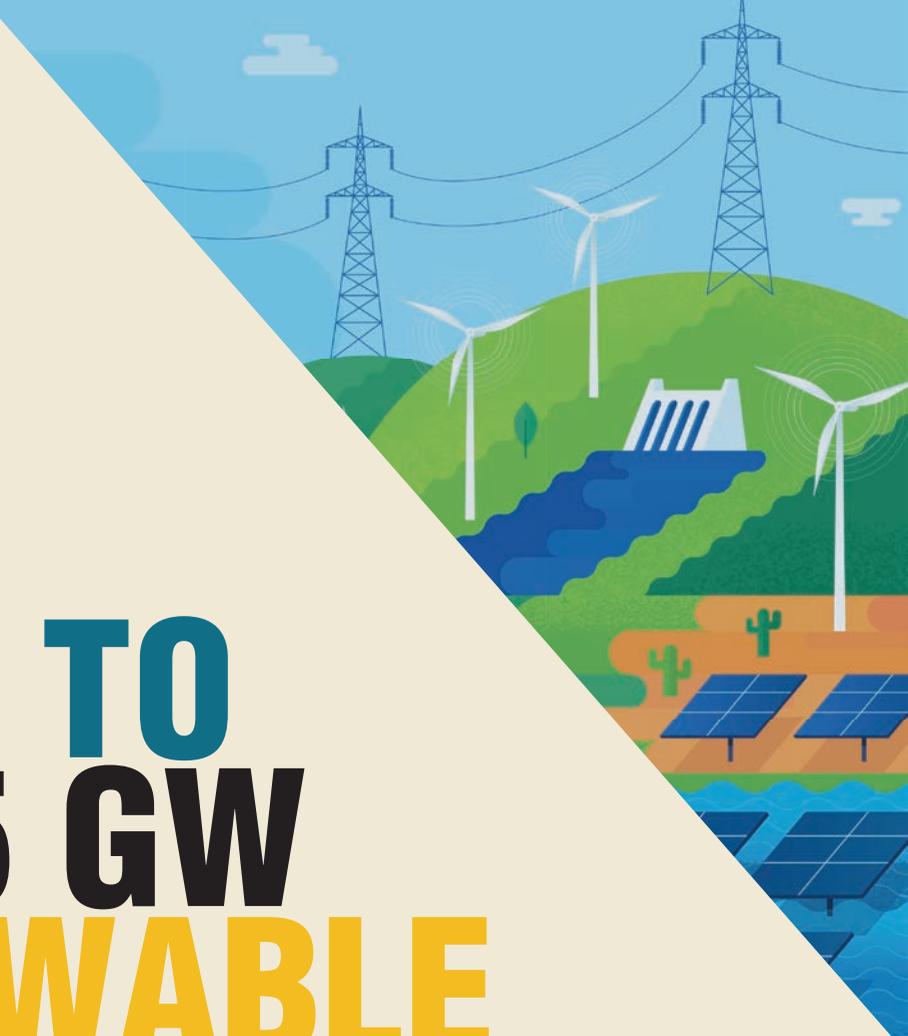


The logo for iFOREST, featuring the word 'iFOREST' in a bold, sans-serif font. The 'i' is lowercase, and 'FOREST' is uppercase. A small graphic element resembling a stylized tree or a cluster of dots is positioned between the 'F' and 'O'.

INTERNATIONAL
FORUM
FOR ENVIRONMENT,
SUSTAINABILITY
& TECHNOLOGY

A stylized illustration of a landscape featuring renewable energy sources. It includes green hills, a blue dam with water flowing over it, several white wind turbines, and solar panels in the foreground. The sky is light blue with a few clouds. The illustration is partially obscured by a diagonal white line that separates it from the main text area.

ROAD TO 10.95 GW RENEWABLE ENERGY CAPACITY IN ODISHA

Opportunities
and Prospects

A vertical bar on the left side of the page, composed of several horizontal segments in shades of blue, yellow, and orange.

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Ambitious state vision for RE power development, targeting 10.95 GW of RE capacity by 2030

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A substantial untapped market, with another 9.6 GW of RE capacity to be added by 2030

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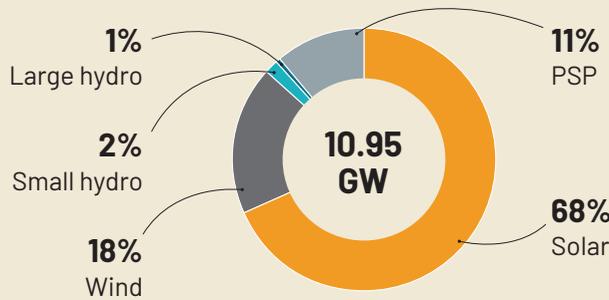
Renewable energy is at the forefront of Odisha's ambitious energy sector investment plans.

AMBITIOUS STATE VISION FOR RE CAPACITY DEVELOPMENT

Department of Energy, Government of Odisha's 'Shapath Patra' or Letter of Commitment issued in September 2024 clearly demonstrates the state's vision for RE sector development.

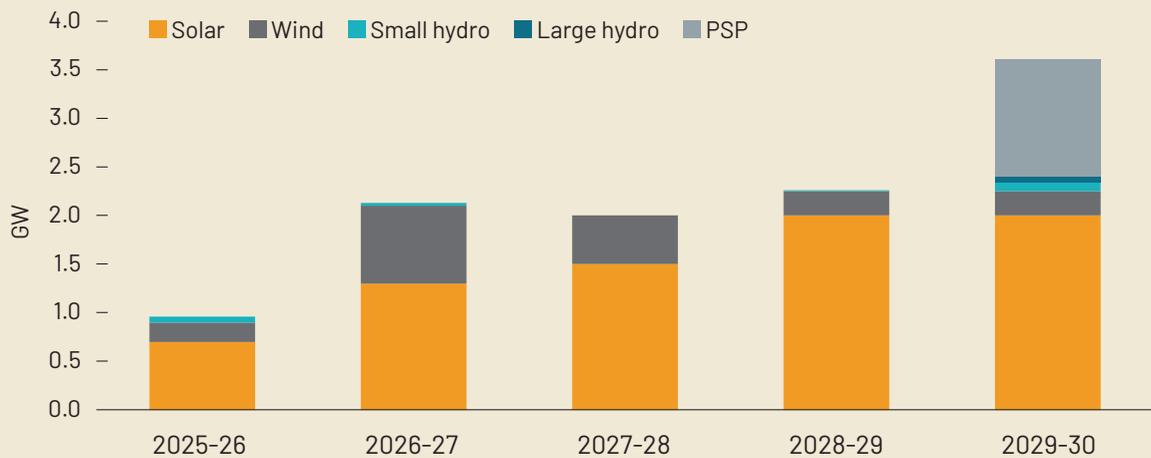
Of the 10.95 GW of RE capacity planned to be added by 2030, 7.5 GW is proposed to be achieved through solar projects, followed by 2 GW by wind, and remaining by large hydro, small hydro and pump storage projects.

