

Grantham Institute Climate Change and the Environment An institute of Imperial College London

Global Energy Governance Reform and China's Participation

Interim Consultation Report

Next Steps in Relations Between the IEA and China

Energy Research Institute, NDRC;

Grantham Institute, Imperial College London

November 2015

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Introduction

"China and Global Energy Governance" is a joint project of China's Energy Research Institute of the NDRC and the Grantham Institute, Imperial College London (the Project). We issued our first Consultation Report, and our senior Steering Committee issued its statement, in November 2014₁. Our thanks are due to the UK's Foreign Office for their continuing support.

Since then the 2014 G20 Summit has taken place in Brisbane, and global energy governance has taken a number of steps forward. We presented twice to the G20's Energy Sustainability Working Group (ESWG) and provided briefing to Sherpas. Our contribution is acknowledged in the ESWG Co-Chairs' Report. We hope that the work of our project has made a positive contribution. Our consultations and discussions are continuing, in the light of our first report and of these developments, and this has included visits by the project team to Australia in August 2014 and to Brazil in May 2015.

This interim report notes the developments that have taken place since our first report, and makes a number of recommendations in the light of these developments and our further work. The report focuses on China's relations with the IEA, which are particularly relevant to the forthcoming IEA Ministerial of 17-18 November 2015. Later in the year we plan to give greater consideration to the 2016 G20 under Chinese Presidency and we hope to make some more specific recommendations relevant to that in our next report. We plan to visit the EU early in 2016 for discussions on these topics. Our work will continue into 2016. In due course all our documents will be consolidated into a final report.

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¹ <u>http://www.imperial.ac.uk/media/imperial-college/grantham-</u>

institute/public/publications/collaborative-publications/Global-Energy-Governance-and-China's-Participation---Consultation-report-(English).pdf

This is a research project and our report does not represent the views of the Chinese or UK governments.

We are grateful for the many inputs and contributions that we have received during the course of this project, including the guidance of our senior Steering Committee². However the contents of this Interim Report remain the sole responsibility of the Project Leaders;

- Prof. Yufeng Yang, Research Professor of China's Energy Research Institute of the NDRC.
- Mr Neil Hirst, Senior Research Fellow of the Grantham Institute, Imperial College London.

The Brisbane G20 Summit

The 2014 G20 Summit in Brisbane took three important steps towards enhancing the role of the G20 in energy governance.

Firstly, the role and significance of the ESWG, as a group of senior officials meeting regularly to develop and carry forward energy topics of the G20, has been consolidated. The ESWG met three times under Australian chairmanship and discussed energy architecture, energy efficiency, gas markets, fossil fuel subsidies, transparency and regulation, investment, and energy access. The ESWG continues its deliberations in 2015 under Turkish chairmanship.

Secondly, the Summit communique has put energy governance firmly on the G20 agenda. Paragraph 17 identifies "Increased collaboration on energy" as a "priority". Leaders agreed to work together to achieve nine "G20 Principles of Energy Architecture" (Annex I) based on a "Common understanding that the international energy architecture needs to reflect better the changing realities of the world energy landscape".

Thirdly, the Summit asked G20 energy ministers to meet during 2015 and report to them on options for taking this work forward.

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²The members of our **Steering Committee are**:

Zhang Guobao, Co-Chair, Chairman of China's National Energy Expert Advisory Committee Lord Browne of Madingley, Co-Chair, former Group Chief executive of BP

Shi Dinghuan, Counsellor of the State Council, former Secretary General of China's Ministry of Science and Technology

David Sandalow, former Assistant Secretary at the US Department of Energy, Inaugural Fellow of the Columbia University Center on Global Energy Policy

The G20 Principles on Energy Collaboration

Agreement on the nine "Principles" is an important step forward. It is a welcome indication of common purpose on energy amongst the G20 and now provides a broad prospectus for the G20's energy aims.

