

Decoding Compliance Management for

RENEWABLE ENERGY SECTOR



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01

Executive Summary



The report decodes the regulatory compliance obligations of a standalone solar energy producing plant in Maharashtra, where the electricity is generated and transmitted through the grid, along with a corporate office in Haryana. The report puts the spotlight on applicable regulations, including those during the setup stage and for ongoing operations management. It also provides comprehensive examples of a wide variety of compliances spanning seven categories of law, three levels of legislation, and multiple types. The types vary from licenses, registrations, permissions, approvals, and NOCs. Additionally, it emphasises the embedded criminalisation risks in corporate operations for solar energy producers. The analysis concludes by discussing key challenges and proposing a framework to ensure adherence to legal requirements to stay on the right side of the law.

A standalone solar energy producing plant where the electricity is generated and transmitted through the grid along with a corporate office must fulfill 799 unique and 2,735 total obligations throughout its operations. The manufacturing plant requires 51 approvals, permissions, and registrations and must comply with 285 legal mandates across categories like safety, employee welfare, and audits. The corporate office must adhere to 514 compliances, of which 83 carry imprisonment clauses, often for procedural lapses.

The regulatory framework spans central, state, and local levels, involving bodies such as the Central Electricity Regulatory Commission (CERC), State Electricity Regulatory Commissions (SERCs), and Bureau of Energy Efficiency (BEE).

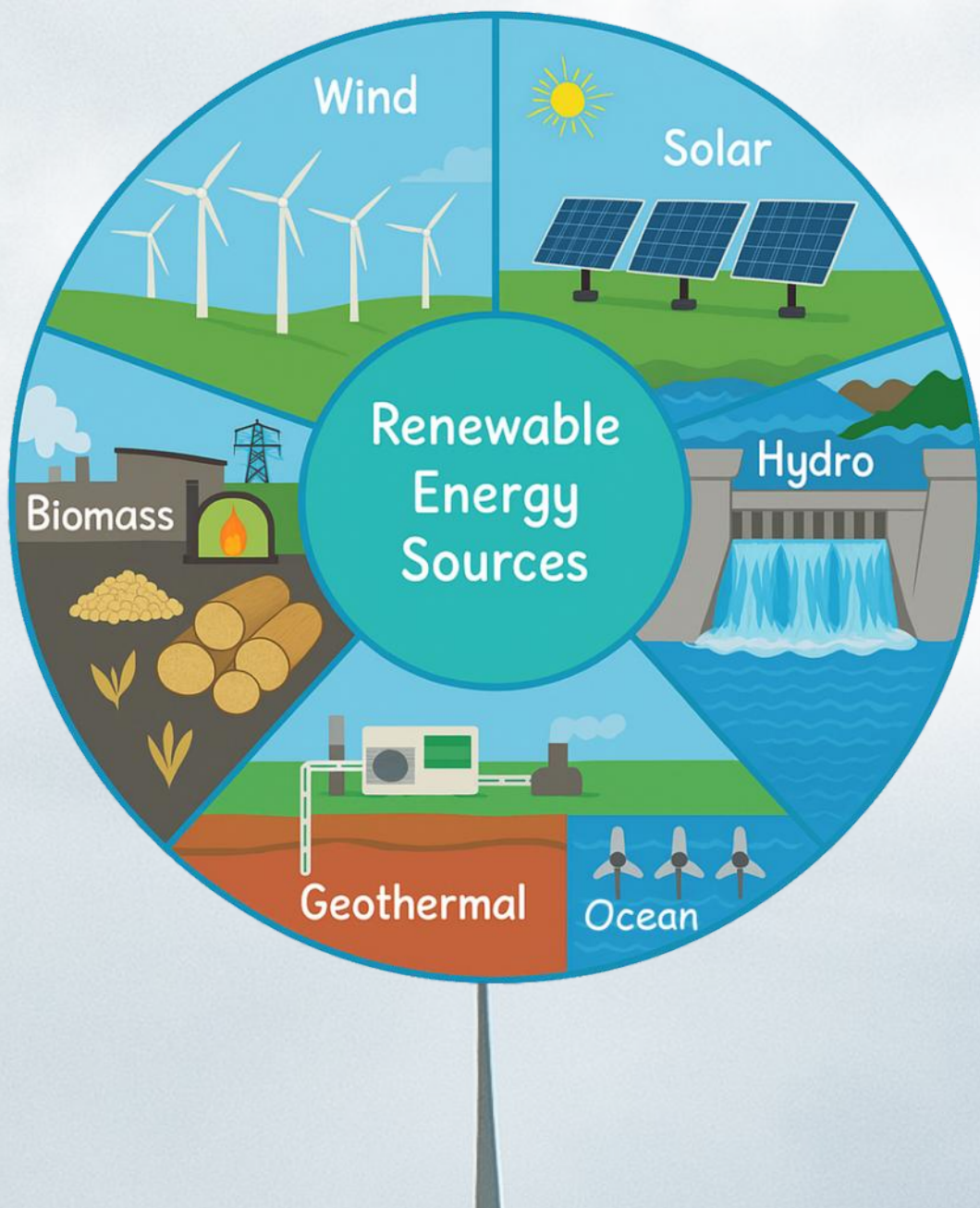
Compliance requirements include adherence to Renewable Purchase Obligations (RPOs), the Energy Conservation Act, 2001, tariff policies, environmental clearances, and grid integration standards as per Central Pollution Control Board (CPCB) norms.

Key compliance complexities include regulatory fragmentation across jurisdictions, overlapping mandates from different authorities and inconsistent policy implementation, slow land acquisition and environmental clearance processes. Additionally, the dynamic regulatory environment, marked by frequent legal updates and continued reliance on manual, paper-based compliance systems, increases the risk of non-compliance.

To address these complexities, renewable energy companies must move toward a centralised and automated compliance strategy. This includes maintaining dynamic, digital checklists of applicable obligations; proactively tracking legal changes across authorities; and conducting sector-specific due diligence and risk-based audits. Building a culture of compliance through strong top-level commitment, engaging with regulatory stakeholders for clarity and alignment, and adopting RegTech platforms to digitise and monitor compliance can significantly reduce risks and improve efficiency. By integrating these solutions, companies can enhance regulatory certainty, ensure smooth project execution, and accelerate India's transition to a sustainable energy future.

02

Common Sources of Renewable Energy



Solar Energy

Solar energy is the most abundant of all energy resources and can even be harnessed in cloudy weather. The rate at which solar energy is intercepted by the Earth is about 10,000 times greater than the rate at which humankind consumes energy.

Solar technologies can deliver heat, cooling, natural lighting, electricity, and fuels for a host of applications. Solar technologies convert sunlight into electrical energy either through photovoltaic panels or through mirrors that concentrate solar radiation.

Wind Energy

Wind energy harnesses the kinetic energy of moving air by using large wind turbines located on land (onshore) or in sea- or freshwater (offshore). Wind energy has been used for millennia, but onshore and offshore wind energy technologies have evolved over the last few years to maximize the electricity produced - with taller turbines and larger rotor diameters.

GeoThermal Energy

Geothermal energy utilizes the accessible thermal energy from the Earth’s interior. Heat is extracted from geothermal reservoirs using wells or other means.

Reservoirs that are naturally sufficiently hot and permeable are called hydrothermal reservoirs, whereas reservoirs that are sufficiently hot but that are improved with hydraulic stimulation are called enhanced geothermal systems.

Hydro Power

Hydropower harnesses the energy of water moving from higher to lower elevations. It can be generated from reservoirs and rivers. Reservoir hydropower plants rely on stored water in a reservoir, while run-of-river hydropower plants harness energy from the available flow of the river.

Hydropower reservoirs often have multiple uses - providing drinking water, water for irrigation, flood and drought control, navigation services, as well as energy supply.



Ocean Energy

Ocean energy derives from technologies that use the kinetic and thermal energy of seawater – waves or currents, for instance, to produce electricity or heat.

Ocean energy systems are still at an early stage of development, with a number of prototype wave and tidal current devices being explored. The theoretical potential for ocean energy easily exceeds present human energy requirements.

Bio Energy

Bioenergy is produced from a variety of organic materials, called biomass, such as wood, charcoal, dung and other manures for heat and power production, and agricultural crops for liquid biofuels. Most biomass is used in rural areas for cooking, lighting and space heating, generally by poorer populations in developing countries.

Modern biomass systems include dedicated crops or trees, residues from agriculture and forestry, and various organic waste streams.



03

The Solar Energy Sector in India



India's solar power industry is a cornerstone of the nation's renewable energy strategy, reflecting ambitious targets and significant policy support. As of May 2025, this industry is structured around government-led initiatives, private sector participation, and a focus on local manufacturing, with diverse segments catering to various applications. This survey note provides a detailed examination of its structure, components, segments, size, growth rate, challenges, growth drivers, and segments with the most potential for growth, based on the latest available data and insights.

Size of the Industry

As of April 2025, India's solar power installed capacity stands at 107.94 GW, making it the world's third-largest generator of solar power, behind China and the US. In terms of generation, India produced 75.57 billion units (BU) of solar power in the first eleven months of FY24 (April 2023 to February 2024). The market size was valued at USD 10.4 billion in 2023, projected to reach USD 24.9 billion by 2030 at a CAGR of 13.4%.



Industry Structure & Components

The solar power industry in India is structured with a strong emphasis on government policies that promote local manufacturing and ensure scalability. Key structural elements include:

» Government Policies & Incentives

The government has implemented measures like the Basic Custom Duty (BCD) at 25% on solar cells and 40% on modules to reduce import dependency. The Production Linked Incentive (PLI) scheme, with an allocation of INR 240 billion (USD 2.88 billion), aims to boost domestic manufacturing capacity. The Approved List of Modules and Manufacturers (ALMM) mandates that government-backed projects use locally made modules, with a capacity of 64.6 GW by January 2025, and a cell list set to start in June 2026. Additionally, the Waiver of Inter-State Transmission System (ISTS) charges for projects commissioned by June 2025 reduces transmission costs, enhancing project viability.

» Regulatory Framework

Policies such as the National Solar Mission (NSM), Renewable Purchase Obligation (RPO) trajectories up to 2029–30, and Green Energy Open Access (GEOA) Rules 2022 facilitate solar adoption. The International Solar Alliance (ISA), headquartered in India, promotes global solar energy cooperation, further integrating India into the global solar ecosystem.