Vision 2030 for renewable energy



Source: Department of Energy, Government of Odisha

Year-wise source-wise renewable energy capacity addition



Source: Department of Energy, Government of Odisha

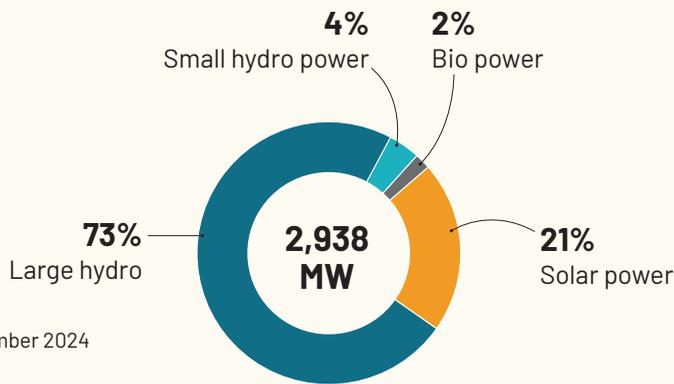
The installed RE capacity in Odisha stands at 2.9 GW (including large hydro, as of December 2024) with large hydro and solar being the major contributors.

A SUBSTANTIAL UNTAPPED MARKET, WITH ANOTHER 9.6 GW OF RE CAPACITY TO BE ADDED BY 2030

Additionally, 1,343 MW of RE projects have been approved for development, attracting an investment of 18,930 crore and creating 2,450 jobs.

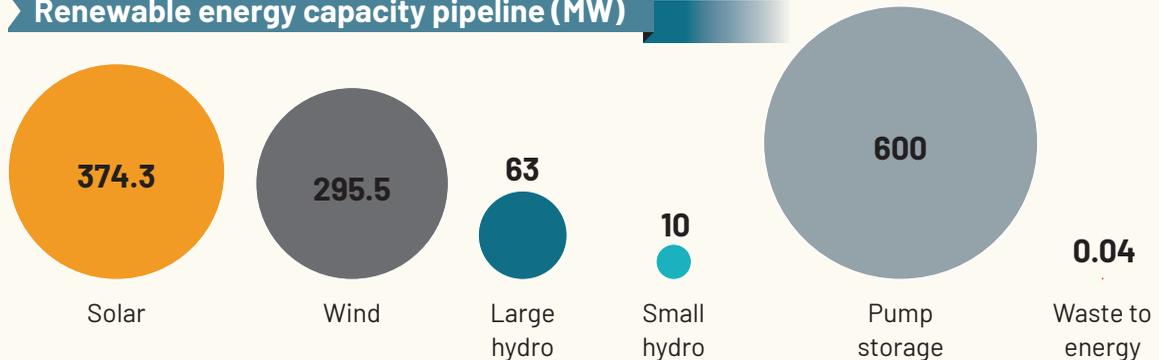
To achieve the 2030 target, Odisha needs to develop an additional 9.6 GW of RE capacity. This requirement is expected to increase further with emergence of pumped storage projects and new green hydrogen initiatives, which will drive demand for clean energy sources.

Installed renewable energy capacity



Source: MNRE, December 2024

Renewable energy capacity pipeline (MW)



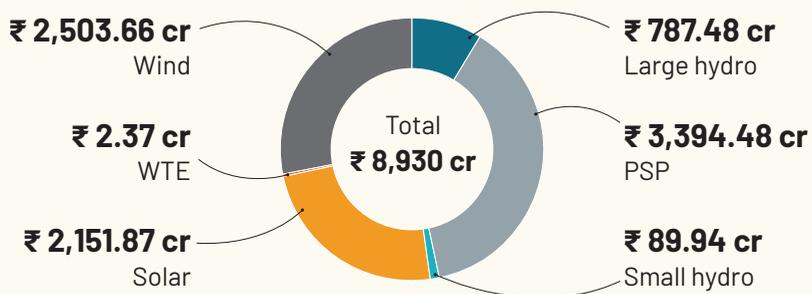
Note: As per projects approved till the 8th SWC meeting
Source: RENA, GRIDCO Limited

Pipeline of approved RE capacity

Particulars	Details
Single window committee (SWC) meetings held (in Nos.)	8
Proposals approved (in Nos.)	33
Cumulative capacity of proposals approved (in MW)	1342.8
Estimated investment (in ₹ Crore)	8929.8
Employment generation potential (in Nos.)	2449

Source: RENA, GRIDCO Limited

Source-wise approved RE investments



Source: RENA, GRIDCO Limited



ODISHA'S RE PROGRESS

Ongoing efforts to accelerate Odisha's RE growth, advancing from the take-off stage to a rapid expansion phase.

Commitment to RE Development:

The Department of Energy issued the 'Shapath Patra' (Letter of Commitment) in September 2024, reaffirming Odisha's commitment to RE growth under OREP 2022. The letter outlines year-wise, source-wise development and procurement plans up to 2029-30.

RE Development Support:

- An online portal (<https://greenenergyinvest.odisha.gov.in/>) has been launched as a Single Window Committee to facilitate renewable energy (RE) projects (registration, incentive, monitoring).
- The Renewable Energy Development Agency (REDA) and GRIDCO are providing guidance and facilitation support to RE developers and adopters.
- An online portal (<https://investodisha.gov.in/goswift/>) has been launched as a Single Window Committee to facilitate RE manufacturing and captive RE projects.
- OPTCL's grid availability data is shared on a public platform, which includes information regarding transmission and distribution network level substations/feeders and available excess capacity for RE connectivity.

Achievements So Far:

- Approved RE projects – 1,343 MW capacity with an investment of ₹8,930 crores (through eight Single Window Committee meetings).
- Comfort letters issued by GRIDCO to six developers for Round-the-Clock (RTC) RE and hybrid power supply.
- Banking facility for RE Power is the first of its kind in Eastern India.



Key Focus Areas:

Floating Solar:

- So far, 12 projects aggregating 5,400 MW capacity have been identified as state identified projects (See Annexure 1 for the list).
- IFC has been onboarded as Transaction Advisor for development of FSPV projects- 1000 MW on 8 major reservoirs.
- Technical consultants onboarded for feasibility report preparation - 1500 MW FSPV, followed by tender for allotment within 1 Year for 51 Medium Reservoirs.
- 2500 MW of FPSV Projects to be developed by Captive power producers.
- Reservoir Committees have been formed for smooth finalization of Go / No-Go area mapping through State (Major & Medium) and District-level (Minor) reservoir committee. Initial Mapping has been completed for 3 Major reservoirs i.e. Hirakud, Rengali & Upper Indravati.
- Waterbody allocation guidelines have been notified.

Wind Resource Assessment:



- GRIDCO-NIWE joint study launched to identify potential wind resource locations; wind masts installed at 10 locations.
- Wind studies initiated at six key locations – Ganjam (Tikiti, Kanishi), Puri (Marine Drive, Brahmagiri), Khurda (Begunia), and Nabarangpur (Papdahandi).
- Out of first 500 MW capacity allocated on a first-come, first-served basis, 400 MW have been granted in-principle approval.

