

THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

REPORT BY BRIDGET MCINTOSH – 2001 CHURCHILL FELLOW

THE PETER MITCHELL CHURCHILL FELLOWSHIP TO STUDY
INTERNATIONAL GREEN POWER PROGRAMS
1ST MARCH - 5TH MAY 2001

INTRODUCTION	2
CHURCHILL FELLOWSHIP DESCRIPTION AND OBJECTIVE	2
BACKGROUND	2
ACKNOWLEDGEMENTS	2
EXECUTIVE SUMMARY	3
CONTACT DETAILS	3
PROJECT DESCRIPTION	3
HIGHLIGHTS	3
MAJOR LESSONS	4
CONCLUSIONS	4
PROGRAMME	5
USA	5
CANADA	5
UK	5
GERMANY	6
SWEDEN	6
JAPAN	6
FELLOWSHIP	7
GREEN POWER BACKGROUND	7
CHURCHILL FELLOWSHIP DESCRIPTION AND OBJECTIVE	7
IMPORTANCE	7
MAJOR LESSONS	7
<i>INCREASING CONSUMER UPTAKE</i>	8
<i>MAINTAINING EFFECTIVE ACCREDITATION</i>	9
<i>IMPACTS OF POLICY AND INDUSTRY REFORM</i>	10
CONCLUSIONS & RECOMMENDATIONS	11
DISSEMINATION OF INFORMATION	11

Introduction

Churchill Fellowship Description and Objective

The objective of my Churchill Fellowship was to enhance and improve Green Power in Australia, by translating industry learnings from overseas to green electricity companies here. In particular, it focused on opportunities to increase consumer uptake, how to maintain effective accreditation and the impacts of policy and industry reforms.

The fellowship involved meeting and interviewing the major suppliers of Green Power, accreditation bodies and consumer/environmental advocacy groups around the world. The duration of the fellowship was 2 months covering 16 major cities in the USA, Canada, UK, Germany and Sweden. The trip also involved an International Green Power symposium in Japan (not funded through Churchill Trust) which brought together the main accreditation bodies from around the world.

It was an incredible opportunity to share learnings with people that sell and support Green Power around the world. I will always remember the enthusiasm and willingness to share information in this growing but extremely important area.

Background

Green Power taps into consumers who are willing to pay the price difference between renewable energy and traditional polluting electricity, thereby creating a market and demand for renewable energy. Currently the majority of electricity suppliers in Australia offer an accredited Green Power product, however consumer uptake has been slow and not all opportunities maximised.

Green Power is an extremely important program, as it allows consumers to drive demand for renewable energy, above the status quo. Driving demand for Green Power results in an increase in renewable electricity generation projects, which will mean increased asset/capital investment, more jobs, increased knowledge base in a cutting edge industry with incredible export potential, reduced greenhouse gas emissions (and opportunity to meet any international greenhouse gas commitments such as Kyoto). Ultimately this will help Australia achieve a more sustainable electricity supply mix.

Acknowledgements

First and foremost I'd like to thank SEDA for their support in allowing me to undertake this project and take 2 months out of the year. I'd also like to thank my referees, Bob Meyenn, Cathy Zoi and Andrew Durran for their support in helping me get the fellowship. I am extremely grateful to the people who helped me organise my tour before I left - as they helped me work out the logistics and made it possible to visit 16 major cities in 7 weeks - for Germany, Sven Teske & Christoff Tiempe; for the US Karl Rabago & Cheryl Morgan; In Canada Iain Rowland & Jason Edworthy, for Sweden Thomas Kaberger and the UK Donna Clarke.

Executive Summary

Contact Details

Bridget McIntosh

Environmental Markets Strategy Manager
Origin Energy
360 Elizabeth St Melbourne Central 3000
61 3 9652 5895

For the Green Power Accreditation Program

Nicola Saltman
SEDA
45 Clarence St Sydney 2000
61 2 9249 6114

Project Description

This Churchill Fellowship involved meeting and interviewing the major suppliers of Green Power and accreditation bodies around the world. The purpose was to enhance and improve Australia's Green Power programs and offerings, by translating industry learnings from overseas. In particular, understanding the impacts of policy and industry reforms and gaining further insight into the 'green' consumer.

Highlights

My trip was an unbelievable experience. Every group I met - from advocacy groups, government agencies and corporates - shared enthusiasm for the 'green' cause - they were not only willing to help with information but also in making me feel extremely welcome. One of the main highlights of the trip was my first weekend after landing in Colorado. I visited the famed (in environmental circles) Rocky Mountain Institute - and was immediately adopted for the weekend by the RMI 'family' - I stayed with Rick Heede in his passive solar designed house atop a mountain in Aspen, then was treated to dinner, parties and snowboarding during the day with the 'family'. They shared much knowledge, inspiration and zest for life!

