



# Mapping India's Energy Policy 2022 (Update)

#### Supplementary annex

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#### Introduction

This supplementary annex is an accompaniment to <u>Mapping India's Energy Policy 2022</u> (<u>Update</u>). It provides background information for all subsidies that have significantly changed since our previous review, <u>Mapping India's Energy Policy 2022</u>, with the following subsections:

- New summary tables on policies linked to:
  - OG.44 OMC losses on LPG sale
  - TD.17 Reform Linked Distribution Scheme
  - RE.28 Capital infusion for the development of the renewable energy sector

To review background information on all subsidies, readers can refer to the supplementary annex or appendix of previous editions of the report listed as follows:

- Annex, India's Energy Transition: Mapping Subsidies To Fossil Fuels and Clean Energy in India (Link)
  - The first edition covers all subsidies including detailed notes on methodology and sources of data.
- Annex, India's Energy Transition: Subsidies for Fossil Fuels and Renewable Energy, 2018 Update (Link)
  - The second edition covers subsidy changes following major tax regime change with the introduction of the Goods and Service Tax.
- Annex, *Mapping India's Energy Subsidies 2020: Fossil Fuels, Renewables and Electric Vehicles* (Link)
  - The third edition covers changes to existing subsidies and introduction of new subsidies from previous edition.
- Annex, *Mapping India's Energy Subsidies 2021: Time for Renewed Support to Clean Energy* (Link)
  - The fourth edition covers changes to existing subsidies and introduction of new subsidies from previous edition.
- Appendix, *Mapping India's Energy Policy 2022: Aligning Support and Revenues With a Net-Zero Future* (Link)
  - The fifth edition covers changes to existing subsidies and introduction of new subsidies from the previous edition.

For a full overview of subsidy data, readers can also refer to the separate <u>accompanying data</u> <u>spreadsheets</u> or visit the <u>interactive platform</u> with key trends.

## New Subsidy Summary Tables

Subsidy category	Direct and indirect transfer of funds and liabilities $\rightarrow$ Direct spending						
Stimulated activity	Production $\rightarrow$ Storage & Transport						
Subsidy name	OG.44 C	OG.44 OMC losses on LPG sale					
Jurisdiction	Central government						
Legislation/ endorsing organization	Union Cabinet						
Policy objective(s) of subsidy		pass throu rude oil p	-	sehold co	oking fuel	prices durir	ng high
End recipient(s) of subsidy	Producers						
Time period	FY 2021-ongoing						
Background	To insulate consumers from escalating global crude oil prices, India's state-owned oil marketing companies sold domestic LPG cylinders at rates below market prices. Subsequently, the government announced a one-time relief of INR 22,000 crore for losses incurred due to the underpricing. This one-time relief has been apportioned to FY 2021 and FY 2022 on the basis of monthly LPG consumption volumes and LPG import price changes.						
Amount of subsidy conferred						FY 2021	FY 2022
(in INR crore, real 2022)						2,929	13,339
(in USD million, real 2022)						393	1,790
Information sources	Union cabinet <u>https://www.livemint.com/news/india/cabinet-okays-rs-22-000-cr-grant-</u> <u>to-state-owned-omcs-to-cover-lpg-losses-11665574468168.html</u> Petroleum Planning & Analysis Cell LPG Import prices, IOCL LPG domestic prices						

Subsidy category	$Direct \text{ and } indirect transfer \text{ of } funds \text{ and } liabilities \to Direct \text{ spending}$						
Stimulated activity	Production and Consumption $\rightarrow$ Grids						
Subsidy name	TD.17 Re <sup>-</sup>	TD.17 Reform Linked Distribution Scheme					
Jurisdiction	Central government						
Legislation/ endorsing organization	Union cabinet						
Policy objective(s) of subsidy	state-owr providing	To improve the operational efficiencies and financial sustainability of all state-owned distribution Companies (DISCOMs)/power departments by providing conditional financial assistance for strengthening of supply infrastructure.					
End recipient(s) of subsidy	Grids						
Time period	FY 2022-ongoing						
Background	The Revamped Distribution Sector Scheme (RDSS) to improve the operational efficiencies and financial sustainability of DISCOMs. The RDSS provides result-linked financial assistance to DISCOMs to strengthen supply infrastructure based on prequalifying criteria and achieving basic minimum benchmarks. A central budgetary support of INR 97,631 crore will be provided over 5 years.						
Amount of subsidy conferred							FY 2022
(in INR crore, real 2020)							1,000
(in USD million, real 2020)							134.2
Information sources	Union cabinet <u>https://pib.gov.in/PressReleasePage.aspx?PRID=1731473</u> India budget 2022 <u>https://www.indiabudget.gov.in</u>						