Pump Storage Projects:

- So far, 45 projects aggregating 36 GW capacity have been identified as state-identified projects (See Annexure 2 for the list).
- OHPC developing a 600 MW pumped storage project at Upper Indravati Reservoir, project approved by HLCA and CEA.
- Potential of pump storage projects being closely assessed.
 - » **Off-River Closed Loop PSPs** – Feasibility studies for 26 sites (21 GW) is being done for potential assessment.
 - » **Open Loop PSPs:** Feasibility assessment of 10 potential sites of 4.4 GW capacity being undertaken by CPSUs (NTPC, NHPC, OTPC, NLCIL, NEEPCO).

Green Hydrogen Projects:

- 12 green hydrogen projects approved in the state.
- GRIDCO allocated banking facilities – 350 MW for green hydrogen and 200 MW for other RE developers.

Rooftop Solar (RTS):

- Additional state subsidy of ₹20,000 per kW (up to 3 kW) approved under PM Surya Ghar: Muft Bijli Yojana to drive RTS adaptation in the residential sector.
- OREDA targets solarization of all government buildings by 2026.

RE manufacturing:

- In November 2024, four RE equipment manufacturing facilities approved for investment, aggregating a capacity of over 6 GW per annum of cell manufacturing capability and over 2 GW per annum of module manufacturing capability.
- In January 2025, another module and cell manufacturing facility of 4.8 GW per annum approved.

VAST POTENTIAL FOR RENEWABLE ENERGY IN ODISHA

SOLAR

Odisha is blessed with abundant solar resources, with over 300 days of uninterrupted sunshine and an average solar radiation of about 5.3 kWh per sq m.

Peak insolation for Odisha is about 1,000 W per sq m (comparable to leading solar states like Gujarat), while the average insolation is about over 280 W per sq m (comparable to Karnataka).

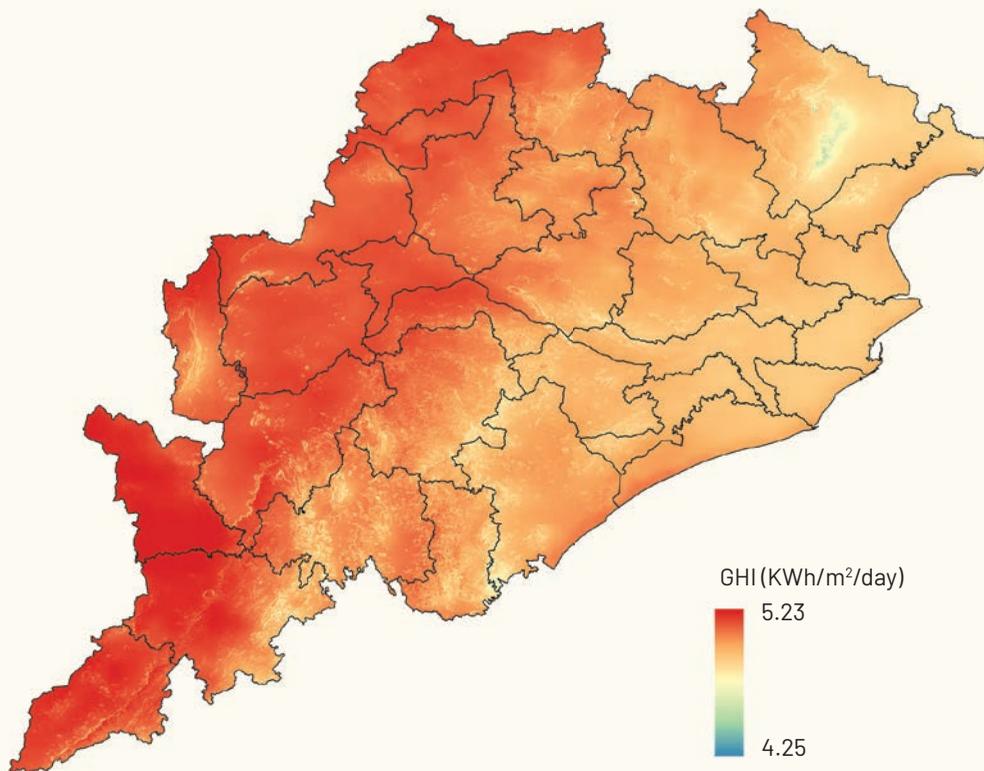
Insolation varies across districts, with Nabarangapur, Malkangiri, and Subarnapur receiving significantly higher levels than the state average.



Particulars	Odisha	Gujarat	Karnataka	Rajasthan
Average Solar Irradiance (kWh/m ² per day)	5.5	5.6	5.5	5.6
Peak Insolation (W/m ²)	1006	1003	1012	1023
Nos. of Solar Days	280 - 300	250 - 300	240 - 300	300 - 325

Source: NASA; Indian Space Research Organization

District-wise GHI map of Odisha



Note: GHI: Global horizontal irradiance
Source: Global Solar Atlas

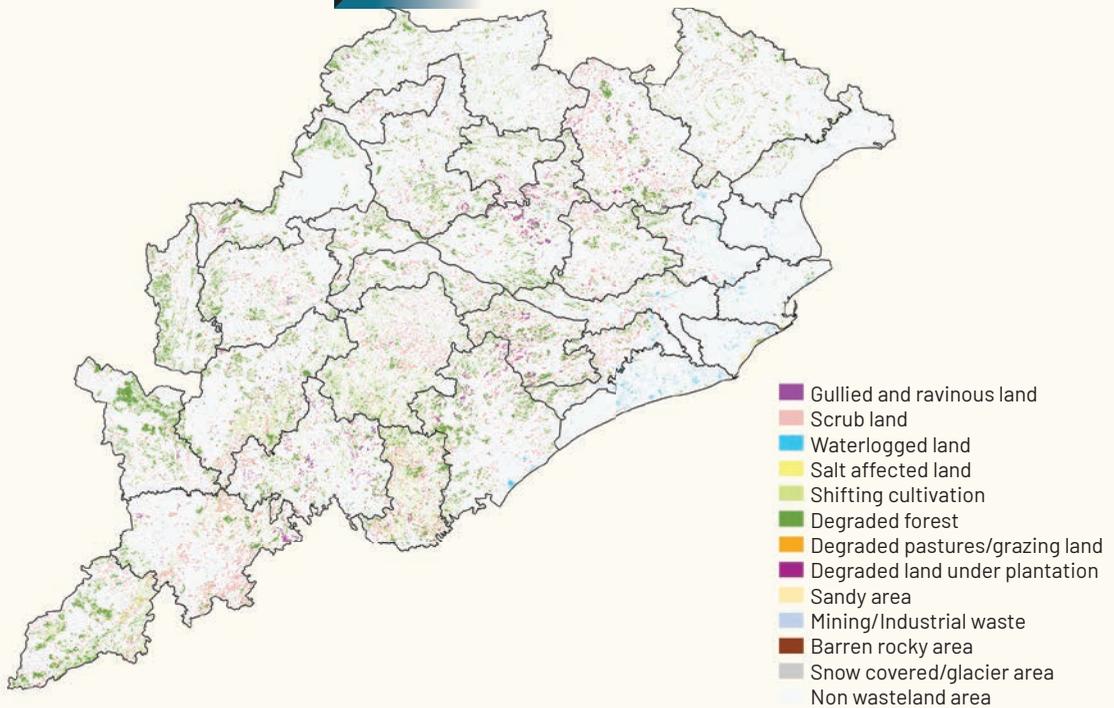
GROUND-MOUNTED SOLAR

Land availability is key for solar development, and Odisha, the eighth-largest state, has 11.83% of its 155,710 sq km area classified as wastelands (at about 18,422 sq km) as per India's Wasteland Atlas 2019.