Other highlights included:-

- Visiting the inspirational group at the Land and Water Fund for the Rockies - not only had they done amazing things to promote improved renewable energy policies, but they had actively worked with the local green power supplier to increase customer uptake through unique and innovative approaches. They showed that no barrier is too great if you know what you're trying to achieve!
- Watching the construction of a windfarm in snowy Alberta - the fruits of the successful Green Power campaign and customer participation.
- Visiting the New Belgium Brewery who shared why they purchase all their electricity from wind power, while simultaneously undertaking progressive energy efficiency and load management tactics to reduce costs. The beer was good too!
- Catching the train through Germany seeing majestic wind turbines in the fields, a product of their progressive renewable energy policies.
- Meeting SMUD - and gaining the understanding that there is no great 'rocket science' to increasing customer uptake - it just takes careful thought, planning and commitment.
- The courtesy and warmth by the folks at HEAG Naturpur, who shared a whole afternoon of knowledge, then took me on a tour of the renewable solar plants around the town

Essentially it was just fantastic to share and learn from other renewable energy colleagues around the world -and to understand that we're not alone in this important task!

Major Lessons

The major learnings from the Fellowship can be broadly classified into three main areas. These are summarised below, and detailed further in the body of the report.

1. Increasing consumer uptake - more socially aware populations have more successful product; price premium does not directly correlate to customer uptake; call centres are the cheapest and most effective way to increase consumer uptake; high prices for renewable electricity does not necessarily mean that products need to be cost-prohibitive; products and communications should be kept simple.
2. Maintaining effective accreditation programs - There is no one correct form of accreditation; each program must respond to the different needs of the communities and their expectations and concerns. Australia's standards are world's best practice; different accreditation programs confuse consumers and undermine confidence in the concept in general; voluntary consumer markets ensure a more sustainable mix of mechanisms to increase renewable generation, consistency is important.
3. Impacts of policy and industry reform - Voluntary programs still have an important place in markets where renewable electricity production is legislated; increased competition improves opportunities for green power products; all environmental regulated approaches must be consistent in approach.

Conclusions

Australia should maintain its strict accreditation requirements and current status of world's best practice. These strict requirements do make it tougher to offer the product, however products that are offered at the same price as traditional electricity internationally have similar take up rates to those in Australia.

Green Power is a slow grower - no one in the world has 'cracked' the market but customer uptake is steadily growing. There appears to be no magic bullet for selling Green Power. However the most effective products are those that are offered by suppliers who are committed to their products, and carefully plan the entire product (from purchase of electricity to communication).

Internationally, Green Power products have benefited from markets becoming competitive. More choice and consumers thinking about their electricity results in an increased awareness of products on offer (green or black). This will be important in Australia, where consumers have very low understanding of where their electricity comes from, or the link between their electricity use and climate change.

In addition, a competitive environment means that companies have to develop choices to entice or retain customers. For electricity companies - their options are limited - offer discounts (and undercut margin across the industry) or offer value added products and services.

For markets to be truly competitive, renewable generators need to have fair access to the grid, customers and an equitable trading system that does not disadvantage renewable generators. This access needs to be monitored carefully and independently.

Programme

My Churchill program involved visiting electricity suppliers; accreditation bodies, consumers and environmental groups in USA; Canada; UK; Germany and Sweden. It also involved a trip to Japan (not funded by the Churchill Fellowship) for a conference of key Accreditation Bodies from around the world.

