ASIAN INFRASTRUCTURE INVESTMENT BANK

PROJECT LEARNING REVIEW REPORT

TSKB SUSTAINABLE ENERGY AND INFRASTRUCTURE ON-LENDING FACILITY

JUNE 2025

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ABBREVIATIONS

AIIB	Asian Infrastructure Investment Bank
CEIU	Complaints-resolution, Evaluation and Integrity Unit
CO_2	carbon dioxide
EBRD	European Bank for Reconstruction and Development
EIRR	economic internal rate of return
ELA	Early Learning Assessment
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
ESMMP	Environmental and Social Management and Monitoring Plan
ESP	Environmental and Social Policy
ESS	Environmental and Social Standards
E&S	environmental and social
FI	financial intermediary
FRR	financial rate of return
GDP	gross domestic product
GHG	greenhouse gas
GPP	geothermal power plant
GRM	Grievance Redress Mechanism
GW	gigawatt
HIPSO	Harmonized Indicators for Private Sector Operations
MDB	multilateral development bank
MW	megawatt
MWh	megawatt-hour
NPL	non-performing loan
NSBF	Nonsovereign-backed Financing
PCM	Private Capital Mobilization
PCN	Project Completion Note
PD	Project Document (of AIIB)
PIMR	Project Implementation and Monitoring Report
PLR	Project Learning Review
PPM	Project-Affected People's Mechanism
RMF	Results and Monitoring Framework
tCO_{2eq}	ton of CO_2 equivalent
T&D	transmission and distribution

TRY	Turkish Lira
TSKB	Türkiye Sinai Kalkinma Bankasi
SBF	Sovereign-backed Financing
SDG	Sustainable Development Goal
USD	United States Dollar
WPP	wind power plant
YEKDEM	Yenilenebilir Enerji Kaynaklarını Destekleme Mekanizması (Renewable Energy Support Mechanism)

ACKNOWLEDGEMENTS

This Project Learning Review (PLR) was developed by the Learning and Evaluation function of the Complaints-Resolution, Evaluation and Integrity Unit (CEIU) at the Asian Infrastructure Investment Bank (AIIB), with contributions from both staff and external consultants.

The review was conducted under the strategic leadership of Hwee Tin Kng, Acting Managing Director of CEIU, whose vision and guidance were central to shaping the scope, focus, and quality of the assessment. Eskender Zeleke, Head of the Independent Evaluation Function, led the work, with core contributions from Mirzhan Karakulov (Banking Expert) and Marla Hinkenhuis (Evaluation Analyst). Yuan Chang (Executive Assistant) and Yuting Wang (Administrative Assistant) provided operational support.

The PLR also benefited from a rigorous internal review by Jan-Willem van der Kaaij, Senior Advisor to CEIU, and an external peer review by Dr. Natalia Kryg, Principal Economist in the Independent Evaluation Department of the European Bank for Reconstruction and Development.

The team extends its deep appreciation to AIIB management for their continued support of CEIU's learning and evaluation agenda. We are equally grateful to AIIB staff, the TSKB project team, and key stakeholders for their time, perspectives, and engagement, particularly during the on-site mission, which greatly informed and enriched this review.

BASIC FACILITY DATA

REPUBLIC OF TÜRKIYE: TSKB SUSTAINABLE ENERGY AND INFRASTRUCTURE ON-LENDING FACILITY

Facility ID:	000132	**Investment No:**	L00132A
Member:	Republic of Türkiye	**Region:**	Western Asia
Sector:	Finance	**Sub-sector:**	Intermediary Financing
Financing Type:	Loan	**Co-financier(s):**	none
Environmental and Social (E&S) category:	FI	**Facility Risk:**	Medium
Borrower:	Türkiye Sinai Kalkinma Bankasi A.S. (TSKB)	**Implementing Agency:**	Türkiye Sinai Kalkinma Bankasi A.S. (TSKB)
Guarantor:	Republic of Türkiye	**Facility Team Leader (PTL):**	Francisco-José Fortuny Carod

FACILITY OBJECTIVE

Facility objective:	The Facility objective is to support sustainable infrastructure development in Türkiye by providing a long-term source of financing. The main objective of the Facility is to advance Türkiye's infrastructure, primarily in the field of renewable energy and energy efficiency, but also in the transport, power transmission, water management and treatment, and telecommunications sectors. The Client will use the loan from AIIB to finance eligible sub-projects.