The components of the industry include solar cells, modules, balance of system (BoS) components like inverters and mounting structures, and increasingly, energy storage systems. As of December 2023, India's manufacturing capacity for solar cells was 6 GW, expected to reach 25 GW by 2025, while module manufacturing capacity was 37 GW, projected to hit 60 GW by the same year. Local assembly often relies on imported cells, particularly from China, due to cost competitiveness, but policies like ALMM and PLI are pushing for greater domestic production.

Segments of the Industry

The solar power industry is segmented based on application, technology, and geography, each catering to specific needs:

By Application

Utility-Scale Solar

Includes large ground-mounted projects, often developed by public sector undertakings (PSUs) like NTPC Green Energy Limited or private companies. These projects contribute significantly to grid-connected capacity, with schemes like the Solar Parks initiative aiming for 40 GW by 2026.

Rooftop Solar

Encompasses residential, commercial, and industrial installations. Despite past underperformance, the PM-Surya Ghar scheme, with a target of 40 GW by 2026, is revitalizing this segment, offering up to 300 kWh free per month for 10 million households.

Off-Grid Solar

Focused on rural electrification, with the PM-KUSUM scheme targeting 34.8 GW, supporting decentralized solar solutions for agriculture and remote areas.

Commercial & Industrial (C&I)

Driven by GEOA Rules 2022, which mandate minimum procurement of 100 kW, allowing C&I consumers to directly procure renewable energy, boosting demand in this segment.

By Technology

Solar Photovoltaic (PV)

The dominant technology, utilizing crystalline silicon and thin-film variants, accounting for the majority of installed capacity.

Concentrated Solar Power (CSP)

Less common but used in some utility-scale projects, though its share is minimal compared to PV.

By Geography

States like Rajasthan, Gujarat, and Karnataka lead due to high solar insolation and supportive policies. Northern India, with a potential capacity of 363 GW, is expected to become a renewable energy hub.



Growth Rate

The solar power industry is experiencing rapid growth, driven by government targets and declining technology costs. In 2024, capacity additions more than doubled compared to 2023, with 24.5 GW added, and early 2025 data suggests continued momentum, reaching 107.94 GW by April 2025. For 2025, the demand forecast is 35-40 GW. The National Electricity Plan (NEP) sets a target of 280 GW by 2030, requiring an average annual addition of 30 GW, aligning with India's broader goal of achieving 500 GW of non-fossil-based electricity capacity by 2030. This growth is supported by significant investments, with projections of an 83% increase to USD 16.5 billion in 2024.



04

Regulatory Framework for the Renewable (Solar) Energy Sector



Assumptions

While there are a high number of regulatory obligations applicable to different forms of renewable energy producing entities; they vary with different geographical locations with various reporting authorities in place. In this report, the establishment in question is a standalone solar energy-producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana.

Following is the list of assumptions taken into consideration while decoding the regulatory framework for a solar energy producing plant:

Category	Sub Category	Assumption Details
General Information	Company Location	We will consider that the Company has the following: 1. Corporate Office (01) 2. Manufacturing Location (01)
Corporate	Company Type	Company Type: Compliances applicable to a "Listed Company" has been included. Company Types like LLPs, Private Companies has been excluded.
	Paid Up Capital	The Company's Paid Capital is assumed to be Rs. 5 Cr
		The Company has not issued shares more than Rs 10 lakhs in the "Previous FY"
		The Company has not issued any "Equity"
	Company's Turnover / Profit	The Company's turnover is Rs. 250 Cr
		The aggregate turnover of individual product is Rs 350 crore or more
		The Net Profit of the Company is Rs. 5 Cr
Finance & Taxation	Company's Association	1. The Company is not part of any "International Group" and is not required to pay tax in any "Foreign Territory" 2. The Company does not have Domestic / International Transaction with related Companies and hence does not attract "Transfer Pricing" rules
	Other Income Source	The Company does not have any Income from any "Bond and Government Security"

	TDS Rules	1. TDS Rules are applicable to the company on Payment for Rent, Professional Services & Commission/Brokerage 2. The Company does not pay any "Interest on Securities" 3. The Company makes payment to "Non Residents" 4. TDS payment is made on a "Monthly Basis"
	GST & Other Related Matters	1. GST Registration is obtained at Manufacturing Location only and all the compliances are carried out from the said location 2. The Company is engaged in "Import / Exports of Goods" 3. Company owns a "Warehouse Facility" 4. The Company has furnished an "Exports bond or Letter of undertaking" 5. The Company does not undertakes Job work 6. The Company has not taken "Input Service Distributor" registration 7. The Company receives "Advance payment for Goods"
Labour	Manpower	Total employee strength: <= 100 Employees Following type of Workers have been "Included": 1. Women employees 2. Contract Labor Following type of Workers have been "Excluded": 1. Construction Workers 2. Adolescent and Child Labor 3. Inter State Migrant Workmen
		We have assumed that Company has hired Contract Labor and employed more than 20 Contract Labor in factory
	PF Registration and other Related Matters	1. The Company has obtained PF registration at the Corporate Office and all Compliances are managed from the Corporate Office itself. 2. The Company does not have any "International Workers" 3. The Company is not exempted and does not manage Pension Funds on their own 4. The Company does not have Gratuity Trust
	Facilities Provided	We have assumed that Company provides the following facilities at the Manufacturing Facility: 1. Crèche Facilities Following facilities have been assumed to be "Not Provided" by the Company: 1. Bus Facilities 2. Night Stay Facilities (assuming that night shift is not applicable)

	Plant Operations	We have considered the following points with regards to Factories Act, 1948: 1. There is no use of reactions vessel, gasholders, artificial humidification, ovens or driers
EHS	Usage of Equipment	We have considered that the Company uses the "Equipment and Machineries" at Manufacturing location only: 1. Diesel Generators 2. Fire Extinguishers
	Usage of Material	We have assumed that the Company is using the following type of material at Manufacturing Unit: 1. Batteries as a consumer (at Manufacturing Unit as well as Corporate Office) Usage of following type of material have been "Excluded": 1. Explosives or any gas through SMPV 2. Poisonous material outside the threshold limits for "Poison" under The Poisons Act, 1919 3. Any type of Alcohol or Narcotic Drugs and Psychotropic Substances 4. Any type of Ozone Depleting Substances 5. Denatured Spirit and Rectified Spirits.
	Waste Generation	We have assumed that the Company is generating the following type of waste at Manufacturing Unit: 1. E-Wastes: As a "Bulk Consumer" at Manufacturing Unit as well as Corporate Office 2. Solid Waste: At Factory as well as Corporate Office. The Company does not generate any "Construction debris". 3. Batteries Waste: As a "Consumer" at Manufacturing Unit as well as Corporate Office 4. Effluent : As a Zero Liquid Discharge plant.
Commercial	Motor Vehicle	We have considered a Private Car for the purpose of this Study
	Lift	We have considered that there are no passenger lift in the premises.
Industry Specific	-	We have considered that the unit has a renewable energy generation.

The Indian regulatory framework for the Solar Energy sector is complex and evolving. There are various regulations at all Central, State and Municipal levels that the entities in the sector have to comply with. The regulatory landscape circumscribes various standards, authorities and compliance requirements. It is essential to comply with these regulatory requirements for the sustainability and growth of the renewable energy sector. Effective and efficient adherence to these regulations guarantees the environmentally and socially responsible execution of renewable energy projects. This helps to ensure that the rights of all the stakeholders such as local residents and environmental groups are protected.

India's renewable energy sector is regulated by a comprehensive framework of laws, policies, and guidelines. The Electricity Act of 2003 and the National Electricity Policy of 2005 form the foundation for the development of renewable energy in the country. Key policy initiatives like the Scheme for Development of Solar Parks and Ultra-mega Solar Power Projects and the PM-KUSUM Scheme to promote small Grid Connected Solar Energy Power Plants, outline the targets and strategies for advancing renewable energy.

The Ministry of New & Renewable Energy (MNRE) is the nodal agency at the central level for promotion of grid-connected and off-grid renewable energy in the country. In addition, agencies such as the Central Electricity Authority (CEA), State Electricity Regulatory Commissions (SERCs), and State Nodal Agencies (SNAs) also play critical roles in regulating the sector and ensuring compliance at various levels.

The regulatory requirements of the renewable energy sector can be classified into 7 broad categories:



Labour



Finance & Taxation



EHS



Secretarial



Commercial



Industry-Specific



General

While the requirements under most of these categories remain consistent and constant across industries and sectors, there are vast deviations regarding industry-specific requirements.



Table 1: List of reporting authorities for a solar energy producing plant*

Level of Governance	Reporting Authority
Central	Central Electricity Authority
	Ministry of Power
	Central Pollution Control Board
	Ministry of Road Transport and Highways
	Ministry of Skill Development and Entrepreneurship
	Central Electricity Regulatory Commission
	Ministry of Health and Family Welfare
	Department of Empowerment of Persons with Disabilities, Ministry of Social Justice and Empowerment
	Bureau of Indian Standards
	Central Pollution Control Board
	Bureau of Energy Efficiency
State (Maharashtra)	Directorate of Industrial Safety and Health, Maharashtra State
	Department of Labour, Government of Maharashtra

*A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana



Approvals

Every solar energy producing plant must obtain 51 certificates, licenses, permissions, and approvals under at least 31 acts and rules at various stages of business from Central and State authorities. These stages can be classified as follows:

- » Setting Up
- » Pre-Commissioning Stage
- » Post-Commissioning Stage
- » Ongoing

Solar energy-producing plants must adhere to numerous registration and approval requirements to ensure compliance with relevant regulations.

