



Mapping India's Energy Policy 2023

Annex

Swasti Raizada, Deepak Sharma, Tara Laan, Saumya Jain

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Purpose

This annex update is an accompaniment to *Mapping India's Energy Policy 2023*. Over the last few years, IISD has been publishing an annual update of government support for energy along with government receipts under its flagship study titled Mapping India's Energy Policy. The study aims to improve transparency and support Government of India's (GoI) own initiatives to ensure that energy is more equitable, secure, and aligned with India's long-term net-zero emissions target by 2070.

Approach and Methodology

Governments support energy production and consumption through different types of public financial flows. Public financial support is, therefore, broader than subsidies. The term encompasses all policies of a government or its subsidiary bodies that deliver a financial benefit to energy producers or consumers. IISD's framework for estimating public financial support for fossil fuels and clean energy includes: subsidies (grants, tax exemptions, income or price support), and indirect or extra-budgetary transfers to state actors across value chains such as capital expenditure by central public sector undertakings (CPSUs, also known as state-owned enterprises) and lending by public financial institutions. For background information, please refer to the previous editions of the report ([2017](#), [2018](#), [2020](#), [2021](#), [2022a](#), [2022b](#)).

The following sections provide details of IISD's methodology to map these measures. It includes the following modules:

- types of government support
 - subsidies
 - state-owned enterprises investments
 - lending by domestic public financial institutions
- government receipts from the energy sector

The current database covers decadal data between fiscal years (FY) 2014–2023 for the first time. The fiscal year in India runs from April 1 to March 31. In 2023, IISD conducted an internal review of its methodology to better reflect the changing landscape of energy, capture new data being made publicly available by the government, and address peer feedback from researchers. Following this, we have made some modifications to select measures to reflect the availability of new data and update the methodology to better reflect—to the extent possible—the recent measures introduced.

To better understand the direction of public financial flows, IISD also categorizes measures according to fuels, i.e., coal, oil and gas, transmission and distribution, renewables, and electric vehicles. Biomass and biofuels were previously included under the renewables category. Starting this year, we have created a separate category for biomass and biofuels and have tracked support since 2016.

A. Types of Government Support

Subsidies

Subsidies are often commonly construed as direct spending distributed by governments to consumers, since these are the most visible support policies and usually quantified as subsidies in budgetary documents. However, subsidies can be much larger than this. They include other measures, such as tax expenditure, income or price support, and transfer of funds and liabilities to state actors, which are often less transparent and harder to quantify.

Where possible, our subsidy estimates are drawn from official government sources, such as Union Budgets, ministry websites and annual reports, parliamentary questions and answers, parliamentary standing committee reports, and tariff orders of electricity distribution companies. In cases where official estimates were publicly unavailable, various methods have been used to estimate subsidies independently, following standard international practices.

The subsequent sections provide a detailed background for all subsidies that have significantly changed since our [2022](#) review. For a full overview of subsidy data, readers can also refer to the separate accompanying data spreadsheets that form part of the 2023 update or visit the [interactive platform](#) with key trends.

New Subsidies

- **coal**
 - C.19 Decommissioning of Badarpur Thermal Power Station
- **oil and gas**
 - OG.48 Numaligarh Refinery Expansion Project
 - OG.50 Scheme for promotion of flagging of merchant ships in India
- **renewables**
 - RE.20 National Green Hydrogen Mission
 - RE.26 Viability Gap Funding for Battery Energy Storage System and Pumped Storage Plants
 - RE.27 Manufacturing Zones under Atmanirbhar Bharat Package
- **electric vehicles**
 - EV.8 Production Linked Incentive (PLI) Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage
 - EV.9 Production Linked Incentive (PLI) Scheme for Automobiles and Auto Components

New Subsidies - Added Retrospectively

- **oil**
 - OG.46 Feedstock subsidy to Brahmaputra Cracker and Polymer Limited (BCPL)/Assam Gas Cracker Complex
 - OG.47 Indradhanush Gas Grid Limited (IGGL)-part of the North-East Natural Gas Pipeline Grid

- OG.49 Interest on special bonds to oil companies
- **transmission and distribution**
 - TD.18 GoI fully serviced bond issue expenditure and interest (Power Finance Corporation Limited bonds)
 - TD.19 GoI fully serviced bond issue expenditure and interest (REC Limited bonds)
- **biomass and biofuels**
 - B.4 Pradhan Mantri JI-VAN Yojna