USA		
Colorado	Rocky Mountains Institute	Karl Rabago, Rick Hede
	Xcel Energy	Andy Sulko, Michelle Edwards
	National Renewable Energy Labatory	Blair Sweezey; Lori Bird
	Land & Water Fund of the Rockies	Rudd Mayer; Rick;
	New Belgium Brewery	Ryan Trail
California	LA Department of Power and Water	Donald Cresse, John Giese
		Julie Blunden,
	CRS - Centre for Resource Solutions (Green-e certification)	Meredith Wingate
	SMUD - Sacramento Municipality Utility Department	Jim Burke
	Morgan Energy	Cheryl Morgan
Canada		
Ontario	Ontario Power Generation	Murray Patterson
	Terra Choice Environmental Services (Environment Choice Program)	Susan Herbert
	Environment Canada	Les Welch
	Sierra Club	Christine Elwell
	Toronto Power	Joyce McLean; Ken Nakahara
Alberta	Enmax	Theresa Elliot
	EPCOR	Marlyn Noble
	Pembina Institute	Marlo Reynolds
	Vision Quest Incorporated	Jason Edworthy; Justin Thompson
UK		
England	Unit [e]	Juliette Davenport
	British Wind Energy Association	Nick Goodal; Alison
	London Electricity	Adam Thompson
	Greenergy	Donna Clarke
	Energy Savings Trust (Future Energy Accreditation)	Graham Carr
	Energy for Sustainable Development	Chris Cook-Fallon
	Royal Society for the Protection of Birds	John Lanchberry
	Climate Care	Mike Mason
	ETSU	Ian Fletcher
	Powergen	
	Yorkshire Electricity	Josie McLaren
Ireland	Northern Ireland Electricity	Andy McCrea
	Eirtricity	Dave Gleeson

Germany		
	Greenpeace Energy	Sven Teske
	Lichtblick	Jahn Andreas
	HEW	Dr Helmut Growscurth
	HEAG Naturpur	Joseph Werum; Ralf Hitzel
	German Consumer Group	Helmfreid Meiner
	Greenpeace Germany	Bill Hare
Sweden		
	Swedish Soc'y for Nature Conservation	Johan Kling
	McDonalds Sweden	Bertil Rosquist
	EcoTraffic	Thomas Kaberger
Japan		
Not part of Churchill Fellowship		
International Symposium of Green Energy		

Fellowship

Green Power Background

Green Power taps into consumers who are willing to pay the price difference between renewable energy and traditional polluting electricity, thereby creating a market and demand for renewable energy. Currently the majority of electricity suppliers in Australia offer an accredited Green Power product, however uptake has been slow and not all opportunities maximised.

Green Power is an extremely important program, as it allows consumers to drive demand for renewable energy, above the status quo. The more demand for Green Power means an increase in renewable electricity generation projects, which will mean increased asset/capital investment, more jobs, increased knowledge base in a cutting edge industry with incredible export potential, reduced greenhouse gas emissions which will help Australia meet any international greenhouse gas commitments.

Churchill Fellowship Description and Objective

The objective of the Churchill Fellowship was to enhance and improve Australia's Green Power programs and offerings, by translating industry learnings from overseas to our electricity companies. In particular, it focused on how to increase consumer uptake, how to maintain effective accreditation and the impacts of policy and industry reforms.

The fellowship involved meeting and interviewing the major suppliers of Green Power, accreditation bodies, customers and environmental advocacy groups around the world. The duration of the fellowship was 2 months covering 14 major cities in the USA, Canada, UK, Germany and Sweden. The trip also involved an International Green Power symposium in Japan (not funded through Churchill Trust) which brought together the main accreditation bodies from around the world.

Importance

Australia's electricity industry has recently been deregulated and entered a new competitive phase. These events will have a significant impact on Green Power and the growth of renewable energy in Australia. In addition, a new renewable electricity legislation has been introduced, requiring electricity suppliers to purchase a small additional amount of renewable energy each year.

Internationally, electricity suppliers and accreditation bodies (like SEDA) have already been through these policy and industry reforms, and their experience in maintaining an effective voluntary Green Power program was invaluable.

Major Lessons

The fellowship was an incredible opportunity to share learnings with people that sell and support Green Power around the world. Selling Green Power is not an easy task - it involves asking consumers to pay more for environmentally renewable electricity. It is also a 'noble' cause - it is helping to reduce the impact of our electricity on the environment. Therefore I found all the people I met open and willing to share their knowledge and very interested in our progress in Australia.

My 3 main areas of interest where to identify how to increase consumer uptake, maintain effective accreditation and understand the impacts of policy and industry reforms.

Increasing consumer uptake

Populations that are more socially and environmentally aware tend to be more interested in green power products, as the general understanding of why they should purchase the product is stronger. Of course, these countries tend to have much stronger legislative requirements for renewable energy (as in Germany). For example, Boulder, Colorado is a university town and somewhat more 'alternate' than Denver. It has a higher general environmental awareness, and there is a proportionally higher purchase rate of Green Power among households and businesses than elsewhere in Colorado.

The price premium does not directly correlate to the numbers of customers purchasing the product. Many products that are offered at the same price as other electricity do not have any more customers than those who charge more. It is the commitment and efforts of marketing, targeting and education that result in more customers purchasing the product.

