



CTF – DPSP (V-FUTURES)

PROJECT TITLE: RENEWABLE INTEGRATION IN INDIAN MANUFACTURING SECTOR**COUNTRY: INDIA****MDB: ASIAN DEVELOPMENT BANK (ADB)**

Cover Note for CTF Project/Program Approval Request^[a] Dedicated Private Sector Programs (DPSP V-FUTURES)			
Country/Region	India	CIF Project ID#	PCTFPF004A
For Regional/Global (country classification) Please list all applicable sub-countries under Regional/Global country tagging (separated by semicolon ";")			
Tier¹	<input type="checkbox"/> Tier 1 <input type="checkbox"/> Tier 2 <input checked="" type="checkbox"/> Tier 3		
Type of CIF Investment:	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		
Project/Program Title	Renewable Integration in Indian Manufacturing Sector		
Sector/Pillar (Please select all that apply)	<input type="checkbox"/> Enabling Environment <input type="checkbox"/> Energy Efficiency <input type="checkbox"/> Energy Storage <input checked="" type="checkbox"/> Renewable Energy <input type="checkbox"/> Renewable Energy/ Energy Efficiency <input type="checkbox"/> Transport <input type="checkbox"/> Other (_____)		
Technology/Area (Please select all that apply)	<input type="checkbox"/> End Use <input type="checkbox"/> District Heating <input type="checkbox"/> Smart Grid <input type="checkbox"/> Capacity Building <input type="checkbox"/> Multiple <input type="checkbox"/> Batteries <input type="checkbox"/> Hydro <input type="checkbox"/> Green Hydrogen <input type="checkbox"/> Geothermal <input checked="" type="checkbox"/> Wind <input checked="" type="checkbox"/> Solar <input type="checkbox"/> Hydropower <input type="checkbox"/> Cookstoves <input type="checkbox"/> Waste to Energy <input type="checkbox"/> Bioenergy <input type="checkbox"/> Mixed RE <input type="checkbox"/> Green Fuels <input type="checkbox"/> Modal Shift <input type="checkbox"/> Vehicle Technologies <input type="checkbox"/> Mass Transit <input type="checkbox"/> Electric Vehicles <input checked="" type="checkbox"/> Other (___Thermal decommissioning___)		
Project Lifetime (MDB Board/Management approval to project closure) (in years)	Thermal power plant shutdown: by August 2027 Renewable energy hybrid plant: 25 years from December 2025, commissioning date		
Is this a private sector program composed of sub-projects?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

¹ Country Tier definition as Per FY25 approved [Pricing policy](#) (page 8,9,19-25)

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Financial Products, Terms and Amounts		
	USD (million)	EUR (million) ^[b]
PPG (Project Preparation Grant)		
Grant		
MDB Project Implementation and Supervision Services (MPIS) ²	1.5	
First loss guarantee		
Second loss guarantee		
Equity		
Senior loan	30	
Senior loan in local currency hedged		
Senior loan in local currency unhedged (EXCEPTIONAL REQUEST)		
Subordinated debt/loan/ mezzanine instrument with income participation		
Subordinated debt/loan / mezzanine instrument with income participation local currency unhedged (EXCEPTIONAL REQUEST)		
Subordinated debt/loan /mezzanine instrument with convertible features		
'Convertible/contingent recovery' grant/loan/guarantee (loans convertible to grants or vice versa)		
Convertible Loans (convertible to equity only)		
For loans and guarantees – is this a revolving structure? ^[c] <input type="checkbox"/> Yes <input type="checkbox"/> No		
Specify local currency type here		
Other (please specify)		
Total	31.5	
Co-financing		
	Please specify as appropriate	Amount (in million USD)
Asian Development Bank	Asian Development Bank	400.0
MDB 2 (if any)		-
Government		-
Private Sector		389.9
Bilateral		20.0
Others (please specify)		5.0

² MPIS - CIF Operational Modalities For New Strategic Programs [here](#)

³ With a revolving structure, after the loan or guarantee matures, instead of returning the funds to the Trustee, the funds are redeployed as a new loan or guarantee.

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Total Co-financing		814.9
CIF Funding		30.0
Total Financing (Co-financing + CIF Funding)		844.9
Proportion of Total Financing for Adaptation		
Proportion of Total Financing for Mitigation ^[e]		844.9
CIF Financial Terms and Conditions Policy	Link Is this request in accordance with the CIF Financial Terms and Conditions Policy? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (if no, please specify detailed information under the justification section)	
Justification (exceptional request) ^{[c][d]}		
Implementing MDB(s) <i>(please enter full name, job title and email address)</i>		
MDB Headquarters-Focal Point:	Christian Ellermann Senior Climate Change Specialist	
MDB Task Team Leader (TTL)	Keshari Nandan Agrawal, Senior Investment Specialist, kagrawal@adb.org	
National Implementing Agency <i>(please enter full name, job title and email address)</i>		
Country Focal Point/s		
Brief Description of Project/Program (including objectives and expected outcomes) ^{[c][d]}		
Background. The Project is an ADB initiated Energy Transition Mechanism (ETM) pilot transaction in India that will support reputed and credit-worthy entities of Tata group i.e. Tata Power Company Limited one of India's largest integrated power companies, and Tata Steel Limited, the second largest steel manufacturer in India, in their decarbonization initiatives.		