Subsidies Methodology Revised–Retrospectively

- **coal**
 - C.3 Exploration of Coal and Lignite
 - C.8 Concessional custom duty rates on import of coal
 - C.9 Concessional excise duty rates on coal production
 - C.16 Pricing of coal
 - C.17 Concessional GST rates on coal sales
- **renewables**
 - RE.1 Solar Power (Grid)
 - RE.23 Other Renewable Energy Applications

New Subsidy Summary Tables

Subsidy category	Direct and indirect transfer of funds and liabilities → direct funding									
Stimulated activity	Production									
Subsidy name	C.19 Decommissioning of Badarpur Thermal Power Station									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Compensation after shutdown of Badarpur Thermal Power Plant									
End recipient(s) of subsidy	South Delhi Municipal Corporation									
Time period	FY 2022-ongoing									
Background	Payment to South Delhi Municipal Corporation on account of land lease in respect of Badarpur Thermal Power Station.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17	16
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	2
Information sources	Notes on Demands for Grants, Expenditure Profile, Ministry of Power, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	OG.48 Numaligarh Refinery Expansion Project									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	The objective of the policy is to expand the oil and gas production capacity in the North-East region.									
End recipient(s) of subsidy	Numaligarh Refinery Limited									
Time period	FY 2022-ongoing									
Background	The Numaligarh refinery expansion project is being pursued as part of the Government of India's Hydrocarbon Vision 2030 for the North-East, which calls for doubling the oil and gas production and expanding the production capacity in the region by 2030.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	245
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Petroleum and Natural Gas, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	OG.50 Scheme for promotion of flagging of merchant ships in India									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	To provide subsidy support to Indian shipping companies in global tenders floated by Ministries/Department/CPSEs for import of Government cargo including but not limited to oil and gas carrying vessels. This measure is currently mapped for subsidy estimated for oil and gas products based on the nodal ministry.									
End recipient(s) of subsidy	Merchant Ships									
Time period	FY 2022- ongoing									
Background	The approved scheme aims at providing subsidy support to Indian Shipping companies in global tenders floated by Ministries and Central Public Sector Enterprises (CPSEs) for import of government cargo.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	216
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Petroleum and Natural Gas, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	RE.20 National Green Hydrogen Mission									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Improve financial viability of green hydrogen projects									
End recipient(s) of subsidy	Developers and manufacturers of green hydrogen and electrolyzers									
Time period	FY 2023 onwards									
Background	The National Green Hydrogen Mission, aims to accelerate the deployment of green hydrogen as a clean energy source and will support the development of supply chains that can efficiently transport and distribute green hydrogen.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.02
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of New and Renewable Energy, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	RE.26 Viability Gap Funding for Battery Energy Storage System and Pumped Storage Plants									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Foster the creation of financially viable grid-scale long-duration energy storage through the development of pumped storage plants and battery energy storage systems.									
End recipient(s) of subsidy	Energy storage plants									
Time period	FY 2023 onwards									
Background	A scheme for development of pumped storage plants and battery energy storage systems. The objective is development of a financially viable grid-scale long duration energy storage and to enable deployment renewable energy, of energy storage services, integration of larger amount of renewable energy.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of New and Renewable Energy, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending										
Stimulated activity	Production										
Subsidy name	RE. 27 Manufacturing Zones under Atmanirbhar Bharat package										
Jurisdiction	Central Government										
Legislation/ endorsing organization	Union Cabinet										
Policy objective(s) of subsidy	The objective is to reduce dependency on imports for equipment, critical components, basic raw materials, and critical spares in renewable energy and power sector, fostering self-reliance.										
End recipient(s) of subsidy	Power equipment manufacturers										
Time period	FY 2022-ongoing										
Background	Under the “Manufacturing Zones” initiative within the Atmanirbhar Bharat Package, three strategically designated manufacturing zones will be established annually, each tailored to the unique needs of coastal, land-locked, and hilly states. This scheme focuses on the establishment of three manufacturing zones dedicated to renewable energy and power equipment in different states, employing state-of-the-art, clean, and energy-efficient technology.										
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)	
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	10.0	
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.2	
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of New and Renewable Energy, Indian Budget (different years)										