Call centres offer the cheapest and easiest ways to increase consumers uptake. It is worth persevering with any 'union' and employment issues, however there do tend to be long lead times in setting up such processes. Training of call centres is essential, and often training a select few is more cost and effort effective. Call centres must also track customers who call up to move house, to ensure they remain on Green Power.

If the cost of electricity is high, products can be structured to offer blocks of KWh in addition to offering the equivalent of 100% of the consumers electricity. This helps minimise the cost to the consumers.

A consistent message from all suppliers was to keep the product and any communication simple, non gimmicky and straight to the point.

The following are some marketing/sales tactics identified as successful:-

- Using a food outlet to 'sell' Green Power while customers wait for their product. Customers then get free 'products' eg 6 free drinks.
- HEAG Naturpur install a solar system in communities rather than pay for advertisements. One system can be installed for the cost of 2 newspaper advertisements (¼ page) and they often get more value in PR. They are installed in community buildings (eg schools, churches). They have installed 66 solar systems (1 kw) in the surrounding communities - mainly in kindergartens. The relevant school must buy Naturpur before they will install the system.
- To minimise risk of purchasing more renewable energy than customers demand, one retailer is using a subscription; mechanism, where they sign up customers for the total output of a wind turbine or wind farm. When sufficient consumers are on board, the project goes ahead and the consumers are then charged the premium.
- One particular environmental group did not consider the green power offerings on the market met their particular members. So they went out to tender for a supplier to develop a product to meet their specific stated requirements. The product is now being marketed by both that environmental group and the electricity company, helping to share costs and increase the opportunity of higher uptake.
- One company had a 'wind-cam' - a camera attached to a wind turbine which is then relayed back to the weather channel - creating good PR.
- Keep the Green Power products simple and use non-glossy advertising /re-enforcement.
- Greenpeace Energy in Germany is focusing on the anti-nuclear activists of the 80s, many of whom are now business people in their 30s/40s. The campaign invokes a sense of community and remembrance with messages like 'it's still easy to campaign for the environment; or encouraging them to make a political statement about their electricity source.
- Hire environmental groups to canvass businesses to purchase Green Power - they are paid on a commission basis.

Maintaining Effective Accreditation

There is no one set of accreditation rules that could apply across the world. Each accreditation program must respond to the different needs of the communities and what is necessary in the electricity market to aid renewable energy development. For example Australia holds the highest accreditation standards in the world, largely revolving around the demand for 'new' renewable generation. However, Australia with the majority of electricity from fossil fuels and an ever growing demand for more supply, is very different to a country like Sweden. Sweden has an oversupply of electricity from a variety of sources including nuclear, hydro-electricity and fossil fuels. Therefore the accreditation rules revolve around helping consumers dictate that renewable electricity is 'called in' rather than less environmentally friendly sources. Since deregulation, 10% of installed electricity capacity have closed, of which the majority where oil and coal. The program will have maximum impact on new renewable generation once all the hydro electricity has been 'consumed'.

What did become clear from my travels, is that a different accreditation programs confuse consumers. Therefore it is essential that the first accreditation process is undertaken with extensive consultation and gain the support of all consumer and environmental groups. This limits the need for the introduction of alternative 'greener' accreditation programs down the track which ultimately confuse consumers and undermine the concept of an accreditation process to assist consumer confidence in the products.

Ultimately, consumer confidence in the accreditation process is crucial; the program can't afford to lose support from environmental NGOs who are often the litmus test for consumers and acceptability.

The accreditation program should be seen as a partnership with the industry and those who run the program. Of course there is an auditing and verification role, however as the industry is rapidly developing, this partnership will ensure that it remains relevant and effective. At the end of the day, the program is designed to facilitate the growth of the industry.

The types of generation that the communities perceive as acceptable varies greatly across countries. For example, landfill gas in the US is unpopular, mainly because developers have developed projects with poor air quality controls. However in Australia, landfill gas is not as much as an issue, as the developers have all used excellent systems and air quality controls. More of an issue is the use of forest products to make electricity. Forestry operations have been controversial in Australia for decades, and when generators commenced the using forestry 'waste' products for electricity production, the accreditation body of Green Power had to move quickly to set sound policy and ensure consumer confidence in the program.

There is considerable debate around the world of how voluntary green programs should interact with the legislative requirements to buy renewable electricity. A myriad of questions arise revolving around 2 central issues - should the rules allow companies to use consumer premiums to help them meet their obligations, or should consumer premiums ensure that green electricity purchases are over and above what the companies would otherwise have to buy. Again, there is no one answer that can apply across the world. It depends on how the legislation is set up, how the electricity markets are run, how the companies choose to offer their product and consumers/advocate understanding of the processes.