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TPCL is the holding company for power assets of the Tata group and is one of the leading private power companies in India with over 100 years of experience. Its business spans generation, transmission, distribution, fuel sourcing, logistics, and EPC business for solar projects. It owns and manages 14.8 GW of operating capacities across thermal (coal and gas), hydro, and renewable energy sources. TPCL has a stated objective to achieve “net zero” by 2045 for which it needs to phase out its thermal power plants. In this context, ADB approached TPCL to support it in decommissioning its thermal power plants. Since it is difficult to replace a large thermal power plant providing firm power with renewable energy plants which provide infirm power, ADB and TPCL decided to begin with an early shutdown of a 67.5 mega-watt (MW) captive coal-fired thermal power plant at Jojobera, Jharkhand, that is supplying power to Tata Steel. Tata Steel is one of the world’s most geographically diversified steel producers, with operations in 26 countries and a crude steel production capacity of 35 million tons per annum. The company is committed to achieving net zero emissions by 2045 and is investing in low-CO₂ steelmaking technologies.

Project. The proposed Project comprises the following:

- (i) A blended finance package to (a) shorten the operating life of TPCL-owned 67.5 MW thermal power plant (TPP) at Jojobera in Jharkhand by about 10 years, and (b) part-finance the construction of 966 MW renewable energy project (RE Project).
- (ii) A contractual undertaking from TPCL in the financing agreement to reduce the utilization of another 120 MW TPP also located at Jojobera by 25%. ADB and TPCL will also prepare a long-term decommissioning plan for the larger 427.5 MW TPP complex, located at Jojobera.

Sources and uses of funds. Proposed sources and uses of funds are in the table below. The final amounts of debt and grant, and the terms and conditions of the financing will be subject to due diligence.

Table 1: Sources and Uses of Funds^a

(\$ million)

Sources	Amount	%	Usage	Amount	%
Equity	210.0	24.9	Projects costs for the RE Project incl. land, evacuation, modules, WTGs, BOS, and IDC, soft costs and part-funding for losses due to early shutdown of the 67.5 MW TPP	844.9	100
Debt	629.9	74.6			
ADB	400.0 ^b	47.3			
Commercial Lender (s)	179.9	21.3			
Concessional lenders including CIF	50.0	5.9			
Grant ^c	5.0	0.6			
ETMPTF	5.0	0.6			
Total	844.9	100.0	Total	844.9	100.0

ADB = Asian Development Bank; BOS = balance of system; CIF = climate investment fund; EPC = engineering, procurement, and construction; ETMPTF = Energy Transition Mechanism Partnership Trust Fund; GEATTF = GEAPP Energy Access and Transition Trust Fund; IDC = interest during construction; MW = megawatt; RE = renewable energy, TPP = thermal power plant; WTG = wind turbine generator.

^a Proposed instrument, structure, exposure limits and draft terms will be further assessed and agreed during due diligence.

^b ADB will enter into suitable distribution arrangements to bring down the exposure to \$200 million which is within the single obligor limit of \$265 million.

^c ADB continues to explore additional grants to reduce the level of concessionality in the proposed concessional loans.

Sources: ADB and Tata Power Renewable Energy Limited estimates.

Project details.

Shutdown of the 67.5 MW TPP. The 67.5 MW TPP has an existing power purchase agreement (PPA) with Tata Steel till 31 August 2027, which ADB understands is expected to be extended by another 10 years till August

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2037 as it makes economic sense for both Tata Steel and TPCL – the plant is financially remunerative for TPCL and will enable Tata Steel to procure firm power at competitive price. As per the provisions of the PPA, 24 months prior to the expiry of the PPA (i.e., August 2025), the original term of the PPA can be extended upon such terms and conditions that may be mutually agreed between the parties (i.e., TPCL and Tata Steel). The plant has been operational since 1997 (more than 25 years) and as per TPCL, can operate till 2030-2032 without significant investment into maintenance. However, to extend the life of the plant till 2037, additional refurbishments will be needed. This will be reviewed during due diligence along with the feasibility of operating the plant for the extended PPA duration.

- **Proposed blended finance instruments.** Early decommissioning of the 67.5 MW TPP is expected to result in losses for TPCL as TPCL will have forgo cashflows from FY2028-2037. ADB is proposing to arrange a blended finance package of grants and concessional loans to help TPCL absorb a portion of this loss and to cover incremental decommissioning costs and just transition costs, with TPCL absorbing the balance. ADB is mobilizing grants from donor trust funds managed by ADB and so far, grants of \$5 million have been approved. CTF concessional loan will be used to part-finance the RE Project (as described below). Since TPCL's RE ventures are housed under TPREL, the loan (concessional as well as commercial) will be provided to TPREL. The concessional benefits will flow to TPCL as TPREL is its majority owned subsidiary.
- **Undertaking to reduce generation of another thermal power plant.** TPCL will also undertake to reduce the energy generation of another 120 MW TPP by 25% at Jojobera. Both the plants are part of a larger 427.5 MW complex at Jojobera, where Tata Steel is the sole offtaker of the entire capacity. ADB will further work with TPCL on the decommissioning plan for the entire 427.5 MW thermal power complex.
- **RE Project.** TPCL's subsidiary, Tata Power Renewable Energy Limited (TPREL) is implementing a 966 MW of wind-solar hybrid project (RE Project) through TP Vardhaman Surya Limited (TPVSL), a special purpose vehicle set up by TPREL. Tata Steel is the sole offtaker for the RE Project and owns 26% in the SPV (holding structure provided in the figure below) to comply with group captive regulations under which the project is being developed.⁴ Once operational, the RE Project will replace the power from 67.5 MW TPP.⁵

SPV Holding Structure

⁴ As per the current group captive regulations under open access model in the Electricity Act 2003, the offtaker must own 26% shareholding in the group captive project and offtake at least 51% of power generated.