One option wojuld be for the ESWG to commission from the main international organisations (IEA, IEF, OPEC, Energy Charter Treaty, and IRENA) their analyses of the roles that they can play in delivering the Principles, including their cooperation with other organisations, the actions that they are planning, and any gaps that they see. An analysis of these returns could be presented to G20 Ministers in 2016.

Turkey's 2015 G20 Presidency

The Turkish government has announced that energy access and energy investment (including public/private partnership) will be energy sector themes of their Presidency and that they will also continue discussions on the G20 Principles on Energy Collaboration, and continue to work on phasing out fossil fuel subsidies, and on energy efficiency.

G20 energy ministers met under the Turkish Presidency on 2 October 2015. They committed themselves to "work together to make energy institutions more representative and inclusive of emerging and developing nations", while taking forward a number of the Brisbane "Principles on Energy Collaboration" including access to energy for all, market transparency, fossil fuel subsidies, renewable energy deployment, and innovative technologies. We understand that the Chinese G20 Presidency plans regular meetings of the ESWG and a G20 Energy Ministerial for June 2016.

The International Energy Agency and the November 17-18 IEA Ministerial

The forthcoming IEA Ministerial, under the Chairmanship of US Energy Secretary Monez, is an important event. The IEA only meets at Ministerial level every other year, and this will be the first such meeting since the IEA's "Association" initiative of 2013. The meeting follows the call of our Steering Committee for a more inclusive IEA and the more general call of the G20 in Brisbane for more inclusive international energy institutions. We hope that this meeting will initiate significant progress in enhancing the relationship between the IEA and China, as well as other major developing nations. The agreement of world leaders, at Brisbane, to "work together to make international energy institutions more representative and inclusive of emerging and developing economies" is particularly relevant to the IEA, which remains an exclusively OECD body. This was a major topic of our previous report.

The IEA and five partner countries are already working to strengthen their relations through the "Association" initiative announced in November 2013.

During 2015, China's National Energy Administration (NEA) co-hosted with the IEA a meeting of the Unconventional Gas Forum, and China hosted its first IEA Emergency Response Exercise, with the participation of 13 nations. These events demonstrated significant progress, on a bilateral basis, in the development of the "Association" concept in China's relations with the IEA. At Annex II is a note of options for China to enhance its engagement with the IEA under the Association initiative.

The new Executive Director of the IEA, Dr Fatih Birol, has made his first international visit, since taking office, to China. He described this visit as a "tangible demonstration of my personal vision to modernise the IEA to develop a truly *International* Energy Agency during my tenure". He said that "China, along with other major developing nations, should become not just a partner but a full participant in the work of the IEA".

How is this to be achieved? We recommend that China and the IEA should continue the process of strengthening their bilateral cooperation while, at the same time, the IEA takes the first steps towards its own internal modernization, opening the door for eventual wider membership.

Since the foundation of the IEA, its traditional functions are changing, and are becoming more and more multi-dimensional. This can be summarized as follows, based on the IEA's own description of its mission.

• Energy security: Promoting diversity, efficiency and flexibility within all energy sectors;

• Economic development: Ensuring the stable supply of energy to IEA member countries and promoting free markets to foster economic growth and eliminate energy poverty;

• Environmental awareness: Enhancing international knowledge of options for tackling climate change; and

• Engagement worldwide: Working closely with non-member countries, especially major producers and consumers, to find solutions to shared energy and environmental concerns.

From the above IEA mission, clearly, the first part of the second point,

"Ensuring the stable supply of energy to IEA member countries" is specifically intended to benefit IEA members. However, the other three points, plus the other part of the second point "promoting free markets to foster economic growth and eliminate energy poverty" should be considered as addressing universal challenges.

Having regard to the world energy economic situation, we make suggestions as to how the IEA can reposition itself as an effective contributor on global issues. We put forward comments on the direction of the IEA's future reform and its collaboration with major non-member countries, like China, India, Russia, Brazil etc.

The basic conclusions include that IEA should take two steps to implement the reform (modernization) and the collaboration process.

