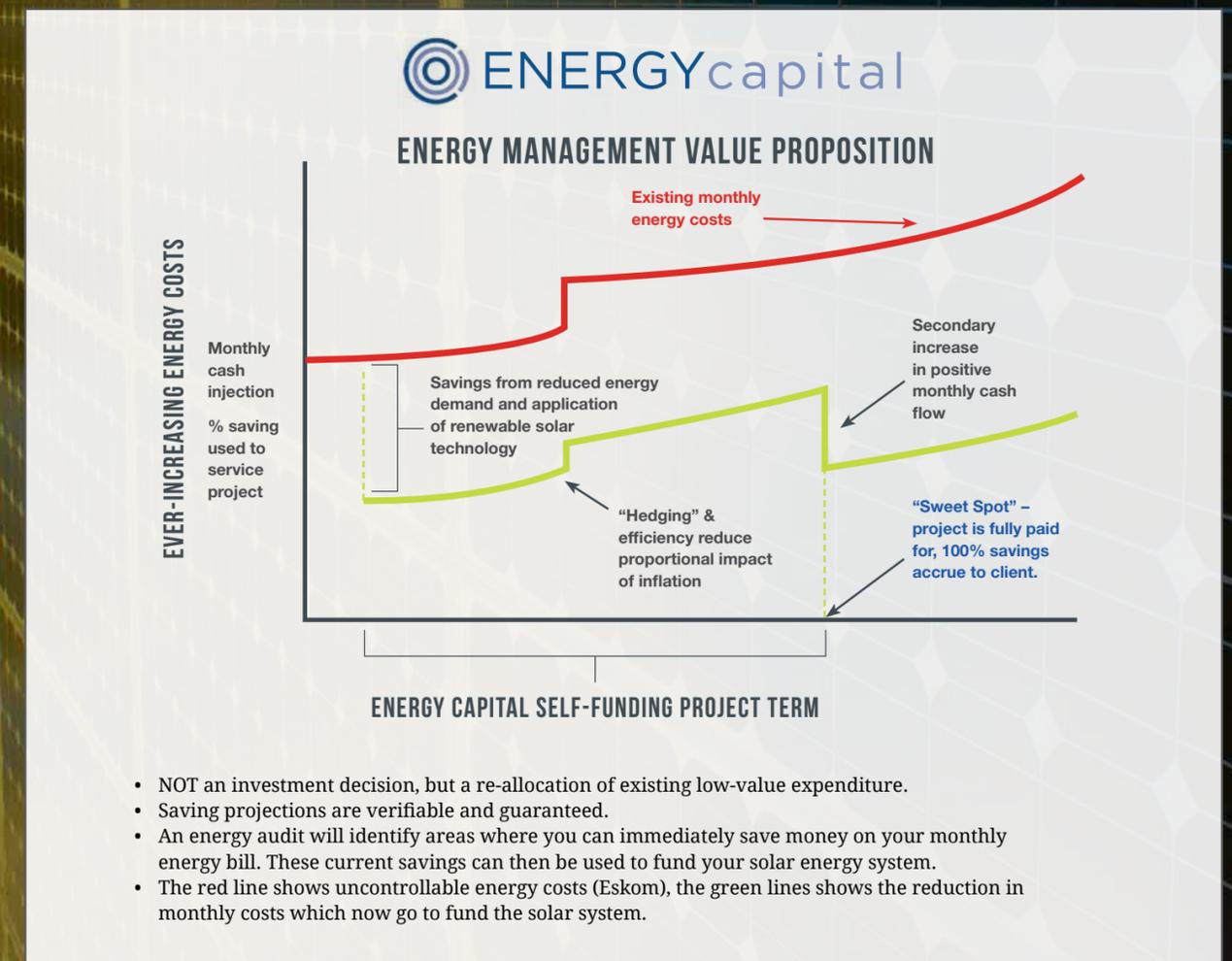
We've got the high electricity costs without the big budgets and somehow the environmental penny remains spinning on an edge. Solar power is the most favoured of all renewable energy sources and is booming around the world. Solar is a free source of energy that renews itself, never runs out and doesn't cost a cent to generate.

Investment in solar provides short payback periods and steady financial returns. Be heartened to know that solar is fast becoming the lowest-cost power generation technology in the world.