⁵ About 30% of the power generated from the RE project will be supplied to Tata Steel Jamshedpur in the state of Jharkhand (to replace the existing power supplied to it by the 67.5 MW TPP at Jojobera), while the balance will be supplied to the other locations of Tata Steel spread across the states of Odisha (50%), Punjab (13%) and Maharashtra (7%).

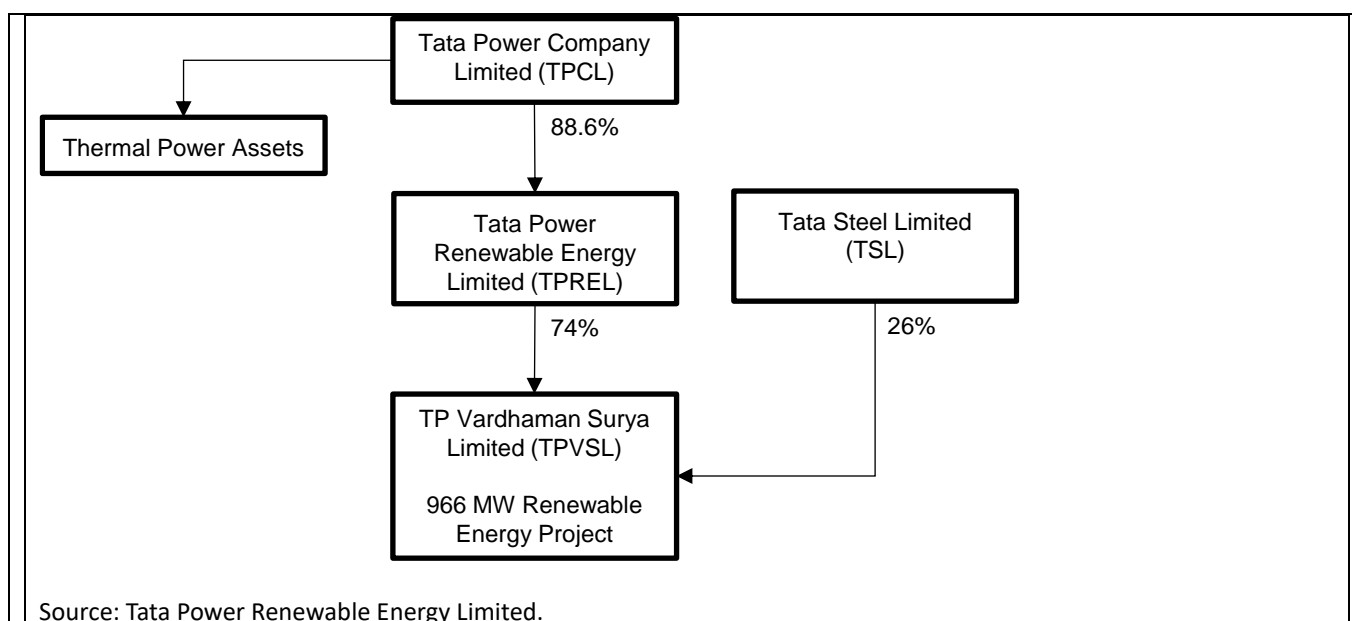
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Rationale for shortlisting the Project. ADB chose TPCL for ADB’s pilot ETM project in India due to several positives. The plant has a meaningful remaining operating life (though at an additional refurbishment cost), and the offtaker (Tata Steel) and the concessional finance recipient (TPCL) are both part of the credible Tata group, making it easier to negotiate early retirement. Also, the 67.5 MW TPP does not have any significant external debt which eases the decommissioning process. In addition, TPCL has an active corporate social responsibility program, is engaged with the community, and is suited to ensuring the coal plant will be retired with just transition considerations. ADB’s E&S team will support the group with just transition activities.

Consistency with CTF investment criteria (please refer to design document)^{6[c][d]}

⁶ Link to Future Window Design Document [here](#)