The first step should mainly focus on further opening-up policy to non-member countries and working together strategically in more areas, especially in maintaining and improving systems for coping with oil supply disruptions. An important aim should be to induce major oil companies from non-member countries to share information necessary to improve the transparency of oil markets and take effective action in the case of an emergency.

The second step should consider how to make it possible for some major developing countries to become members. This will raise major questions as to how the voting system and other rules relating to funding, emergency planning, and peer review, should apply to enable fair and equal participation by existing and new members. We recognize that existing members will wish to look at all these aspects very carefully before opening the IEA up to wider membership.

China/IEA Bilateral Relations

Practically, we recommend that China and the IEA should work towards a Strategic Partnership building on the existing collaboration. Here we would like to try to outline the nature of such a Partnership.

China and the IEA are already actively engaged together in many ways. There is a programme of common activities under a "Joint Statement". China's Ministry of Science and Technology (MOST) has an MOU with the IEA, China participates in 19 of the IEA's Implementing Agreements, and is an observer on the IEA's Committee on Energy Research and Technology (CERT). As mentioned above, China has hosted an IEA emergency response exercise and a meeting of the IEA's Unconventional Gas Forum. China has sent several secondees to the IEA. So some of the elements for this Partnership are already in place. The objective of the "Strategic Partnership" should be to strengthen and deepen this relationship.

Such a Partnership must contribute to the strategic goals of both parties. For China, the Partnership must contribute to energy security and to the efficient functioning of the energy markets which China needs and depends upon.

For the IEA the Partnership must enhance the effectiveness of its emergency response and the quality of its international data and analysis. It must contribute to the energy security of existing IEA members.

For both parties the Partnership should increase the exchange of information on best practices for energy policy, on technology, and technology deployment. And for both parties the Partnership should enhance the quality of international dialogue on critical energy policy issues. It would be understood that one consequence of the Partnership would be a greater focus by the IEA on activities of value to both China and the IEA.

The Partnership should also further shared international energy objectives, including energy access for all and climate mitigation.

The Partnership should be even-handed, in that China's commitment to the IEA would be matched by the IEA's commitment to China. A similar relationship would of course be open to any other members of the Association ready to make a similar commitment.

The detailed content of the Partnership is for negotiation, but here are some of the elements that it might contain:-

• A formal legal agreement between the IEA and China which would allow for a balanced relationship with shared benefits and responsibilities.

• A joint programme of work to be based in Beijing. This might cover energy statistics enhancement and consistency, regional energy analysis, work on specific aspects of Chinese energy policy, and work on further developing China/IEA relations. Initial funding may come from the IEA and its members. China would need to provide an appropriate legal status for the Centre and its international staff, so that it could conduct its work effectively.

• We recommend that the IEA and China should consider the concept of a China/IEA Centre. The important thing is to have an effective programme of work and to avoid too much institutional rigidity. The programme could be cochaired by senior figures from the Chinese government and the IEA. Considering IEA's multi-functions, we think that this Centre should have a flexible model. Based on experiences with other international energy initiatives with China, we do not think only one official bilateral Centre will be effective.

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We recommend that the "Centre" should cover a range of activities. The following might be considered:-

1. The official bilateral Centre focused on high level communication and dialogue, such as joint action on oil emergencies, etc. This can be called the IEA-China Government Centre. An early task for this Centre should be to consider analysis that the IEA could undertake in support of China's 2016 G20 Presidency.

2. The policy research Centre that can be focused on policy assessment and analysis. It can be based on the model of the more successful NGOs in China with a jointly appointed Chief Executive and a supervising board cochaired by China and the IEA. It can be called the IEA-China Policy Centre for Asia-Pacific Energy Studies.

3. The outlook research Centre that can be focused on short-term and midlong term energy economic situations and analysis. It can also be based on the NGO model and support transparent study of future situations and perspectives It can be called the IEA-China Outlook Centre.

4. The last one should be focused on technology follow-up, diffusion, and collaboration. It can be set up inside a university and can be called IEA-China R & D Centre.

Specifically, the following things could be considered by the China-IEA Government Centre.