KEY FACILITY DATA	At appraisal	At completion
Total project cost (all sub-projects):	N/A	USD 1,196.0 million
TSKB loan:	N/A	USD 319.0 million
AIIB loan:	USD 199.5 million	USD 199.5 million
Fees capitalized	USD 0.5 million	USD 0.5 million
Economic Internal Rate of Return (EIRR):	Not estimated	Not estimated

KEY DATES

Approval:	Sep. 28, 2018	**Signing:**	Sep. 28, 2018
Effective:	Nov. 6, 2018	**Restructured (if any):**	none
Original closing:	April 1, 2022	**Revised closing (if any):**	none
Amendment to the loan agreement:	none	**AIIB implementation monitoring missions:**	5 (2019-2022)

DISBURSEMENT DATA

Committed:	USD 199.5 million	**Cancelled (if any):**	none
Disbursed:	USD 199.5 million	**Undisbursed:**	none
First disbursement:	USD 30 million/ Sep. 25, 2019	**Last disbursement:**	USD 347,831.63/ Feb. 25, 2022
Disbursement ratio:	100%		

1 Disbursement Ratio is defined as the volume (i.e., the dollar amount) of total disbursed amount as a percentage of the net committed volume, i.e., f = c / (a – b).

Executive Summary

PURPOSE AND PROCESS

This Project Learning Review (PLR) presents the findings of the independent evaluation conducted by the Complaints-Resolution, Evaluation and Integrity Unit (CEIU) on the TSKB Sustainable Energy and Infrastructure On-Lending Facility ("the Facility") in the Republic of Türkiye. The assessment draws on a comprehensive review of project documentation and data, as well as in-depth consultations with key stakeholders. As part of the evaluation process, the team conducted a mission to Türkiye in February 2025, during which the team engaged in substantive discussions with the Türkiye Sinai Kalkinma Bankasi (TSKB, "the Client") and conducted site visits to two representative sub-projects financed under the Facility. This evidence-based approach enabled the team to gain valuable insights into the design, implementation, and outcomes of the operation.

FACILITY SUMMARY

Approved in September 2018, this Facility represented the first standalone financial intermediary (FI) loan of the Asian Infrastructure Investment Bank (AIIB) to a bank, serving as a valuable learning opportunity to inform future FI lending. AIIB extended a USD200 million loan through this Facility to support sustainable infrastructure development in Türkiye by providing long-term financing to TSKB.

The Facility was designed to promote infrastructure development primarily in renewable energy and energy efficiency while supporting investments in transport, power transmission, water management and treatment, and telecommunications. The financing enabled the successful implementation of eight sub-projects, including two geothermal power plants, four wind farms, one energy efficiency project, and one transmission and distribution initiative. All sub-projects were successfully completed and became operational before the Facility's closure in April 2022, reflecting strong project execution and effective collaboration.

OVERALL PROJECT ASSESSMENT: SUCCESSFUL

The PLR rates the Facility **Successful**, reflecting its strong performance across all core evaluation dimensions.

The operation is assessed **Highly Relevant**, demonstrating close alignment with Türkiye's national development priorities, AIIB's strategic mandate, and TSKB's institutional focus on sustainable infrastructure finance. The Facility's design provided a sound and adaptable platform that met immediate financing needs and laid important groundwork for AIIB's evolving FI lending model.

The Facility is found to be **Effective**, delivering long-term, countercyclical financing that enabled the implementation of eight sub-projects in renewable energy, energy efficiency and energy transmission. While key performance targets under the Results and Monitoring Framework (RMF) were exceeded, the monitoring of outputs and outcomes could benefit from enhanced precision and consistency, an area for continued improvement in future operations.

The Facility is also assessed **Efficient**, marked by timely disbursements, streamlined sub-project implementation, and prudent financial management even in the face of operational challenges brought about by the coronavirus disease (COVID-19) pandemic.

Looking ahead, the Facility is considered **Most Likely Sustainable**, supported by TSKB's robust institutional capacity, the financial viability of the sub-projects, Türkiye's enabling renewable energy policies, and strong environmental and social (E&S) safeguards, which continue to be actively monitored. These elements provide a stable foundation for long-term development impact while offering valuable lessons to inform AIIB's future engagements in FI lending.