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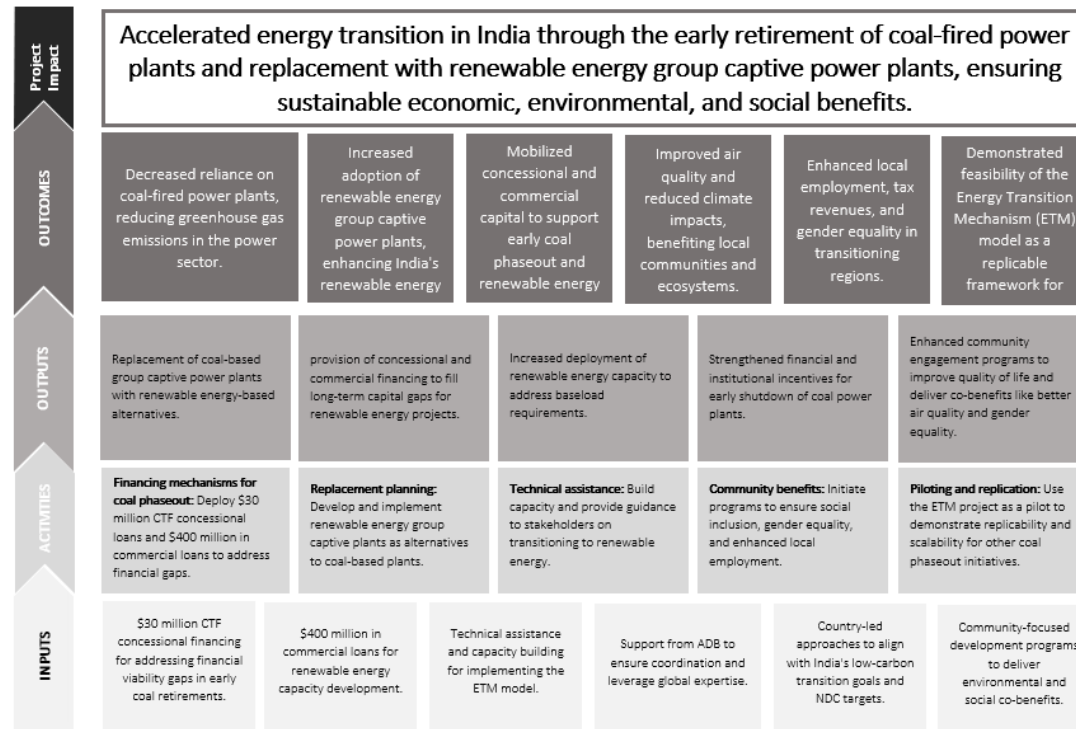
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Project Theory of Change

If concessional and commercial financing is provided to address financial gaps, and technical assistance supports the transition, **then** coal-fired group captive power plants can be replaced with renewable energy-based group captive plants, resulting in reduced emissions, improved air quality, mobilized capital, enhanced employment, and gender equality. **This will contribute** to India's low-carbon transition and serve as a replicable model for energy transitions globally.



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1. Potential for transformational change.

1.1 Relevance. The Project is aligned with the Government of India's target to reach 500 gigawatts (GW) of non-fossil energy capacity and meet 50% of cumulative electric power installed capacity from renewable energy sources, thereby reducing the carbon intensity of the economy by 45% by 2030. The government continues to support RE based group captive power plants as reduction in emission intensity from industrial operations is a key component towards achieving the government's "net zero" goal. Also, transitioning captive power generation to RE is crucial to support the shift towards sustainable manufacturing and achievement of decarbonization goals. As an ETM pilot transaction, the Project will support reputed and credit-worthy entities of Tata group i.e. TPCL and Tata Steel, in their transition to "net zero" by 2045 and successful implementation will lead to further such initiatives from business houses with captive TPPs and targeting "net zero". The Project will lead to creation of 966 MW of new RE capacity, which will replace the power from the 67.5 MW TPP and result in reduced consumption of grid power (about 85% thermal) by Tata Steel, and hence act as a catalyst for providing affordable and reliable access to clean energy.

1.2 Systemic change. The Project would be a first-of-its kind transaction, involving pure-private sector entities (private sector generation and private sector off-taker), which aims to catalyze public and private capital to accelerate the transition from carbon-intensive coal-based power plants to clean energy in ADB's developing member countries (DMCs) to reduce greenhouse gas emissions. The Project would demonstrate the practicability of the model, prove that substantial reduction in the operating life of a coal fired power plant is possible, and create a template for future transactions. Whilst early retirement provides decarbonization benefits, commercial investors are generally unwilling to shut down plants without recovering an appropriate return on their investment. The energy transition, backed by a mix of grants and concessional loans, will help achieve early retirement while allowing investors to preserve their financial return.

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1.3 Speed. The Project will help accelerate transition away from coal and towards cleaner sources of energy. India has significant installed captive capacity at 76.7 GW as of March 2022 which underpins economic development, particularly in the industrial sector. Assuming even if 5% of this capacity is retired early, CO₂ emissions of 21 metric tons of carbon dioxide-equivalent (MtCO₂e) can be avoided annually. Given the size of the captive generation capacity, there is considerable replication potential for a successful coal phase out mechanism across India. ADB expects the Project to reinforce India's captive power market by providing a model which allows owners of private captive coal plants to obtain an assurance that retired assets would receive due compensation. Successful implementation of the model will be important to encourage an orderly transition of subsequent phase outs. The Project will also support the overall power market in India by 'matching' renewable energy investments with coal early retirements, thereby providing supply certainty.

1.4 Scale. As a first under ADB's ETM framework in India, the Project will set a precedent for a replicable and scalable model for similar transactions and is expected to demonstrate a viable model to achieve early shutdown of TPPs, thereby catalyzing capital to accelerate the energy transition in India and other DMCs.