Subsidy category	Direct and indirect transfer of funds and liabilities $\rightarrow$ Direct spending						
Stimulated activity	Production $\rightarrow$ power plants						
Subsidy name	RE.28 cap	RE.28 capital infusion for development of renewable energy sector					
Jurisdiction	Central government						
Legislation/ endorsing organization	Union cabinet						
Policy objective(s) of subsidy	The policy aims to boost non-conventional energy generation, particularly renewables, through capital infusions for publicly owned financing institutions.						
End recipient(s) of subsidy	Power plants						
Time period	FY 2022 (one time)						
Background	In the budget speech 2021-22, the finance minister announced a one- time capital infusion of INR 1,000 crore and INR 1,500 crore for the Solar Energy Corporation of India and Indian Renewable Energy Development Agency, respectively. This was done to increase the lending capacity by the publicly owned institutions for non-conventional energy, especially renewable energy.						
Amount of subsidy conferred							FY 2022
(in INR crore, real 2020)							2,500
(in USD million, real 2020)							20
Information	Union cabinet <u>https://pib.gov.in/Pressreleaseshare.aspx?PRID=1696498</u>						
sources	India budget 2022 <u>https://www.indiabudget.gov.in</u>						

#### **List of Abbreviations**

EVs	electric vehicles
FOB	Free on Board
FY	fiscal year
IREDA	Indian Renewable Energy Development Agency
NDC	Nationally Determined Contributions
OMC	oil marketing companies
PFI	public finance institutions
PLI	production-linked incentive
PPAC	Petroleum Planning & Analysis Cell
PSU	public sector undertakings
RE	renewable energy
SECI	Solar Energy Corporation of India
T&D	Transmission and distribution
UDAY	Ujjwal DISCOM Assurance Yojana
UT	Union Territories

#### **List of References**

- Aggarwal, P., Goel, S., Laan, T., Mehta, T., Pant, A., Raizada, S., Viswanathan, B., Viswamohanan, A., Beaton, C., & Ganesan, K. (2022). *Mapping India's energy policy* 2022. International Institute for Sustainable Development & Council on Energy, Environment and Water. <u>https://www.iisd.org/publications/mapping-india-energy-policy-2022</u>
- Aggarwal, P., Viswamohanan, A., Narayanaswamy, D., & Sharma, S. (2020). *Unpacking India's electricity subsidies: Reporting, transparency, and efficacy.* International Institute for Sustainable Development & Council on Energy, Environment and Water. <u>https://www.iisd.org/publications/india-electricity-subsidies</u>
  - Anand, S., & Narayan, S. (2022, October 12). *OMCs get ₹22,000 cr in LPG compensation*. Mint. <u>https://www.livemint.com/news/india/cabinet-okays-rs-22-000-cr-grant-to-state-owned-omcs-to-cover-lpg-losses-11665574468168.html</u>
  - Asian News International. (2022, January 6). *Power PSUs capital expenditure rises 47% to Rs 40,395 crore*. Business Standard. <u>https://www.business-</u> <u>standard.com/article/companies/power-psus-capital-expenditure-rises-47-to-rs-40-</u> <u>395-crore-122010600626\_1.html</u>
  - Birol, F. (2022, May 13). What does the current global energy crisis mean for energy investment? Analysis. International Energy Agency. https://www.iea.org/commentaries/what-does-the-current-global-energy-crisismean-for-energy-investment
  - Bridle, R., Sharma, S., Mostafa, M., & Geddes, A. (2019). *Fossil fuel to clean energy subsidy swaps: How to pay for an energy revolution*. International Institute for Sustainable Development. <u>https://www.iisd.org/library/fossil-fuel-clean-energy-subsidy-swap</u>
  - Bureau, T. H. (2022, October 17). Moody's red-flags frozen petrol, diesel prices; OMCs may have lost \$7 billion by August. *The Hindu*. <u>https://www.thehindu.com/business/Economy/moodys-red-flags-frozen-petrol-</u> <u>diesel-prices-omcs-may-have-lost-7-billion-by-august/article66020912.ece</u>
  - Central Electricity Authority. (2020). *Report on optimal generation capacity mix for 2029-30*. Ministry of Power, Government of India. <u>https://cea.nic.in/old/reports/others/planning/irp/Optimal\_mix\_report\_2029-</u> <u>30\_FINAL.pdf</u>
  - Chatterjee, A. (2022, April 13). *Coal India discovers 150% premium rates in FY 2021-22 auctions*. S&P Global Commodity Insights. <u>https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/coal/041322-coal-india-discovers-150-premium-rates-in-fy-2021-22-auctions</u>

