



## *Policies Covered In The Edition*

# SECTOR SPECIFIC REPORT

(Technology & Science)

1. Draft Rules for Online Gaming in India to Ensure a Safe and Fair Gaming Ecosystem
2. India's First Green Hydrogen Blending Project by NTPC Set to Accelerate National Green Hydrogen Mission
3. First National Repository for Life Science Data to Support Indigenous Research

# 01 | Draft Rules for Online Gaming in India to Ensure a Safe and Fair Gaming Ecosystem

The number of smart phone users in India is the second highest in the world. This provides the breeding ground to flourish the online gaming industry in India. The industry thus expects to touch the mark of US\$ 5 billion by 2025. With the incidence of Covid 19 pandemic and a complete halt to social interactions and movements, the industry blossomed with unprecedented speed to keep people entertained with the excitement of gaming at their fingertips.

Looking at the growth in Online Gaming and its vast interest among various ages users and vulnerable sections of society, the Ministry of Electronics & Information Technology (MeitY) has proposed draft rules as an amendment to Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021. These rules will make the online gaming ecosystem in India much safer, open, accountable and trusted for its users and put specific obligations on intermediaries to observe diligence to follow them.

## Obligation for Intermediaries Under Draft Online Gaming

Make Reasonable Efforts to prohibit its Users to Host, Display, Publish, Transmit or Share any Information (including in the Nature of Online Game) that is Harmful to Child, Causes Incitement to the Commission of any Cognizable Offence, Relates to Encourage Gambling, or Violates any Law for the Time Being in Force.

To not Host, Store or Publish Unlawful Information (Including in the Nature of Online Gaming), on a Voluntary Basis on Violation of the Above and on Actual Knowledge upon Receipt of a Grievance or Court Order or Notice from the Appropriate Government or its Agency.

In Place a Grievance Redressal Mechanism and Resolve Complaints of Violation of the Rules within 72 Hours.

In Case of a Complaint by an Individual or their Authorized Representative, the Removal of such Content Within 24 Hours should Take Place which Prima Facie Exposes the Private Area of Such Individual, Shows such Individual in Full or Partial Nudity or Shows or Depicts such Individual in any Sexual Act or Conduct through Grievance Redressal Machinery.

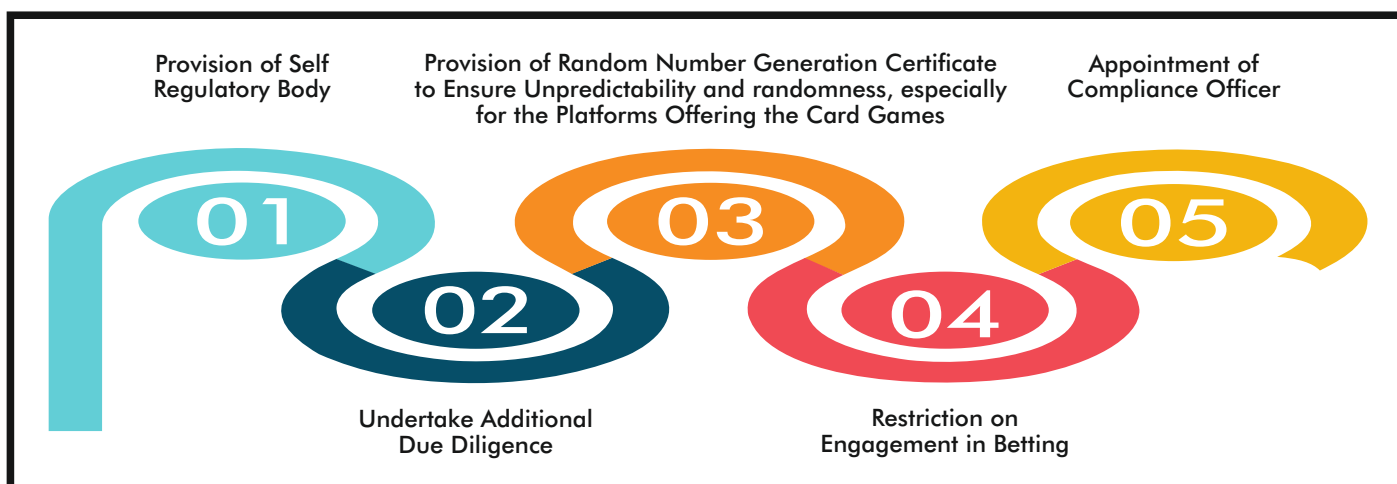
Provide an Information or Assistance for Prevention, Detection, Investigation, or Prosecution Under Law upon Receipt of an Order from a Lawfully Authorised Government Agency.