The Odisha Ground-Mounted Solar Potential Assessment 2024 by the National Institute of Solar Energy (NISE) estimates Odisha's solar potential at 138 GW, utilizing 7% of wastelands, based on parameters like land use, slope, and grid proximity. The potential rises to 259 GW (considering the wasteland availability 15 km from substations) and 358 GW (at 20 km).

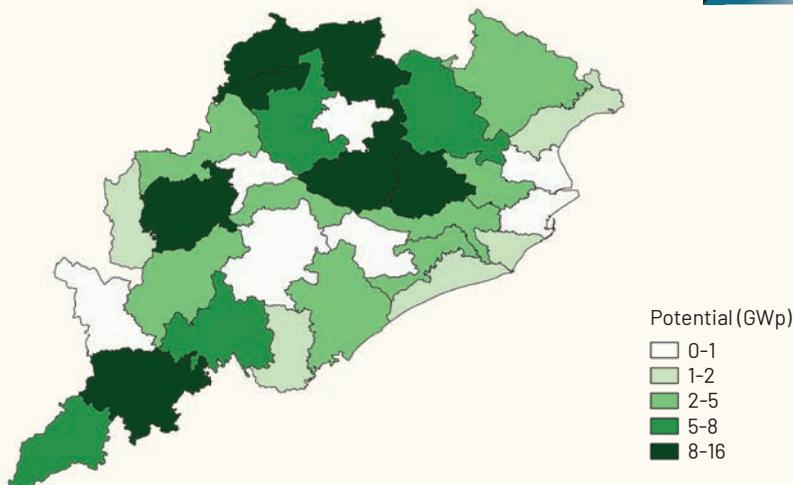
Top districts for solar potential include Sundargarh (15.23 GW), Angul (14.06 GW), Balangir (11.62 GW), Jharsuguda (11.45 GW), and Dhenkanal (9.70 GW), also key industrial hubs in the state.

Availability of wastelands



Source: Wasteland Atlas 2019, NRSC, Bhuvan Portal

District-wise potential for ground-mounted solar development



Source: NISE 2024

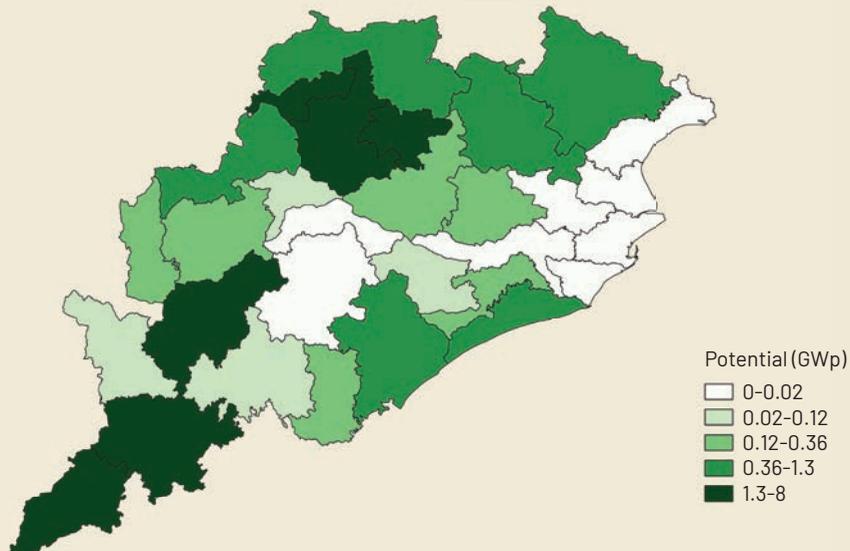
FLOATING SOLAR

Odisha has abundant water resources, with an estimated 7,444 water bodies (including reservoirs, tanks, lakes, and ponds of 0.02 sq km area, as mapped by ISRO's NRSC under SISDP Phase-2). (See annexure A.1 for district-wise availability of water bodies)

Very large reservoirs (>1 sq km) dominate, accounting for 80% of the total mapped area (1,782 sq km across 83 water bodies), while large (0.1-1 sq km), medium (0.05-0.1 sq km), and small (0.02-0.05 sq km) reservoirs respectively account for 7%, 5% and 8% of the total mapped area.

A recent NISE study estimates Odisha's floating solar potential at 33.5 GW across 670 sq km of feasible water body area, considering water bodies of over 0.1 sq km, and a land area requirement of 0.02 sq km for installing 1 MW capacity, along with factors of water availability and bathymetry.

District-wise potential for floating solar



Source: NISE



ROOFTOP SOLAR

Odisha's total built-up area spans 7,121 sq km across its 155,707 sq km geographical area, as mapped using 10 m resolution Multispectral Sentinel imagery provided by the European Space Agency.

The building footprint area is 797.9 sq km, with 27% (213 sq km) located in urban regions. In urban areas, residential buildings dominate at 45% share, followed by industrial/commercial (11%), institutional (5%), and mixed-use buildings (39%).

Even with conservative estimates, Odisha's building footprint area can theoretically support 10 GW of rooftop solar capacity.

Building footprint area in Odisha

(All numbers are in sq km)

Building category	Rural		Urban		Total
	Flat	Slant	Flat	Slant	
Residential	350.7	148.1	69.5	26.9	595.1
Mixed	44.1	14.8	62.5	19.6	141.0
Industrial	2.4	6.0	3.0	7.3	18.7
Educational	8.2	3.8	3.4	2.1	17.4
Commercial	2.8	1.2	8.8	4.0	16.9
Transport	0.5	0.6	0.7	1.7	3.6
Government	0.6	0.3	0.7	0.6	2.2
Health	0.5	0.2	0.8	0.4	1.9
Public	0.2	0.1	0.6	0.4	1.2
Total	410.0	175.1	149.9	63.0	797.9

Source: Mapped using 10 m resolution Multispectral Sentinel imagery provided by the European Space Agency

AGRI-PV

Agricultural lands in Odisha offer significant potential for solar deployment through agri-PV models.

Nearly 75% of the state's farmland is being mono-cropped, providing only subsistence-level income to farmers. Innovative business models can enable agri-PV development on these lands.

A recent assessment (by GIZ India and CSTEP) estimates Odisha's agri-PV capacity potential at 1,641 MW to 49,713 MW under minimum to maximum scenarios.

Cropping pattern on agricultural lands

(All numbers are in hectare)

Category	Irrigated area	Unirrigated area
Cropped once	5,75,724	26,81,201
Cropped twice	6,64,413	2,20,483
Cropped more than twice	46,508	-
Total	12,86,645	29,01,684

Source: Agriculture Input Survey, 2016-17

WIND

Odisha is endowed with moderate wind energy potential, with favorable wind speeds across many regions. According to the Global Wind Atlas, the state experiences an average wind speed ranging from 6.19 m/s to 8.78 m/s (around 86 locations) at 150m hub height.

