NITI-IEA Workshop on Energy Statistics and Building an Energy Balance in India

3-7 December 2018

Venue: NITI Aayog, New Delhi

Team NITI Aayog

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Introduction

NITI Aayog and IEA have organized a workshop on Energy Statistics and Building an Energy Balance in India from 3rd to 7th December 2018. It was conducted in New Delhi for the Government and Non-Government officials involved in collection, compilation and dissemination of energy data in their respective organizations. The participants represented different Ministries (MoPNG, MNRE, MoC, MoP, MOSPI etc.), associated government agencies (CEA, PPAC, CIL, ISRO etc.), industry associations and major think tanks working in the energy sector in India. This joint initiative by NITI Aayog and IEA is part of the larger project on Energy Data Management (EDM), which is aimed at identifying the energy data gaps.

The workshop witnessed a participation of 40 representatives from Central Government, associated agencies and think tanks, who attended the week long training at NITI Aayog. On 4th December 2018 a special forum was organized for the officials from the State Governments (Agricultural, Transport, Urban development and Energy departments). This particular event gathered more than 100 participants, with about 60 of them representing 20 States/UTs of India.

Brief on the Workshop's Activities

Day 1

The day began with Shri Surinder Singh Sur welcoming all the participants and Shri Duncan Millard providing an introduction to the week's programme. The topics he covered were introduction to the IEA and its statistics work, data collection at the national level which included the legal aspects of statistics, approaches to data collection etc. Further, Ms. Beatriz Martinez presented on the core principles common to all fuels, viz. the fundamentals of energy statistics, data quality and data verification. The day ended with a presentation on electricity and heat statistics. The participants of the workshop were actively engaged in the exercises that enabled them to understand, analyze and solve problems related to topics discussed. The participants mentioned about the importance of energy data and challenges to collect granular data from the States. Discussions revolved around the data gaps that exist in the system particularly with respect to demand side data, specific energy consumption in energy sectors, data structuring and formats for data validation etc.

Day 2

Shri Surinder Singh Sur and Shri Duncan Millard welcomed the participants. This session saw participation of 60 officials from 20 State/UT administrations across India along with other participants who attended the workshop on Day 1. The representation of States/UTs covered all the 5 regions of the country. The names of the participating States/UTs are mentioned below: -

1. North: Delhi, Chandigarh, Punjab, Haryana, Himachal Pradesh, Uttarakhand and Uttar Pradesh
2. West: Rajasthan, Gujarat, Maharashtra
3. East: Chhattisgarh, Madhya Pradesh, Orissa, Jharkhand, West Bengal
4. North-East: Tripura and Assam
5. South: Tamil Nadu, Telangana, Andhra Pradesh

IEA's presentation on this day included topics on: introduction to the IEA and its statistics work and the overview of the international recommendations on energy statistics (IRES). Further, Shri Surinder Singh Sur shared updates regarding NITI Aayog's initiatives on EDM such as the GIS Based Energy Map, India Energy Dashboards, India Energy Security Scenarios and the EDM sub groups. The sub-groups were constituted to identify the data gaps in energy demand and supply and regular meetings of these sub-groups are being held at NITI Aayog since July 2018.

A presentation was also made by MoSPI focusing on the energy data sources in the country, compilation process, validation checks, identification of energy losses & data gaps, energy indicators and dissemination practices. MoSPI mentioned key challenges in data collection and compilation. This included: completeness of end-use consumption data, lack of data on energy efficiency indicators, socio-economic & environmental indicators, lack of standardization of terminology across energy ministries and data gaps in the State level energy statistics.

International approaches for collecting renewable energy data and introduction to energy efficient indicators was presented by Ms. Celine Rouquette. The day concluded with a presentation on energy data collection techniques for the key end use sectors, which generated a very good level of discussion.

The discussions throughout the day focused on the need to collect the energy data and the role of stakeholders involved in doing so at the State level. The States mentioned various challenges experienced in process of data collection and compilation. The issues faced by the States included:

- Lack of adequate human and financial resources to ensure completeness in data collection (including surveys)
- Lack of appropriate training and capacity building of persons at the State level those involved in data collection and compilation
- Lack of data on renewable energy generation from for those industries/companies that have setup the power plants for their own consumption.

