**Prosperity Fund Project
Evaluation of British Embassy Beijing project**

**International Experience on Natural Gas Pricing and Regulation: Potential Applications for China**

**Project Code GB-3-PPY CHN 1036**

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| **Basic Project Information** |  |  |  |  |  |  |  |  |  |  |  |
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| Foreign Policy Priority | 2) Build Britain’s prosperity by increasing exports and investment, opening markets, ensuring access to resources, and promoting sustainable global growth. |
| Fund/Programme  | Prosperity Fund |
| Programme Indicator | (2.1) China develops the policies, reforms and institutional capacities it needs to accelerate: the decarbonisation and/or diversification of its energy mix and energy supplies;(3.1) China develops the policies, reforms and institutional capacities it needs to accelerate implementation of low carbon development incentives and instruments |
| Country Business Plan Objective | 14.2 China has more of the legal, policy and financial frameworks in place necessary to drive the low carbon transition. |
| Project Title | International Experience on Natural Gas Pricing and Regulation: Potential Applications for China |
| Countries covered | China |
| Total Cost to FCO  | £130,000 |
| Total Cost of Project | £130,000 |
| Project Start Date | 1 Sept 2011  | Project End Date | 31 May 2012 |
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| Name of Implementing Organisation | International Energy Agency (IEA)&China5e (local Implementer) |
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| **Project Purpose (from the original Project Bidding Form)** |  |  |  |
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| Regulatory and market changes accelerate growth of natural gas under the 12th five year plan and beyond |
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**EXECUTIVE SUMMARY**

…“the report exceeded expectations”. “It brought together different areas”. “It is the first integrated approach, ….” “It now sits on everyone’s desks in the NEA”

- Quotes made by Mr Yang Lei, Deputy Director General of the National Energy Administration (NEA), the main beneficiary.

The purpose of this project was to use regulatory and market changes to accelerate the growth of natural gas under the 12th five year plan and beyond. Having discussed the project with the implementer, beneficiaries and others, this project fully met its purpose, and has now laid the foundation for a growing UK-China project portfolio on gas policy.

**Relevance**

In its current 12th Five-Year Plan (2011 to 2015), the Chinese government plans to double the share of natural gas in primary energy consumption, and reach consumption levels up to 260 billion cubic meters (bcm) by 2015. If achieved, this would be twice the level of gas consumed in 2011. The NEA told the British Embassy that they wanted to do more work on gas production in support of the new Five Year Plan target. So this project was developed. As well as supporting China’s Five Year Plan target, the project also supported the Embassy’s programme objective involving the energy diversity of China’s energy mix, and the process of accelerating China’s shift from coal to gas. Therefore, it also met Post’s business plan objectives.

**Efficiency**

The project involved four main outputs – identifying key areas for progress, workshops for stakeholders to engage and exchange experience, a study visit to Britain and Europe, and a final report.

The IEA were the main implementer. But the NEA suggested that that they work with a Chinese implementer, China5e. This relationship worked well and there was only one problem, which involved obtaining visas for the fact finding mission to Europe. All the outputs helped to contribute to the final report, and all the beneficiaries were consulted in the design phase of this project. As such, this project can be judged as efficient in its construction.

**Effectiveness**

This project met a need, produced a report, and will involve follow up work to take matters forward. As a result, this was an effective project in support of Embassy priorities that delivered its original purpose.

In considering the UK angle, this project has helped to accelerate China’s shift from coal to gas, which will support China’s efforts to develop a realistic pathway to address coal-related green house gas emissions, whilst retaining energy security. There are some uncertainties in the short term as to whether this project will be beneficial to UK gas prices due to the potential for China’s shift to gas to increase competition for LNG imports. But the project should be seen as part of a wider range of activities looking to promote energy diversification, raise domestic production and increase the resilience of China’s energy system.

A more efficient Chinese gas market will increase commercial opportunities for UK Oil and Gas Companies, such as Shell, BP and BG Group, which meets our broader prosperity agenda. World natural gas demand is expected to grow 1.6% per year from 2010 to 2035. 25% of the total increase in demand will be in China. Aside from creating the market conditions supportive of UK competition in this growing market, we have been able to use this project to bring UK companies and key Chinese decision makers together.