The online gaming industry in India has seen a compound annual growth rate of around 38% between 2017-2020 leaving behind the US and China. As per the statistics, more than 40% of online gamers are women, and thus it is important to keep the ecosystem safe for them. In this regard, the draft rules are prepared to serve the purpose in the first place and make a comprehensive regulatory framework at the pan-India level for easy adoption by the industry which was otherwise varying state-wise.

The age gating for online gaming in India is 18 years but still, the self-regulatory mechanism

placed through these rules will keep a check on the games to not have violent, addictive, or sexual content and bring openness and trust among gamers. More Indians coming to experience online gaming especially children which has addictive and violent content and harms their mental health in the growing years and thus causing major concern for the government to keep it safe.

### Features of Draft Rules for Online Gaming



Under the provision of a Self-Regulatory Body, the Board of Directors is accompanied by five members from the distinct fields of Online Gaming, Public Policy, Information Technology, Psychology and Medicine in the draft rule. It will be the authorized body to allow online games in India to operate legally. The due diligence through online gaming companies will also be required to update KYC as per the norms laid down by the Reserve Bank of India (RBI). Along with this, the transparent withdrawal and refund of money regarding fair distribution of winnings will be mandatory by the intermediaries.

To better receive feedback on these draft rules governing secure and trusted online gaming and address further concerns the Government of India has made MeitY, its nodal agency by making a change in the Allocation of Business Rules through a gazetted notification on 26th December 2022. Following this, the draft rules were published by the ministry for public consultation and to keep the growth momentum and innovation in the industry moving.

As the growth of the online gaming industry is working as a catalyst in achieving India's US\$ 5 trillion economy target by 2025-26. Bringing it into the ambit of regulatory provisions at this stage will develop more transparency and fairness in the whole process while striking the fine balance between entertainment and sound mental growth of children and youth on priority in the time to come.





The NTPC has launched India's First Green Hydrogen Blending Project at Adityanagar, Surat in piped natural gas (PNG) network at a time when the Government of India has approved the National Green Hydrogen Mission with the allocation of Rs 19,744 crore to boost the hydrogen economy in the country. The project will testimony India's quest to accelerate the clean energy transition and make it a front runner in the global green hydrogen economy. The mission in this regard help to project India as a global hub in green hydrogen production, use as well as export and limit India's import bill for hydrocarbons significantly.

The NTPC in association with Gujarat Gas Limited (GGL) has achieved this milestone in record time after the launch of the project in July 2022. The project supplies H<sub>2</sub>-NG (Natural Gas) to households in the Kawas Township. The green hydrogen for the project has been made through the electrolysis process of water in which power supply has been provided through the installed 1 MW floating solar project at the site itself.



## The Outcome of the NTPC Project

Bring India at the Center Stage of the Global Green Hydrogen Economy

Support India's Clean Energy Transition

Reduce Hydrocarbon Import Bill

Reduce CO<sub>2</sub> Emission



The green hydrogen blending level of 20% with PNG has been achieved in the project, basis the phase-wise approval from the Petroleum and Natural Gas Regulatory Body (PNGRB). The launch of this project has put India in the limelight as India joined the club of a few of those countries like the UK, Germany, etc which are working progressively in the green hydrogen domain to support clean energy transition globally.



Through this commissioned project, the National Green Hydrogen Mission will get a major boost. It will attract major investment and foreign reserves in India's kitty that will further accelerate India's green economic development and make a path for new business opportunities in the sector to fulfill the set objectives.