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct funding									
Stimulated activity	Production									
Subsidy name	EV.8 Production Linked Incentive (PLI) Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	To boost growth in battery consuming sectors and reduce import dependence to support the Atmanirbhar Bharat initiative.									
End recipient(s) of subsidy	ACC battery manufacturers									
Time period	FY 2022-ongoing									
Background	The PLI scheme for ACC battery envisages incentivizing large domestic and international players in establishing a competitive ACC battery set-up in the country. ACCs are the new generation of advanced storage technologies that can store electric energy either as electrochemical or as chemical energy and convert it back to electric energy as and when required.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.9
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.1
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Heavy Industries, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct funding									
Stimulated activity	Production									
Subsidy name	EV. 9 Production Linked Incentive (PLI) Scheme for Automobiles and Auto Components									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Its prime objectives include overcoming cost disabilities, creating economies of scale, generating employment, and building a robust supply chain in the areas of advanced automotive technology products. This scheme will facilitate the automobile industry to move up the value chain into higher value-added products with a focus on zero emission vehicles. The scheme will reduce import dependence and support the Atmanirbhar Bharat initiative.									
End recipient(s) of subsidy	Automobile and auto components industry									
Time period	FY 2022-ongoing									
Background	The Production Linked Incentive (PLI) Scheme for Automobile and Auto Components Industry in India provides financial incentives for enhancing India's manufacturing capabilities for advanced automotive products. The scheme is focused on zero emission vehicles i.e. battery electric vehicle and hydrogen fuel cell vehicle. The incentive under the scheme is applicable from FY 2022-23 to FY 2026-27 (5 years period).									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.7
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.3
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Heavy Industries, Indian Budget (different years)									

N/A: Not applicable

New Subsidies - Added Retrospectively Summary Tables

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	OG.46 Feedstock Subsidy to BCPL/Assam Gas Cracker Complex									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Feedstock subsidy has been provided to address suboptimal capacity of the plant and ensure a level playing platform to compete in the domestic market									
End recipient(s) of subsidy	BCPL/Assam Gas Cracker Complex									
Time period	FY 2019-ongoing									
Background	This scheme received unpaid bills for the past year during FY 2020-2021 and FY 2021-22. The funds released are being utilized, and estimates for FY 2022-23 are based on the feedstock subsidy approved by the Cabinet approval.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	250	239	1,912	1112	138
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	36	34	258	149	17
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Petroleum and Natural Gas, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	OG.47 IGGL-part of the North-East Natural Gas Pipeline Grid									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	To ensure financial viability of the project									
End recipient(s) of subsidy	IGGL									
Time period	FY 2021-ongoing									
Background	The scheme is a new project which was initiated in FY 2020-21. Based on the Cabinet approval, funds are provided as viability gap funding contribution to the project.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	202	907	1798
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27	122	224
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Petroleum and Natural Gas, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → credit support										
Stimulated activity	Consumption										
Subsidy name	OG.49 Interest on special bonds to oil companies										
Jurisdiction	Central Government										
Legislation/ endorsing organization	Union Cabinet										
Policy objective(s) of subsidy	Compensate for interest payments on oil bonds to oil marketing companies for incurring under recoveries on petrol, diesel and LPG in the past to keep consumer prices low during high crude oil prices.										
End recipient(s) of subsidy	Consumers										
Time period	FY 2014-ongoing										
Background	The government had issued special securities to oil marketing companies in lieu of cash subsidy during the period of high crude oil prices to compensate the oil marketing companies for their under recoveries. The interest payments on those securities are being provisioned in the budget every year.										
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)	
(In INR crore, real 2023)	15,969	15,075	13,996	13,391	9,990	12,502	11,929	11,238	10,846	6,848	
(In USD million, real 2023)	2,639	2,466	2,138	1,997	9,990	1,788	1,683	1,514	1,456	852	
Information sources	Notes on Demands for Grants, Expenditure Budget, Interest Payments, Ministry of Finance, Indian Budget (different years)										

