

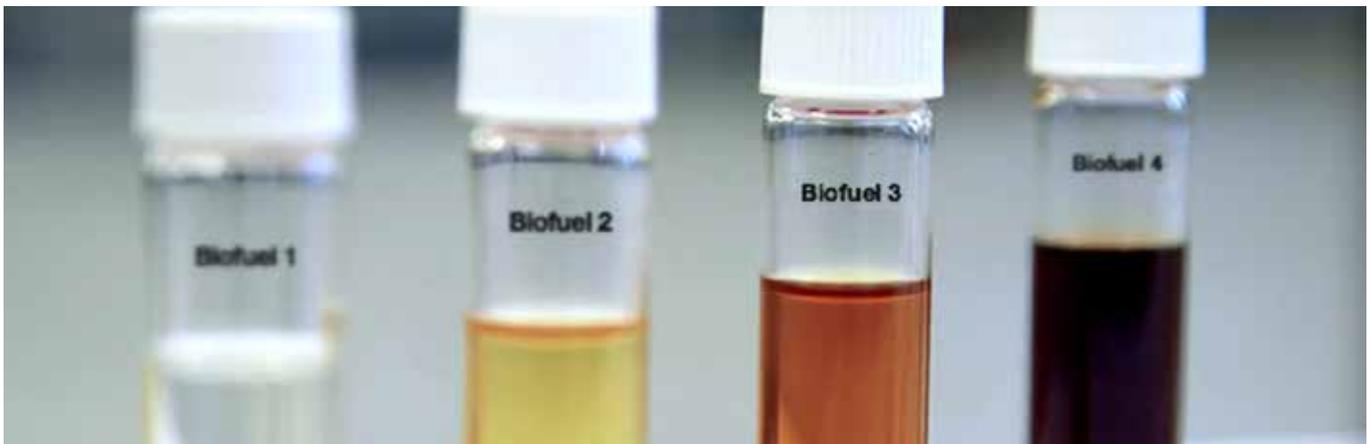


## CASE STUDY

# Advancing energy technologies and securing energy supplies for Australia and China

**Name:** Australia-China Joint Research Centre for Energy

**Location:** Curtin University, Perth WA



*Under the Energy JRC, Australian and Chinese researchers collaborated in several areas including the generation of biofuels from waste biomass. Photo courtesy of Renergi Pty Ltd.*

*Australian and Chinese scientists have worked together to help secure future energy supplies for both Australia and China under the Australia-China Joint Research Centre for Energy (the Energy JRC).*

Established in 2011 under a grant through the Australia-China Science and Research Fund (ACSRF), the Energy JRC has developed advanced energy technologies for improved energy security and reduced CO<sub>2</sub> emissions.

The Energy JRC is a great example of aligning priority research areas of common interest between the two countries. A top priority of both Australian and Chinese governments is energy security and emissions reduction.

The Energy JRC acted as a major platform for science and research collaboration between Australia and China in the area of energy science and engineering, focussing on both renewables and fossil fuels.

The importance and benefits of bilateral collaboration is shown by the Energy JRC. It achieved its objectives through joint research, exchange of samples, shared use of major research facilities, staff and student exchanges, and joint symposia involving a wide range of top energy scientists and engineers from Australia and China.

In the absence of the ACSR, Australia's research collaboration with China would be limited to activities initiated by individual researchers. This approach would be less focused and unlikely to generate any significant recognition in China of Australia's research capabilities.

### *Project Partners:*

**Lead Australian Partner:** Curtin University of Technology

**Lead Chinese Partner:** Taiyuan University of Technology

**Other partners:** Monash University, China University of Mining and Technology and industry partners.



In 2015, Frances Adamson, Australian Ambassador to China (middle) visited the Chinese partners of the Energy JRC at Taiyuan University of Technology. The Ambassador commented “There are few topics of greater importance to both countries and to the bilateral relationship than energy”.

### Snapshot

**Who:** Curtin University, Monash University, Taiyuan University of Technology, China University of Mining and Technology and industry partners

**What’s changed:** This Centre has contributed to the development of Australian bioenergy technologies, some research results have been used by Australian industry. The research from the Energy JRC will continue to be developed in Australia for commercialisation in China and other parts of the world.

**Success:** The establishment and expansion of Australia-China collaboration in energy would not have occurred without the ACSRF. Australia and China have much more to gain from working more closely in this field. The research outcomes have provided the platform for further research, development and commercialisation activities, including Renergi Pty Ltd.

Renergi Pty Ltd is a spin off company from Curtin University and has received \$5.2 million in funding from the Australian Renewable Energy Agency (ARENA). It uses outcomes from the Energy JRC to develop and commercialise innovative bioenergy/biofuel technologies. The commercialisation of Renergi’s technologies will generate significant long-term benefits to Australia in terms of job creation, new economic activities, regional development, environmental benefits and exporting the technologies.

**How we’ve helped:** Under the bilateral ACSRF, in 2011 the Energy JRC was successful in its application for funding. The Australian Government provided \$833,000 with the Chinese Government contributing a similar amount. This funding was a catalyst to leverage a further \$5 million of Australian sourced funding.



Distinguished Professor Chun Zhu-Li, Director of The Energy JRC and Renergi is explaining Renergi gasification technology.



Renewable energy biomass. Photo courtesy of Renergi Pty Ltd.

### For more information:

For more information on the ACSRF please visit – [www.science.gov.au/acsrp](http://www.science.gov.au/acsrp)

Please view the Energy JRC video - <https://youtu.be/TVOUMrBB6-E>