Singapore, 10 October 2005

NTU AND UNIVERSITY OF NEWCASTLE UPON TYNE COMMITTED TO FORM ASIA’S FIRST EVER ENERGY CENTRE

- Aim of centre is to spur energy and related environment research between Singapore and the UK

Nanyang Technological University (NTU) and University of Newcastle upon Tyne have signed a Letter of Intent to form an energy research centre in Singapore. The centre, a first-of-its-kind in Asia aims to contribute value to the industrial, commercial, education, research and economic development sectors for Singapore and the United Kingdom (UK).

The centre will act as a channel for exchange of intellectual property and commercial projects in the field of energy developed in the two countries. Depending on the needs of the industry, the R&D activities will be driven to meet real world needs. The proposed setup of the centre will also act as a catalyst for development of potential undergraduate and graduate programmes in energy.

NTU’s energy researchers in the various engineering schools and research centres are at the forefront of emerging and advanced technologies such as fuel cells, bio-energy and biofuels, advanced power electronics, and hydrogen energy technologies, as well as in more established areas such as energy efficiency and management, and power systems. They are also active in supporting the introduction and implementation of Singapore’s energy efficiency
and energy R&D policies and initiatives, and in the professional development of energy engineers and managers.

University of Newcastle upon Tyne is one of the UK’s leading universities. Its reputation rests on the quality of its teaching, outstanding research, and its work with the regional and local community, businesses and industry. It is one of the UK’s top universities for ‘technology transfer’ using its world-class research facilities and expertise to benefit businesses and the economy.

Said Associate Professor Ho Hiang Kwee, School of Mechanical and Aerospace Engineering, NTU, “This is an exciting strategic alliance for us and we are confident the proposed centre will be a significant step towards the development and implementation of initiatives for energy and environment. Through early development, demonstration and commercialisation of related technologies within South East Asia and consequently into China and India, we can meet the growing global demand of increasing energy demands under the pressure of significantly reducing emissions of green house gases.”

Dr Chris French, Centre Director of NuEnergy (University of Newcastle upon Tyne Energy Research Centre), University of Newcastle upon Tyne, said: “Energy & Environmental issues can no longer be looked from purely a national perspective. Twenty first century commerce needs to embrace the associated global markets and thus associated energy research and policy must take the same perspective. NuEnergy believes that this strategic alliance will allow both the UK and Singapore to benefit by enabling further market access for energy related academic, research, translational research, commercialisation and education agendas through a bi-directional pipeline of IP and Education activities.”

This new initiative follows the recent organisation of the first World Hydrogen Technologies Convention by NTU together with IESE Pte Ltd, a wholly owned subsidiary of NTU Ventures.

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About Nanyang Technological University

Nanyang Technological University (NTU) is an established tertiary institution with 12 Schools, including three new schools - the School of Humanities and Social Sciences, School of Art, Design and Media, and School of Physical and Mathematical Sciences.
NTU has a distinguished lineage with roots that go back to 1955. Today, we are a research-intensive university ranked among the top 50 in the world. Our strength in science and engineering is acknowledged globally. We have a business school with an MBA programme that is ranked among the top 100 in the world, an internationally-acclaimed National Institute of Education, one of the best communication and information schools in Asia, and a biological sciences school at the forefront of Singapore’s life sciences initiative. The Institute of Defence & Strategic Studies is a world authority on terrorism.

Our New Undergraduate Experience featuring a holistic education including residential living and international experience has received external endorsement for its comprehensive curriculum featuring a rich selection of minors.

For more information, visit http://www.ntu.edu.sg/

**About University of Newcastle upon Tyne**

University of Newcastle upon Tyne is one of the UK’s leading universities, its reputation rests on the quality of its teaching, outstanding research, and its work with the regional and local community, businesses and industry.

