Alliance for an™ Energy Efficient Economy

Comments on Draft Data Centre Policy 2020

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About AEEE

Alliance for an Energy Efficient Economy (AEEE), is one of the leading organizations in India that works on creating awareness about energy efficiency as a resource. It is a policy advocacy and energy efficiency market enabler with a not-for-profit motive. We advocate for data-driven and evidence-based energy efficiency policies and research.

We foster a culture of energy efficiency in India, working with industry, government and civil society organizations. AEEE advocates for *Thermal Comfort for All*, and a *Lean-Mean-Green* philosophy to design and construct net-zero energy-water-waste built environments, Sustainable Transportation and robust Energy Data Framework for better policy-making and implementation, to build a culture of energy efficiency in India. We are committed to achieve India's energy transition for a climate-resilient and energy secure future and meet India's commitments to the 2030 nationally determined goals (NDC) and UN sustainable development goals (SDG).

Overview

With a vision of "Making India a Global Data Centre hub, promote investment in the sector, propel digital economy growth, enable provisioning of trusted hosting infrastructure to fulfil the growing demand of the country and facilitate state of the art service delivery to citizens", the proposed Data Centre Policy is an excellent initiative by the Ministry of Electronics & Information Technology, GoI.

The policy proposes the following five strategies for growth of the Data Centre Sector in India:

1. Enable Ease of Doing Business
2. Enabling a favourable ecosystem for the operations of Data Centres
3. Setting-up of Data Centre Economic Zones
4. Promote indigenous technology development, research and capacity building
5. Institutional Mechanism for Policy governance

Summary of Recommendations

General Comments

While the policy talks about encouraging efficient utilization of energy by promoting innovative techniques and solutions for reducing the carbon footprint of the Data Centres, further highlighting the key strategies should make a compelling case for positioning energy efficiency and sustainability at the heart of Data Centre design and operation. The policy should build upon the existing body of extensive work carried out by various national and international organizations such as CII-IGBC, LBNL, etc., in India for the last couple of years.

Since cooling constitutes the majority of the power needs, greater emphasis on cooling related R&D can potentially position India as a global leader to set benchmarks with regards to optimizing the cooling requirements in Data Centres.

Specific Comments

This section provides a detailed discussion about section specific comments as presented in the table:

Section	Remarks
5.1.3: Setting up of Pre-provisioned Data Centre Parks	» Consider cooling-as-a-service concept (district cooling) at par with the availability of other infrastructure components such as power and network availability for promoting pre-provisioned Data Centre parks
5.2.1 Availability of uninterrupted, clean and cost-effective electricity for Data Centres	» Need to relook whether- "5.2.1.2 Facilitate Data Centre Parks to setup own power generation units to ensure quality of power" is the most effective solution. Renewable energy sources should be encouraged for such self-generation. The self-generation should be considered keeping in mind the grid electricity scenario of the proposed data centre sites.
5.2.1.7	» Apart from the MoP, the Bureau of Energy Efficiency (BEE) should also be part of the Steering Group, to identify the execution mechanism for the recognized intervention related to the availability of quality power.
5.2.1.6: Encourage efficient utilization of energy by promoting innovative techniques and solutions for energy management for reducing the carbon footprint of the Data Centres.	» BEE's energy codes such as ECBC and energy performance benchmarks such as Star Rating should be specified and further developed wherever needed to incorporate energy efficiency in the design and operation of Data Centres. The policy should prioritize the collection, analysis, and dissemination of Data Centre energy performance benchmark data in India. » Considering the energy-intensive nature of Data Centres, they should be notified as designated consumers under the Energy Conservation Act-2001 and included under the ambit of BEE's PAT programme. » The policy could also refer to best practice case studies published by LBNL and CII-IGBC to demonstrate the implementation of world-class energy efficiency in India. » The policy should highlight the need for training and capacity building of various stakeholders involved in multiple aspects of Data Centres design and operation. » The policy should highlight green ratings and certification programs targeting the unique needs of Data Centers.
5.2.4: Recognize Data Centres as a separate category under National Building Code	» Energy efficiency from building design to system design (cooling and electrical) and equipment selection should form the core of the intended guidelines. The NBC chapter can further refer to LBNL and CII-IGBC's "User Guide for Implementing ECBC 2017 in Data Centers"
5.4.3 Promote R&D in Data Centre ecosystem	» The R&D should also look into the safe operating temperature of storage servers and other IT hardware. There is ambiguity regarding the industry recommended temperature conditions which may lead to overcooling and thus wastage of energy. India can potentially become a global leader with timely and sustained R&D efforts in this regard.