However, one thing is clear - the development of the renewable energy market should not rely on one single mechanisms to grow - consumer demand, government legislation/regulations, funding and financing, education are all important to help a country like Australia achieve a sustainable mix of electricity supply.

Impacts of Policy and Industry Reform

Australia's Mandatory Renewable Energy legislation (MRET) is considered to be an excellent mechanism to increase the purchase of renewable energy without specifying price (other than through the penalty). Although our target is low, it has the opportunity to easily increase the volume of renewable electricity fed into the 'grid'. The German Feed in Law which dictates the price each type of renewable energy project must be paid (eg 18f/kwh for wind; 99f/kwh for solar) is very effective in ensuring renewable energy projects are for all renewable energy types, not just the cheapest renewable technologies. However, it does set the price of projects regardless of what price that project needs to go ahead, thereby overpaying for some projects.

It is extremely important to ensure that any legislative requirements relating to renewable energy, carbon or the environment is kept consistent and compliment each other.

It is important in the early development of an industry (eg wind) to get the community support in the planning process. The UK has had little success building further on shore wind farms, due to consumer concerns from the projects.

The opening of electricity markets to competition will ultimately benefit Green Power, as more customers are thinking about their electricity and can make an informed decision about the electricity they purchase. Electricity companies need to be able to offer their customers choices - and avoid only offering discounts which reduce margins and profitability of the business. In addition, some market research from a supplier in the UK indicated that customers wanted to know that suppliers offered a Green Power product, even if that customer chose not to take that product immediately.

Markets that are partly competitive and regulated makes it difficult for suppliers to operate - as the Californian Energy crisis highlighted. Yet in Australia, where electricity is considered a 'given right' it is a political sensitive issue and therefore unlikely to be ever fully deregulated. Of course there is always the belief that regulation needs to ensure social and environmental outcomes Germany highlighted the importance of fair access to the grid and the need for an independent regulator to ensure fair access to all, and prevent old monopolies exercising power and intimidation.

Conclusions & Recommendations

Australia should maintain its strict accreditation requirements and current world's best practice status. These very strict requirements ensure that consumer premiums are going towards the development of new renewable generation, rather than supporting projects already built. These strict requirements make it difficult to charge the same price as traditional electricity. However, some of the green power products studied offered at the same price as traditional electricity still had limited take up rate.

Green Power is a slow grower - no one in the world has 'cracked' the market. While somewhat disappointing that there is no 'magic bullet' for Green Power, it is heartening to note that our suppliers are doing well compared to international companies. In addition, it seems that regardless of price, the most effective products are those that are offered by suppliers who are committed to their products, and carefully plan the entire product (from purchase of electricity to communication).

Internationally, Green Power products have benefited from markets becoming competitive. More choice and consumers thinking about their electricity results in an increased awareness of products on offer (green or black). In Australia, where consumers have very low understanding of where their electricity comes from, or the link between their electricity use and climate change, results in little understanding and hence action by consumers. Populations that are more environmentally and socially aware have a greater uptake of green products.

For markets to be truly competitive, renewable generators need to have fair access to the grid, customers and an equitable trading system that does not disadvantage renewable generators. This access needs to be monitored by an independent body.

Ultimately Green Power accreditation should be a partnership between industry (electricity suppliers and generators), community/environmental stakeholders and those who run the program. Of course there is an auditing and verification role which should very much remain independent. However as the industry rapidly develops a partnership approach will ensure that programs remains relevant and effective. At the end of the day, Green Power accreditation programs are designed to help consumers grow the renewable industry and help drive a more sustainable electricity supply mix.

Dissemination of Information

One of the main reasons I wanted to undertake this project was because any information and learnings I gained could easily be disseminated to the industry to help improve Green Power opportunities in Australia. SEDA is an independent agency and through Green Power, we work with all electricity suppliers in Australia building strong relationship with all of the product managers.

While I was overseas I sent regular email updates to all product managers, generators and the government agencies involved in the direction of the Green Power program. These updates informally summarised my learnings, which made it quick and easy for these companies to get a snapshot of what's going on, without having to read a lengthy report. I have also talked one-on-one to product managers to provide advice on how to best modify or change their products.

Since I have been back, I have also presented at many conferences, sharing the highlights and conclusions for Green Power to the industry in general.

I have now left SEDA and working at one of the largest energy companies in Australia. Since joining the company, we have radically redefined our Green Power product, launched it into the market and enjoying the success of the product in our newly competitive market.