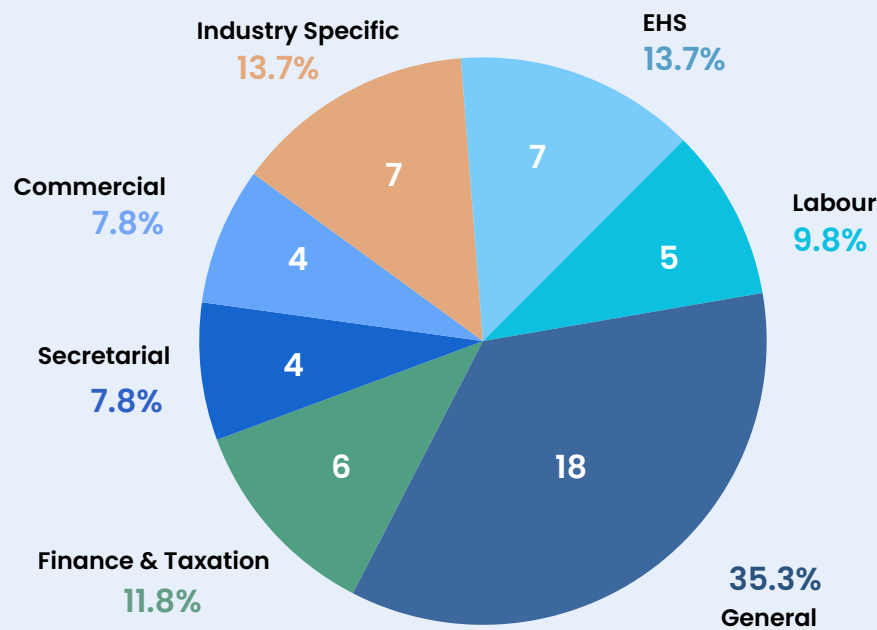
Table 2: Approvals across the stages of business

Stage	Number of Approvals
Setting Up	10
Pre-Commissioning	7
Post-Commissioning	4
Ongoing	30
Total	51



Furthermore, these approvals can also be classified based on the 7 categories of compliance.

Figure 1: Approvals to establish, start, and continue operations across compliance categories

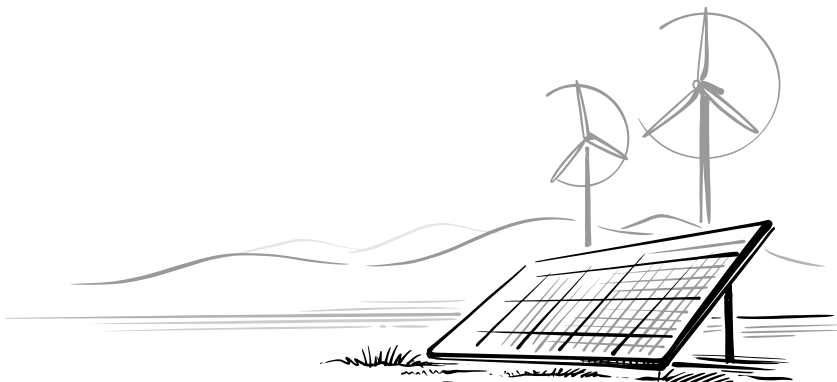


A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana

Table 3: An illustrative list of licenses, permissions, etc., has been presented below*:

S. No.	Name of Legislation	Approvals / Registrations / Permissions
1	No Objection Certificate (NOC) for height clearances – Air Traffic Management Circular No. 6 of 2017Guidelines for Filing Online Application for NOC (Height Clearance) Through NOCAS, NOC Revalidation and Appeal to the Appellate Committee (MoCA)	NOC from Airport Authority
2	Industries Development & Regulation Act, 1951	Industrial Entrepreneur Memorandum (PART-A/B) under Industries Development & Regulation Act, 1951
3	Factories Act, 1948	Factory Layout Plan Approval
4	Electricity Act, 2003	Consent for setting up captive power plant

5	Air (Prevention & Control of Pollution) Act, 1981Water (Prevention & Control of Pollution) Act, 1974Environment Protection Act, 1986	Environment Clearance
6	Air (Prevention & Control of Pollution) Act, 1981Water (Prevention & Control of Pollution) Act, 1974Environment Protection Act, 1986	Consent to Establish
7	Fire Prevention and Life Safety Measures Act	Provisional Fire NOC
8	Lifts & Escalators Act	Permission to erect a lift or escalator or moving walk
9	Electricity Act, 2003	Layout Approvals for DG sets
10	Electricity Act, 2003	Power / Electrical Connection NOC
11	Guidelines to regulate and control Ground Water Extraction in India (With effect from 01.06.2019)	Permission/ Clearance for drawing ground water/ drilling for Industrial purposes
12	Factories Act, 1948	Registration of Factory / Factory License
13	State Industrial Development Corporation	Building Occupancy Certificate - MIDC
14	EIA Notification	Environmental Impact Assessment
15	Public Liability Insurance Act	Public Liability Insurance
16	Contract Labour (Regulation and Abolition) Act	Registration of Principal Employer
17	Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act	Registration of Establishment



18	Employee Provident Funds and Miscellaneous Provisions Act, 1952 and Employees Provident Fund Scheme, 1952 (EPFS), , Employees Deposit-linked Insurance Scheme, 1976 (EPLIS)	Registration of establishment
19	Employees State Insurance Act	ESIC Code
20	Income Tax Act, 1961	Obtaining PAN
21	Income Tax Act, 1961	Obtaining TAN
22	Professions, Trades, Callings and Employment Act	Certificate of RegistrationPTEC / PTRC
23	Goods and Services Tax Act, 2017	Obtaining GSTIN
24	Foreign Trade (Development & Regulation) Act, 1992 & Foreign Trade (Regulation) Rules, 1993Policy Circular No.15 (RE-2006)/2004-2009 Date: 27th July, 2006	IEC Certificate (Import Export Code Certificate)
25	Fire Prevention and Life Safety Measures Act	Final Fire NOC Approval
26	Electricity Act, 2003	Permanent Electrical installation Certificate
27	Lifts & Escalators Act	License to Operate Lifts
28	Indian Boilers Act, 1923	Registration of Boiler
29	Motor Vehicles Act, 1988	Vehicle Registration Certificate
30	Air (Prevention & Control of Pollution) Act, 1981Water (Prevention & Control of Pollution) Act, 1974Environment Protection Act, 1986	Consent to Operate
31	Bombay Prohibition Act, 1949	Permission to use spirit

32	Petroleum Act, 1934	License for storage of petroleum
33	Gas Cylinder Rules, 2016	License for storage of LPG Cylinder
34	Electricity duty Act	Permission for charging Diesel Generator Sets for more than 250 KV
35	Arms Act, 1959	Licence for acquisition and possession of fire arms and ammunition
36	Food Safety and Standards Act, 2006 & Food Safety and Standards(Licensing and Registration of Food Businesses) Regulations, 2011	FSSAI license
37	Legal Metrology Act, 2009	Verification of weight or measure before putting into use
38	Environment Protection Act, 1986 & Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	Authorization for handling Hazardous waste
39	Static mobile pressure vessel	Application for renewal of licence issued in Form LS-1A – SMPV
40	Plastic Waste Rule	Plastic waste – Brand Owner Registration
41	Environment (Protection) Act, 1986 & Ozone Depleting Substances (Regulation and Control) Rules, 2000	Registration of enterprise
42	Payment of Gratuity Act	Registration of Establishment
43	Labour Welfare Fund Act	Registration of Establishment
44	Industries Development & Regulation Act, 1951	Industrial Entrepreneur Memorandum (PART-B)
45	Intellectual properties Act	Registration of trademark, Patent etc

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46	Indian Telegraphy Act	Wireless telegraphy (walky-talky) - License
47	Bio-medical Rules	Bio-Medical Waste Management Authorization
48	Others	Renewable energy certification
49		Submission of structural plans approved by a structural engineer (Structural Stability Certificate)
50		Registration with Guard Board under PASARA
51		Trade Licence

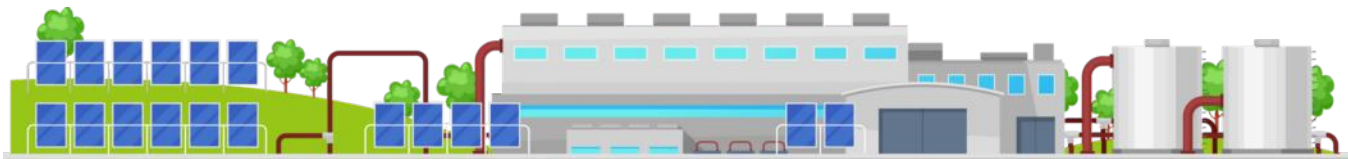
**A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana*

As evident from Table 3, solar energy producing plants need to obtain multiple registrations, licenses, approvals, etc., under several acts and in some instances, there are multiple requirements under a single act. Consequently, we find that some authorities are responsible for issuing several registrations, permissions, and licenses, with each such approval requiring a separate application, leading to a separate application process.

Table 4: Illustrative list of authorities responsible for multiple approvals*

Issuing Authority	Number of Approvals/ Registrations/ Permissions
Maharashtra Pollution Control Board (MPCB)	7
Chief Electrical Inspector Industries, Energy, Labour and Mining Department (Govt of Maharashtra)	3
Chief Fire Officer, Maharashtra	2

Department of Goods and Service Tax (Govt of maharashtra)	2
Filed online on the DPIIT G2B Portal	2
Income Tax Department	2
Labour Department of the Government of Maharashtra	2
State Environment Impact Assessment Authority Maharashtra	2
Airport Authority of India	1
Central Ground Water Authority (CGWA)	1
Chief Controller, Petroleum & Explosives Safety Organization (PESO)	1
Chief Electrical Inspector (Lifts)	1
Chief Engineer (Electrical)	1
Chief Inspector (Directorate of Industrial Safety and Health Department)	1
Chief Inspector for Explosives. (Petroleum & Explosives Safety Organization (PESO))	1
Chief Inspector of Factories and Boilers (Directorate of Industrial Safety and Health (DISH))	1
Commissioner of Food Safety, Food Safety and Standards Authority of India	1
Controller General of Patents, Designs & Trade Marks (CGPDTM)	1



Controlling authority, Maharashtra Government	1
Department of Telecommunication	1
Directorate General of Foreign Trade	1
Directorate of Steam Boiler (Govt of Maharashtra)	1
District Magistrate or in areas with a Commissioner of Police, the Commissioner of Police (or a designated Deputy Commissioner of Police)	1
Employees' State Insurance Corporation (ESIC)	1
Industries, Energy & Labour Department	1
Insurance Regulatory and Development Authority of India (IRDAI)	1
Legal Metrology Officer, Department of Legal Meteorology	1
Local municipal authority or the chief officer of the municipal council (Maharashtra Industrial Development Corporation)	1
Maharashtra Energy Development Agency	1
Maharashtra Excise Department	1
Maharashtra Housing and Area Development Authority (MHADA)	1
Maharashtra Industry, Trade and Investment Facilitation Cell	1
Maharashtra Labour Welfare Board	1

Maharashtra PSARA authority	1
Petroleum & Explosives Safety Organization (PESO)	1
Regional Transport Office (RTO) (Maharashtra)	1
Relevant Municipal Corporation	1
Grand Total	51

**A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana*

However, the complexities do not end there. These registrations, licenses, permissions, etc., all have different timelines for their approval. This affects the company’s business planning and operations as some approvals take much longer than others.