1.5 Adaptive Sustainability. Ahead of the introduction of a carbon emission cap and trade system where there are financial incentives for reducing emissions or financial disincentives for not reducing emissions, the quantum of concessional finance required to meet emission reductions especially through early shutdown of coal-based power plants is not sustainable. However, concessional finance in the form of concessional financial instruments, remains an effective interim tool to ensure the activity is commercially sustainable. Over the long term, the Project will support the low-carbon transition in the region along with local employment, tax revenues and gender equality. It will also help in improving the quality of life of local communities through better air quality.

2. Potential for GHG emissions reduction/ avoidance. The Project is expected to have the following timelines. Carbon dioxide (CO₂) emission reduction has been calculated accordingly.

- Commissioning of the RE Project: December 2025
- Shutdown of 67.5 MW TPP: August 2027 (after stabilization of the RE Project)
- Reduction in utilization of 120 MW TPP by 25%: 2030 for a period of 5 years.

The concessional finance will specifically be used for early shutdown of the 67.5 MW TPP, and the annual CO₂ avoidance on this account will be 0.47 million tons per annum (MTPA) (cumulative CO₂ avoidance of 4.7 MTPA).

Overall, the Project is expected to lead to an avoidance of CO₂ as per Table 2.

Table 2: Carbon Dioxide Avoidance by the Project

Item	Annual CO ₂ avoidance (MTPA)				Cumulative CO ₂ avoidance (MT)			
	67.5 MW TPP	966 MW RE	25% of 120 MW TPP	Total	67.5 MW TPP	966 MW RE	25% of 120 MW TPP	Total
From Jun 2025 to Aug 2027	-	2.27	-	2.27	-	4.5	-	4.5
From Sep 2027 to Aug 2037	0.47	1.81	0.21 ^a	2.49	4.7	18.1	1.1 ^a	23.9
After Aug 2037	-	2.25	-	2.25	-	29.3	-	29.3
Total					4.7	51.9	1.1	57.7

CO₂ = carbon dioxide, MTPA = million tons per annum, MW = megawatt, TPP = thermal power plant.

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^a 25% reduction in utilization of 120 MW TPP is expected by 2030. The PPA will expire in 2035, hence CO₂ reduction has been calculated for 5 years.

Source: Asian Development Bank and Tata Power Renewable Energy Limited estimates.

3 Implementation potential. Successful implementation of the model will be important to encourage an orderly transition of subsequent phase outs. As per the current terms proposed by ADB to TPCL for the concessional funds, TPCL will not be allowed to utilize the grant proceeds for implementing any thermal power plant. TPCL has proposed to use the grant proceeds to undertake pre-development works for implementing pumped hydro storage projects (PSPs),⁷ which will play a crucial role in further adoption of RE. PSP will help mitigate intermittency of wind and solar power and help manage grid stability.

4. Development impact potential. The Project will serve as an effective model demonstrating and addressing United Nations' Sustainable Development Goals 7 and 13 and aims to protect the natural environment by promoting RE. It will help Tata Steel increase its use of renewable energy, while also ensuring that employees and communities that are affected by the transition are provided with alternate livelihoods.

Additional CTF investment criteria for private sector projects/ programs

Financial sustainability

TPREL, the Borrower, is a strategic entity of the Tata Group, housing its renewable energy assets. Its parent, TPCL, is one of the largest private sector power utilities in India with a market capitalization of \$16.4 billion as of 11 December 2024. Tata Group companies' total revenue, as of FY 2024, was \$165 billion and these collectively employed over 1 million people. As on 31 March 2024, the total market capitalization of the group companies was over \$365 billion.

The Project will help in increasing the share of renewables in TPCL's electricity generation mix and help reduce the carbon intensity of steel produced by Tata Steel. Both these entities, which are also publicly listed, have decarbonization goals i.e., net zero by 2045, that they have made public. Voluntarily accelerating the process of reducing emissions intensity will certainly help prepare these corporates and help maintain competitiveness in a future carbon constrained economy – globally as well as domestically.

Effective utilization of concessional finance (including a detailed analysis on how the proposal meets the minimum concessionality principles, and on how it is aligned with the blended concessional finance principles)

Currently, there are no revenue streams linked to emission reductions from early retirement of coal assets, that can be identified. Further, there is no government regulation that mandates early retirement of existing coal assets. The proposed transaction achieves a reduction in project life and GHG emissions while partially absorbing the losses for the Sponsor. The 67.5 MW TPP is debt free and cash flows accrue to the Sponsor. TPCL has been generating sufficient free cashflows annually and is expected to continue to do so till the year 2037 assuming that incremental capex will net off incremental tariff. The net present value (NPV) of such annual loss (economic loss) from FY2028 to FY2037 is large enough to justify the economic efficiency of the transaction. The proposed concessional finance will generate savings that will partially cover the losses incurred by TPCL in shutting down the 67.5 MW TPP along with other costs related to decommissioning and just transition. ADB will independently verify costs and assumptions through the lender's technical advisor over the course of due diligence.

Mitigation of market distortions

⁷ TPCL is implementing 1800 MW PSP at Pune and 1000 MW PSP at Raigad district.