Subsidy category	Direct and indirect transfer of funds and liabilities → credit support									
Stimulated activity	Production									
Subsidy name	TD.18 Gol fully serviced bond issue expenditure and interest (Power Finance Corporation Limited bonds)									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Credit support									
End recipient(s) of subsidy	Power Finance Corporation									
Time period	FY 2017- ongoing									
Background	The budgetary allocation is required for expenses on the issue of bonds and the interest payable on infrastructure bonds raised by Power Finance Corporation Limited.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	7	487	471	449	423	401	376
(In USD million, real 2023)	N/A	N/A	N/A	1	76	67	63	57	54	47
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Power, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → credit support									
Stimulated activity	Production									
Subsidy name	TD.19 GoI fully serviced bond issue expenditure and interest (REC Limited bonds)									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Credit support									
End recipient(s) of subsidy	REC Limited									
Time period	FY 2019									
Background	Interest payment on account of extra-budgetary resources of INR 4,000 crore raised during FY 2017-18 and INR 15,000 crore raised during FY 2018-19 for DDUGJY & Saubhagaya (Rural).									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	403	1,797	2,161	2,074	1,945
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	58	253	291	278	242
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Power, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated activity	Production									
Subsidy name	B.4 Pradhan Mantri JI-VAN Yojna									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Promotion of bioethanol in India.									
End recipient(s) of subsidy	Bioethanol projects									
Time period	FY 2022-ongoing									
Background	Pradhan Mantri JI-VAN Yojana is for providing financial support for setting up of Integrated Bioethanol projects based on lignocellulosic biomass and other renewable feedstock.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	162	83
(In USD million, real 2023)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22	10
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of Petroleum and Natural Gas, Indian Budget (different years)									

N/A: Not applicable

Subsidies Methodology Revised–Retrospectively Summary Tables

Subsidy category	Direct and indirect transfer of funds and liabilities → earmarks									
Stimulated activity	Production									
Subsidy name	C.3 Exploration of Coal and Lignite									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	The policy aims to promote private investment in the coal mining industry.									
End recipient(s) of subsidy	Coal mining industry									
Time period	FY 2014-Ongoing									
Background	<p>Provision is to undertake preliminary drilling to assess the availability of coal with a view to meeting the sizeable increase in the demand for coal. It also includes provision for detailed drilling in the non-CIL coal mining blocks so that the geological reports generated may help the prospective investors in taking investment decisions regarding coal mining and reduction of time for preparation of mining plan.</p> <p><u>Change</u></p> <p>Exploration of Coal and Lignite (includes regional exploration, and detailed drilling).</p> <p>Regional Exploration and Drilling collapsed to one code under Exploration of Coal and Lignite taken directly from Ministry of Coal Demand for Grants.</p>									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	387	286	359	168	206	560	787	499	453	430
(In USD million, real 2023)	64	47	55	25	32	80	111	67	61	54
Information sources	Notes on Demands for Grants, Expenditure Profile, Ministry of Coal, Indian Budget (different years)									

Subsidy category	Government revenue foregone → tax breaks									
Stimulated activity	Consumption									
Subsidy name	C.8 Concessional custom duty rates on import of coal									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	The objective is to keep imported coal prices under control for end-use sector									
End recipient(s) of subsidy	Power plants and industry									
Time period	FY 2014- Ongoing									
Background	The basic customs duty on coal has stayed 2.5% for all kinds of coal between FY 2015–FY 2022 and it was slashed to 0% between May 2022 and November 2022. The benchmark rate or standard tariff rate for coal was 10% between FY 2014–FY 2022 and was reduced to 5% in FY 2023. We have captured the customs duty exemptions on coal and applied it retrospectively.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
(In INR crore, real 2023)	17,001	17,679	17,188	13,097	13,053	14,673	13,774	12,533	15,505	15,604
(In USD million, real 2023)	2,810	2,891	2,625	1,953	2,025	2,098	1,943	1,688	2,081	1,942
Information sources	Volume of Imports- https://tradestat.commerce.gov.in/eidb/icomq.asp Normal customs duty rates- https://old.cbic.gov.in/resources//htdocs-cbec/customs/cst2021-020221/chap-27_up.pdf Special customs duty rates on coal- https://pib.gov.in/PressReleasePage.aspx?PRID=1881427									