Table 5: Timeline for obtaining Approvals, Registrations, and Permissions

Timeline for Approval, Registration, Permission	Number of Approvals, Registrations, Permissions
Immediate (Same Day to 7 Days)	6
Short-Term (8 to 30 Days)	9
Medium-Term (31 to 90 Days)	9
Long-Term (91+ Days)	4
No timeline	13
Conditional/Other Timelines	10
Total	51

**A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana*

Levels of Compliance

The overlapping of legislative powers among the union and the state governments adds another layer of complexity to the regulatory framework. For instance, ‘labour’ and ‘electricity’ fall under the concurrent list of the seventh schedule of the Constitution of India, empowering both the union and state governments to legislate on it. As a result, a company must comply with not only union laws but also the laws of the state in which it operates. A particularly complex situation is that of ‘Land’ as it is a state subject, but ‘transfer of property excluding agricultural land’ falls under the concurrent list.

Yet another example is ‘taxation’. The power to impose and collect taxes on different matters has been spread across the union, state and concurrent lists. Thus, some taxes (such as corporate tax) are payable to the union government, while others (such as stamp duty) are payable to the state government. Some taxation powers (such as property tax) have also been devolved to municipal bodies.

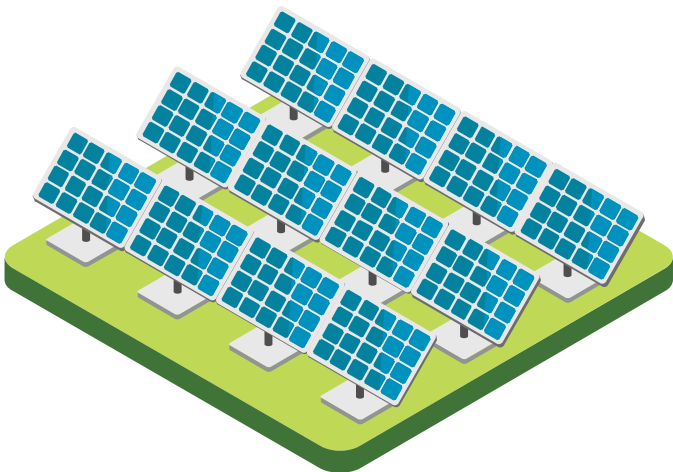
This division of law-making authority across various levels of government has created three levels of compliance – union, state and municipal.

A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid faces 285 unique compliances. In terms of frequency of these compliances, there are 58 monthly, 94 quarterly, 45 half-yearly and 114 annual. The rest of the requirements make up to 88 compliances across different frequencies.

Table 6: Compliances at central, state and municipal levels for a solar energy producing plant*

Category	Number of Compliances
Central	646
State	151
Municipal	2
Total	799

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Categories of Compliances

The compliance requirements for a renewable energy producing entity can be broadly classified across seven categories. Each of these categories contains several laws, rules and regulations with varying degrees of applicability depending on the company's size, nature and operations. A renewable energy producing plant with a corporate office needs to deal with 799 unique compliances. However, this figure inflates to 2,735 once we factor in the annual frequency of these obligations. This figure can go even higher given the nature of ongoing and event-based compliances that do not have a fixed frequency.

Table 7: Category-wise frequency of compliances for a solar energy producing company*

Category	Number of Compliances								
	Frequency								Total
	Seven Yearly	Five Yearly	Two Yearly	Annual	Half Yearly	Quarterly	Monthly	Others (Event-Based, One-Time)	
Labour	1	-	-	46	17	50	60	70	244
Finance and Taxation	-	-	-	15	3	17	22	27	84
Environment, Health and Safety (EHS)	2	-	2	13	9	22	7	3	58
General	-	-	-	19	2	10	-	-	31
Commercial	-	1	-	10	15	10	2	-	38
Secretarial	-	-	-	105	31	92	4	6	238
Industry Specific	-	-	1	47	5	21	13	19	106
Total	3	1	3	255	82	222	108	125	799
Total Annual Obligations (annual freq. X no. of compliances)	3	1	3	255	164	888	1,296	125	2,735

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LABOUR

This category includes 29 union laws that have now been consolidated into four labour codes. Since labour is a subject in the concurrent list, it is legislated by the union government, and each of these laws is accompanied by a host of state legislations. As such, renewable energy companies must create a list of applicable acts, rules and regulations to understand their obligations better.

A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana has to adhere to 244 labour compliances which reaches to 1,071 when factored with the frequency. It must adhere to several key labour and social welfare laws to ensure compliance and foster a safe, inclusive, and non-discriminatory work environment, a few legislations are:

- » The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986,
- » The Payment of Gratuity Act, 1972,
- » The Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013, and its Rules
- » The Rights of Persons with Disabilities Act, 2016,
- » The Payment of Wages Act, 1936
- » The Employees' Provident Fund (EPF) and Miscellaneous Provisions Act, 1952
- » The Maternity Benefit Act, 1961

SECRETARIAL

This category includes laws on corporate governance and risk management issued by the Ministry of Corporate Affairs (MCA), etc., like:

- » Companies Act, 2013 and related rules
- » SEBI Act, 1992
- » SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, etc.
- » SEBI Act, 1992 & SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015
- » Companies Act, 2013 & Companies (Accounts) Rules, 2014



FINANCE AND TAXATION

This category includes laws on direct taxes (Income Tax, Property Tax and Corporate Tax) and on indirect taxes (GST, Excise Duty, and Customs Duty).

Presented below is an illustrative list of applicable regulations under finance and taxation compliance:

- Maharashtra State Tax on Professions, Trades, Callings and Employments Act, 1975 and Maharashtra State tax on Professions, Trades, Callings and Employments Rules, 1975
- Income Tax Act, 1961 & Income Tax Rules, 1962
- Foreign Exchange Management Act, 1999 and Master Direction - Export of Goods and Services (Reserve Bank) Directions, 2016
- Central Goods and Services Tax Act, 2017 and Central Goods and Services Tax Rules, 2017; Haryana Goods and Services Tax Act, 2017 and Haryana Goods and Services Tax Rules, 2017
- Customs Act, 1962 and Customs Audit Regulations, 2018



ENVIRONMENT, HEALTH AND SAFETY (EHS)

EHS compliances constitute an integral and crucial part of the regulatory framework for industries in the renewable energy sector. For instance, they must adhere to the Indian Standard - Selection, Installation and Maintenance of First-Aid Fire Extinguishers - Code of Practice.

Here’s an illustrative list of other acts under the EHS category:

- Indian Standard - Selection, Installation and Maintenance of First-Aid Fire Extinguishers - Code of Practice
- Environment (Protection) Act, 1986 and Bio-Medical Waste Management Rules, 2016
- Environment (Protection) Act, 1986 and Noise Pollution (Regulation And Control) Rules, 2000
- Environment (Protection) Act, 1986 and Environment (Protection) Rules, 1986; Notification of EIA dated 14th September, 2006, S.O. 1533
- Guidelines on Environmental Management Of Construction & Demolition (C & D) Wastes, Dated: March 2017

- Environment (Protection) Act, 1986 and Guidelines to regulate and control ground water extraction in India; Notification No. S.O. 3289(E); dated 24th September, 2020
- Explosives Act, 1884 and Gas Cylinders Rules, 2016
- Environment (Protection) Act, 1986 & Environment (Protection) Rules, 1986
- Environment (Protection) Act, 1986 and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- Environment (Protection) Act, 1986 and Battery Waste Management Rules, 2022
- Environment (Protection) Act, 1986 and E-Waste (Management) Rules, 2022



COMMERCIAL

In the renewable energy sector, various commercial compliance regulations ensure safety, efficiency, and standardisation in production, distribution, and trade. The Petroleum Act, 1934, and its rules, though focused on petroleum, also impact biofuels and green hydrogen by regulating their safe handling, storage, and transportation, ensuring they integrate smoothly with existing fuel infrastructure. Similarly, the Motor Vehicles Act, 1988, and its rules play a key role in the transition to electric vehicles (EVs) by governing battery safety, charging infrastructure, and emission standards, promoting renewable energy adoption in the transportation sector.

The Electricity Act, 2003, along with the Central Electricity Authority’s safety regulations, directly oversees renewable energy generation, transmission, and distribution. These laws ensure the safe operation of solar farms, wind turbines, hydroelectric plants, and grid connectivity while supporting policies like net metering and decentralized energy generation. Collectively, these regulations form the foundation of commercial compliance in the renewable energy industry, ensuring the sector operates reliably, sustainably, and in adherence to national safety and efficiency standards.

Here’s an illustrative list of other acts under the commercial category:

- » Petroleum Act, 1934 and Petroleum Rules, 2002
- » Motor Vehicles Act, 1988 and Central Motor Vehicle Rules, 1989
- » Electricity Act, 2003 and Central Electricity Authority (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) Regulations, 2011



GENERAL

In the renewable energy sector, general laws ensure safety, governance, and sustainability. The Electricity Act, 2003, and the Central Electricity Authority (measures relating to Safety and Electric Supply) Regulations, 2023, set safety standards for power generation, transmission, and distribution, ensuring secure operations for solar, wind, and hydro projects. These regulations help prevent electrical hazards and ensure grid stability. The Maharashtra Village Panchayats Act, 1958, influences renewable energy projects in rural areas by governing land use, permissions, and community participation. Meanwhile, the Cigarette and Other Tobacco Products Act, 2003, and the Prohibition of Smoking in Public Places Rules, 2008, indirectly support sustainability by promoting public health and reducing pollution. Together, these laws help integrate renewable energy into a safe, regulated, and environmentally responsible framework.

Here’s an illustrative list of other acts under the general category:

- » Cigarette and Other Tobacco Products (Prohibition of Advertisement and the Regulation of Trade and Commerce, Production, Supply & Distribution) Act, 2003 & Prohibition of Smoking in Public Places Rules, 2008
- » Electricity Act, 2003 and Central Electricity Authority (Measures relating to Safety & Electric Supply) Regulations, 2023



INDUSTRY SPECIFIC

Apart from the above mentioned several different types of compliances, industries in the renewable energy sector must also manage a variety of industry-specific compliances. Many of the compliances that compliance officers are required to manage to find their roots in international conventions. In the renewable energy sector, several industry-specific laws and regulations ensure energy efficiency, safety, compliance, and smooth integration of renewable sources into the national grid.

