



# China: The Danish Chinese renewable energy cooperation – a model for sustainable globalisation

New external review from the Monitoring and Evaluation Team from Grontmij A/S concludes that the RED Programme has been very successful in reaching its objective of developing capacity to reduce CO2 emissions from China.



*12 January 2015*

This article is written by the Monitoring and Evaluation (M&E) Team from Grontmij A/S, who worked with and has been evaluating and monitoring the RED Programme since 2012. The article examines the reasons for the RED Programme's success, lessons learned from the experiences and the M&E's recommendations for a successful future development of the programme.

## **A visionary programme**

The Renewable Energy Development (RED) Programme 2009-2014 was developed as a traditional development assistance programme, but in reality followed the principles of the Law on Development Cooperation approved by the Danish parliament in April 2012. The Law emphasises the role of development cooperation as a foreign policy tool, forming part of the efforts to promote Danish policies and interests in climate, trade, global governance, poverty alleviation and security.

One of the major achievements of the RED Programme was the development of the China National Renewable Energy Centre (CNREC) in 2012, which is now an important player in policy research in renewable energy in China.

## **The turnaround of the RED Programme**

The RED Programme had a troubled start in 2009. This was due to differences in expectations and challenges to the cooperation between the main parties

responsible for the Programme.

Several factors contributed to the turnaround of the Programme:

- A critical review mission in November 2010 demanded constructive and concerted action from the parties involved.
- This resulted in engagement of a Process Consultant, appointment of a new Chief Expert and preparation of a feasibility study and business plan by a joint Chinese-Danish taskforce providing the documentary foundation for the creation of CNREC.
- Lastly - but perhaps most importantly - through the National Energy Agency (NEA) the Chinese Government endorsed in February 2012 the legal recognition of CNREC.

In the short time since its inauguration the centre has established itself as an important institution in the renewable energy landscape in China with Danish inspiration as an important driver.

### **Monitoring, evaluation and capacity development**

CNREC and the Royal Danish Embassy (RDE) decided that Grontmij's M&E team would have a dual role. The monitoring had to contribute to capacity development. M&E had to be conducted through regular analysis of documentation, visits, dialogue, and reporting; moreover a monitoring framework or theory of change - indicating main outcomes and projects planned - was developed with management. Findings had to feed into reflection, learning and performance improvements. In this way the monitoring was conducted as a Real Time Evaluation. All visits emphasised management workshops evaluating performance and agreeing on strategic changes. The M&E also gave presentations to the Steering Committee raising the attention to issues to be addressed.

The experience with Real Time Evaluation is that it requires mobilisation of management and staffing resources on the programme for ongoing reflection on progress. The CNREC management stated they found it fruitful and effective that an independent team was able to assist in raising important issues and make sure they are addressed.

### **Results of the RED Programme and CNREC**

Examples of results achieved by CNREC to strengthen renewable energy are:

- Input to the 12<sup>th</sup> and 13<sup>th</sup> Chinese five-year development plan.
- The Scenario 2050 Study setting targets and benchmarks for the increase in renewable energy by 2020, 2030 and 2040 based on the CREAM model and on the Danish experience – serving as a strategic umbrella linking research projects of CNREC.
- Research contributing to the reduction in curtailment of wind energy from 20% in 2012 to 11% in 2013.
- Research on economic policies and regulation to increase the role of renewable energy. E.g. adjustment of feed-in tariffs for wind power and increase of the surcharge for electricity to support the renewable energy fund.
- Increasing the use of renewable energy for district heating.
- Strengthening the role of China in renewable energy internationally through cooperation with e.g. IRENA, IEA, Global Green Growth Forum (3GF) and close collaboration with a number of Governments and international renewable energy organisations.
- Support for the planning process for the use of renewable energy in a range of provinces for example, Jilin, Chengdu, Sanshui, Ningxia, Guan Zhou, Jianxi, Gansu, San Shui and Alxa, targeting more than 100 million people.
- Substantial research on distributed energy for remote and poor rural communities.

## **Lessons learned**

Below we discuss the main reasons of the success of the Programme and the lessons learned.

**Strategic partnership:** The success of the Programme is partly due to cooperation with the most relevant and dedicated partner. The Energy Research Institute (ERI) has close connections to the decisive policy making bodies in China, the National Energy Agency (NEA) and the National Development and Reform Commission (NDRC). This means that policy proposals from CNREC feeds directly into the State Council and other key policy making bodies in China.

**Strong Leadership:** ERI was able to assign its deputy as director of CNREC, this meant that the centre was led by one of the most visionary and well connected professionals in the Chinese renewable energy sector. As RED

director, ERI appointed one of the promising managers from its Renewable Energy Department, providing the Programme with dedicated and proficient leadership. ERI moreover allocated the 10 most senior professionals in renewable energy as directors, heads of departments, project managers and researchers for CNREC, equipping CNREC with the professional capacity and force required to develop a national think tank.