University of Newcastle upon Tyne has a range of internationally renowned Research Institutes and Research Centres, and provides the backbone of research to support five new Centres of Excellence. As one of the UK’s leading research universities, with 29 top-rated 5 and 5* research units, it is at the forefront of research in: Humanities, Arts and Social Sciences, Medical Sciences and Science, Agriculture & Engineering.

University of Newcastle upon Tyne is home to a diverse and cosmopolitan community with over 2,500 international students from over 100 countries worldwide

University of Newcastle upon Tyne website: http://www.ncl.ac.uk
FACT SHEET

Embargoed until 10 October 05, 4pm

NNEC (Nanyang – Newcastle Energy Centre)

It is the intention of NTU and the University of Newcastle upon Tyne to form a research centre, tentatively named Nanyang-Newcastle Energy Centre (NNEC). A project team has been formed comprising key academics and staff from the two universities who are active in energy research and education to lead discussions and implement decisions on the details of the partnership.

The proposed centre, through close partnership, will help to develop a bi-directional pipeline of Energy & related Environmental activities between the UK and Singapore. It will seek to add value to the industrial, commercial, education, research and economic development agendas in both regions; specifically:

- **Translational Research**: Early Commercialisation of Research. Financial backing for University IP development to commercialisation and thus a range of demonstrator projects will be developed allowing NNEC to eventually become self-sufficient. The centre will operate a two way “pipeline” of IP (Intellectual Property) and commercial projects to be developed in both countries. Once a programme of activities is established, methodologies will be developed to guide R&D activities that are driven by the needs of industry.

- **Education**: The Centre will seek to interface energy related modules/programmes run in both countries and support them with respect to providing a close bilateral recruitment interface into the UK, Singapore and other regional countries. It will also jointly develop the potential for new energy related courses to be delivered directly in Singapore within a short timescale. The Centre will investigate the potential of new joint undergraduate and postgraduate Energy programmes.

- **Research Agenda**: A major motivator for such a centre is to both exploit (through Translational Research activities) IP and the development of original knowledge and IP. NNEC will strive to develop this through industrial, energy policy, economic and political drivers. Recent experiences in the UK have shown that having such an overview across the entire Energy agenda can enable a multi-discipline outlook to be developed.
• **Technology Brokerage**: Through NNEC’s industrial networks in the UK and Singapore; business opportunities, applied research and technology will be identified in order to meet the needs of Energy Development in both regions.

• **Commercial Energy Training**: This involves high level industrial energy management and will initially be provided by synopses of EU and Singapore/ASEAN legislation and practices for energy and energy service companies. This is a growth area internationally and it is envisaged that this could be exploited for the benefit of both the UK and Singapore.

• **Advisory & Consultancy Service**: In addition to the aforementioned activities it is vital that NNEC provides a positive and independent voice for Singapore and regional energy issues. Since it is closely related to its partners in the UK, it will help to provide a uniquely qualified voice. It is envisaged that this will be used in a pro-active manner to help support public and private sectors in Singapore and the surrounding region.

• **Capital and Human Infrastructure**: The centre will seek to build supporting critical mass in Energy science & technology, in order to support all aspects of its operations and will be complementary to its international standing.

It is expected that the NNEC will be a 50:50 Nanyang/Newcastle owned entity, but the centre will operate on the basis of full inclusiveness and further strategic partnerships will be actively sought. This is vital since the agenda is wide and the opportunities are immense for both Singapore & the UK.

**Operational Areas of Interest**

The areas of interest and research structure of NNEC will be developed further in order to match with the requirements and demands of Singapore and the UK. Possible activity areas based on the present Newcastle and NTU research are presented in the following list:-

- Energy Policy Research and Analysis
- Energy & Environmental Modelling
- Solar, Marine & Offshore Renewables
- Sustainable Urban Transport
- Energy in the Built Environment
- Fuel Cell and Hydrogen Technologies
- Bio-Engineering Energies
- Rural Energy Systems
- Sustainable Exploitation of Fossil Energy
- Nuclear Energy Systems
- Energy Infrastructure & Storage

***END***