

empowering change



# CHEAPER THAN COAL

Current & future solar prospects and action we must take now

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# INTRODUCTION



## SOLAR IN AUSTRALIA

Fact:

As global economies act to reduce their emissions, **Australia's Renewable Energy Targets** must also be met.

**20% by 2020**

## THE CHALLENGE

The Australian Energy Revolution has begun.

It is an essential part of our future;  
Of reducing our emissions, of helping Australians  
beat the rising cost of living, of growing our  
economy, jobs, industry and global exports.

## THE CHALLENGE

As an industry we must stand united to dispel myths and get the support of not only the government – but also the Australian public.

Solar energy is

**CHEAPER THAN COAL**

(and better looking...)

# POWERING A BRIGHTER FUTURE



# SOLAR IS CHEAPER THAN COAL: THE MATH



# SOLAR IS CHEAPER THAN COAL

Cost of Coal  
(Price of Electricity)



Cost of Solar  
Power\*

**Within 8 Years**

\* Cost of solar is further reduced by the income which can be generated by it!

# SOLAR IS CHEAPER THAN COAL

1.5kW system

Financed on 25 year  
term home loan



Current Rebates

3 x Solar Credits  
Multiplier

Electricity Price  
Increase 5%pa

**Solar costs 12c per kW hour!**

Solar energy costs around 40% less than the peak retail electricity energy rate on the current rebate scheme.

# SOLAR IS CHEAPER THAN COAL

1.5kW system

Financed on 25 year term  
home loan

Electricity Price  
Increase 5%pa

Solar costs 19c per kW hour!

Solar energy costs around 5% less than the peak retail electricity energy rate even without rebates.

**HERE ARE THE FACTS**



# THE FACTS ABOUT RENEWABLE ENERGY

**\$9.7 billion** was spent on fossil fuel subsidies in FY05/06...

(Source: Energy and Transport Subsidies in Australia 2007)

# THE FACTS ABOUT RENEWABLE ENERGY

Only \$330 **million** spent on renewable energy subsidies.

(Source: Energy and Transport Subsidies in Australia 2007)

# THE FACTS ABOUT RENEWABLE ENERGY

We are not the leader in investment in solar - Australia currently ranks 12<sup>th</sup> in clean energy investment.

(Source: Who's winning the Renewable Race? Pew 2010)