• **A "soft" agreement to cooperate on emergency response.** This would not compromise Chinese sovereignty over national emergency planning and the use of strategic stocks, or the IEA's independence of action. But it would contain shared principles on the handling of emergencies and there would be shared training and exercises, and agreed lines of communication, to facilitate common action if agreed by both parties at the time. [Such an agreement might form the nucleus of an Asia/Pacific energy emergency strategy, to include ASEAN countries]

• **Closer engagement by China in high level dialogue at the IEA.** This could include an agreement on Chinese participation in some meetings of the Governing Board of the IEA and of the IEA's senior committees. China could participate as a (speaking) "Observer", or the relevant meetings could go into a "Partnership Mode" in which all parties were equal round the table.

• The IEA could accept a more senior Chinese national secondee, possibly from the NEA. As with all nationalities working at the IEA, such a secondee should be given a specific task as part of the IEA secretariat. However, they would also act as a point of communication with Chinese authorities.

• A financial contribution by China to the IEA would need to be **negotiated.** This would cover the additional costs of China's participation plus a contribution by China to the common pool.

It is to be hoped that Chinese Energy Minister Nur Bekri will attend the IEA's Ministerial in November 2015, together with the Ministers of other major developing nations, Brazil, India, Indonesia, Mexico, and South Africa. This would be an appropriate occasion to initiate discussions on the "Strategic Partnership".

Multilateral Relations

The IEA's Association is a useful initiative for enhancing relations between the IEA and major developing nations. The "Strategic Partnership" proposed above could be regarded as advancing the Association on a bilateral basis. However, the interests of these Partner countries to engage with the IEA are quite diverse and it has so far proved difficult to advance the Association as a multilateral initiative.

A modernized and expanded IEA nevertheless represents one of the options for creating a truly international energy agency capable of addressing the global issues of energy policy. The need for this has been set out at greater length in our first report. Our Steering Committee has recommended that the IEA should move in this direction. The barriers to this are not only the restriction of membership to the OECD that is contained in the IEA's treaty, but also the outdated nature of many of the provisions of the treaty, which was drawn up to address a specific crisis of 40 years ago.

As we said in our previous report, if the IEA has the ability to reform itself to provide a platform based on true equality and cooperation for both developed and developing countries, with the corresponding adjustment in its work priorities, agenda, and entry criteria, then the IEA could regain the key position in global energy governance. Otherwise the shortcomings in global energy governance can only be addressed through a new organization.

We hope that the IEA will now set in hand a process of modernization,

responding to the call of the G20 for more inclusive energy institutions. This could be achieved either by a specific mandate to the secretariat or by the creation of a specific modernization group. In either case, the IEA Governing Board could give a clear mandate for a review of modernization options and a requirement to report back in time for decisions to be taken at the next IEA Ministerial in 2017. We believe that if such a process is begun then China should be willing to respond to a request to take part in consultation.

Annex I

G20 Principles on Energy Collaboration

16 NOVEMBER 2014

Sharing a common understanding that the international energy architecture needs to reflect better the changing realities of the world energy landscape, we, the leaders of the G20 countries, agree to work together to:

1. Ensure access to affordable and reliable energy for all.

2. Make international energy institutions more representative and inclusive of emerging and developing economies.

3. Encourage and facilitate well-functioning, open, competitive, efficient, stable and transparent energy markets that promote energy trade and investment.

4. Encourage and facilitate the collection and dissemination of high quality energy data and analysis.

5. Enhance energy security through dialogue and cooperation on issues such as emergency response measures.

6. Rationalise and phase out inefficient fossil fuel subsidies that encourage wasteful consumption, over the medium term, while being conscious of the necessity to provide targeted support for the poor.

7. Support sustainable growth and development, consistent with our climate activities and commitments, including by promoting cost-effective energy efficiency, renewables and clean energy.

8. Encourage and facilitate the design, development, demonstration and widespread deployment of innovative energy technologies, including clean energy technologies.

