

**STATEMENT OF PRINCIPLES
FOR DEVELOPING LONG-TERM ENERGY MODELLING TOOLS**

Between

**DEPARTMENT OF BUSINESS, ENERGY AND INDUSTRIAL STRATEGY (BEIS)
OF THE UNITED KINGDOM**

AND

NITI AAYOG OF THE REPUBLIC OF INDIA

1. BACKGROUND

- a. On 1st August 2013 the Government of India's Planning Commission (now NITI Aayog) and the UK Government's Department of Energy and Climate Change (now the Department of Business, Energy and Industrial Strategy) signed a 'Statement of Principles for developing a 2050 Pathways Calculator for India'. The cooperation resulted in the publication of the 'India Energy Security Scenarios-2047' (<http://indiaenergy.gov.in>) in February 2014.
- b. Building on the successful achievement of the aims of the original Statement of Principles, both Governments extended the mutually beneficial cooperation by widening as well as deepening the original aims until April 2016. As a result the scope of work increased and newer sectors have been added to the IESS model that enabled users to see the impact of energy choices on GDP (cost impact). Version 2.0 of the work was launched in August 2015, and was followed by a successfully pan-India awareness and advocacy campaign.
- c. Now in order to advance the partnership between the UK and India on energy planning and energy modelling both Governments intend to extend this collaboration by another year – i.e. until the end of March 2017 – and add newer areas to this partnership. This will include knowledge exchange on the 2050 Calculator methodology, wider improvements in energy modelling practice, and policy approaches in the energy and climate sectors.

2. AIM

Both India and the UK face significant challenges to their respective energy systems. After a successful energy partnership of almost three years, both governments aim to continue the information exchange between energy and emissions modelling experts in order to further strengthen and update their respective analysis. The aim will be to mutually support each other to develop modelling and analytical approaches to achieve agreed policy outcomes.

Extending this cooperation will provide mutual benefit in two critical areas:

- a. MODELLING ANALYSIS: Continue to discuss modelling improvements to the UK Pathways Calculator and the IESS 2047 tools, and share best practice on energy modelling more widely as NITI Aayog further

strengthens their in-house modelling capabilities. Areas of focus may include:

- Team setup, hardware selection, and the costs and benefits of different model types
- Quality assurance
- Analysis and visualisation of model results
- Communication of modelling results to policy makers

- b. POLICY: Evaluate the results of the Calculators and other models with a view to informing national energy planning processes. Share experiences of policy development and implementation (subject to availability of sector experts).

3. STRUCTURE

- a. This cooperation will be led by two senior officials from both Government administrations. A joint working group will be set up representing officials from both sides. The joint working group can decide new areas or work streams based on mutual consultations depending upon the progress of the existing work stream and available resources.
- b. Both Governments commit a central coordination person to ensure a smooth running of the cooperation. The person will facilitate the communication between the officials as well as linking up national sector experts from both Governments where needed.
- c. The joint working group will have monthly teleconferences to discuss capacity building needs and to share knowledge, with relevant members of the group taking part as needed.
- d. Visits to facilitate knowledge exchange can be held bi-annually alternately in India and UK, depending upon the mutual agreement of both parties.

4. TIMING

This cooperation duration is extended until end of March 2017.

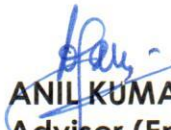
5. FINANCE

Each Government will bear its respective costs for arranging meetings and travel.

6. AMENDMENTS

Any amendments of this arrangement will need to be agreed to by all parties in writing.

SIGNED AND EXECUTED at.....in the presence of the undersigned witness on thisday of2016.


ANIL KUMAR JAIN
Adviser (Energy),
Planning Commission
The Government of Republic of India

AS WITNESS

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Alec Waterhouse
Acting Director of Analysis & Head of Central Modelling Team
Department of Business, Energy and Industrial Strategy
The United Kingdom

AS WITNESS

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