But we live in the sunniest continent on earth

# THE FACTS ABOUT RENEWABLE ENERGY

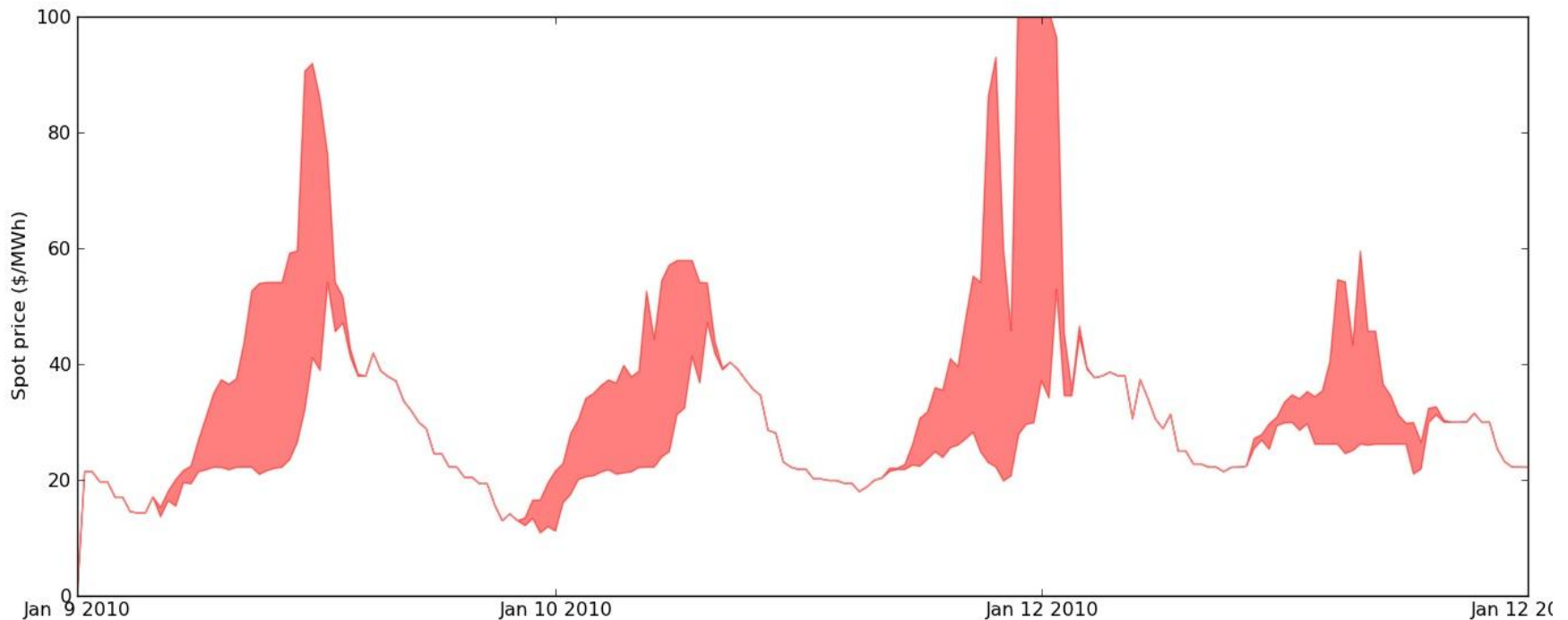
Renewable energy schemes only contribute around 4 – 7% to electricity bills.

(Source: ROAM Consulting Report 2011)

But this does not account for the savings in the wholesale electricity market from renewable energy...

# SOLAR REDUCES WHOLESALE ELECTRICITY COSTS

Solar systems reduce the cost of the wholesale electricity price which benefits all electricity users



Source: Melbourne Energy Institute, Retrospective modeling of the merit-order effect on wholesale electricity prices from distributed PV generation in the Australian National Electricity Market

# FEED IN TARIFFS CAN FAIRLY SHARE THE BENEFITS OF SOLAR ACROSS COMMUNITY

For 5GW of additional capacity, it was found that the value of the Merit Order Effect would have been \$1,229 million in 2009 and \$628 million in 2010.

If attributed to every kWh of PV electricity generated over the two years, it would justify a payment of:

**39 cents/kWh (net)**

Source: Melbourne Energy Institute, Retrospective modeling of the merit-order effect on wholesale electricity prices from distributed PV generation in the Australian National Electricity Market

Feed-in-tariffs are not 'subsidies' but are simply a mechanism for solar owners and the community to receive their fair share of the value solar delivers.

## THE GAS ALTERNATIVE: NOT AN ALTERNATIVE

- Natural gas will require Australians to fund new plants which are only a temporary measure.
- Peak oil is driving up the price of gas.
- Latest research suggesting coal seam gas may be as emissions intensive as coal !!
- Australia needs to go straight to Renewable Energy.

Lets invest in the technology that is coming down in cost – not going up!

**TOGETHER WE CAN EMPOWER CHANGE**



# A SAVVY SOLAR INVESTMENT FOR AUSTRALIA

The benefits to Australia are immense.

Low risk investment

Avoids infrastructure upgrades and costs

Rapid time to build & install vs. coal plants

Cheaper to run than coal or gas plants

Electricity costs avoided at peak times

Large local employment in renewable sector

Proven to keep the house or business cool

## EMPOWERING CHANGE

- Open access to roof tops for a solar system
- Fair retail price benchmarking
- Mandate use of on-site generation

Australia can take zero dollar action  
fulfill its Renewable Energy Target.

Australia must reach its Renewable Energy Target.

The **Solar Industry** is ready to rise to the challenge to turn our greatest natural asset into our economical and environmental future.

# Q&A

[energymatters.com.au](http://energymatters.com.au)