Subsidy category	Government revenue foregone → tax breaks										
Stimulated activity	Production										
Subsidy name	C.9 Concessional excise duty rates on coal production										
Jurisdiction	Central Government										
Legislation/ endorsing organization	Union Cabinet										
Policy objective(s) of subsidy	The objective is to keep domestic coal prices low for end-use sector										
End recipient(s) of subsidy	Thermal power plants and industry										
Time period	FY 2014-2017										
Background	The government imposed an excise duty on coal of 6% between FY 2014-FY 2017 while the excise duty on mineral ores fluctuated between 12% and 12.5% between FY 2014 and FY 2017. The excise duty imposed on mineral ores like iron ore, manganese, copper etc. is considered a benchmark to estimate excise duty exemptions on coal.										
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
(In INR crore, real 2023)	7,257	7,193	7,837	7,511	-	-	-	-	-	-	-
(In USD million, real 2023)	1,199	1,176	1,197	1,120	-	-	-	-	-	-	-
Information sources	<p>Total production (million tonnes)- Coal Directory (different years)</p> <p>Basic cost (INR crore)- CIL Annual report (different Years)</p> <p>Crushing charges (INR per tonne)- http://www.cercind.gov.in/2019/orders/17-MP-2019.pdf</p> <p>Surface transportation cost (INR per tonne) - https://mstcindia.co.in/MSTC_Static_Pages/Coal/Revised_20Crushing_20Sizing_20and_20transportation_20charges.htm</p> <p>Concessional Rate on Coal (%) - http://www.cbec.gov.in/resources//htdocs-cbec/excise/cxt-2016-17-new/chap27.pdf</p> <p>Excise duty rates on mineral ores (%) - http://www.cbec.gov.in/resources//htdocs-cbec/excise/cxt-2016-17-new/chap26.pdf</p>										

Subsidy category	Income or price support - market price support and regulation										
Stimulated activity	Consumption										
Subsidy name	C.16 Pricing of Coal										
Jurisdiction	Central Government										
Legislation/ endorsing organization	Union Cabinet										
Policy objective(s) of subsidy	The objective is to keep domestic coal prices lower for grid-based electricity generation										
End recipient(s) of subsidy	Thermal power plants										
Time period	FY 2014-ongoing										
Background	The grade-wise notified coal price is lower for utilities (including independent power producers) compared to captive power plants. Underpricing of coal to power utilities quantified by taking the difference between grade-wise price applicable for utilities versus other sectors.										
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
(In INR crore, real 2023)	17,001	17,679	17,188	13,097	13,053	14,673	13,774	12,533	15,505	15,604	
(In USD million, real 2023)	2,810	2,891	2,625	1,953	2,025	2,098	1,943	1,688	2,081	1,942	
Information sources	<p>Total coal dispatch to utilities sector - https://coal.nic.in/sites/default/files/2023-05/srn-march-2023_0.pdf</p> <p>Grade-wise dispatch to utilities sector - https://coal.gov.in/sites/default/files/2022-01/25-01-2022.pdf</p> <p>Grade-wise production of coal - https://coal.gov.in/sites/default/files/2022-01/25-01-2022.pdf</p> <p>Grade-wise notified price for utilities sector - https://coal.gov.in/sites/default/files/2022-01/25-01-2022.pdf</p> <p>Grade-wise notified price for captive/others - https://coal.gov.in/sites/default/files/2022-01/25-01-2022.pdf</p>										

Subsidy category	Government revenue foregone - tax breaks										
Stimulated activity	Production and Consumption										
Subsidy name	C.17 Concessional GST rates on coal sales										
Jurisdiction	Central Government										
Legislation/ endorsing organization	Union Cabinet										
Policy objective(s) of subsidy	The objective is to keep domestic coal prices low for end-use sector										
End recipient(s) of subsidy	Thermal power plants and industry										
Time period	FY 2014- Ongoing										
Background	The government imposed a GST rate of 5% from FY 18 while the GST rate on mineral ores was 5% between FY18 and the first half of FY22 and then raised to 18%. The GST imposed on mineral ores like iron ore, manganese, copper etc is considered a benchmark to estimate GST exemptions on coal.										
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
(In INR crore, real 2023)	N/A	N/A	N/A	N/A	-	-	-	-	8184	18975	
(In USD million, real 2023)	N/A	N/A	N/A	N/A	-	-	-	-	1098	2361	
Information sources	<p>Total Production (Million Tonnes), Basic Cost (Rs Crore)- CIL Annual report (Through years)</p> <p>Crushing Charges (Rs per tonne)- http://www.cercind.gov.in/2019/orders/17-MP-2019.pdf, CIL Annual report (Through years)</p> <p>Surface Transportation cost (Rs per tonne)- https://mstcindia.co.in/MSTC_Static_Pages/Coal/Revised_20Crushing_20Sizing_20and_20transportation_20charges.htm, CIL Annual report (Through years)</p> <p>Concessional GST Rate on Coal (%) - https://cbic-gst.gov.in/gst-goods-services-rates.html</p> <p>GST rates on Mineral Ores (%) - https://cbic-gst.gov.in/gst-goods-services-rates.html</p>										