The Energy Conservation Act, 2001, along with the Bureau of Energy Efficiency (BEE) regulations of 2010 and 2018, focuses on energy conservation through periodic audits. The 2010 regulations mandate energy audits at specified intervals to assess efficiency improvements in industries, while the 2018 regulations extend these audits to commercial buildings and establishments, promoting energy savings and sustainability in infrastructure powered by renewable energy.

The Electricity Act, 2003, along with various rules and regulations, governs multiple aspects of power generation, distribution, and compliance. The Intimation of Accidents Rules, 2004, ensures prompt reporting of electrical accidents, crucial for maintaining safety in renewable energy plants.

The Electricity Rules, 2005, outline technical and operational compliance for electricity production, transmission, and supply, impacting renewable energy projects integrated into the grid. The Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007, mandates periodic data submission, enabling better policy-making for renewable energy expansion.

For power system development, the Central Electricity Regulatory Commission (Power System Development Fund) Regulations, 2014, provides financial support for strengthening the grid and enhancing renewable energy integration. The Transmission Licence Regulations, 2009, streamline the process for private sector participation in transmission infrastructure, crucial for renewable power evacuation. The Grid Standards Regulations, 2010, establish technical norms for stable grid operations, ensuring smooth synchronization of variable renewable sources like solar and wind power.

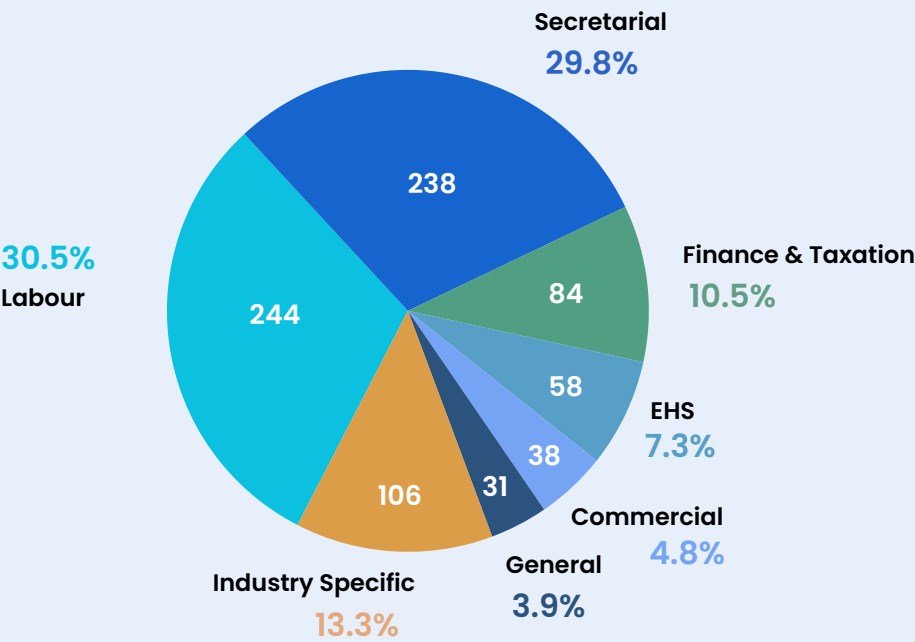
Additionally, the Guidelines for Tariff-Based Competitive Bidding (2022) support the procurement of renewable energy under a flexible power generation model, promoting the bundling of renewable sources with conventional power for better grid stability. Together, these regulations ensure the efficient, safe, and sustainable integration of renewable energy into India's power sector.

Here’s an illustrative list of industry-specific acts applicable to the renewable energy sector:

- Energy Conservation Act, 2001 and Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations, 2010
- Energy Conservation Act, 2001 and Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit of Commercial Buildings or Establishments) Regulations, 2018
- Electricity Act, 2003 and Intimation of Accidents (Form and Time of service of Notice) Rules, 2004
- Electricity Act, 2003 and Electricity Rules, 2005
- Electricity Act, 2003 and Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007
- Electricity Act, 2003 and Central Electricity Regulatory Commission (Power System Development Fund) Regulations, 2014
- Electricity Act, 2003 and Electricity Rules, 2005

This subsection will elaborate on the applicable industry-specific compliances:

Figure 2: Category-wise frequency of compliances for a solar energy producing company*



*A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid along with a corporate office in Haryana

However, the number of compliance obligations can vary depending on the state.

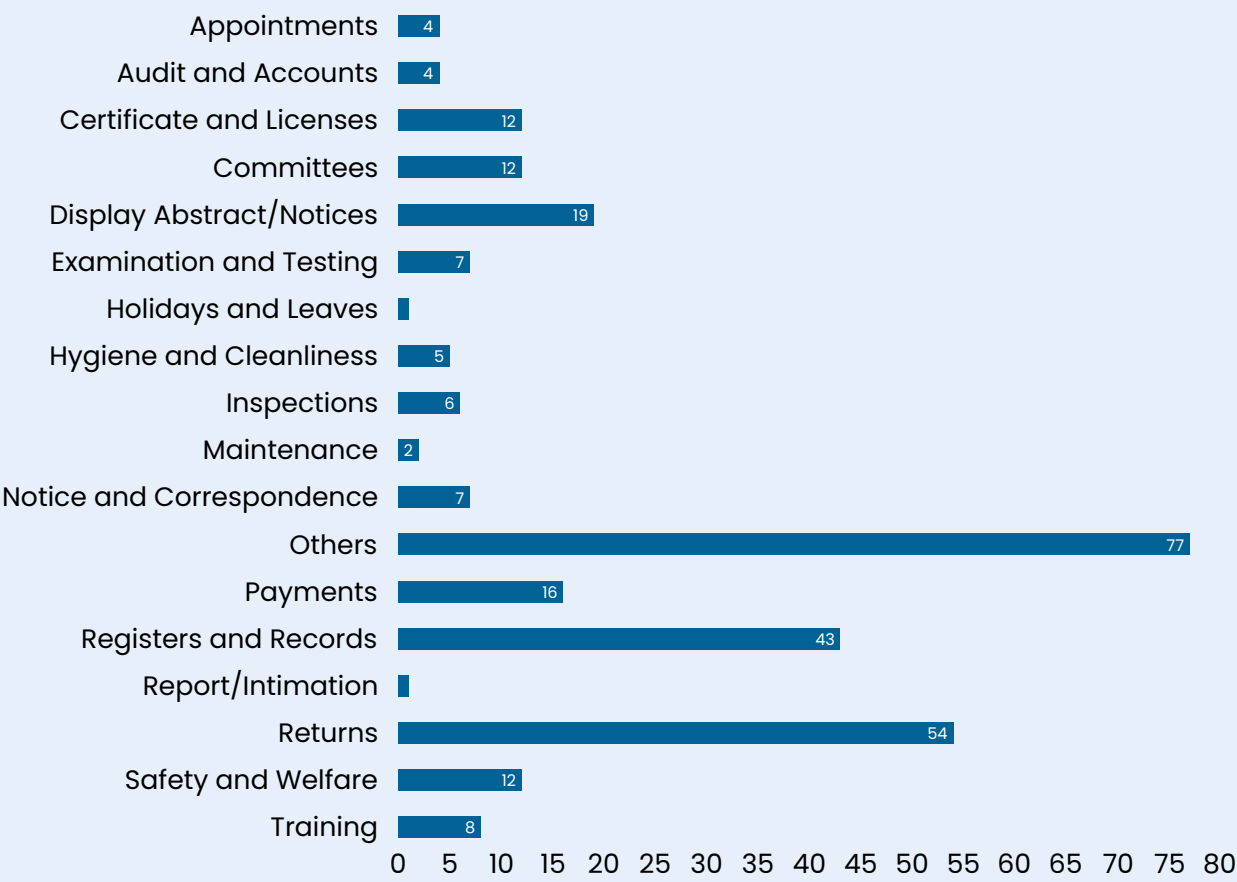
05

Types of Compliances



Having looked at the different categories of compliances, this section will look at the broad types in which such compliances are typically classified.

Figure 3: Type-wise Compliances for a solar energy producing plant*



*A standalone solar energy producing plant in Maharashtra where the electricity is generated and transmitted through the grid





Appointments

Organisations in India must adhere to several statutory compliance obligations under central and state laws. Under Rule 8(1)(b) of the Environment (Protection) Act, 1986 and the Plastic Waste Management Rules, 2016, every waste generator is required to segregate plastic waste at the source and hand it over to the local urban body, gram panchayat, or authorized agencies, ensuring that waste is not littered and is managed responsibly to prevent environmental harm. The Energy Conservation Act, 2001 and related regulations mandate that designated consumers, through their energy managers, define the scope of energy audits in collaboration with accredited auditors to ensure comprehensive coverage of energy usage, thereby promoting efficient energy management and conservation. The Industrial Disputes Act, 1947 and the Industrial Disputes (Bombay) Rules, 1957 require establishments to maintain a muster roll, recording attendance of workers who present themselves for work during normal hours, supporting transparency and fair labor practices. Additionally, the Maternity Benefit Act, 1961 and the Maharashtra Maternity Benefit Rules, 1965 obligate employers to inform every woman, at the time of her initial appointment, about all benefits available under the Act, both in writing and electronically, thus ensuring awareness and protection of maternity rights.

These compliance measures, monitored by authorities like the Central Pollution Control Board, Bureau of Energy Efficiency, and the Department of Labour, are critical for legal adherence, risk mitigation, and fostering a responsible and equitable work environment.



Audit and Accounts

Organisations operating in regulated sectors must comply with several statutory audit and reporting requirements to ensure operational transparency, safety, and efficiency. Under the Energy Conservation Act, 2001 and its associated regulations, designated consumers are required to undertake annual energy audits by selecting energy-intensive equipment or processes for review and collecting comprehensive data on energy consumption, production, operational schedules, and process flows. This process, overseen by accredited energy auditors and energy managers, is designed to identify opportunities for energy conservation and optimize resource use, as mandated by the Bureau of Energy Efficiency.

In the area of safety, the Maharashtra Fire Prevention and Life Safety Measures Act, 2006 requires building owners or occupiers to conduct a Fire and Life Safety Audit every two years for specified occupancies. This audit, monitored by the Directorate of Maharashtra Fire Service, aims to ensure adherence to fire safety standards and mitigate risks to life and property.



Additionally, under the Electricity Act, 2003 and Central Electricity Regulatory Commission regulations, electricity transmission licensees must annually prepare accounting statements certified by auditors. These statements must confirm that the financial records have been properly maintained and provide a true and fair view of the business’s financial position, as required by the Central Electricity Regulatory Commission.