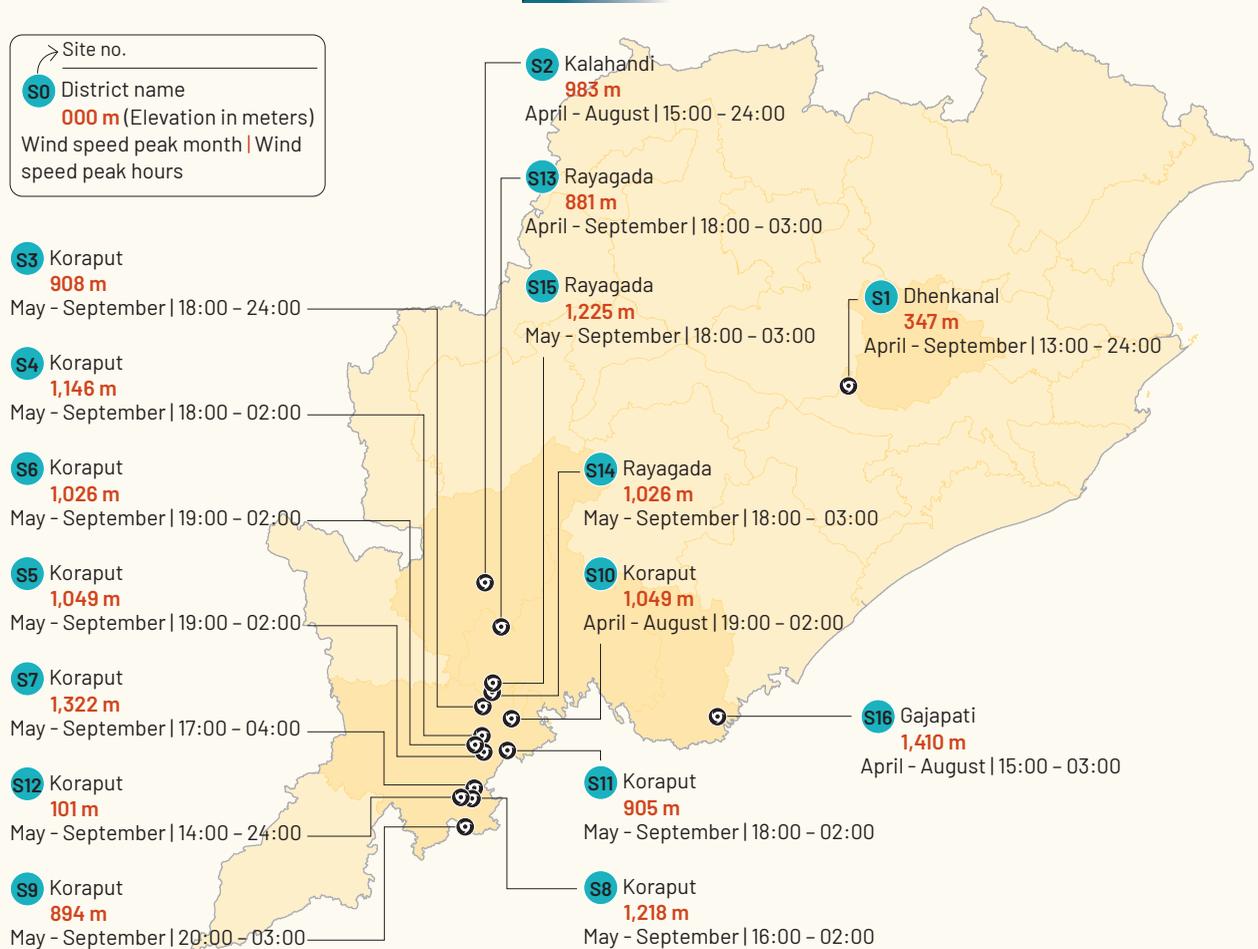
As per the National Institute of Wind Energy (NIWE), around 8,346 MW of wind capacity can be installed in Odisha at 120 m above ground level (agl), and 12,129 MW at 150 m (agl).

Estimated wind power potential

Hub height	Land type			Total
	Wasteland	Cultivable Land	Forest Land	
At 120 m	2,473	5,609	264	8,346
At 150 m	3,434	8,325	370	12,129

Source: NIWE

Key locations with high wind speed



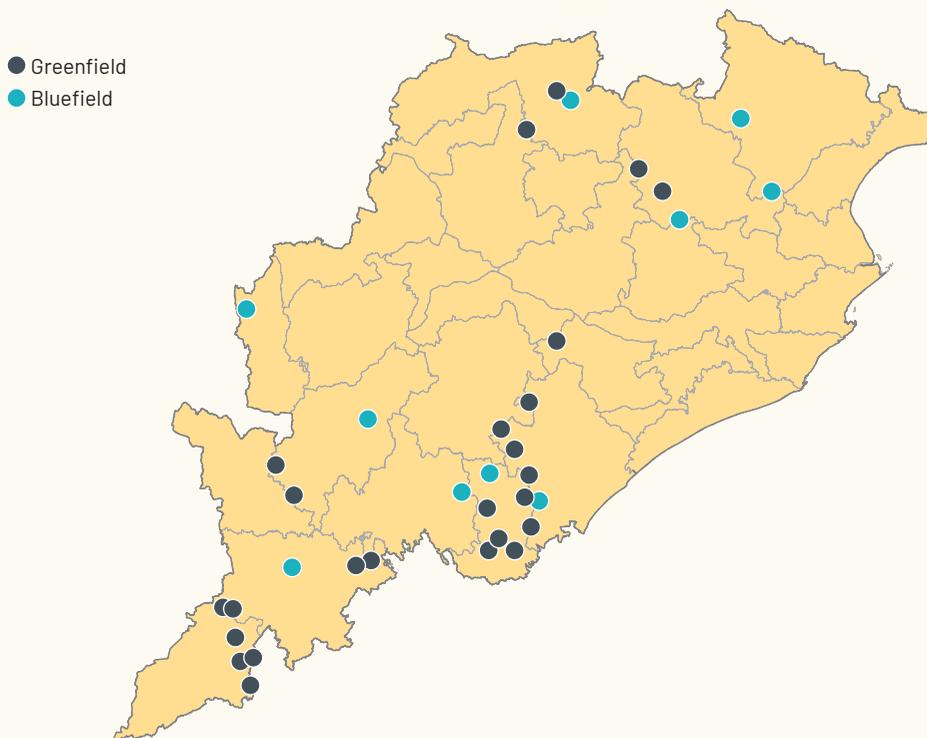
Source: iFOREST assessment

PUMPED HYDRO

Odisha possesses a significant pumped storage project (PSP) potential. The state's topography, with its hilly and mountainous terrains, offers ideal sites for the establishment of pumped hydro storage plants.