Experts hint that a reduction in global warming is within our grasp. By shifting to solar energy you will be contributing more than most to the environment.

Achieving solar dependence is simple enough. Start with an energy study of your building, the outcome of which will determine to what extent you solarise. Then you'll need to establish the criteria for a "go / no go" decision on installing solar in your properties.

Not all your sites may fit the criteria for installation. Base your decision on combined financial and energy strategy grounds, not one or the other. Solar will be more viable and important in some areas of operation than others.



THE ADVANTAGES OF SOLAR POWER ARE BEST VISIBLE IN THE LONG-TERM.



START WITH AN ENERGY STUDY OF YOUR BUILDING, THE OUTCOME OF WHICH WILL DETERMINE TO WHAT EXTENT YOU SOLARISE.

STEP 1 → STEP 2 → STEP 3

**Drive Down Energy Demand**

- Energy profile audit
- Tariff analysis
- Power factor correction
- Voltage stabilisation
- Lighting audits
- Solar enhanced cooling
- Aircon audit and control
- Geysers control
- Municipal Bill reconciliation

**Apply Renewable Energy Technology**

- Once energy demand is brought to an optimal level:
- Design and installation of Solar PV Systems, Storage systems and any other technology to maximise ROI

**Maximise Energy Production**

- Best practise Operations & Maintenance (O&M)
- Minimise O&M costs through online monitoring to panel level
- Monthly reporting and monitoring
- Maximise energy efficiency usage through energy management.

By investing in solar now, you can fix your electricity rate on that portion of the energy supplied by the solar system and protect against increasing electricity costs. In addition, the tax allowance on solar is very attractive and you'll be increasing the value of your property.



Go to [www.energycapital.co.za](http://www.energycapital.co.za) to download a template to establish criteria for solar installation. Alternatively, email [d.brazier@energycapital.co.za](mailto:d.brazier@energycapital.co.za) or call 083 632 6205.

Developing an understanding of the solar development process will enable you to coherently present the options to company decision-makers.

You will also need to make a number of decisions for the implementation of each project such as ownership structure, incentives, technology choice and vendor type.

**THERE ARE FOUR POSSIBLE OWNERSHIP STRUCTURES:**

**Owner owned:** You purchase the system including the payment of the design, installation and ongoing operating expenses.

**Owner financed:** Similar to the owner-owned model but you utilise debt to mitigate the up-front capital requirements.

**Third party owned:** The system is owned by a third party and leased by you and/or the user of the energy. You may benefit from the sharing of incentives and tax benefits.

**ESKOM AVERAGE TARIFF VS. INFLATION (CPI)**



**Third party owned with Power Purchase Agreement (PPA):**

Requiring no capital outlay, the PPA Vendor builds and operates the system for you and you pay for the electricity produced by the system at a reduced cost.

Technology choices should be driven by your goals for the solar system, the location, weather conditions and the specific property's characteristics. When evaluating the available technologies, be wary of vendors who specialise in a preferred technology, which may not be right for your needs. An independent consultant will provide an unbiased evaluation.

Your own thorough, objective analysis is the cornerstone to your business case. Be sure that whatever information you include in your analysis and your proposal is objective and reliable.

Solar systems will continue to become more economical and policy and cultural conditions will increasingly favour clean, renewable energy.

When you analyse all your company's solar options in a consistent, objective model and monitor those opportunities over time, you can identify viable solar projects within your company and move quickly when the time is right. If you couple that with an unbiased approach to procurement, you can complete sound projects with vendors you can trust and terms that favour you.

**BEFORE GOING AHEAD WITH ANY INSTALLATIONS**

Please contact Ridge Management for prescribed solar technology systems.

Your solar power system will start saving you money from the moment it's turned on; however, the advantages of solar power are best visible in the long-term. The longer you have your solar power system, the more you enjoy the benefits of solar technology and support the environment.

**THE TAX ALLOWANCE ON SOLAR IS VERY ATTRACTIVE AND YOU'LL BE INCREASING THE VALUE OF YOUR PROPERTY.**



**Tax Allowance**

As from 1 January 2016, Section 12B of the Income Tax Act (South Africa) was amended from a three-year (50% 30% 20%) accelerated depreciation allowance on renewable energy assets to a 100% depreciation allowance in year 1.