Climate Funds Update (2022). Data dashboard. https://climatefundsupdate.org/

ENS Economic Bureau. (2022, October 26). Windfall taxes on oil firms to fetch Rs 40,000 cr in FY23. *Indian Express*. <u>https://indianexpress.com/article/business/windfall-taxes-on-oil-firms-to-fetch-rs-40000-cr-in-fy23-8229782/</u>

- ETEnergyworld. (2022, August 25). *Indian oil to achieve net zero by 2046, plans Rs 2 lakh cr investment*. <u>https://energy.economictimes.indiatimes.com/news/oil-and-</u> gas/indian-oil-to-achieve-net-zero-by-2046-plans-rs-2-lakh-cr-investment/93778613
- Garg, V., Viswanathan, B., Narayanaswamy, D., Beaton, C., Ganesan, K., Sharma, S., & Bridle, R. (2020). *Mapping India's energy subsidies 2020: Fossil fuels, renewables, and electric vehicles*. International Institute for Sustainable Development. <u>https://www.iisd.org/system/files/publications/india-energy-transition-2020.pdf</u>
- Gencer, D., & Akcura, E. (2022, May 13). *Amid energy price shocks, five lessons to remember on energy subsidies*. World Bank Blogs. <u>https://blogs.worldbank.org/energy/amid-energy-price-shocks-five-lessons-remember-energy-subsidies</u>
- Government of India. (2022). *India's updated first nationally determined contribution under Paris Agreement (2021-2030)*. United Nations Framework Convention on Climate Change. <u>https://unfccc.int/sites/default/files/NDC/2022-</u> <u>08/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf</u>
- ICRA Limited. (2021, March). *Indian power sector—Electricity distribution*. <u>https://www.eqmagpro.com/wp-content/uploads/2021/03/ICRA-Power-Sector-Outlook-for-Power-Distribution-Segment-March-2021.pdf</u>
- Indian Renewable Energy Development Agency Limited. (2022, January 19). *Cabinet* approves infusion of Rs.1,500 crore in Indian Renewable Energy Development Agency Limited (IREDA). <u>https://www.ireda.in/images/pressrelease/Press-</u> <u>Release\_equity-infusion\_19.01.2022.pdf</u>
- Indian Venture and Alternate Capital Association, EY Parthenon, & IndusLaw. (2022). *Electrifying Indian mobility*. <u>https://induslaw.com/publications/pdf/alerts-</u> 2022/Electrifying-Indian-Mobility-Report-July-2022.pdf
- Indo-Asian News Service. (2022, June 9). Record \$14.5 bn investment in Indian renewable energy sector, says IEEFA. *Business Standard*. <u>https://www.business-</u> <u>standard.com/article/current-affairs/record-14-5-bn-investment-in-indian-renewable-</u> <u>energy-sector-says-ieefa-122060900852\_1.html</u>
- International Energy Agency (2022). *World energy outlook free dataset*. <u>https://www.iea.org/data-and-statistics/data-product/world-energy-outlook-2022-free-dataset</u>
- Invest India. (n.d.). *Renewable energy in India*. <u>https://www.investindia.gov.in/sector/renewable-energy</u>
- Jaiswal, S. & R. Gadre (2022). *Financing India's 2030 renewable ambition*. BloombergNEF White Paper. <u>https://assets.bbhub.io/professional/sites/24/BNEF-Financing-India's-2030-Renewables-Ambition\_FINAL.pdf</u>
- Ministry of Heavy Industries. (2022). *The Production Linked Incentive (PLI) Scheme for Automobile and Auto Component successful in attracting proposed investment of 74,850 crore against the target estimate of investment 42,500 crore over a period of five years*. Ministry of Heavy Industries, Government of India.

https://heavyindustries.gov.in/writereaddata/UploadFile/PRESS%20RELEASE%20E NGLISH%2015%2003%202022.pdf