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The project addresses potential market distortions due to concessional finance through the following strategies:

- **Adherence to Blended Finance Principles:** The project design aligns with the DFI Principles for the Use of Blended Concessional Finance, ensuring that concessional funds are used to address specific market barriers while avoiding market distortions. The concessional financing is specifically targeted to absorb the economic losses associated with the early retirement of the coal-fired 67.5 MW TPP while promoting renewable energy investments. This alignment is essential to justify the use of concessional finance and prevent crowding out private sector investments.
- **Transition to Market-Based Financing:** The project outlines a pathway for reducing dependence on concessional financing over time. As the project establishes a track record of successful implementation, it is expected that subsequent renewable energy projects and industrial decarbonization initiatives can increasingly rely on commercial sources of funding. This approach ensures that concessional financing serves as a temporary catalyst rather than a long-term dependency.
- **Replicable Model for Future Projects:** By successfully demonstrating a model for early coal plant retirement coupled with renewable energy deployment, the project aims to create a template that can be replicated without requiring concessional financing for similar initiatives. This effort reinforces the sustainability of the financing structure and its alignment with market principles.

These measures ensure that the use of concessional finance is justified, time-bound, and targeted at overcoming specific barriers to India's energy transition, without undermining the broader market dynamics.

Risks

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Key risks and risk mitigants:

- Reduced financial flexibility at TPREL as it ramps up (Impact: high, Likelihood: low). TPREL is expected to ramp up quickly. Its ability to raise equity capital on time will be key to maintain satisfactory leverage. In addition, it needs to maintain discipline in terms of selecting offtakers and bidding projects at profitable tariffs which would otherwise lead to a stressed balance sheet and deterioration in credit rating. *Mitigants:* ADB can exercise the put option at the end of 5 years (which will result in repayment of ADB and concessional loans). For the first 5 years, TPREL is expected to continue to have high financial flexibility given (i) TPREL being strategically important entity of the Tata Group, it is expected to receive strong support from the group, (ii) TPREL is backed by strong institutional investors which can infuse further equity (TPREL received \$482 million from marquee investors such as Mubadala and BlackRock), and (iii) high appetite for diversified RE assets amongst the equity investors based on the strong thrust on RE by the government and multiple profitable exits in the sector.
- Risk of project non-decommissioning (Impact: medium, Likelihood: low). TPCL could potentially continue operating the 67.5 MWW TPP after commissioning of the RE Project, making the decarbonization goals of the transaction futile. *Mitigants:* Robust contractual provisions will be included that will require the borrower to reimburse the benefit of concessional financing, which may include prepayment of concessional loans, and reimbursement of concessionality.
- Execution and construction risks (Impact: high, Likelihood: medium). Delays and cost overruns during construction may arise particularly because the RE Project entails the development of multiple power plants located across three states using wind and solar power technologies. Execution challenges may also arise given the different project components and anticipated multiple contracts. *Mitigants:* TPCL has a long and successful track record in implementing renewable projects with more than 4 GW of operational wind and solar power capacity in India. During the ongoing due diligence, the lender's technical advisor (LTA) is examining and is expected to provide an opinion on: (i) all counterparties and contractual arrangements, including warranties and liquidated damages to be provided to the Project in case of delays and poor performance by contractors; (ii) RE Project's design and technologies; and (iii) adequacy of contingencies to mitigate cost overruns.

Solar irradiation, wind resource, curtailment, Power Delivery Agreement (PDA) provisions, technology, operations and maintenance (O&M) risks, land acquisition, and right of way from evacuation infrastructure are being verified and elaborated on as part of the due diligence.

For DPSP projects/programs in non-CTF countries, explain consistency with FIP, PPCR, or SREP Investment Criteria and/or national energy policy and strategy ^{[c][d]}

N/A

Social Inclusion and Stakeholder Engagement ^{[c][d]}

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The transition from coal-based system to one with cleaner energy sources will reduce climate change risks that threaten the poor's livelihoods. However, the process could be disruptive which necessitates careful management and mitigation; else potential negative economic impacts could make vulnerable workers and communities dependent on the 67.5 MW TPP worse off. This will require participation of a broad range of stakeholders who are interested in and might be affected by the 67.5 MW TPP's early shutdown.

In accordance with the requirements under the ADB's Safeguard Policy Statement (2009) covering existing facilities, independent consultants will be engaged by TPCL to undertake an environmental and social compliance audit (ESCA). The consultants will assess the thermal power plant's ongoing social, labor, and gender performance, grievance management, stakeholder engagement processes and capacity against applicable standards. Potential legacies related to EHS, land acquisition and resettlement, indigenous peoples, labor, and gender which could have ongoing or future risks to the Project will also be reviewed. Identified gaps will be addressed through a corrective action plan to be developed by the consultant and agreed upon between ADB and TPCL.

For the RE Project, the consultant will undertake the following to be in line with ADB SPS 2009: (i) a corporate audit of TPREL's existing environmental and social management system (ESMS); (ii) an Initial Environmental and Social Examination (IESE) for each of the RE sites including each transmission line and any associated facilities; (iii) social compliance audits of prior and ongoing land acquisition for each of the RE sites; and (iv) Resettlement Plan/Livelihood Restoration Plans (or a combined Resettlement/Livelihood Restoration and Ethnic Minority Development if scheduled tribes are affected) for each of the transmission lines' land acquisition/ access impacts.