9. Enhance coordination between international energy institutions and minimise duplication where appropriate.

Annex II

ENERGY RESEARCH INSTITUTE AND GRANTHAM INSTITUTE ENERGY GOVERNANCE RESEARCH PROJECT

IEA ASSOCIATION: OPTIONS FOR CHINA

Introduction

This note offers a variety of options, for consideration by the National Energy Administration, for taking forward China's closer engagement with the IEA through the proposed Association. The Project would welcome guidance from the NEA on which of these options are of the greatest interest and on which options it would be most useful for the Project to develop further in our continuing work.

A. The IEA's Proposal

In November 2013 China was a party to a Joint Declaration in which the IEA and the Partner counties announced "their intention to pursue closer cooperation on the basis of a common understanding that global energy challenges and energy security require shared solutions by producer, consumer and transit countries and to develop an association". The other Partner countries listed were Brazil, India, Indonesia, Russia and South Africa. The IEA are hopeful that Mexico will join at a later stage. The Declaration also said that;

"An Association would provide an efficient, voluntary means to work together on the basis of equity in areas of mutual interest, including; energy security; transparency and analysis of energy markets; energy technologies, energy efficiency, and renewable energy; and other topics of mutual interest. An association would also provide a common forum for regular dialoguevia participation of Partner countries in meetings of various IEA Standing Groups and Committees as well as at this and future IEA Ministerial Meetings."

The IEA's Consultation Note on Substantive Proposals on Association, of 24 January 2013, gave more details of their thinking. The note proposed four broad areas for cooperation:

- Energy data and statistics
- Energy security

- Energy technology, including efficiency and renewables
- In-depth reviews (IDR) of national energy policies

The note also identified the following clear benefits for Partner countries:

- Enhanced confidence of global energy markets
- Greater influence in setting norms for international energy data collection and reporting
- More rapid response to supply disruptions occurring within their borders with the assistance of the IEA's emergency response tools
- Greater influence on planning and implementation of a global response to energy supply disruptions
- Greater voice in setting international priorities for pursuing accelerated development and deployment of more sustainable energy technologies
- Access to a global platform to highlight their successful best practices in energy policy, and
- Neutral, expert advice on potential solutions for particularly difficult energy policy challenges.

The note also contained specific proposals for the governance and financing of the proposed Association, including an Association Council and a single political association agreement. However, we understand that, following a round of generally positive consultations, the IEA have put these ideas on one side and are concentrating on responding to the ideas of each Partner country on what they would find most useful. Probably Partner countries will be invited to participate regularly in certain meetings of the IEA Governing Board, in due course, rather than having a separate Association Council.

We understand that the IEA have been focusing on what the Partner countries want to get out of the Association. In their last round of consultations with each of the Partner countries they have received generally positive responses. Most of the partners, including China, have listed "benefits and responsibilities" on the form provided by the IEA (with the exception of Mexico and South Africa).

It appears that the IEA have no early plans for a meeting of all the Partner countries.

B. Chinese Staff at the IEA

So far, as far as we are aware, the IEA has only employed nationals of its member countries as officials in its secretariat. Officials from countries who are not members have also been employed, as secondees or consultants. However

this formal status does not necessarily prevent them from playing influential roles. The IEA's January 2013 document on the association said that for Partner countries association should entail:

The possibility of nationals from Partner countries in association working as officials at the IEA (depending on how the association arrangement is structured) and/or a secondment programme.

The document says that the IEA would need to obtain a "narrow, purely technical decision of the OECD Council" to make this possible. We understand that the IEA Secretariat intends to pursue this, but it will take some time.

As noted below, China already has staff working at the IEA on secondment. To secure official posts in the Secretariat China will need to offer staff with relevant expertise and fluent English. There is also a question of finance. China can offer to fund existing or new activities of the IEA Secretariat through a "Voluntary Contribution" (See below). This has to be approved by the Governing Board. Possibly the IEA will be most receptive to the idea of Chinese staff in the Secretariat if they are helping to manage projects partly funded by China.