### Objectives of the National Green Hydrogen Mission

Make India a Leading Producer and Supplier of Green Hydrogen and its Derivatives in the World

Make India Self Reliant through Clean Energy and Inspire Global Clean Energy Transition

Significantly Contribute in India's Energy Independence and Decarbonization

Attract Investment in the Domain for Economic Development and Reduce Dependence on Fossil Fuel Imports

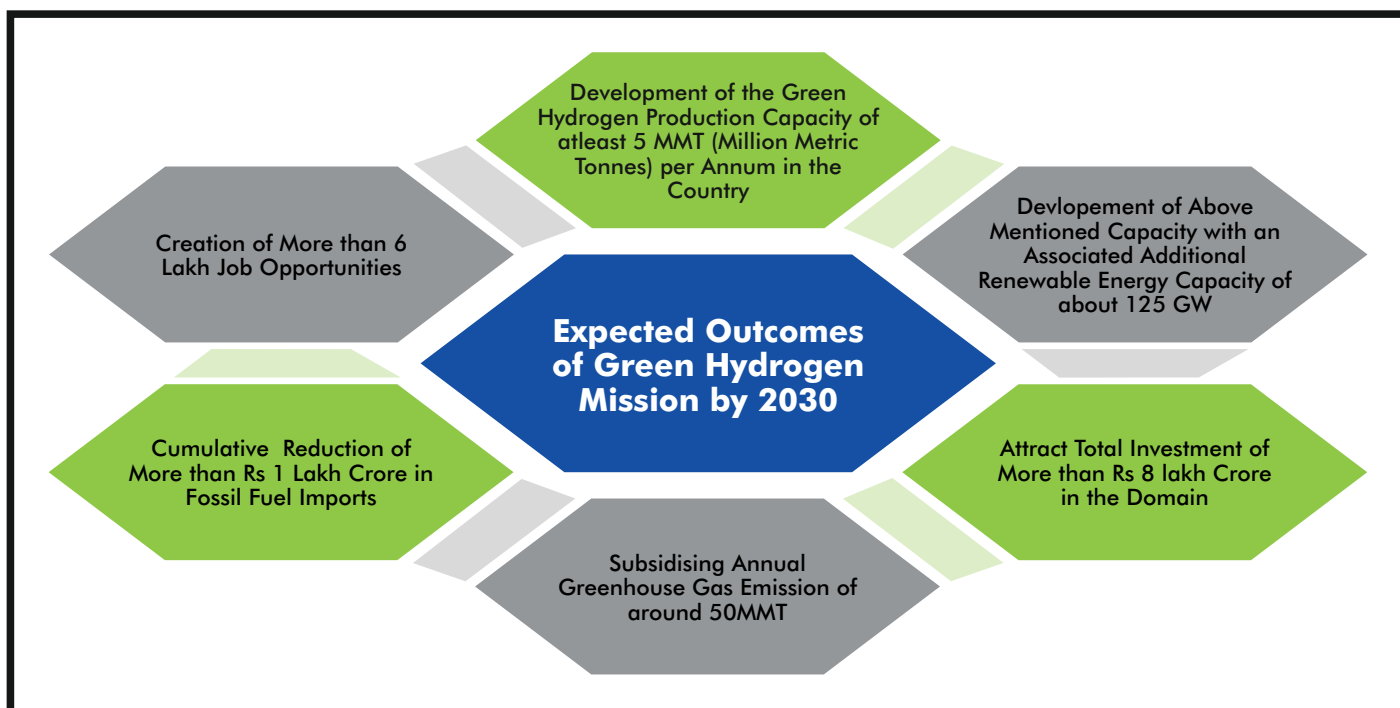
Assume Technology and Market Leadership In Green Hydrogen

Creation of Employment and Business Opportunities

Push the Development of Green Hydrogen Ecosystem in India

Support R&D Projects

The mission will also incentivize the commercial production of green hydrogen to develop India as a net exporter of green fuel along with working towards the creation of demand, production and utilization. The Ministry of New and Renewable Energy (MNRE) is the nodal ministry to formulate further scheme guidelines and regulations for the implementation of the mission. The following results are likely to be achieved under this by 2030 to further develop the green hydrogen economy in the country and reduce carbon emissions significantly.



This will overall accelerate the decarbonization of India's important sectors of the economy such as Industries, Energy, as well as Mobility to cast a cascading effect of green energy across other sectors to achieve sustainable growth. It will develop new business opportunities in the fuel cell industry and the manufacturing of electrolyzers to help in producing green hydrogen in the country.

Green hydrogen is one of the cleanest sources of energy with close to zero emission but its expensive production mechanism has limited its global use to less than 1% and limited the growth of the green hydrogen industry at the nascent stage. To develop India as a global hub, the government is planning to identify and develop Green Hydrogen Hubs across the country where the regions have capabilities to produce or utilize large-scale hydrogen under the mission by leveraging their geographical advantages.