Day 3

Oil and Gas Statistics were discussed by Ms. Beatriz Martinez and were followed by interactive exercises. Petroleum Planning & Analysis Cell, Ministry of Petroleum & Natural Gas mentioned about their work with refineries to report data on refinery gas and breakdown of use of petroleum products in a more appropriate and complete manner. Issues were raised by one of the participants on the impact of trade of natural gas in future with multiple trading scenarios and on the lack of data related to the LNG terminals in the country.

Renewable energy statistics was discussed by Ms. Celine Rouquette. The participants shared the data gaps in the renewable energy data collection particularly with respect to the liquid biofuels data which goes unaccounted as the biofuels are blended with other fossil fuels and gets reported with the fossil fuels data. Discrepancies in data with respect to charcoal was also discussed due to low reporting of fuelwood; which is widely used for the domestic cooking and space heating in the rural areas of the country.

The participants also worked in groups for the exercises on data availability via commodity balances. This activity brought great enthusiasm amongst the participants as it enabled them to identify the key Energy Ministries that are responsible for data collection and management for different commodities. Through the activity the participants also assessed the understanding on existing data and plans for data collection by different Energy Ministries in the country.

Day 4

Coal Statistics were discussed by Ms. Beatriz Martinez. During the discussions on the final coal consumption in the energy sectors, key issues related to the unavailability of data on the coal consumption in the iron and steel industry was highlighted by the representatives from Ministry of Coal. It was recommended that the need and process to obtain this consumption data from public and private players to be explored and streamlined during the sub-group meetings on Coal. Also, to improve the energy data on Coal, it was also suggested to conduct a survey of the major 3-4 sectors that are key users of energy derived from coal. Discussion also revolved around the best practices adopted by other countries on the carbon capture and storage (CCS). As the group recognized the lack of data regarding importers data in the coal sector, it was recommended to involve Ministry of Finance, Ministry of Commerce & Industry and the Customs agency in the sub-group meetings on Coal to identify the solutions to data gaps that currently exist in the Coal sector (importers data, classification of coal w.r.t international standards, alignment of data w.r.t GCV content etc.)

Building on the Day 3 exercise using the commodity balances, the participants also worked in groups to identify additional data that could be added to the existing MoSPI templates for each of the energy sector (electricity, oil & gas, renewables and coal) focusing on the additional data that is currently collected by the Ministries and not reported to MoSPI or data that are already planned to be collected in the future.

Discussions were also held on data dissemination and the need for publishing actual data and using dissemination to raise the profile of energy data. The discussion revolved around the role of energy ministries and MoSPI to disseminate the energy data in the public domain. Data dissemination is also important for various strategic and policy initiatives at the Government level. Currently, only MoSPI and CEA have mandates to disseminate the energy data they collect.

Day 5

The last day of the workshop focused on two topics: the need for monthly data in addition to the annual data collection and reporting (with special focus on oil stocks data collection) and energy data beyond commodity statistics and energy balances. Ms. Roberta Quadrelli presented on the statistics for energy efficiency data and indicators, on energy prices and on CO_2

emissions. Discussions revolved around the importance of the end use data in the sectors that drive the need for energy efficiency in the system. On emissions data, participants highlighted the need to engage the environment focal points as stakeholders for joint energy statistics work and funding streams. On the energy price data, IEA mentioned that questionnaire based information is collected regularly from the member countries, and for most non-member countries the data on energy prices is collated through secondary data sources.

The day concluded with remarks by Shri Rameshwar Prasad Gupta, Additional Secretary (Energy), NITI Aayog who thanked all the participants for their active involvement in the workshop's sessions by providing valuable inputs for strengthening the EDM system of India. He also thanked the IEA team for their contribution to the workshop. Certificates were then distributed by the Additional Secretary (Energy) and Ms. Celine Rouquette to the participants and the workshop officially concluded.

Way Forward

The Additional Secretary (Energy) suggested that the real action for data collection, aggregation and compilation will happen at the State level and therefore strengthening the State EDM systems (agriculture, urban development, transport and electricity) is very essential. For this, the sub-groups working at national level are already engaged in developing the necessary formats for data collection and compilation. These templates when developed by the Energy Ministries need to be percolated to the States so that the States are able to strengthen their processes of data collection in uniform formats. He also mentioned that such comprehensive database systems will enable energy efficiency in the sector and drive the policy towards cleaner energy systems. He emphasized that IEA's support in the above activities at the State and Regional levels will be crucial to move forward.