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Global and Local Outlooks

and

Ideas for Energy

and

Renewable Energy





It is perhaps inspirational that we are gathered at “Quamby”

The home built by Sir Richard Dry

A leader in his era

A man who met the challenges of change in his day – and helped to change the way we live today

The challenge which we now face is one of SUSTAINABILITY

Like it or not

Deny it or not

“The world she is a-changing”

Factors:-

- Population Growth trebled
- Water demand growth
- Energy demand growth
- Growth in demand for food and other supplies
- Limited Resources – Hubberts Peak etc

Hence:-

- Need for Sustainable Development
- In 2002 - WSSD
- From that WEHAB
- Climate Change - since WMO started to express concern more than 30 years ago

Thus:-

Huge Increases in

- Population
- Demand on Resources
- A Changing Environment

Provide needs and opportunities

Renewable Energy is at the forefront of the answers

How do we respond?

- Community Awareness
- Political Will - or political resistance
- Engender the spirit of reform – even adventure
- Reduce Fear
- Understand Sustainability - and a new but not radically changed way of living

Role of Renewable Energy

- Needed for Sustainability
- Also provides security of supply
- Reduces Greenhouse Gas emissions

For example Wind power avoids 5,000 tonnes of CO₂ per MW of generation

Renewable Energy Development

- Business and Finance is moving fast – renewable energy growth is 2nd only to IT
- The Global Financial Crisis hardly dented the flow
- Australia - lacks leadership compared with Europe and much of the world

*Investment growth in renewable energy:-

2004 \$US 20 Billion

2009 \$US 150 Billion

*source REN21 2010 Global Status Report

The World is serious about Renewable Energy

- In the past 10 years:-

2004 – Bonn International Renewable Energy Conference Declaration

2004 – International Renewable Alliance formed, comprising the world hydropower, solar and wind associations and later joined by geothermal and bioenergy associations.

Symphony of the Renewables

The World is serious about Renewable Energy

2005 – REN21 established

2006/7 – UN Commission on Sustainable Development endorses Renewable Energy, similarly the World Bank

2008/9 – Agreement to establish the International Renewable Energy Agency (IRENA)

2010 - DIREC, with the objective of real commitment with action plans – which we, the REN Alliance, insist will include our Global Renewable Energy Fund

Renewable Energy Technologies - Wind

World Growth in Wind power generation has been fantastic :-



160,000 MW of wind generation - enough to serve approximately 100 million households – about the population of the USA

Increasing at 25-30% per annum

In the past decade the capacity of wind turbines have increased from 2 MW to 10 MW and continues to increase



Hydro power

- Provides 16% of world electricity about the same as nuclear
- But increased by 31,000 MW last year
- Much of it in China, India and South America (ie the developing world)

But what is AMAZING is the TARGETS for Renewable Energy Development

For Example in China – much maligned by some apologists for Australian inaction -

by 2020:-

Hydro power	190,000 MW to	350,000 MW
Wind power	26,000 MW to	150,000 MW
Solar, Bio & others including Nuclear	growing to	120,000 MW

Can these targets be achieved?

Recent History suggests Yes

2005 to 2008 Asia (China, India, South Korea in particular)

Increased Renewable Energy Capacity by 250% in wind generation alone.

Lets not forget renewable energy growth elsewhere eg:-

USA

in 2000 – wind generation 2,500 MW

In 2009 – wind generation 35,000 MW

Renewable Energy and the Facts

These are the facts but a campaign of
DISINFORMATION has had success in Australia

For example myths such as:-

- R E cannot supply base load (Tasmania has had R E base load for 100 years)
- R E is an inadequate resource to supply world needs – demonstrably untrue, solar power alone can supply 17 times the current world demand

AND So It Goes On

Renewable Energy and the Facts

Other responses to the Challenge include:-

Cost reduction and Greenhouse Gas reduction through

- Energy efficiency
- Generation efficiency
- Distributed generation for the developed world
- Education and assistance for the developing world

And electric motor vehicles with local generation & providing a huge battery storage - and many other opportunities too.

Renewable Energy and the Facts

In R E policy terms around the world:-

- 78 Countries & States have Feed-in Tariffs
- 50 Countries & States have Renewable Energy Portfolio Standards
- Emission trading schemes apply in Europe (pop 500 million), NZ, 16 US States & 4 Canadian Provinces
- Carbon Taxes are used in some other countries

It is simply untrue to say that Australia would be jumping ahead of the rest of the world if we put a price on carbon and really developed renewables.



Renewable Energy In

TASMANIA



Turning to the Tasmanian situation we need a broad recognition of the important role which Tasmania can play in the achievement of higher renewable energy targets for Australia.

We have every opportunity - Tasmania's wind resource could provide half Australia's present demand for electricity.

BASSLink achieved its two basic objectives:-

1. to drought proof Tasmania
2. to provide a trading link to the national market

However our State's major growth can come from further opportunities to transfer renewable energy into the Australian Grid.

We have the resource

Hydro, Wind, Ocean, Geothermal and Biomass are all readily available in their various forms

On another occasion I can elaborate on how we propose to go about the development of Tasmania's renewable energy including the application of local generation by groups for their own use and for surplus into the Grid

Conclusion

Why should Australia be denied full participation in all of the world renewables surge?

It will be costly to catch up.

The answer to the worlds challenge is

- Flowing in the streams
- Shining from the sky
- Growing on the land
- Bubbling from the earth
- Hidden in the waves

AND

- Blowing in the wind