As per a detailed study by iFOREST, Odisha's pumped hydro potential includes 26 greenfield sites with a cumulative storage capacity of 21.9 GW and 10 bluefield project sites with 4.4 GW capacity. Additionally, the potential mapping of major reservoirs like Indravati, Upper Kolab, Hirakud, Balimela, and Rengali contribute to a total pumped hydro potential of approximately 36 GW.

Greenfield and Bluefield sites for PSP



Source: iFOREST assessment



LEADING THE CHARGE TOWARDS A SUSTAINABLE FUTURE

Odisha, ranked as the 13th largest state economy in India, is poised for an impressive 8.5% annual growth, fueled by strong industrial expansion in both mining and non-mining sectors. A key state government priority is developing low-carbon pathways to ensure sustainable growth.

At present, Odisha faces a significant challenge in managing its greenhouse gas (GHG) emissions, which were estimated at 305 million metric tonnes (MMT) CO₂e in 2022-23—three times the national average. Independent studies indicate that without intervention, emissions could rise by 118% in a business-as-usual scenario or 150% in a high-growth scenario. However, with focused efforts on a green economy, the state could limit this increase to 60% above current levels.

Aligned with national priorities and programmes, the Odisha government is actively promoting and supporting green energy development through progressive policies, regulatory measures, and efforts to enhance the ease of doing business. Additionally, independent market, economic, and technological drivers are accelerating the growth of renewable energy in Odisha, particularly in the solar energy sector.

Key Drivers of Green Growth in Odisha:

- **Policy Support:** Odisha's Renewable Energy Policy, 2022 offers best-in-class incentives and support for RE development, along with other industry-specific policies like the Industrial Policy Resolution, Odisha Food Processing Policy, Odisha MSME Development Policy, Odisha Apparel & Textile Policy etc.
- **Regulatory Measures:** The state has notified draft regulations updating Renewable Purchase Obligations (RPOs) for obligated entities, aiming for a 43.33% renewable energy procurement target by 2029-30.
- **Market Trends:** The increasing global focus on Environmental, Social, and Governance (ESG) standards is pressuring industries to reduce carbon footprints. Additionally, the European Union's Carbon Border Adjustment Mechanism (CBAM) is pushing industries exporting carbon-intensive goods to adopt cleaner practices.
- **Economic Opportunities:** As renewable energy costs decline and innovative procurement models are introduced, Odisha's push for green energy provides secure, affordable, and reliable energy for consumers, benefiting all sectors of the economy.
- **Technological Advancements:** The state is embracing transformative technologies like electric vehicles (EVs) and green hydrogen, integrating them into the transport sector and industrial processes to reduce emissions and drive long-term sustainability.

With its strong policy framework, regulatory commitments, and alignment with global market trends, Odisha is setting the stage for a sustainable, low-carbon economy powered by renewable energy.

INCENTIVES FOR SETTING UP RENEWABLE ENERGY PLANTS

To support the growth of solar power and other renewable energy capacities within the state, the Odisha Renewable Energy Policy, 2022 provides a clear set of incentives and frameworks.

- **Project Facilitation:** Single window clearance facility provided through Renewable Energy Nodal Agency (RENA), GRIDCO to facilitate approval/allotment of all RE projects in a time-bound manner.
- **Mode of Operation:** All solar projects to be developed through the Build-Own-Operate (BOO) model for 30 to 35 years, which covers development, construction, PPA, and decommissioning.
- **Wind power:** 500 MW of capacity to be allocated on first-come-first-serve basis, with a maximum capacity of 50 MW per project (for private developers).
- **Electricity Duty Exemption:** A 50 paisa per unit electricity duty exemption provided for captive/open access consumers using energy from in-state RE projects, applicable for 15 years from project commissioning. Exemption extended to 20 years for projects commissioned before March 31, 2026.
- **Energy Storage Projects Exemption:** Energy storage projects, sourcing power from RE projects located in the state, exempted from electricity duty on input energy at 50 paise per unit for 15 years from the date of commissioning.
- **Cross-Subsidy Surcharge Exemption:** A 50% exemption provided for open-access consumers using energy from Odisha-based RE projects for 15 years.
- **STU Charges Exemption:** A 20 paisa per unit exemption provided on state transition utility (STU) charges for 15 years for captive/open access consumers using energy from in-state RE projects. Exemption extended to 20 years for projects commissioned before March 31, 2026.
- **Wheeling Charges Exemption:** A 25% exemption provided on wheeling charges for captive/open access consumers using energy from Odisha-based RE projects for 15 years.
- **Stamp Duty and Land Charges Exemption:** RE projects exempted from stamp duty on land purchase/lease, land conversion charges, registration charges and land ceiling.
- **Connectivity with STU:** RE projects permitted to connect with STU. Grant of connectivity approval to be provided by Transco within 15 days from document submission.



INCENTIVES FOR RENEWABLE ENERGY MANUFACTURING

The Industrial Policy Resolution (IPR) of 2022 recognizes green energy equipment as a “thrust sector” which entails the provision of a bouquet of incentives.

Land Incentives:

- Government land to be alienated and transferred to IDCO at prices ranging from ₹1 lakh to ₹125 lakhs per acre (across identified zones).
- Exemption of 50% on the concessional industrial rate is provided for creating direct employment to 1000+ state-domiciled people.
- Exemptions provided on stamp duty for the transfer of land, loan agreements, credit deeds, mortgages, and transfer of conveyance instruments to new owners.

Power:

- A 100% exemption provided from payment of electricity duty for 10 years.
- Reimbursement of ₹2 per unit allowed on consumption for power purchased from local discom for 10 years.
- A 100% exemption of cross-subsidy surcharges, additional surcharges, and STU charges for procuring power from state-based RE plants/GRIDCO provided for 10 years.

Special Incentives (Captive Renewable Energy Plants):

- A 30% capital investment subsidy provided on actual investment in plant and machinery (excluding the cost of land and building) – disbursed in a phased manner for 5 years at 6% of overall eligible investment per year.

SGST Reimbursement:

- Reimbursement of 100% of net SGST limited to 200% of the cost of plant and machinery provided.

Employment Subsidy:

- A 100% reimbursement of employers' contribution to ESI and EPF scheme provided for 7 years.

Innovation and R&D:

- 50% assistance on R&D investments up to the maximum of ₹10 crores provided to academia and R&D Institutions.

Special Incentives under IPR, 2022

- **For Captive Renewable Energy Plants:** A 30% capital investment subsidy provided on actual investment in plant and machinery (excluding the cost of land and building) – disbursed in a phased manner for 5 years at 6% of overall eligible investment per year.
- **For Green Hydrogen Plants:**
 - » 100% exemption from payment of electricity duty for a period of 20 years.
 - » Reimbursement of power tariff of ₹3/unit consumed and purchased from DISCOMs/GRIDCO for 20 years.
 - » Cross subsidy surcharges, additional surcharges and state transmission charges will be exempted/reimbursed for a period of 20 years.

SUPPORTIVE REGULATORY ENVIRONMENT

Odisha Electricity Regulatory Commission has introduced several regulations to streamline open access, facilitate net metering, ensure renewable energy procurement compliance, and create a supportive tariff framework, positioning Odisha to advance its renewable energy goals.