In this regard, the government is finding solutions through continuous R&D and associated technological advancements for extracting green hydrogen in an economically sustainable way. This can bring a major change in the adoption of this clean fuel to move forward towards clean economic growth that will reflect in achieving the targets of NDC and reaching net zero emission level by 2030 and 2070 respectively.

The Ministry of Science and Technology, Government of India has launched India's first National Repository for Life Science Data with the name 'Indian Biological Data Center' (IBDC) at Faridabad, Haryana to augment biological data analysis in the country. The center has been developed to fulfill the mandate of BIOTECH-PRIDE guidelines and has been supported by the Department of Biotechnology to achieve the life science data generated in the country from public-funded research.

The objectives outlined for the IBDC to fulfill the mandate of life science data as per FAIR (Findable, Accessible, Interoperable and Reusable) use principle in letter and spirit are as under:

### Objectives of IBDC

Provision of an IT Platform for Perpetually Archiving Biological Data

Development of Standard Operating Procedures (SOPs) to Store and Share Data by the Facility as per FAIR use Principle

Carry Out Quality Control, Curation / Annotation of Data, Data Backup and Management of Data Life Cycle

Development of Web-based Tools/ APIs to facilitate Data Sharing and Retrieval

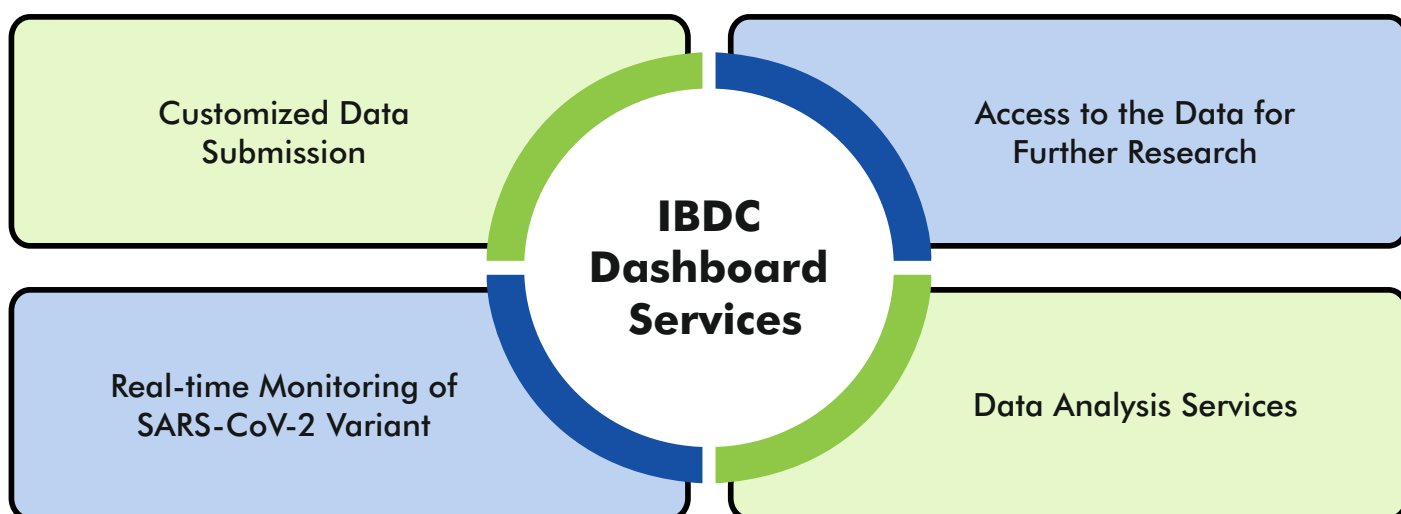
Conducting Training Programs on Big Data Analysis and Benefits of Data Sharing for the Research in the Domain

This has been established at the Regional Center of Biotechnology (RCB), Faridabad along with a 'Data Recovery' unit at the National Informatics Center (NIC), Bhubaneswar, Odisha. The facility has collected more than 200 billion bases from India's more than 50 research labs. The data submission services have been started in the center through two data portals named the 'Indian Nucleotide Data Archive (INDA)' and 'Indian Nucleotide Data Archive- Controlled Access (INDA-CA)'.

