

Developing & Deploying Low Emissions Technologies

by Gwen Andrews
Vice President, Power & Environmental
Policies
Australia/Asia

APP Cleaner Fossil Energy Task Force
Seoul, 31 March 2009

ALSTOM CORE COMPETENCIES

Power

25% of the World's installed capacity



Rail Transport

World Rail Speed Record





THE MOST EXTENSIVE PRODUCT OFFERING

PRODUCT PORTFOLIO COMPARED WITH COMPETITION

Players	Products										
	Large GT	Large ST	Boilers	Generators	HRSG	HEX	ECS	Renewable		Nuclear/Conv. Island	Plant
								Hydro	Wind		
Alstom	Medium presence	Strong presence	Strong presence	Strong presence	Strong presence	Strong presence	Strong presence	Strong presence	Strong presence	Strong presence	Strong presence
Comp. 1	Strong presence	Medium presence	No presence	Medium presence	No presence	No presence	Medium presence	Medium presence	Strong presence	No presence	No presence
Comp. 2	Strong presence	Strong presence	No presence	Strong presence	No presence	Medium presence	No presence	No presence	Strong presence	Medium presence	Medium presence
Comp. 3	Medium presence	Medium presence	Medium presence	Strong presence	Medium presence	Strong presence	Medium presence	No presence	Strong presence	Medium presence	Strong presence

Strong presence
 Medium presence
 No presence



Alstom has:

- ✓ Accepted what science is telling us about climate change
- ✓ Adopted a strategy based on the slogan ‘Clean Power Today’
- ✓ Invested heavily in the development and deployment of
 - Energy efficient fossil fuel plants
 - Renewable technologies
 - Carbon capture and storage

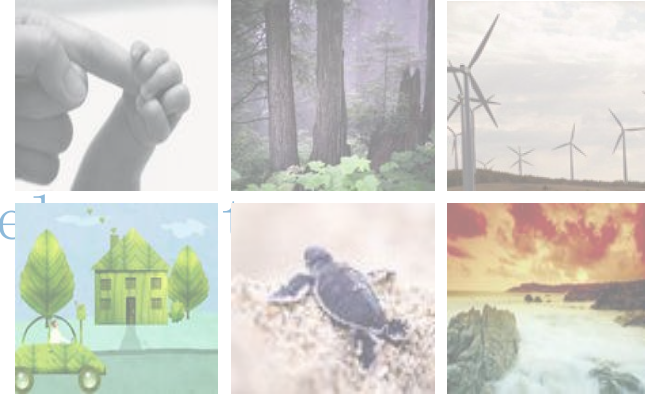
Alstom supports:

- ✓ The right of all countries to develop economically and socially
- ✓ The need to protect the environment from harmful effects of development
- ✓ Co-operation between developed and developing nations to ensure deployment of clean energy technologies
- ✓ The leading role of the private sector in the development and deployment of clean energy technologies

CLEAN ENERGY DEVELOPMENT

Facts of life about clean energy development


- ✓ It's expensive
- ✓ It's competitive
- ✓ It won't happen without the expectation of a return on investment



therefore ...

the policy settings must be right

APPROACHES THAT ASSIST

- 
- ✓ Public-private partnerships
 - ✓ Collaborative efforts among countries
 - ✓ Financial incentives for R&D
 - ✓ Market based mechanisms
 - ✓ Targeted legislative/regulatory support
 - ✓ FDI and trade regimes that facilitate investment
 - ✓ Strong IPR protection
 - ✓ Focus on skills and capacity building

APPROACHES THAT DON'T ASSIST

- ✘ Not recognising economic differences among countries
- ✘ Using climate change as a reason for weakening IPR regimes
- ✘ Restricting access of technologies to market mechanisms
- ✘ Not investing in skills and capacity development in countries that require such assistance
- ✘ Not providing adequate financing for the deployment of clean energy technologies
- ✘ Not putting a price on carbon

IPR A CASE IN POINT

Copenhagen Economics study, January 2009:

- ✓ No evidence that IPR covered technologies are more expensive than those not covered by IPR
- ✓ Most LDC's do not have patents registered for clean energy technologies - therefore, IPR's are not a barrier in this case
- ✓ Patent ownership by ADC's is increasing (eg, China holds the largest share - 38% of patents on solar technologies)

* CONCLUSION *

IPR is not a barrier to deployment of clean technologies

EMISSIONS TRADING A CASE IN POINT

- ✓ Forces utilities to look at plant efficiency
- ✓ Provides incentives for better energy management
- ✓ Drives development of more efficient energy production
- ✓ Increases deployment of renewable technologies
- ✓ Will eventually help support more expensive technologies such as CCS

CDM A CASE IN POINT

- ✓ Has introduced the concept of carbon pricing globally
- ✓ Has resulted in significant reduction of emissions through various projects in the developing world
- ✓ Provides an extra income stream for clean energy and clean technology projects in developing countries
- ✓ Is a mechanism for transfer of financing to developing countries via a market based system

But...

1. Effects are unevenly spread
2. Very high cost administratively

ALSTOM

PRIVATE SECTOR

If the private sector is to do its job, it needs:

- ✓ A clear signal that countries are ready to integrate the price of avoiding environmental damage into the cost of development
- ✓ Market based mechanisms that provide the incentive to address this cost issue in the most effective manner
- ✓ Access to sufficient public sector support to finance the public good aspects of clean energy development, including R&D and capacity building
- ✓ Confidence in the legislative regimes that permit foreign direct investment and trade in clean energy technologies and that protect intellectual property

ALSTOM WE' RE HERE TO DO BUSINESS

We' re here to do business:

- ✓ Alstom is keen to participate in both the policy debate the operational task of clean energy development and deployment
- ✓ In order to get the best out of us and other private sector suppliers, governments need to be sensitive to the policy settings that provide the right incentives.

www.alstom.com