Gender Considerations ^{[c][d]}

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<p>Gender Analysis (Please insert the text from the project document on the analysis of gaps in access to services, markets, and jobs by women in relation to the project sectors)</p>	<p>The power sector in South Asia is considered a non-traditional area of employment for women and is male dominated. The sector also lacks recognition of the distinct energy needs and potential contribution of women. As such, companies operating in the energy sector often lack the understanding of gender issues and have limited capacity to take affirmative actions. In this perspective, allocating resources and building institutional awareness to promote gender equality can improve women's participation in the sector.⁸</p> <p>It is estimated that the renewable energy sector in India will create 3.4 million new clean energy jobs by 2030. However, representation of women in the sector remains low in India due to multi-dimensional challenges including societal norms, lack of suitable job opportunities and flexibility, safety and security concerns, misperceptions of women's capabilities in some roles, insufficient human resource policies beyond legally mandated requirements, practices at workplaces that fail to factor in the differentiated needs of women, and consciousness/bias among employees.⁹</p> <p>The Project is currently in the process of conducting a detailed gender analysis which will include analyzing women's current roles (as staff, contractor or supplier) in relation to the existing power plant at Jojobera, the potential impact of its closure, and the potential opportunities and challenges for women in relation to the proposed RE Project. The gender analysis will include examining how to mitigate negative impacts or risks and leverage potential benefits and opportunities for women as a result of the planned Project.</p>
<p>Gender Activities (Please insert the text describing gender-specific activities included in the project)</p>	<p>The Project will advance gender equality through gender activities that will be refined during the ongoing due diligence and gender analysis. The gender activities may include improving entry level and senior management opportunities for women, providing professional development training for women employees, and enhancing workplace policies and practices to encourage women's economic participation. The Project will also seek to take steps to ensure that the identified potential negative impacts on women affected by the closure of the 67.5 MW TPP are mitigated and they are provided with targeted opportunities and benefits.</p>

⁸ ADB.2018. [India Gender Equality Results Case Study Enhancing Energy-Based Livelihoods for Women Micro-Entrepreneurs](#).

⁹ National Research Development Corporation. 2023. [India's Expanding Clean Energy Workforce](#).

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Gender Indicators (Please insert the text on selected gender specific indicators, including annual targets. from the Project Log Frame that the project is committing to report on)	<p>As a part of the Gender Action Plan, TPREL is seeking to enhance gender diversity in its workforce, with an increase in female representation in technical roles across key states. Additionally, TPREL plans to develop knowledge products to share insights and best practices on promoting women's participation in the energy sector, with the goal of raising industry-wide awareness. In relation to the closing down of the Jojobera plant, TPCL will seek to provide all the affected professional women staff with technical or management skills training, helping them stay competitive in the job market. TPCL also aims to maintain its procurement from women-owned businesses and expand its women's entrepreneurship program to support more local women entrepreneurs. These initiatives have the potential to meaningfully advance gender equality across both companies' operations.</p> <ul style="list-style-type: none"> • At least [X%] women staff hold technical roles at the hybrid power plants (2023 baseline: X) • At least [X] knowledge products on advancing women's participation in energy sector developed and disseminated by TPREL (FY2024 baseline: 0) • [X%] professional women staff receive technical or management training at TPCL (2023 baseline: X)] • Procurement of services from [X%] women owned businesses are maintained at TPCL (2023 baseline: X) <p>Number of women benefitting from TPCL's women entrepreneurship development initiative increased to [X] (2023 baseline: X)]</p>
Just Transition ^{[c][d]}	
Just Transition Analysis	<p>The Project will undertake multiple analysis including workforce composition analysis which determines the number of workers, type of contracts and the socio-economic characteristics of the workforce (including gender) employed at the thermal power plant. It will include a legal analysis to understand the structure of the existing job contracts as well as national labor standards and legislation. These will be used to create a workforce labor profile including analyzing the just transition costs of early retirement. The Project will be limited to understanding the direct and indirect (supply chain) impacts of the transition. The just transition planning process will identify the potential induced impacts due to early retirement.</p>

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Just Transition Activities	<p>As part of the ESCA, a labor audit will be conducted to review the existing labor and working conditions at the thermal power plant against the requirements of national labor legislation and international core labor standards. In accordance with the requirements of the ADB's Guidance Note on the Solar PV Supply Chain, an extended supply chain due diligence will be carried out for the solar capacity under the RE project to adequately manage potential forced labor and child labor risks related to the solar PV supply chain. The labor audit will complement the ongoing just transition analyses and help identify potential impacted stakeholders (including gender disaggregated) and the extent of the impact and develop the just transition plan. This plan will align with the decommissioning plan which will be prepared following from the results of the due diligence.</p> <p>Just transition activities will include multiple stakeholder consultations including with the workers, and unions, vendors who have contractual agreements with the plant, supply chain players etc., to explain transition process, create a managed transition plan for possible transition to other assets, retraining, reskilling and upskilling services necessary to manage the transition process. Further activities, if needed, will be decided based on the assessments.</p>
Just Transition Indicators	<p>The Project's due diligence and just transition analysis is ongoing and the Project specific just transition indicators are yet to be finalized. In relation to early retirement of 67.5 MW TPP, indicators being considered are transition/transfer to other assets, possibility of a career center for job placement, reskilling, counseling, wellness coaching, and other social support services designed and delivered in a gender-sensitive manner, meeting contractual obligations for all vendors.</p> <p>These are general indicators; but Project specific indicators will be developed based on the assessment and in collaboration with impacted stakeholders including plant owners, workers, unions, supervisors, vendors and any affected party.</p>
For projects/programs with activities in countries assessed as being at moderate or high risk of debt distress, macro-economic analysis to evaluate the potential for the CTF project or program to impact the country's debt sustainability ^{[c][d]}	