The modular nature of the facility will help to deal with the heterogeneity of life science data based on dedicated data submission and access schema along with highly curated data sets to advance further research in the domain. This will work as the state-of-the-art infrastructure set up for biological data analysis in the country and will make the way to serve the global scientific community through its vast repository of life science data and research.

The center will also host an online dashboard dedicated to Genomic Surveillance-related data generated by the INSACOG labs. The data managed at the center can be accessed by the users after submitting the corresponding request in online mode through the IBDC dashboard.





The facility will be equipped with a High-Performance Computing (HPC) 'Brahm' along with about 4 petabytes of data storage capacity to support life science research. The IBDC center will also provide technology infrastructure support for computationally intensive analysis to researchers working in the domain. The data submitted at the center will be accessed by the users on these two data access modes:

### Types of Access Modes Available

#### Open Access/Time- Release

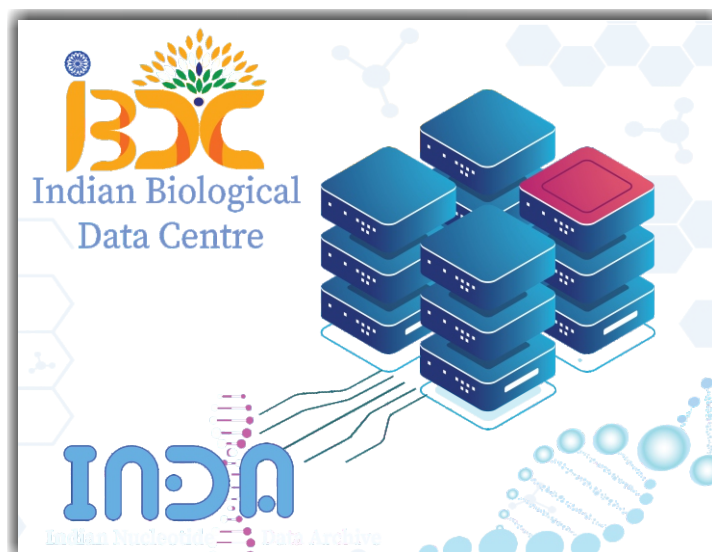
- Free Access Across the Globe As Per International Open Access Standards
- Original Data Submitter may Choose to Restrict Data Access for a Defined Period of Time

#### Restricted Access

- Data will be Available Only through Prior Permission from IBDC from the Original Data Submitter
- Data Submitter will Opt the Choice for a Particular Mode of Access at the Time of Submission itself.

Currently storing more than 200 billion digitized genetic sequences of humans, plants, animals, and microbes, this bio-bank will reduce the dependency of Indian researchers on American and European bio-banks for advanced research. It will accelerate India's research ability in studying various zoonotic diseases and finding genetic targets of vaccines and theapeutics for other diseases for the welfare of mankind.

The large database of indigenous genetic



sequences will help India to contribute to the international efforts to map genetic variations of various species such as humans, microbes, plants, animals, etc. The extension of the center's capabilities with protein sequence storage and data imaging facilities like Magnetic Resonance Imaging and Ultrasound in the future will surely unbind India's research capabilities in the life science domain. The enhanced capacities will find the solutions to predispose many diseases that can potentially threaten lives in the future.

## Resources

1. <https://pib.gov.in/PressReleasePage.aspx?PRID=1896017>
2. <https://www.meity.gov.in/writereaddata/files/Draft%20notification%20for%20amendment%20to%20IT%20Rules%202021%20for%20Online%20Gaming.pdf>
3. [https://dbtindia.gov.in/sites/default/files/Biotech%20Pride%20Guidelines%20July%202021\\_0.pdf](https://dbtindia.gov.in/sites/default/files/Biotech%20Pride%20Guidelines%20July%202021_0.pdf)
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6. <https://innovateindia.mygov.in/online-gaming-rules/>
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17. [https://dbtindia.gov.in/sites/default/files/Biotech%20Pride%20Guidelines%20July%202021\\_0.pdf](https://dbtindia.gov.in/sites/default/files/Biotech%20Pride%20Guidelines%20July%202021_0.pdf)
18. <https://indianexpress.com/article/cities/delhi/next-door-to-delhi-a-bank-to-store-countrys-digitised-biological-data-8265228/>

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