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated Activity	Production									
Subsidy name	RE.1 Solar Power (Grid)									
Jurisdiction	Central Government									
Legislation/endorsing organization	Union Cabinet									
Policy objective(s) of Subsidy	Improve financial viability of solar power projects									
End recipient(s) of subsidy	Solar power developers									
Time period	FY 2016- ongoing									
Background	Provision of central financial assistance for grid interactive power capacity from solar									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	2404	2671	1296	2382	1833	1181	2178	3470
(In USD million, real 2023)	N/A	N/A	367	398	201	341	259	159	292	432
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of New and Renewable Energy, Indian Budget (different years)									

N/A: Not applicable

Subsidy category	Direct and indirect transfer of funds and liabilities → direct spending									
Stimulated Activity	Production									
Subsidy name	RE.40 Other Renewable Energy Applications									
Jurisdiction	Central Government									
Legislation/ endorsing organization	Union Cabinet									
Policy objective(s) of subsidy	Enable states to spearhead comprehensive energy solutions, promoting efficiency, conservation, and access to clean energy through different initiatives.									
End recipient(s) of subsidy	State Governments									
Time period	FY 2016- ongoing									
Background	To support states for creation of suitable framework for promoting energy efficiency and conservation & accessibility to clean energy for domestic usage through initiatives like solar cities green buildings etc. including support to states, demonstration of renewable energy application, cookstove etc.									
Amount of subsidy conferred	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 (R.E.)
(In INR crore, real 2023)	N/A	N/A	17.2	6.3	4.9	0.1	0.3	135.7	0.1	0.1
(In USD million, real 2023)	N/A	N/A	3	1	1	0	0	18	0.01	0.01
Information sources	Notes on Demands for Grants, Expenditure Budget, Ministry of New and Renewable Energy, Indian Budget (different years)									

N/A: Not applicable

a. State-owned enterprises

In the update for the current year, IISD has tracked year-on-year project-level capital expenditure (for projects above INR 150 crore) by central public sector undertakings operating in the energy sector. The sources of this data are the Monthly Flash Reports by the Ministry of Statistics and Programme Implementation. The project level expenditure provides details about the evolving landscape of the energy sector and captures the diversification of state-owned enterprises into clean energy. Prior to adopting this approach, IISD had been tracking the capital expenditure of the largest state-owned enterprises operating in the energy sector at an aggregate entity-level.

For this, capex in the following sub-sectors has been tracked since 2017.

- Coal mining
- Coal washery
- Thermal power plants
- Oil
- Gas
- Gas power plant
- Transmission
- Transmission – renewable
- Hydro (tracked but excluded from reporting)
- Nuclear (tracked but excluded from reporting)
- Solar
- Wind
- Biofuel
- Others

b. Domestic Public Financial Institutions

IISD also tracks yearly loan disbursements by select domestic state-owned financial institutions to fossil and clean energy to map government support. Currently, we track the loan disbursements for IREDA, Power Finance Corporation Ltd., and REC Ltd. The source of data is the annual reports, earnings reports, and investor presentation of these companies. The disbursements are tracked across the following sectors:

- Conventional generation
- Non-conventional generation
- Transmission
- Distribution
- Others

A. Government Receipts From Energy

Alongside government support, IISD also tracks government revenue (including tax and non-tax measures) from the energy sector across coal, oil and gas, transmission and distribution, and renewable energy using multiple data sources, such as annual reports of state-owned enterprises, official statistics, monthly reckoners of Petroleum Planning and Analysis Cell (PPAC), and the Reserve Bank of India's (RBI) state finance reports. The current database covers receipts from FY 2014–23 to the extent possible. The following table provides the general source of data for each of the receipt measures.