Issued in September 2024, the Draft OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2024 have expanded the RPO obligation for obligated entities in Odisha to align it with the national guidance. The obligated entities include distribution licensees, consumers buying electricity from conventional captive power plants (1 MW and above) or procuring conventional power through open access and third-party sale.

Proposed RPO trajectory for obligated entities in Odisha

(% of total energy consumption)

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Wind	0.67	1.45	1.97	2.45	2.95	3.48
Hydro	0.38	1.22	1.34	1.42	1.42	1.33
DRE	1.5	2.1	2.7	3.3	3.9	4.5
Others	27.35	28.24	29.94	31.64	33.1	34.02
Total	29.91	33.01	35.95	38.81	41.36	43.33

Source: OERC

Net Metering norms for solar PV projects

Rooftop system capacity limit	75% of transformer capacity
Rooftop system capacity limit for net metering	1 kWp to 500 kWp (or sanctioned load whichever is lesser) upto 75% of transformer capacity
Rooftop system capacity limit for group & virtual net metering	5 kWp to 500 kWp
System capacity limit	100% of the sanctioned load
System capacity limit	75% of the distribution transformer capacity
Energy accounting	Excess generation for a month to be carried forward to the next month. At the end of the financial year, generation is capped at 90% and there is no carry over
Surplus injection compensation	NA

Source: OERC

Notification of support tariff for small hydro projects

Particular	Levelized tariff (₹/kWh)	Tariff period
SHEP below 5 MW capacity	5.93	40
SHEP of 5 to 25 MW capacity	5.82	40

Notification of support tariff for KUSUM Component-A projects

For the development of solar power under the bucket-filling method in the first phase of the PM-KUSUM Component-A scheme, a pre-determined tariff of ₹4.40/kWh has been approved, to be discovered through a competitive bidding process with reverse auction.

GROWING MARKET OPPORTUNITIES ACROSS UTILITY AND INDUSTRY SEGMENTS

Odisha is witnessing a strong push for renewable energy across both utility and captive sectors, driven by rising electricity demand, updated RPO trajectories, and the decreasing cost of RE generation.

In 2023-24, Odisha's utility electricity consumption reached 41,358 MUs, reflecting a 6.8% CAGR over the past five years from 29,692 MUs in 2019-20. This growth is expected to continue, with the CEA projecting a 3.4% CAGR in power demand over the next decade.

To meet this demand, the state has committed to a clear RE procurement trajectory under the recently issued 'Shapath Patra', aiming for 6 GW of total procurement between 2024-25 and 2029-30, with 2.10 GW coming from solar projects.

Meanwhile, the state also heavily relies on self-generated power, accounting for 16% of India's total installed captive capacity. This trend is set to persist, with the CEA forecasting industrial self-consumption from captive power plants to triple by 2030, growing at an 8.5% CAGR.

With the projected growth in power demand and updated RPO requirements, Odisha's utility RPO is expected to support an RE capacity of approximately 21.7 GW (as per the OREP, 2022).

Already, 144 MW RE capacity has been installed as captive RE capacity across various industries in Odisha. (See Annexure 4 for the list of projects)

Additional demand for RE will be created by the green hydrogen capacities being set up in the state. As per the 'Shapath Patra', 6.3 MMTPA of green hydrogen capacity is targeted to be added in the state by 2030.

Projected increase in utility and captive power requirement



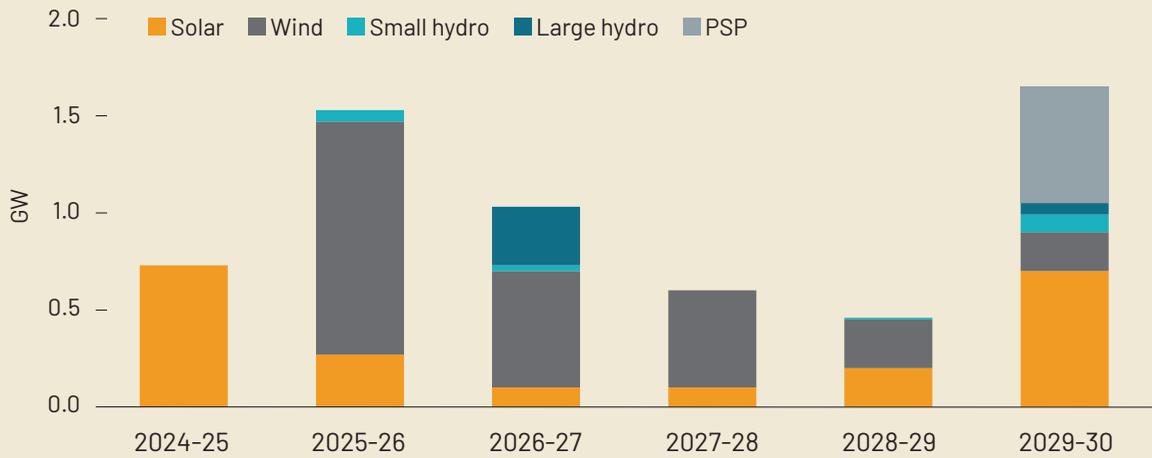
Note: Utility indicates ex-bus requirement, in a moderate scenario
Source: 20th Electric Power Survey of India, CEA

Estimated growth in renewable energy demand to meet RPO requirement

Additional Requirement	Cumulative Capacity (MW)		
	DISCOMs	Captive/OA	TOTAL
Wind	900	2,600	3,500
Hydro	300	900	1,200
Other	4,500	12,500	17,000
Total Renewables	5,700	16,000	21,700