As a result of this successful project, our stock with the NEA is high and we will continue to engage with them and the NDRC on the issue of reform of China’s gas market.  We are already building on this report through a project looking at the regulations around China’s shale gas policy.  The NEA have also asked for a short report that analyses in more detail the UK’s experience in gas market liberalisation, including specific regulations about China’s gas market development. BG Group are one of the implementers of the latter project.

**Sustainability**

The purpose of the project was to show experience of gas pricing in Europe and the US. The results exceeded expectations, and as a result of the success of the project, the oil and gas department of the NEA (the main beneficiary) asked the Embassy to conduct a prosperity project analysing China’s shale gas policy. This project came about as a result of China’s 12th 5 year plan to accelerate the growth of natural gas. The conclusions and suggestions the report made also started a debate amongst Chinese policy makers about how to implement the recommendations as policies. So the results of this project will be sustainable in the longer term.

**Impact**

This project, “far exceeded expectations”, and the report, “now sits on everyone’s desk”. Two quotes from Mr Yang Lei of the NEA, the main beneficiary of this project. He said that “**he had read the report many times”** and “**nearly all of the policy recommendations in the report had been implemented”**.

The project workshops had helped to identify key problems and the report’s recommendations had helped to accelerate China’s policy of increasing gas as part of the energy mix, away from coal.

**Project Management**

We the evaluators considered this project well managed with the project coming in on budget and with little activity to unnecessarily inflate the budget. Post have confirmed that quarterly reports were submitted on time. In preparation for this evaluation, we checked the project completion report against the original proposal. The only difficulty during the project came with visas for the European fact finding mission.

The IEA’s role in this project was to develop the project, organize all the workshops and make them happen. China5e, who were recommended by the NEA to co-implement the project, were very useful during the event organization. China5e had limited input in writing the report and their staff changes during the project weakened their efficiency.

From the IEA side, it was hard for them to hold as many daily conversations with NEA officers as they wished.  They also hoped to have more frequent workshops.  For a similar project, IEA thought it would be better to have a project longer than 1 year.  But the project showed value for money in that it offered both sides some good experience and the opportunity for mutually beneficial contact.

**Main Lessons Learned**

One member of the delegation was unable to obtain a visa to the UK, so was only able to join half of the trip. From our interviews, it was hard to tell who was responsible for this, but it did reduce the quality of the delegation.

This one year project put most of its time into holding expert interviews, making delegation arrangements for the field trip and the final report. But to promote the report and raise awareness, using a workshop was quite limited. Although Mr DDG Yang said he read the report many times, one expert admitted that he hadn’t read them at all despite participating in the main discussions during the event. It would have been worth allowing an extra couple of months at the end of the project to collect feedback and comments from policy makers on the report. This might have conflicted with the project evaluation process in terms of timing, but it would have brought in more evidence to help with longer term benefits.

For the report itself, it was good to see a debate rather than only one view. Whether it was appropriate to rely just on the action of raising the price of gas still needs more analysis. One person we interviewed suggested that the report could have included more on the impact that those actions might have. China5e agreed that:

* The report wasn’t able to clarify the guidance on the next steps to take in the reform process.
* The Chinese local government relied on the working pattern of being used to getting direct answers from supervisors, rather than trying to establish a creative solution by themselves, even when they had suggestions and a shared experience.
* The report suggested that policy makers should raise the gas price, but didn’t include suggestions that if the price rose, how the market might react. Such a suggestion would have reduced any negative impact that resulted from raising the price of gas.
* Considering the time and limited funds, it wasn’t possible to have a report, which answered everything. But it is worth follow-up work. Alternatively, it might have been worth saying in the report that it wasn’t possible to cover everything.

**Recommendations**

1. Having somebody as senior as Mr DDG Yang from the NEA directly engaged in such a project is always highly recommended, but not always possible.
2. A future similar project should look at setting up both short term and long term targets. Short term would be a single project with high quality output delivery and certain indicators of success, while long term could be considered as part of the programme strategy.

**Project Background**

China has ambitious goals for the rapid expansion of gas supply and utilisation.  Given the objectives of the 12th Five-Year Plan to increase gas demand significantly in the medium term, all sources of supply – domestic production, both conventional and unconventional, LNG and pipeline imports – will be necessary to achieve such targets.  Meanwhile, rising use in the residential sector means additional investments in transmission and storage to meet winter peak demand.  The purpose of the project was to show experience of gas pricing in Europe and the US, and give China options for how best to proceed.