S. No.	Description	Fuel Type	Source
1	Basic Customs Duty	Coal-non-coking coal	IISD estimate
2	Central GST - CIL	Coal	CIL annual report
3	Central sales tax - CIL	Coal	CIL annual report
4	GST compensation cess	Coal-non-coking coal	IISD estimation
5	Integrated GST - CIL	Coal	CIL annual report
6	Integrated GST - imports	Coal-non-coking coal	IISD estimation
7	Contribution to NMET - CIL	Coal	CIL annual report
8	Dividend - CIL	Coal	CIL annual report
9	Dividend - SCCL - Centre	Coal	SCCL annual report
10	Entry tax	Coal	CIL annual report
11	State Cess on Coal - CIL	Coal	CIL annual report
12	State GST - CIL	Coal	CIL annual report
13	Dividend - SCCL - State	Coal	SCCL annual report
14	Contribution to DMF - CIL	Coal	CIL annual report
15	Contribution to DMF - SCCL	Coal	SCCL annual report
16	State Royalty - CIL	Coal	CIL annual report
17	State Royalty - SCCL	Coal	SCCL annual report
18	Basic Customs Duty	Coal-coking Coal	IISD estimation
19	Central GST	Coal-lignite	NLC annual report
20	Clean Energy Cess - CIL	Coal	CIL annual report
21	Clean Energy Cess - NLC	Coal-lignite	NLC annual report
22	Central Excise Duty - CIL	Coal	CIL annual report
23	GST compensation cess	Coal-coking coal	IISD estimation
24	GST compensation cess	Coal-lignite	IISD estimation
25	Integrated GST - imports	Coal-coking coal	IISD estimation
26	NMET paid by other public and private companies (except CIL and SCCL)	Coal	Provisional coal statistics

S. No.	Description	Fuel Type	Source
27	Dividend - CIL	Coal	CIL annual report
28	State VAT - CIL	Coal	CIL annual report
29	State GST - Lignite	Coal-lignite	NLC annual report
30	DMF paid by other public and private companies (except CIL)	Coal	Provisional Coal Statistics
31	Royalty paid by other public and private companies (except CIL and SCCL)	Coal	Provisional Coal Statistics
32	State Royalty - NLC	Coal-lignite	NLC annual report
33	Income Tax - CIL	Coal	CIL annual report
34	Income Tax - SCCL	Coal	SCCL annual report
35	Income Tax - NLC	Coal	NLC annual report
36	Dividend - NLC	Coal-lignite	NLC annual report
37	Dividend Distribution tax - NLC	Coal-lignite	NLC annual report
38	Dividend Distribution tax - CIL	Coal	CIL annual report
39	Dividend Distribution tax - SCCL	Coal	SCCL annual report
40	Contribution to exchequer by NTPC	Coal-thermal power	NTPC Ltd. annual report
41	Cess on Crude Oil	Oil and gas	PPAC
42	CGST (Central GST)	Oil and gas	PPAC
43	Customs Duty	Oil and gas	PPAC
44	Excise Duty	Oil and gas	PPAC
45	IGST (Integrated GST)	Oil and gas	PPAC
46	Service tax	Oil and gas	PPAC
47	Royalty on Crude Oil / Natural Gas - Central	Oil and gas	PPAC
48	Corporate/ Income Tax	Oil and gas	PPAC
49	Dividend distribution tax	Oil and gas	PPAC
50	Dividend income to Central Govt.	Oil and gas	PPAC
51	National Calamity Contingent Duty	Oil and gas	PPAC
52	Profit Petroleum on exploration of Oil/ Gas	Oil and gas	PPAC
53	Others	Oil and gas	PPAC
54	Entry and other taxes	Oil and gas	PPAC
55	GST - state and UT	Oil and gas	PPAC
56	Octroi, Duties Incl. Electricity Duty	Oil and Gas	PPAC
57	Value Added Tax	Oil and gas	PPAC

S. No.	Description	Fuel Type	Source
58	Dividend - State & UT	Oil and gas	PPAC
59	Royalties on petroleum - state	Oil and gas	PPAC
60	Electricity duty	Transmission and distribution	RBI State Finance
61	Contribution by PGCIL to exchequer	Transmission and distribution	PGCIL annual report
62	Safeguard duty	Renewables	IISD estimation
63	BCD Collections	Renewables	IISD estimation
64	GST on solar	Renewables	IISD estimation
65	GST on wind	Renewables	IISD estimation
66	Contribution by IREDA to exchequer	Renewables	IREDA annual report
67	Contribution by SECI to exchequer	Renewables	SECI annual report

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