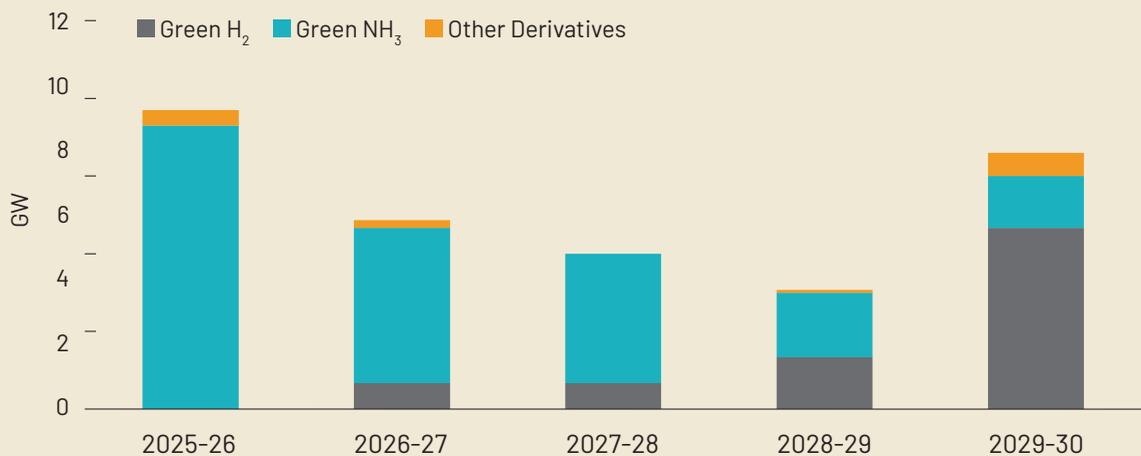
Source: OREP, 2022

Year-wise source-wise renewable energy procurement commitment



Source: Department of Energy, Government of Odisha

Year-wise green hydrogen/ammonia capacity addition target



Source: Department of Energy, Government of Odisha

ANNEXURES

A1: List of identified floating solar photovoltaic projects

SI No	Name of Reservoir	Type	Surface gross area (ha)	% use for PV	PV area (ha)	Target (MW)
1	Balimela	Hydro	18,450	2.44	450	360
2	Upper Kolab	Hydro	10,000	6.5	650	520
3	Indravati	Hydro	11,000	5.91	650	520
4	Hirakud & Burla	Hydro	74,300	3.57	2650	2120
5	Rengali	Hydro	28,000	1.61	450	360
6	Telengiri Water Reservoirs	Irrigation	500	90	450	360
7	Hariharjore Reservoirs	Irrigation	600	75	450	360
8	Mandira Dam	Irrigation	1,115	17.94	200	160
9	Jambhira Reservoir	Irrigation	483	41.41	200	160
10	Salandi Reservoir	Irrigation	1,590	12.53	200	160
11	Sorada Ghai Dam (Rushikulya)	Irrigation	450	44.44	200	160
12	Bhanjanagar Dam (Rushikulya)	Irrigation	520	38.46	200	160
Grand Total			147,008		6750.29	5400

A2: List of identified pumped storage projects

SI No	Location	Tentative Capacity (MW)	Upper Reservoir		Lower Reservoir	
			Latitude	Longitude	Latitude	Longitude
1	Koldihi PSP	1,000	21.5861	84.5431	21.5192	84.5522
2	Khunta	1,000	21.8381	86.5239	21.8081	86.6
3	Madhapur	1,000	20.4831	84.5428	20.4422	84.5283
4	Tumidibandh	3,000	19.9761	83.6103	20.0422	83.6403
5	Ambapani	3,000	19.645	82.5919	19.6153	82.5394
6	Kamalakheta	250	19.065	84.3911	19.0319	84.4044
7	Lakaisuni	1,000	19.0683	84.3914	19.1025	84.3808
8	Prahadipanga	250	19.6681	83.9528	19.6761	84.9242
9	Panabari	250	20.3722	84.6933	20.3914	84.7039
10	Gajapati	4,143.7	18.9572	84.0689	18.9623	84.0897
11	Malkangiri	3,179.3	18.6833	82.17	18.6849	82.14
12	Gajapati	2,379.9	19.0197	84.3369	18.9506	84.2678
13	Sundergarh	1,616.9	21.8786	84.5714	21.8467	84.5503
14	Gajapati	19.3	19.645	84.3833	19.3097	84.3606
15	Kehdujhar	1,116.8	21.5208	85.3708	21.5108	85.3278
16	Ganjam	1,004.5	19.4758	84.3408	19.4551	84.407
17	Gajapati	887.4	19.28	84.0456	19.2519	84.0989
18	Koraput	603.3	18.9553	83.1989	18.9444	83.2245
19	Kalahandi	583.2	19.6153	82.5394	19.645	82.5919
20	Ganjam	507.5	19.0681	84.3914	19.1206	84.3883
21	Nayagarh	483.7	20.3406	84.6856	20.3622	84.6608
22	Malkangiri	465.4	18.1381	82.3222	18.1463	82.3104
23	Koraput	464.7	18.9631	83.1083	18.93	83.1131
24	Gajapati	422.5	19.1167	84.1556	19.0322	84.1431
25	Kehdujhar	366.8	21.405	85.5317	21.3569	85.4922
26	Malkangiri	348.9	18.3153	82.4197	18.3214	82.3439
27	Kandhamal	342.4	19.8222	84.1722	19.7875	84.2275
28	Kandhamal	298.9	19.9569	84.3503	19.9575	84.4286
29	Sundergarh	269.8	22.0128	84.7781	22.0944	84.7847

Table A2 continued

SI No	Location	Tentative Capacity (MW)	Upper Reservoir		Lower Reservoir	
			Latitude	Longitude	Latitude	Longitude
30	Kalahandi	246.6	19.4117	82.6719	19.429	82.7086
31	Malkangiri	241.5	18.3369	82.2272	18.3197	82.2433
32	Nayagarh	228.3	20.3722	84.6933	20.3789	84.6817
33	Malkangiri	210	18.6878	82.2247	18.674	82.218
34	Ganjam	209.4	19.5864	84.2814	19.6394	84.3206
35	Malkangiri	200.4	18.455	82.29	18.4767	82.2181
36	Keonjhar	900	21.1593	85.6476	21.1514	85.6126
37	Mayurbhanj	150	21.8213	86.1055	21.8121	86.0978
38	Koraput	650	18.9232	82.6366	18.9323	82.6588
39	Kalahandi	450	19.9064	83.2549	19.921	83.2724
40	Sundargarh	450	22.036	84.8931	22.0346	84.8779
41	Keonjhar	300	21.3108	86.2498	21.3137	86.276
42	Ganjam	250	19.2585	84.4565	19.2771	84.4497
43	Nuapada	350	20.7381	82.4523	20.7347	82.4491
44	Gajapati	300	19.5079	84.1082	19.4949	84.1269
45	Rayagada	600	19.3611	83.9396	19.3747	83.9159
Total		35,991				

A3: Company-wise list of solar CPPs commissioned in Odisha

Name of the Company	District of Location	Installed Capacity (MW)
Aditya Aluminium, Hindalco Industries Limited	Sambalpur	24
Dalmia Cement (Bharat) Limited	Sundergarh	18.84
Aditya Birla Renewable Energy Limited	Balangir	18.75
Aditya Birla Renewable Energy Limited	Dhenkanal	15.62
Jindal Steel & Power Limited	Angul	11.84
Shree Cement Limited	Cuttack	7.3
Jindal Stainless Limited	Jajpur	6.1
Azure Power Rooftop Three Private Limited	Koraput	6
Aditya Birla Renewable Limited	Rayagada	5
Utkal Alumina International Limited	Rayagada	5
Indian Metal & Ferro Alloys Limited	Cuttack	4.6
Tata Steel Limited	Jajpur	4.09
Tata Steel BSL Limited	Dhenkanal	3.04
Nu Vista Limited	Jajpur	2.28
RSB Casting Limited	Cuttack	2.2
Ultratech Cement	Jharsuguda	2
Mahanadi Coal Fields	Sambalpur	2
RSB Transmission Limited	Cuttack	1.1
Jay Iron & Steel Limited	Sambalpur	1
Shree Mahavir Ferro Alloys	Sundergarh	1
Rourkela Steel Plant	Sundergarh	1
GEDCOL Solar	Mayurbhanj	1
Dhamra Port Company Limited	Bhadrak	0.621
Tata Steel Sponge Iron Limited	Kendujhar	0.235
IFFCO Paradeep	Jagatsinghpur	0.1
Total		144.7

Source: EIC data set (as shared in October 2024)



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