- Mishra, R. D., & Baruah, R. (2022, February 14). Under 20% spent on Centre's EV scheme. Mint. <u>https://www.livemint.com/news/india/under-20-spent-on-centre-s-ev-scheme-11644783227511.html</u>
- Online, E. T. (2022, August 30). *OMCs stare at losses in Q2, government unlikely to get any dividend*. <u>https://economictimes.indiatimes.com/industry/energy/oil-gas/omcs-stare-at-losses-in-q2-government-unlikely-to-get-any-dividend/articleshow/93869660.cms?utm\_source=contentofinterest&utm\_medium=t ext&utm\_campaign=cppst</u>
- Powell, L., Sati, A., & Tomar, V. K. (2022, August 17). *Windfall taxes on oil companies: Sin tax or sin to tax?* Observer Research Foundation. <u>https://www.orfonline.org/expert-speak/windfall-taxes-on-oil-companies/</u>
- Press Information Bureau. (2021, 11 October). *India set to achieve 450 GW renewable* energy installed capacity by 2030: Ministry of New and Renewable Energy (MNRE). https://pib.gov.in/Pressreleaseshare.aspx?PRID=1762960#:~:text=India%20set%20t 0%20achieve%20450,New%20and%20Renewable%20Energy%20(MNRE)&text=The %20Ministry%200f%20New%20%26%20Renewable,Week%20at%20Expo%202020% 20Dubai
- Press Information Bureau. (2021, February 9). *Budget 2021-22 augments Capital of SECI* and IREDA to promote development of RE sector. <u>https://pib.gov.in/Pressreleaseshare.aspx?PRID=1696498</u>
- Press Information Bureau. (2021, June 30). *Cabinet approves revamped distribution sector scheme: A reforms based and results linked scheme.* <u>https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=1731473</u>
- Press Information Bureau. (2021, November 1). National Statement by Prime Minister Shri Narendra Modi at COP26 Summit in Glasgow. https://pib.gov.in/PressReleasePage.aspx?PRID=1768712
- Press Trust of India. (2022, September 8). *Coal price hike remains difficult for CIL: Chairman tells analysts*. Business Standard. <u>https://www.business-</u> <u>standard.com/article/companies/coal-price-hike-remains-difficult-for-cil-chairman-</u> <u>tells-analysts-122090801291\_1.html</u>
- Press Trust of India. (2022, October 6). *Petrol, diesel price freeze in India likely to be extended due to OPEC cut*. Mint. <u>https://www.livemint.com/industry/energy/petrol-</u> <u>diesel-price-freeze-in-india-likely-to-be-extended-due-to-opec-cut-</u> <u>11665075466255.html</u>
- REN21. (n.d.). Renewables 2022 global status report. https://www.ren21.net/gsr-2022
- Reserve Bank of India. (2022). *State finances: A risk analysis*. https://www.rbi.org.in/Scripts/BS\_ViewBulletin.aspx?Id=21070

- Reuters. (2022, August 27). *India's GAIL sets 2040 goal for net zero carbon emissions*. ETEnergyworld.Com. <u>https://energy.economictimes.indiatimes.com/news/oil-and-gas/indias-gail-sets-2040-goal-for-net-zero-carbon-emissions/93809619</u>
- Reuters. (2022, October 15). *India raises windfall tax on crude oil output*. <u>https://www.reuters.com/world/india/india-raises-windfall-tax-crude-oil-output-2022-10-15/</u>
- Sharma, S., Jain, P., Moerenhout, T., & Beaton, C. (2019). How to target electricity and LPG subsidies in India: Step 1. Identifying policy options. Global Subsidies Initiative of the International Institute for Sustainable Development. <u>https://www.iisd.org/publications/how-target-electricity-and-lpg-subsidies-indiastep-1</u>
- Vengattil, M. (2022, May 21). *Indian government trims tax on fuel, essential commodities to fight inflation*. Reuters. <u>https://www.reuters.com/world/india/indian-government-</u> <u>trims-tax-fuel-fight-inflation-2022-05-21/</u>
- Viswanathan, B., Raizada, S., Bassi, A., Pallaske, G., & Beaton, C. (2022). *India's stateowned energy enterprises, 2020–2050*. International Institute for Sustainable Development. <u>https://www.iisd.org/publications/report/india-state-owned-energyenterprises</u>

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