**Relevant chief expert:** The chief expert recruited in 2011 had a strong background from Danish and international renewable energy policy research combined with substantial education and experience in management and organisational processes. The Chief Expert was decisive for facilitation of cooperation between Danish, Chinese and international experts and in supporting the merger between a Chinese Government organisation and an international project organisation.

**RED Programme organisation:** Until 2012 the RED Programme organisation had suffered from disagreements on the strategic approach. However, the organisation comprised individuals with important competences on Chinese institutional structures combined with international and project management experience, which was decisive for an effective merger between ERI and the RED Programme. Nevertheless, joining the two career structures continues to be a challenge for CNREC.

**Flexibility:** The Chinese and Danish Government showed flexibility in their continued support; trusting CNREC and RED management to set and change the strategic direction of CNREC. The RED was deeply engaged in the management of the Programme, committing dedicated and proficient staff enabling continued support to initiatives at technical and political level to strengthen the effectiveness of CNREC.

**Government agency - institutional cooperation:** One of the instruments behind the successful development of CNREC is the institutional cooperation between the Centre and the Danish Energy Agency (DEA). With a 12 million DKK contract, it was possible for the two agencies to cooperate closely over the period 2012-2014. The main element of the cooperation was technical advice from senior DEA specialists. Support was provided to the strategic priority areas of CNREC, e.g. the first version of the 2050 scenario study and the economic policies to create conditions and incentives for the use of renewable energy.

Factors which made the institutional cooperation effective include:

- The in-built trust when two agencies with similar mandate are requested to cooperate;
- The horizontal cooperation on renewable energy policy research between DEA and CNREC served as a strong basis for the cooperation of politicians at top level, this strengthened the vertical link between policy research and enactment of policies;
- Long-term working relationships between individual professionals and teams meant that the two organisations and their staff members gradually got to know each other and felt responsible for the cooperation. Over time effective and confident cooperation and mutual knowledge sharing developed.

**Consultants and short term advisers** were used to implement parts of the CNREC portfolio. The advice on use of energy models appears to have been particularly relevant and important. CNREC gradually strengthened its ability to utilise and learn from external consultants and partners.

**Stakeholder management:** CNREC has gradually professionalised its stakeholder management. Recently CNREC established the China Variable Energy Integration Group (CVIG). Members include important decision makers and economic powers in the Chinese energy sector, such as State Grid Energy Research Institute, China Wind Energy Association and China Electrical Power Research Institute and several commercial renewable energy enterprises. The aim is to engage stakeholders in policies and practice to increase the role of renewable energy.

**Knowledge Management:** The original Programme strategy saw a key role for the Renewable Energy Information Centre (REIAC) providing data for renewable energy research and communicating and providing information to advocate for renewable energy. In the new phase it is important for CNREC's plans to review its information management and communications strategy to obtain full benefit of REIAC.

**Component 2:** The component which was to facilitate research and development cooperation between Chinese and Danish enterprises and research organisations was started late due to the initial delay of the RED Programme. However, the RDE, CNREC and the DEA made a substantial effort to fast-track the projects during the last part of the Programme. 12 projects proposed by joint ventures were selected for support covering strategic areas of all types of renewable energy and addressing strategic technological,

economic and institutional issues.

The projects are highly relevant, but many are unlikely to continue without external funding. CNREC, DEA and the RDE may consider supporting strategic projects in applying for funding for continued research and cooperation.

### **Summary of Recommendations**

To continue its successful development the M&E team recommends:

- Upgrade the human resource management function in CNREC, this should include:
  - Agreeing the strategic capacities required to pursue the present strategy of comprehensive energy policy research.
  - Mapping the individual competences present in CNREC to identify particular areas where competencies and capacity development are needed - feeding into planning of DEA and other support - and into recruitment.
  - Implementing the plans to streamline career structure for all staff in CNREC.
- Secure the investment made by the Danish Government by maintaining close cooperation between Chinese and Danish organisations in renewable energy. This may be done by:
  - Developing an exchange and training programme enabling Chinese and Danish renewable energy specialists to be exposed to and learn from renewable energy policy management, regulation and research with the aim of continuing an innovative and influential cooperation in the area of renewable energy.
  - Maintaining close cooperation at policy, technical and professional level.
- Strengthening CNREC advocacy on renewable energy by:
  - Developing a comprehensive knowledge management and communications strategy.
  - Reinforcing the role of REIAC and supporting more effective knowledge and information sharing internally in CNREC and with external stakeholders.
- Strengthening CNREC management by:
  - Formalising a meeting structure as well as project management system.
  - Agreeing on the prerogatives and responsibilities of the management levels, to render decision making structures clearer.

Anton Beck  
Kontorchef  
Center for Global Rådgivning og Forhandling  
Tlf.: 29 62 39 96  
[anb@ens.dk](mailto:anb@ens.dk)



## Contacts

Ture Falbe-Hansen  
Head of Press (+45) 2513 7846 [tfh@ens.dk](mailto:tfh@ens.dk)