Collectively, these compliance obligations ensure that organizations maintain high standards of energy efficiency, safety, and financial integrity, while meeting statutory requirements set by relevant central and state authorities.



Certificates and Licenses

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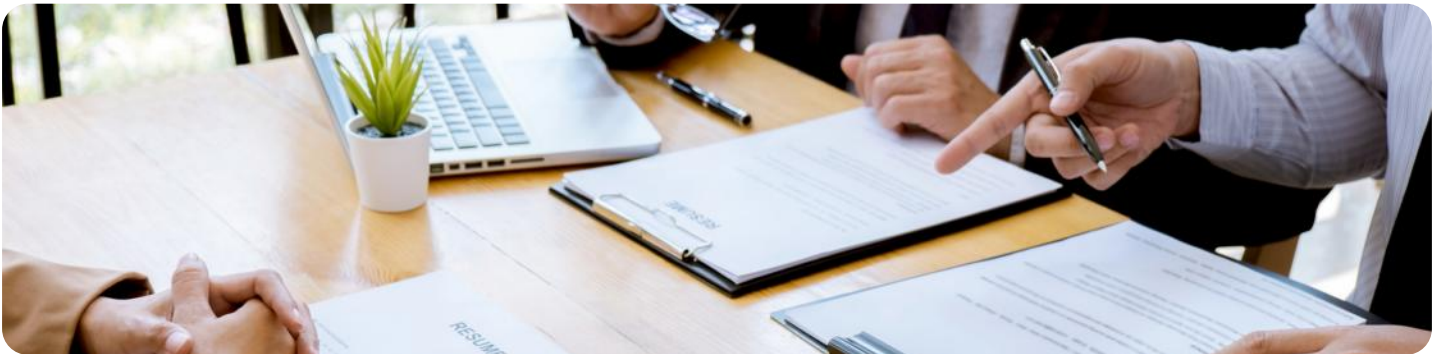
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Collectively, these compliance obligations ensure that organizations maintain high standards of energy efficiency, safety, and financial integrity, while meeting statutory requirements set by relevant central and state authorities.



Committees and Meetings

Organisations across sectors must comply with a range of statutory committee-related obligations to promote workplace safety, employee welfare, and operational integrity.



Under the Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013 and its Rules, employers are required to display information about penal consequences of sexual harassment and the constitution of the Internal Committee at conspicuous workplace locations, conduct regular workshops and awareness programs for employees and committee members, organize capacity-building initiatives, and publicly declare the names and contact details of Internal Committee members. Additionally, the Internal Committee must be reconstituted every three years to ensure its effectiveness and compliance with the law.

The Industrial Disputes Act, 1947 (Bombay Rules, 1957) requires employers to annually conduct elections for workmen representatives on relevant committees, supporting fair labor representation.

In the power sector, the Electricity Act, 2003 and related regulations mandate several committee-based compliances. Entities such as power generators and transmission licensees must annually furnish project and scheme details to the Nodal Agency. Safety committees must meet at least quarterly during the operation and maintenance of electrical plants and lines, with all recommendations to be implemented within stipulated timeframes. During construction, safety committees are required to meet monthly. Furthermore, operational standards for transmission lines, including frequency, voltage, and system stability, must be maintained as per Central Electricity Authority guidelines, with compliance monitored through regular committee reviews.

Collectively, these committee-driven compliance measures enforced by authorities like the Ministry of Skill Development and Entrepreneurship, Department of Labour (Maharashtra), Central Electricity Regulatory Commission, and Central Electricity Authority, are essential for fostering safe, equitable, and efficient workplaces and operations.



Display Requirements

Establishments across sectors are legally required to display key information and maintain Organizations in India are subject to a wide range of statutory requirements mandating the display of specific notices, abstracts, and information at workplaces to promote transparency, compliance, and employee welfare. Under various central and state laws, employers must prominently display abstracts of key labor laws—such as the Child and Adolescent Labour Act, Payment of Gratuity Act, Minimum Wages Act, Payment of Wages Act, Maternity Benefit Act, and Industrial Employment (Standing Orders) Act—in languages understood by the majority of employees. These displays ensure that workers are informed of their rights and protections. In addition, public places and establishments are required to display “No Smoking Area” boards and the contact details of authorized persons for complaints under anti-smoking regulations, as well as equal opportunity policies for transgender persons and details of complaints officers to foster inclusivity and non-discrimination.

Safety and emergency preparedness are also prioritized. Employers must display safety setup charts, fire extinguisher locations, and contact details for emergency services (such as police, fire brigade, hospitals, and electrical inspectors) at conspicuous locations. For electrical and hazardous installations, labels on hazardous waste containers and periodic safety promotional materials must be maintained, and addresses of nearby medical facilities must be displayed in control rooms and operator cabins. The display of information extends to operational aspects, such as notices of working hours, weekly holidays, and standing orders, ensuring that all employees are aware of workplace schedules and rules.

These display requirements, enforced by authorities such as the Ministry of Labour & Employment, Ministry of Health and Family Welfare, Bureau of Indian Standards, Central Pollution Control Board, and the Central Electricity Authority, are critical for legal compliance, risk mitigation, and fostering a safe, informed, and equitable work environment.



Employee Safety and Welfare

Organisations in India are required to implement comprehensive safety and welfare measures under both the Transgender Persons (Protection of Rights) Act, 2019 and the Electricity Act, 2003, along with their respective rules and regulations.

The Transgender Persons (Protection of Rights) Act, 2019, supported by the 2020 Rules, mandates that every establishment must provide a safe working environment for transgender persons and ensure non-discrimination in all employment matters, including recruitment, infrastructure adjustments, benefits, and promotion. Employers are obligated to publish an equal opportunity policy, make necessary infrastructure adjustments such as unisex toilets and hygiene amenities, and appoint a complaint officer to handle grievances. The law also requires confidentiality regarding gender identity and sets out penalties for non-compliance, including imprisonment and fines for acts that harm or endanger the well-being of transgender persons. For entities operating electrical plants and lines, the Electricity Act, 2003 and Central Electricity Authority regulations impose stringent safety and welfare requirements. These include maintaining medical facilities, ensuring the presence of a nurse in workplaces with over 200 employees, conducting regular mock drills for emergency management, and providing annual medical check-ups for employees. Additional mandates require the availability and periodic checking of fire-fighting equipment, preparation and updating of contingency procedures, and provision of first-aid boxes at strategic locations. Strict protocols must be followed for handling electrical equipment, maintaining safety clearances, and ensuring disaster management readiness at substations and switchyards.

These statutory obligations, monitored by authorities such as the Ministry of Social Justice and Empowerment and the Central Electricity Authority, are critical for fostering inclusive, safe, and healthy workplaces, while ensuring compliance with national standards for employee welfare and operational safety.



Examination, Inspection & Testing

Organisations are required to adhere to rigorous inspection, examination, and testing protocols to ensure workplace safety and operational reliability, as mandated by Indian standards and the Electricity Act, 2003. According to the Bureau of Indian Standards’ Code of Practice for fire extinguishers, every water (stored pressure) extinguisher must be tested for discharge every two years, and all fire extinguishers must undergo a thorough annual inspection. These inspections not only verify the functionality of firefighting equipment but also serve as an opportunity to train personnel in their use.

In the power sector, the Central Electricity Authority (CEA) regulations under the Electricity Act, 2003 impose strict requirements for regular checks and testing. Owners of electrical plants and lines must conduct annual colour vision and eyesight examinations for drivers, skilled workers, technicians, supervisors, and crane operators below 45 years of age, ensuring that only medically fit personnel operate critical equipment. Shift engineers and officers-in-charge are required to inspect essential parameters indicating the healthiness of substation equipment on a monthly and quarterly basis, respectively, to promptly detect and address any issues.

Additionally, annual thermo-vision scanning for hot spots on overhead lines and substation equipment at 220 kV and above is mandated to prevent failures and ensure system integrity.

For electrical installations of voltage equal to or below the notified threshold, owners, suppliers, or consumers must self-certify compliance with safety measures annually, with formal inspections and testing not to exceed a five-year interval. These comprehensive inspection and testing regimes, overseen by the Bureau of Indian Standards and the Central Electricity Authority, are essential for minimizing risks, maintaining operational safety, and ensuring compliance with statutory safety standards across industries.





Register and Records

Organisations in India are subject to extensive statutory obligations for maintaining registers and records under a variety of central and state laws, aimed at ensuring compliance, transparency, and protection of employee and environmental rights. Under labor laws such as the Equal Remuneration Act, Payment of Bonus Act, Employees State Insurance Act, Minimum Wages Act, and Maternity Benefit Act, employers must maintain detailed registers—covering aspects like wage payments, bonus calculations, accident records, muster rolls, maternity benefits, and more—using prescribed forms and formats, and preserve them for specified periods. Similar requirements exist under the Rights of Persons with Disabilities Act, which mandates records of employees with disabilities, and the Maharashtra Labour Welfare Fund Act, which requires registers of wages and unclaimed wages.

In the environmental and EHS (Environment, Health, and Safety) domain, the Environment (Protection) Act and associated rules require occupiers to maintain detailed records of hazardous waste management, disposal, and e-waste handling, as well as documentation for the sale, transfer, and storage of such materials. The Indian Standard for fire extinguishers mandates registers for the maintenance, inspection, testing, and disposal of fire safety equipment. Additionally, the Electricity Act and related regulations require the maintenance of separate business accounts, accident books, inspection books, and other operational records to ensure regulatory oversight and safety compliance.



These registers and records must be updated regularly i.e. monthly, quarterly, or half-yearly, depending on the specific law, and be made available for inspection by relevant authorities such as the Ministry of Labour & Employment, Central Pollution Control Board, Bureau of Indian Standards, Employees State Insurance Corporation, and various state labor departments. This robust record-keeping framework is essential for legal compliance, risk management, employee welfare, and environmental stewardship across industries.



Return Filing and Disclosures

Organisations in India are required to submit a variety of statutory returns to ensure compliance with central and state laws across labor, energy, environment, taxation, and industry-specific regulations. Under the Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, Internal Committees must prepare and submit an annual report to both the employer and the District Officer, detailing the number of complaints received, resolved, pending cases, awareness programs conducted, and actions taken. In the energy sector, the Energy Conservation Act mandates that accredited energy auditors conduct energy audits every three years, with energy managers and auditors jointly prioritizing recommendations, preparing annual action plans, and agreeing on the structure of audit reports. Environmental compliance under the Environment (Protection) Act requires occupiers to submit an annual environmental audit report (Form V) to the State Pollution Control Board by September 30th for the previous financial year, and to send annual and quarterly returns regarding hazardous waste management.