C. A New Energy Policy Centre in Beijing

A respected international energy research institute in Beijing that could conduct analysis, write reports, organize international expert meetings, etc., could greatly enhance China's contribution to international energy policy debate. As described above, such a Centre could provide a base for a range of joint activities promoting China's closer relations with the IEA in the future.

D. China Starts to Influence the IEA's Direction and Focus

China's Joint Statement and Action Plan with the IEA already give wide scope to agree joint projects. To make the Association idea meaningful China needs, in a moderate way, to start influencing the IEA's overall direction and focus. China should work with the IEA Secretariat to agree on topics and meetings where China's participation will be most valuable. This is of course for Chinese officials to decide. Here are some suggestions;_

• Asia/Pacific energy markets. Including follow up to the IEA's latest report on a gas trading hub in Asia. This would be a possible topic for a meeting of SLT. (Japan, Australia, Korea, might support this). The topic has been actively discussed in ASEAN (where Singapore is very keen) and might be pursued through ASEAN +3.

Shale gas potential in China and elsewhere, including a report on the meeting of the IEA Unconventional Gas Forum that China hosted in April 2015.

Energy access and energy for economic development. China could signal its desire for the IEA to be more active in these areas, working with the UN.

Urban air pollution. A problem for most member states.

Technology collaboration. China could report on its experience with the Implementing Agreements and, possibly, suggest new areas for collaboration.

Ε. In Depth Review of China's Energy Policies

The IEA could contribute to China's national energy policy analysis in a way that would have similarities with the IEA's IDRs of its own member countries.

Such an IDR, if well planned and managed, could be of real value to China. It would also be an important step towards engaging China with the IEA in debate and analysis of energy policy options – which is one of the IEA's most important roles.

We understand that some preliminary discussion of the possibility of an IDR of China has already taken place and Canada agreed that a Chinese representative could participate as an observer in last year's IDR of Canada.

F. **Data and Statistics**

Providing accurate international energy statistics is one of the IEA's core functions, considered vital for the efficient operation of world energy markets.

When the ERI/Grantham team visited the IEA in 2012, the head of statistics said that China had made great progress but that there were still weaknesses in China's energy statistics. There were problems with biomass that was not traded and international coal and oil statistics. A particular problem, also highlighted by the Markets and Security team, is in the area of oil stocks.

In their January 2013 note the IEA suggest that, under the Association, "Partner countries would signal a further step towards enhancing the availability and quality of data crucial to the functioning of national and global energy markets ".

China has explained to the IEA the difficulties that it faces in making accurate statistics available in certain areas and the IEA will no doubt be flexible on timing. But progress in this area will be seen by the IEA as vital for the success of the Association.

Some preliminary discussions have already taken place. The hope of the IEA is that China might progress to the level of JODI fairly soon and then to the level of the IEA's (more demanding) Monthly Oil Statistics in about two years.

G. Emergency Planning and Oil Stocks

In their January 13 note, the IEA say, "Energy security is proposed as a key pillar of cooperation under the association. With flexibility on timing, partner countries in association are proposed to take steps that would allow their effective participation in IEA collective stock actions, such as building oil stocks with a goal of 60 days of net imports, and participating in IEA Emergency Response Reviews (ERR) and Joint Emergency Response Exercises (JERE)".

China is believed already to have significant strategic oil stocks and has, in the past, participated in JEREs. An ERR has been held in China (funded by the UK FCO and BP). Last year the IEA hosted an international IEA oil emergency exercise.

Is it now feasible for China and the IEA to make an agreement on consultation, exchange of information, and cooperation – *where feasible in relation to national policy objectives* – at the time of a crisis? That would be an important step forward for world energy security and for the progress of the Association.

H. A Seat at the Table

Under the IEA's current proposals China would have the opportunity, in due course, to take part in some, but not all, meetings of the IEA's Governing Board and of its senior standing committees;

- SLT major long term issues around security, efficiency, the environment, etc.
- SEQ emergency preparedness
- SOM the oil market
- SGD-- relations with Partner countries
- CERT technology (MOST already attends)

The Governing Board meets four times a year, usually at senior official (DG) level. However, every other year one of the meetings is at Ministerial level.

