

## Launch of Clean Energy Research and Testbedding (CERT) Programme

August 20, 2007

*Speech by Mr S Iswaran Minister of State for Trade and Industry at the launch of The Clean Energy Research and Testbedding (CERT) Programme on Monday, 20 August 2007 at 2.30pm, at Singapore Polytechnic, The Gallery @ Centre for Experience Design*

Distinguished Guests, Ladies and Gentlemen,

### Introduction

The interplay between the Economy, Energy, and the Environment is at the forefront of the global agenda today. Economic growth is essential to raise standards of living. Energy is an important but scarce input that underpins the modern economy. Environmental impact of economic activity and energy utilisation has long term consequences for the liveability of our planet.

Concerns over climate change, which encapsulates the dynamic between these elements, have reached a tipping point and dominate headlines and international discussions at the United Nations, G8 and APEC. The issue will be one of the key items on the agenda when ASEAN meets in November this year. ASEAN leaders will deliberate on energy security, environment, climate change and sustainable development.

Companies are also seized with the environmental impact of their products and processes, as well as the implications of environmental regulations for their businesses. But true to man's ingenuity and enterprise, these environmental concerns have also sparked a new wave of R & D and commercial activities stemming from technological spin-offs. New businesses are emerging and financial institutions are offering investment products with a green theme. Major multinational companies have also turned their attention to this area. General Electric has launched the Ecomagination programme to develop environmentally-friendly technologies. Siemens' Pictures of the Future highlights sustainable city development, liveable megacities and technologies for the environment.

### Cleantech as a business opportunity

Cleantech, which tackles environmental problems through the provision of technology and services, has evolved into one of the most exciting and fastest growing segments of the global economy. New York-based Lux Research's recent report revealed that in 2006 alone there were 1,500 cleantech start-ups, and that venture spending in cleantech more than doubled to reach about US\$2 billion worldwide.

Global cleantech R&D spending by governments and corporations is expected to grow from US\$46 billion last year to more than US\$55 billion this year. Significantly, Asia accounted for 36 per cent of the global cleantech R&D spending last year and is expected to continue its lead in this area.

These numbers bear testimony to the substantial market potential for cleantech. What is even more exciting is that the cleantech sector is still evolving rapidly and we can expect an even larger market in the coming years. UK's Department of Trade & Industry has projected that the global market for environmental technologies will grow to around US\$700 billion by 2010, triple the size of the global aerospace industry.

### Singapore as Asia's cleantech hub

Singapore is poised to leapfrog into this industry by leveraging on our strong foundation in environmental sustainability which has been built over the past few decades. We have, out of necessity and in recognition of our constraints, adopted a sustainable approach to development. It has been a whole-of-government effort which has built up sound capabilities in water, environment and waste management, green building technologies and clean energy.

The Marina Bay area is an apt example of Singapore's environmental sustainability plan. It will be transformed into a freshwater reservoir by 2009. With the upcoming water activities to be held in the bay, the transformation includes getting our people to appreciate and conserve water through the Active, Beautiful and Clean or ABC Waters Programme. This is just one example of how our government is championing environmental sustainability.

Several schemes have also been put in place to urge individuals and companies to go "clean". For example, PUB has the Water Efficiency Fund to encourage organisations to find innovative ways to save water. The National Environment Agency has the Innovation for Environmental Sustainability (IES) fund as well schemes to incentivise companies to be more energy efficient. The Building & Construction Authority has come up with the Green Mark scheme to promote environmentally-friendly buildings. We can and will do more in the area of energy efficiency.

The Clean Energy Programme Office (CEPO) was set up earlier this year, to grow the clean energy industry in Singapore by focusing on cluster development, technology development and internationalisation. This comes on the heels of designating water technologies as a strategic growth area in 2006. The National Research Foundation has allocated S\$500m to build our R & D capabilities and talent base in environment and water technologies. Singapore can become the Cleantech hub of Asia and contribute significantly by nurturing companies with a strong R&D base, who can testbed their solutions here before delivering cleantech solutions to the region and beyond.

### Clean Energy Research & Testbedding

The Singapore government is taking the lead by accelerating capability development. To this end, a number of programmes will be launched over the next few months. Today, CEPO is launching the Clean Energy Research & Testbedding Programme or CERT. CERT is an innovative three-way partnership between the R&D organizations, technology providers and the implementers. CERT is a major milestone for the industry as we are effectively making our entire island a "field laboratory" where leading technologies can be tested and integrated, before commercialization and export to the region. About S\$17 million has been set aside for this programme.

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I am pleased that National Parks, PUB and Singapore Polytechnic have stepped up to be the first group of implementers by offering the Gardens by the Bay, Marina Barrage and the Singapore Polytechnic campus respectively as testbedding locations. For the next phase, I understand that the Building and Construction Authority and the Housing Development Board have also expressed interest in becoming testbedding sites. The R&D effort will be led by Singapore Polytechnic and the National University of Singapore, both of which have strong experience in cleantech.

This keen participation by the various government agencies is encouraging and a reflection of the Singapore government's commitment to develop the cleantech industry. In addition, many private companies are also taking the opportunity to use their buildings to test-bed clean technologies. One good example is Resorts World at Sentosa which will be using its upcoming integrated resort as a major testbedding site.

A tender will soon be called for interested technology providers to access such testbedding opportunities. I urge cleantech companies to seriously consider this unique opportunity to use Singapore as their "laboratory" and look forward to seeing an array of clean technologies deployed around our island in the coming years.

### **Conclusion**

Singapore is committed in its efforts to holistically promote the industry and poised to become a centre for Cleantech in Asia. I urge all companies who are keen to participate in this growing business opportunity and take cleantech to the next level, to take advantage of all our initiatives in this sector, use Singapore as your technology base, and as a springboard for your business to reach out to Asia and beyond. Thank you.