In the commercial and transportation sector, the Motor Vehicles Act requires drivers to obtain and upload inspection reports following fitness tests. For labor-related returns, employers must upload annual bonus returns in Form D under the Payment of Bonus Act, file annual returns under the Contract Labour Act and Maternity Benefit Act, and submit annual returns for Works Committees under the Industrial Disputes Act. The Maharashtra Self-Certification-cum-Consolidated Annual Returns Scheme allows eligible establishments to file a single consolidated return covering multiple labor laws by April 30th each year.

Tax compliance under the Maharashtra State Tax on Professions, Trades, Callings and Employments Act requires monthly or annual returns in prescribed forms, depending on the employer's tax liability, along with timely payment of professional tax. Additional requirements include filing returns of compensation paid for workplace injuries under the Employees Compensation Act, obtaining monthly accident statements from contractors in the electricity sector, submitting technical details of generating stations, and reporting monthly transactions by power exchanges and traders to the Central Agency. Collectively, these statutory returns are essential for regulatory oversight, risk management, and the promotion of safe, fair, and environmentally responsible business practices.





Statutory Payments

Employers in India must comply with a range of statutory payment obligations under central and state laws to ensure timely and transparent disbursement of wages, contributions, and levies. Under the Employees State Insurance Act, employers are required to make monthly contributions to the Employees State Insurance Corporation (ESIC) by the 15th of each month through electronic mode, at the current rate of 0.75% for employees and 3.25% for employers. The Maharashtra Labour Welfare Fund Act mandates quarterly payments of fines and unpaid accumulations, as well as half-yearly online payments of both employer and employee contributions to the Maharashtra Labour Welfare Board, accompanied by detailed statements. Employers must also maintain a register of salaries and wages for professional tax purposes, preserving records for six years.

The Minimum Wages Act and Payment of Wages Act require employers to pay wages on or before the 7th of every month for establishments with fewer than 1,000 employees, and to ensure proper payment for substituted rest days. The Maharashtra Workmen’s Minimum House-Rent Allowance Act obligates employers to pay a minimum house-rent allowance to workmen, either by cheque or direct bank transfer, within ten days of the following month. Principal employers under the Maharashtra Private Security Guards Act must directly disburse wages and allowances to security guards and submit monthly statements to the Board, while also paying levies and gross wages as directed.

Additional requirements include payment of maternity benefits to eligible women employees, wage payments in the presence of an authorized representative for contract labor, and the timely display of wage-related notices in prescribed formats and languages. Employers must also comply with various local tax levies under the Maharashtra Village Panchayats Act and maintain transparency through regular statements and registers. Collectively, these statutory payment obligations are critical for ensuring fair labor practices, legal compliance, and the welfare of employees across sectors in Maharashtra and beyond.



06

State of Criminalisation



A detailed examination of India’s business laws reveals that imprisonment has long been used as a mechanism to regulate entrepreneurs. The report *Jailed for Doing Business*, co-authored by Gautam Chikermane and Rishi Agrawal, sheds light on the extent and severity of imprisonment risks faced by business owners in the country. Out of the 1,536 laws governing business operations in India, over half (54.9%) include provisions for imprisonment. Additionally, among the 69,233 compliance requirements within these laws, nearly two out of five (37.7%) impose jail terms for non-compliance.

The report emphasises that many of these provisions penalise procedural missteps and technical lapses rather than intentional misconduct or serious offenses. This legal framework fosters an environment of distrust and rigidity, creating unnecessary barriers to business growth, innovation, and job creation in the economy.



Figure 4: Imprisonment clauses across levels of legislation

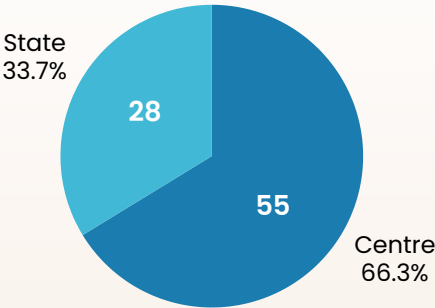
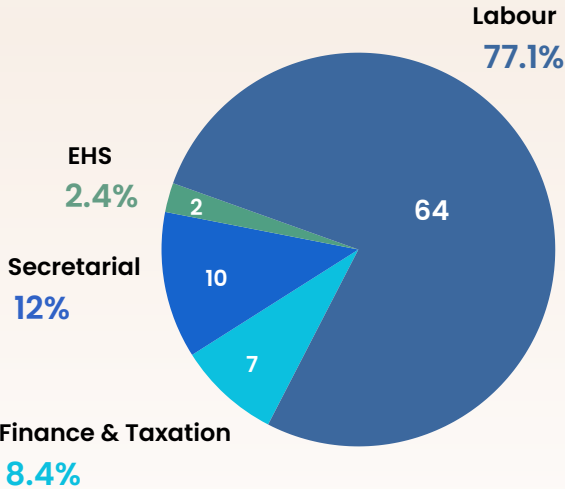


Figure 5: Distribution of imprisonment clauses across compliance categories



**Imprisonment clauses for a solar energy plant with a corporate office in Haryana*

As evidenced by the data, the implications of non-compliance can be severe. Hence, renewable energy producing entities must focus on establishing strong control over their compliance obligations. Staying on top of the regulatory changes, filings, permissions, and approvals, among others, must assume priority for the institution.

07

Key Budget Allocations 2025 for the Renewable Energy Sector and the Road Ahead



India’s renewable energy sector is at the forefront of the country’s transition towards sustainable energy. The government has consistently increased budgetary allocations, launched targeted schemes, and introduced regulatory reforms to accelerate clean energy adoption. The Budget 2025-26 reflects this continued commitment, with substantial funding directed toward solar, green hydrogen, and energy infrastructure.

This increasing investment aligns with India’s Vision 2047, which aims to transform the country into a global clean energy leader by its 100th year of independence. As the renewable energy sector grows, businesses must align with evolving compliance requirements to maximize government incentives, avoid regulatory penalties, and ensure seamless project execution.

Budget Allocation and Financial Support

- ₹600 crore for green energy corridors, which is to be used for the evacuation of renewable energy.
- ₹2,600 Crore to PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan), up from ₹2,525 Crore last financial year.
- ₹20,000 crore to PM Surya Ghar: Muft Bijli Yojana, an 80% jump from ₹11,100 Crore last year.
- ₹600 crore to the National Green Hydrogen Mission, up from ₹300 crore last year.



Budget Allocation Trends (Past 5 Years)

The Indian government has steadily increased its financial commitment to renewable energy over the years, reflecting a strong policy push toward sustainability. Below is a comparative analysis of budget allocations for the sector in the last five years:

Year	Budget Allocation (₹ Crore)	Key Focus Areas
2021	15,322	PM-KUSUM, Solar Energy Parks, R&D in Renewables
2022	19,500	Green Hydrogen Mission, Solar Expansion, Wind Energy
2023	24,423	Transmission Infrastructure, Rooftop Solar, Hydropower
2024	26,549	Green Hydrogen, Battery Storage, Distributed Renewables
2025	35,000+ (estimated)	Large-Scale Solar, Offshore Wind, Decarbonization of Industries

- The steady rise in funding for renewables highlights the sector’s growing importance.
- Transition from subsidies to infrastructure development shows maturity in policy focus.
- Regulatory frameworks are evolving in tandem, requiring businesses to stay compliant with power purchase agreements (PPAs), land use policies, and environmental norms.



Government Initiatives and Reforms

- The majority of the allocation is to PM Surya Ghar: Muft Bijli Yojana to harness solar power and help meet India's energy needs.
- Extensions of various government schemes like PM Surya Ghar, Green Energy Corridors (GECs), Renewable Energy Parks (solar power – grid), PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan) and the National Green Hydrogen Mission.
- Raising of new and renewable energy allocation by ₹9,251 crore with a final budget of ₹26,549 crore.
- The movement away from fossil fuels and a transition to clean energy.
- Providing clean energy to more than 35 lakh farmers to help solarising agriculture pumps.
- Making the country a leading producer and exporter of green hydrogen resulting in an annual production of 5 million metric tons by 2030.

Major Government Initiatives & Their Compliance Implications

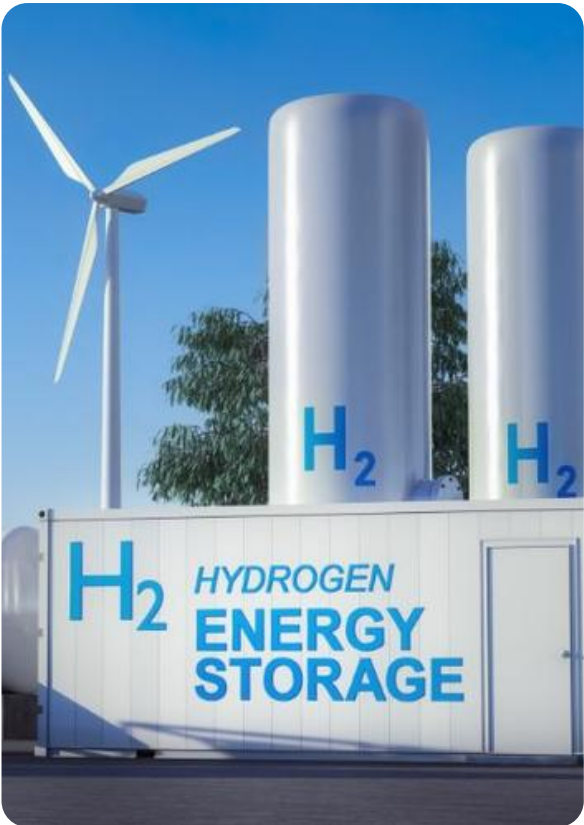
PM Surya Ghar: Muft Bijli Yojana

It aims to drive large-scale adoption of rooftop solar systems, particularly in residential areas, with a substantial budget allocation of ₹20,000 crore—an 80% increase from the previous year. To ensure smooth implementation, several compliance considerations must be addressed. First, consumers generating surplus solar power must adhere to state-specific net metering policies, which regulate the process of selling excess electricity back to the grid. Additionally, DISCOM approvals play a crucial role, as distribution companies must streamline their procedures for solar connectivity to facilitate faster adoption. From a financial compliance perspective, businesses and consumers seeking subsidies and incentives under this scheme must follow the Ministry of New and Renewable Energy (MNRE) guidelines, ensuring accurate documentation and timely reporting to qualify for government support.