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For public sector projects/programs, analysis of how the project/program facilitates private sector investment ^{[c][d]}	
Expected Results (M&R)	
Project/Program Timeline	
Expected MDB Board Approval date ^[d]	Q1 or early Q2 2025
Expected project closure date ^[d]	TPP shutdown: August 2027
Expected lifetime of project results in years (for estimating lifetime targets)	10 years until August 2037
CTF Core Indicators	Project-Defined Indicators/Targets
Please identify which of the indicators below are relevant to the project proposal, list the corresponding project-defined indicator(s), and report all targets, including disaggregated targets. (See the CTF Monitoring and Reporting Toolkit for additional guidance.)	
CTF 1: GHG emissions reduced or avoided (mt CO ₂ eq)	Yes Annual greenhouse gas emissions of [2.25] million tCO ₂ reduced per year ¹⁰ (2023 baseline: [0.68] million tCO ₂ per year being emitted ¹¹)
Annual	
Cumulative Lifetime	

¹⁰ Decommissioning of 67.5 MW TPP to contribute to avoidance of 0.47 million tCO₂ per year for 10 years from September 2027. The RE Project expected to contribute to avoidance of 2.27 million tCO₂ from commissioning till the shutdown of 67.5 MW TPP (Jun 2025-Aug 2027), 1.81 million tCO₂ per year during the period it will replace the 67.5 MW TPP (Sep 2027-Aug 2037) and 2.25 million tCO₂ per year thereafter (after Aug 2037).

¹¹ 0.68 million tCO₂ per year is the sum of 0.47 million tCO₂ per year from 67.5 MW TPP and 0.21 million tCO₂ per year from 25% reduction in capacity utilization of 120 MW TPP (during Sep 2027-Aug 2037).

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CTF 2: Volume of direct finance leveraged through CTF funding (\$)P	Yes Co-financing of \$[814.9] million in equity, commercial and concessional loans, and grants <i>Indicator calculated from the co-financing section below</i>
CTF 3: Installed capacity of RE as a result of CTF interventions (MW)	Yes <ul style="list-style-type: none"> One hybrid renewable energy plant with 966 MW (379 MW_{AC} of solar capacity, and 587 MW of wind capacity) installed by FY2026 (2023 baseline: 0) One 67.5 MW coal-fired captive thermal power plant decommissioned by FY2028 (2023 baseline: 0) Amount of electricity from new hybrid renewable energy power plant delivered to offtaker is at least [2,400] GWh per year (2023 baseline: 0) Amount of electricity generated by the 67.5 MW coal-fired captive thermal power plant reduced to [0] GWh per year from FY2028 (2023 baseline: [440] GWh/year)
<i>Wind</i>	
<i>Solar</i>	
<i>Hydro</i>	
<i>Geothermal</i>	
<i>Other/Mixed</i>	
<i>TOTAL</i>	
CTF 4: Number of additional passengers per day using low-carbon transport	No
<i>Female</i>	
<i>Male</i>	
<i>TOTAL</i>	
CTF 5: Energy savings as a result of CTF interventions (GWh)	No
<i>Annual</i>	
<i>Cumulative Lifetime</i>	
Please also submit the full project results framework to the CIF Secretariat upon MDB Board approval of the project.	
CTF Co-Benefit Indicators	Project-Defined Indicators/Targets
<i>Please identify one or more expected co-benefit indicators—i.e., other social, economic, environmental benefits beyond the CTF core indicators—that the project will track and report.</i>	

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CTF Co-Benefit (e.g., Gender, employment, energy access, social inclusion, health and safety, fuel savings, competitiveness and industrial development, SDGs):	<ul style="list-style-type: none"> • At least [X] jobs created during construction of the hybrid power plants (2023 baseline: 0) • At least [X] jobs created during operations of the hybrid power plants (2023 baseline: 0) • At least [X%] women staff hold technical roles at the hybrid power plants (2023 baseline: X) • At least [X] knowledge products on advancing women’s participation in energy sector developed and disseminated by TPREL (FY2024 baseline: 0) • [X%] professional women staff receive technical or management training at TPCL (2023 baseline: X)] • Procurement of services from [X%] women owned businesses are maintained at TPCL (2023 baseline: X) • Number of women benefitting from TPCL’s women entrepreneurship development initiative increased to [X] (2023 baseline: X)]
Expected Date of MDB Approval	
Q2 2025	

Version: October 2024

Link to Documents Management – [here](#)

CCH – [here](#)

CIF Website – [here](#)

CIF Pipeline Management and Cancellation Policy - [here](#)

CIF Financial Terms and Conditions Policy updated for FY24 - [here](#)

CIF Operational Modalities For New Strategic Programs - [here](#)

CTF (DPSP V-FUTURES) Futures Window Design Document [here](#)

CTF M&R Toolkit – [here](#)

FY25 Pricing Policy - [here](#)

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