China would not, of course, be a full member of the IEA and would not have

voting rights. This is not as important as it sounds because, with rare exceptions, the IEA functions by consensus. China's contributions will carry weight that reflects China's position in world energy. Sometimes IEA members do vote on the appointment of the Chair of the Governing Board or the head (Executive Director) of the Secretariat, posts for which China would not be eligible, at least for the time being.

As long as the IEA member countries pay for the Secretariat they will expect to have the final say on its work programme. However, as discussed below, China could gain greater influence over this work programme if it offered to contribute to the funding of specific new or existing activities of interest to China through a Voluntary Contribution. Each VC requires the approval of the IEA's governing board. One option would be for China to join with an existing member to put forward a project supported by VCs.

Probably it will be better for China to send a delegation with at least one English speaker (who can communicate very fluently in English and also has a strong professional energy background) rather than having a translator. (English, French, and German are official languages of the IEA and French translation is available at the Governing Board, but almost all the discussion is in English).

I. Energy Technology

As described below, China is already actively engaged with the IEA's technology network. Technically, a new Implementing Agreement must be proposed by at least two IEA members. However, it would be open to China, in the Association discussions, to propose new areas for technology collaboration, including a new Implementing Agreement with its Operating Agent based in China.

J. Energy Efficiency

In their January 2013 document the IEA suggested that Partner countries could, "consider" the IEA's 25 recommendations on energy efficiency. China is, of course already a member of the International Partnership on Energy Efficiency Collaboration (IPEEC) which is hosted at the IEA. Energy efficiency may be a fruitful area for China and IEA member countries to share their experiences on the most effective policies. Energy efficiency might also be an area of special focus for an IDR of China.

One option for China would be to request that the IEA conduct an exercise to

make its 25 recommendations on energy efficiency applicable, more specifically to China. The IEA has already conducted an exercise of this kind for ASEAN (leading to 20 specific ASEAN recommendations) and for some other countries.

K. A China Office in Paris to Support China/IEA Engagement?

IEA member countries all have staff located in Paris, at their embassies to the OECD, who promote national engagement with the IEA. China could create a similar post, presumably based at China's French embassy.

L. China's Financial Contribution to the IEA

The approach that the IEA are now following does not require a separate budget for the Association. China would have to pay for any translation, though it would be more usual, and probably more effective, to include an English speaker in the Chinese team.

If China wants to start to play a larger role, and exert more influence at the IEA, China could consider making a Voluntary Contribution for specific activities. Besides contributing their fixed shares of the overall budget, many members of the IEA also make VCs to support activities of particular value to them. The activities supported by these VCs have to be agreed by the IEA Governing Board, as being consistent with the IEA's overall aims. We believe that the IEA Secretariat would welcome a VC from China. Possible topics might be;

- Clean coal technology and low carbon energy technology
- Gas market in South East Asia
- Battery technology and electricity storage options
- Urban Energy (including air quality). This is to be a topic for Energy Technology Perspectives (ETP) 2016, so a VC from China could enhance that work.
- Energy and Water.

Such a VC could give greater substance to China's engagement with the Governing Board on these topics. This kind of support might also make it easier for the Governing Board to agree to recruit Chinese nationals to senior roles in the Secretariat – though probably, strictly speaking, as secondees for the time being. One option would be to make such an initiative in partnership with an existing IEA member country.

Australia's Global Carbon Capture and Storage Institute (GCCSI) is an interesting example of a research Centre with strong links to the IEA through a

VC. The GCCSI has its headquarters in Australia and branches in several other countries. At the same time as founding the GCCSI the Australian government made a VC to the IEA to fund a CCS unit within Secretariat. A memorandum between Australia and the IEA defines the role of this CCS unit and its cooperation with the GCCSI. This example could be of a reference case to China.