2 **PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan)**

The scheme focuses on solarizing agricultural pumps and expanding clean energy access to farmers, with a budget allocation of ₹2,600 crore —reflecting a marginal increase from ₹2,525 crore last year. Compliance with land use regulations is a key requirement, as solar pump installations must align with state-specific land-use laws to prevent unauthorized land conversion. Additionally, farmers who integrate solar energy into the grid must adhere to State Electricity Regulatory Commission (SERC) guidelines, ensuring proper grid connectivity and transmission norms are met. From an environmental standpoint, the deployment of solar pumps must comply with groundwater conservation and biodiversity protection guidelines, ensuring that renewable energy expansion does not lead to unintended ecological impacts.



3 **National Green Hydrogen Mission**

India is positioning itself as a global green hydrogen hub, targeting the production of 5 million metric tons per year by 2030. The budget allocation for this initiative has doubled from ₹300 crore last year to ₹600 crore. Compliance in this sector involves adherence to safety and storage regulations, requiring companies to follow Petroleum and Explosives Safety Organization (PESO) guidelines for the safe handling and storage of hydrogen. Additionally, certification and export compliance will be crucial, as producers must align with international green hydrogen standards set by markets such as the EU and Japan. Furthermore, infrastructure approvals will require environmental impact assessments (EIAs) and State Pollution Control Board (SPCB) clearances before establishing hydrogen production facilities.

4 Green Energy Corridors (GECs)

This initiative aims to strengthen transmission infrastructure for seamless integration of renewables into the power grid, with a budget allocation of ₹600 crore dedicated to power evacuation. Compliance in this area includes power grid regulations, where renewable energy generators must adhere to grid code compliance to ensure efficient and stable energy transmission. Additionally, developers must navigate land acquisition and right-of-way issues, ensuring adherence to state land acquisition laws and obtaining forest clearance approvals where applicable.



5 Renewable Energy Parks (Solar & Wind)

The development of Renewable Energy Parks, focusing on large-scale solar and wind infrastructure, will play a crucial role in increasing renewable energy capacity. These projects must comply with environmental and forest clearances, as mandated by the Environment Protection Act (1986) and the Forest Conservation Act (1980). Additionally, companies developing these parks will need to engage in community impact assessments and adhere to corporate social responsibility (CSR) mandates to ensure the economic and social benefits extend to local communities.

6 Vision 2047 & India's Clean Energy Roadmap

Looking ahead, Vision 2047 & India's Clean Energy Roadmap outlines India's long-term ambition to become energy self-sufficient by 2047, reducing its dependence on fossil fuels. The country's renewable energy capacity is expected to exceed 50% of total installed power capacity, up from approximately 40% today. The policy focus will gradually shift from subsidy-driven incentives to long-term infrastructure development, including investments in offshore wind projects, green hydrogen storage solutions, and AI-powered energy grids for optimized distribution and efficiency.

Why Compliance is Critical for the Renewable Energy Sector?



Ensuring compliance in the renewable energy sector is critical due to increasing regulatory scrutiny around environmental standards, grid stability, and sustainable land use. Failure to meet compliance requirements can result in financial risks, including project delays, loss of funding, and penalties. Additionally, companies that align with global sustainability norms will gain better investor confidence and improve their market reputation, securing a competitive edge in both domestic and international energy markets.

The Budget 2025-26 marks a significant leap in India’s clean energy ambitions, providing opportunities for businesses to expand in a well-funded and policy-driven sector. However, increasing government oversight and regulatory complexities require businesses to prioritize compliance.

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Compliance Challenges for Renewable Energy Sector



India has set ambitious renewable energy targets, aiming to achieve 500 GW of non-fossil fuel capacity by 2030. However, the sector faces significant compliance challenges due to policy uncertainties, evolving regulations, complexity of cross-border supply chains, operational inefficiencies and international trade policies. The sector operates under a complex regulatory framework that requires adherence to multiple central, state and local laws. Compliance obligations span across environmental laws, grid safety regulations, taxation, licensing requirements & operational standards. However, one of the biggest challenges is the lack of a centralised compliance framework, making it difficult for companies to track all applicable rules.



Renewable energy projects whether solar, wind, hydro or bioenergy must comply with diverse regulations, such as environmental impact assessments, land acquisition norms, power purchase agreements (PPAs), grid integration policies, and workplace safety laws. The dynamic nature of regulations, with frequent amendments in tariff policies, emission standards, and renewable energy certificates, adds to the compliance burden.

Given below are some of the major compliance challenges faced by the renewable energy sector. Many of these are in congruence with a larger survey of clients conducted by TeamLease Regtech on regulatory complexity and the Ease of Doing Business in India.

Different Obligations for different Segments

Different sectors under the renewable energy sector can have different challenges to counter while meeting mandatory obligations. For example:

- A solar energy producing entity may have to meet land use compliance, grid connectivity compliance, rooftop solar regulations, solar panel and battery disposal obligations and obtain environmental clearances.
- A wind energy producing entity may have to meet site selection compliance, grid integration compliance, wildlife and environmental regulations and operational and safety compliance.
- A hydropower producing entity may have to obtain water use agreements, seek forest and environmental clearances, implement impact mitigation strategies under fisheries and aquatic life protection and ensure compliance with dam safety regulations.



Regulatory Uncertainty and Policy Implementation

Multiple regulatory bodies, including the Ministry of New and Renewable Energy (MNRE), Central Electricity Regulatory Commission (CERC), and State Electricity Regulatory Commissions (SERCs), create overlapping and sometimes conflicting policies. Frequent amendments to renewable energy policies and lack of uniformity in state regulations lead to compliance difficulties.

Land Acquisition and Environmental Clearances

Renewable energy projects, especially solar and wind farms, require large tracts of land, often leading to legal and bureaucratic hurdles. Environmental impact assessments (EIA) and forest clearances are time-consuming and vary across states, delaying project execution.

Workforce and Safety Regulations

Ensuring compliance with labour laws and occupational health and safety standards is critical, especially in wind and solar energy installations. Training and skilling programs for renewable energy workers need further enhancement to meet industry standards.



Fluid Regulatory Environment

India's regulatory environment is fluid. Just in FY2024-25, there were close to 9,000 regulatory updates published on the 2,233 websites of union, state and local government websites via notifications, gazettes, circulars, ordinances, master circulars, and press releases, among others, impacting key areas such as grid integration, power purchase agreements (PPAs), taxation, and environmental clearances. The lack of real-time tracking mechanisms forces compliance officers to monitor multiple government websites, increasing the risk of missing critical updates and leading to non-compliance and potential penalties.

Ambiguous Compliance Requirements

A renewable energy company operating multiple solar farms, wind power plants, and energy storage facilities across different states must adhere to hundreds of unique compliance requirements at central, state, and local levels. These compliance obligations span across categories such as labour, environmental, health and safety (EHS), finance, taxation, industry-specific, commercial, and general laws. The applicability of compliance requirements depends on factors like plant capacity, grid connectivity, geographical location, type of renewable energy technology, land use, and environmental impact. The absence of a centralized repository of all applicable compliances makes it difficult for renewable energy companies to track and adhere to evolving regulatory requirements.

Strict Liability Implications

Given the critical nature of electricity supply and infrastructure, the renewable energy sector is subject to strict liability provisions. For instance, under the Electricity Act, 2003, renewable energy projects must meet stringent grid safety, transmission, and operational standards to prevent instability. Similarly, under the Environment Protection Act, 1986, solar and wind power plants must comply with regulations regarding hazardous waste disposal, noise pollution, and water conservation. Non-compliance with these provisions may result in criminal and financial penalties, plant shutdowns, or cancellation of project approvals.

Manual & Paper-Intensive Compliance

Despite the complex nature of compliance in the renewable energy sector, many companies still rely on manual tracking methods, spreadsheets, and paper-based compliance logs. This increases the risk of missed deadlines, errors, and poor coordination across departments such as operations, finance, legal, and environmental teams. The absence of a centralized digital compliance management system often results in last-minute firefighting during regulatory audits.



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Recommendations for Enabling Ease of Compliance



Fostering Collaborative Engagement with Regulatory Bodies and Other Stakeholders

Enhanced association with different industry stakeholders can help stay ahead of regulatory developments by participating in industry associations, standard-setting bodies, policy dialogues, research collaborations, and broader sustainability forums. Such partnerships promote regulatory alignment, practical feedback loops, and shared innovation in compliance practices.

Maintaining a Comprehensive Compliance Checklist

Developing and maintaining a detailed compliance checklist tailored to renewable energy operations can help streamline regulatory adherence. This checklist should capture all applicable central and state-level laws, licenses, approvals, and periodic filings, categorized by time-based, event-based, and ongoing requirements. A dynamic, digital checklist, integrated into project management systems, can enhance visibility, assign responsibilities, and reduce the risk of oversight across functions and locations.



Proactively Tracking and Responding to Regulatory Changes

Institutionalising systems to monitor, interpret, and act upon evolving legal and regulatory requirements can help to stay on the right side of the law. This includes tracking updates from central ministries (such as MNRE, MoEFCC), sectoral regulators (like CERC and SERCs), and state nodal agencies.

Implementing Due Diligence with a Focus on Sector-specific Risk

Due diligence in the renewable energy sector is essential to ensure compliance with regulatory, financial, environmental, and operational risks. A sector-specific approach to due diligence enables companies to proactively identify potential compliance gaps and mitigate risks before they impact business operations.

Adopting Risk-Based Compliance Audits

Conducting regular risk assessments and compliance audits can help identify gaps in adherence to environmental, safety, and operational standards. Companies should develop structured audit programs focusing on areas such as grid safety, equipment maintenance, waste management, and workplace safety to mitigate potential risks proactively.

Creating a Culture of Compliance

The primary factor influencing any organisation is the "Tone at the Top." A "Zero Tolerance" policy on compliance from the top management needs to be evident at all organisational levels. A strong compliance management programme is also implemented at the organisational level by the compliance officers with the assistance of top management, which is involved in the review of compliance statuses.

Adopting Digital Solutions

Technology is the key to most of the problem statements, and compliance is not untouched. Adopting regulatory technology solutions can greatly enhance an organization's ability to track and manage compliance obligations. These tools help automate routine processes, reduce reliance on manual intervention, and improve the accuracy and timeliness of compliance activities. As a result, organizations can lower the cost of compliance, minimize the risk of non-compliance, and allocate resources more effectively toward strategic priorities.





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