M. A meeting of Association Partner countries with IEA Officials in Beijing

The IEA Secretariat is not currently planning any meetings of the Association partners as a group. This may be in part because of current tensions between some IEA members and Russia over Ukraine. If China was interested to take a positive initiative it would be open to China to host a workshop in Beijing with the IEA Secretariat and some or all of the Association Partner countries. This could discuss progress of the Association and/or other energy topics of particular interest to Partner countries. Possibly one or more of the existing IEA members would be willing to co-sponsor such an event with China.

N. Is Full Membership of the IEA for China an Objective for the Future?

This topic was discussed at the Grantham/Chatham House workshop held in London in March 2012, with Chinese, US, IEA, and other international participants. The general view was that full Chinese membership of the IEA (together with other major developing nations) was a desirable objective. However neither China nor the IEA were yet ready, and a period of "courtship", of confidence building, was needed. The Association could be regarded as the first stage of such a process. Full membership for China and other developing nations will require negotiations over such major issues as stock holding and emergency mechanisms, finance, voting rights, and perhaps some aspects of the IEA's objectives. The IEA already has 29 members and the addition of a number of developing nations would raise the question of whether an inner group was required. All this will amount to a significant reform of the IEA.

In their original Non-Paper of July 2012, the IEA listed as one of the possible benefits of association for Partner countries:

"Potential intermediate stage in a longer-term process towards membership in the IEA. The Association would not be seen as a substitute for membership but as a parallel platform, neutral with respect to intention regarding membership

that provides a common means for participating countries to engage with the IEA's energy governance functions. In practical terms Partners that eventually decided to seek IEA membership would undoubtedly benefit in the accession process from their experience as associates"

BACKGROUND

China's Existing Engagement with the IEA

The NEA has a "Joint Statement" with the IEA and under this Statement there is an Action Plan for joint activities which is regularly updated.

MOST has a Memorandum with the IEA on cooperation on science and technology.

China belongs to 19 of the IEA's Multilateral Technology Initiatives (Implementing Agreements). These include;

- Buildings and Community Systems
- Energy Storage
- Smart Grids
- Advanced Motor Fuels (2)
- Fluidised Bed Conversion
- Multiphase Flow Sciences
- Environment, Safety, Economy, of (Nuclear)Fusion
- Nuclear Fusion Materials
- Nuclear Fusion Technology
- Concentrating Solar Power
- Hydro-Power
- Ocean Energy
- Photovoltaic
- Solar Heating and Cooling

In addition to the many bodies/industries that represent the Chinese government on these implementing agreements, the Beijing Research Institute (Clean Coal), the Chinese Wind Energy Association, and the Chinese Electric Power Planning and Engineering Institute, are direct signatories of Implementing Agreements. MOST is a regular observer at the IEA's senior technology committee (CERT) which oversees the activities of all the Implementing Agreements.

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China has participated in at least one of the IEA's Joint Emergency Response Exercises (JERE).

China's NEA hosted the April 2015 meeting of the IEA's Unconventional Gas Forum.

China has two secondees currently working at the IEA; one, from MOST, in the Energy Technology Perspectives team and the other, from NEA, in the Global Energy Partnership team.

Staff from China's National Bureau of Statistics have visited the IEA for training in statistical methods.

It is often said that China is more actively engaged with the IEA than most of the IEA's members. And indeed the existing Statement and Action Plans already provide a framework for almost any kind of cooperation that China might wish to pursue with the IEA. What the Association aims to add is participation at the highest level in the IEA's consideration of strategic issues and policies and also, depending on how the other Partner countries respond, collective initiatives and discussion involving other major developing nations, and Russia, with the existing IEA members.

The IEA has many publications that are relevant to China, including the following specifically relating to China in their "Partner Country Series":-

- Update on Overseas Investments by China's National Oil Companies (2014)
- Emissions Reduction through Upgrade of Coal Fired Power Plants: Learning from Chinese Experience (2014)
- Energy Investment and Technology Transfer Across Emerging Economies: The Case of Brazil and China (2013)
- Developing a Natural Gas Trading Hub in Asia (2013)
- Gas Pricing: China's Challenge and IEA Experience (2012)