RELEVANCE

The Facility is rated Highly Relevant, underscoring its strong alignment with Türkiye's national policy objectives and AIIB's institutional priorities. Specifically, it directly supported Türkiye's National Renewable Energy Action Plan (2014–2023) and Energy Efficiency Action Plan (2017–2023) by financing sub-projects that contributed to enhanced energy security, diversification of the energy mix, and reductions in carbon dioxide (CO_2) emissions. The Facility also aligned closely with TSKB's strategic emphasis on sustainable development, reinforcing synergies between national, institutional, and client-level goals.

As AIIB's first standalone FI loan to a bank, the Facility marked a strategic milestone, advancing the Bank's priorities in green infrastructure, private capital mobilization, renewable energy, and energy efficiency. AIIB delivered financial additionality through long-term, countercyclical financing, while also contributing non-financial additionality by supporting TSKB's efforts to enhance its E&S sustainability practices, sharing good international standards and aligning project implementation with AIIB's Environmental and Social Framework (ESF).

Importantly, the Facility played a foundational role in AIIB's institutional development, offering first-hand experience in the design, structuring, and oversight of FI projects. This operational learning was significant and contributed to internal capacity building, although it was not systematically captured or leveraged through a structured knowledge and learning framework, an opportunity for enhancement in future operations.

While the Facility's design was robust in terms of risk identification and mitigation, it did not incorporate a clear results chain or specific performance indicators, limiting its ability to systematically track development outcomes. Nonetheless, the operation established a solid base for AIIB's future FI engagements and business development in Türkiye, and it generated early lessons that can inform the Bank's evolving approach to intermediary lending.

EFFECTIVENESS

The Facility is rated **Effective**, having achieved its core development objectives and exceeded key performance targets. It successfully financed eight eligible sub-projects, all of which became operational before the Facility's closure, and it surpassed the expected results related to

portfolio composition and installed renewable energy capacity. A notable accomplishment was the mobilization of private equity capital, a significant outcome during the early stages of AIIB's operations. While not all mobilized equity can be directly attributed to AIIB, the Facility played an enabling role by setting sub-loan parameters and eligibility criteria that encouraged private sector participation.

The operation also generated positive and unintended development spillovers, such as the use of locally manufactured equipment, employment generation, and advances in technological capabilities in the domestic supply chain. These outcomes contributed to broader sectoral and economic benefits beyond the Facility's original scope.

While the Facility delivered strong results overall, the measurement of outcomes presents opportunities for enhancement. The RMF, while helpful in tracking implementation progress, did not fully capture output and outcome indicators across all eligible sectors. For example, the CO_2 emissions reduction indicator lacked a defined target, and some inconsistencies in indicator design and reported data limited the evaluability of climate-related outcomes. These limitations, however, did not significantly detract from the achievement of the Facility's objectives but rather point to areas for refinement in future design.

Going forward, future FI projects could benefit from strengthened RMFs with clearly defined and sector-specific performance indicators, especially for cross-cutting themes such as climate impact. Enhancing the attribution logic and ensuring greater consistency in data collection and reporting will support more robust assessments of development effectiveness, particularly for operations delivered through FIs.

EFFICIENCY

The Facility is rated **Efficient**, demonstrating strong operational performance through timely fund disbursement, smooth sub-project execution, and sound financial management, despite the external challenges posed by the COVID-19 pandemic. The AIIB loan was fully disbursed in eight tranches ahead of the planned closure, marking a notable achievement for a first-of-its-kind FI operation. The 21-month period from concept to first disbursement reflected AIIB's deliberate and thorough due diligence, ensuring alignment with its policy and risk management frameworks.

This performance was further supported by TSKB's strong implementation capacity, including proactive monitoring and risk management at the sub-project level. These capabilities enabled the efficient allocation of resources and the timely delivery of all eight sub-projects, without major delays or cost overruns. AIIB contributed to the Facility's responsiveness by processing two waivers that allowed for the necessary adjustments to sub-project eligibility, enabling flexibility in execution.

While operational efficiency was clearly demonstrated, the assessment of economic and financial efficiency was constrained by limited quantitative analysis at appraisal and completion. This reflects an opportunity to enhance internal clarity around analytical expectations for FI projects,

particularly in cases where the structure blends sovereign-backed financing (SBF) characteristics with those of nonsovereign-backed financing (NSBF), such as a sovereign guarantee combined with a private intermediary and privately sponsored sub-projects. A more structured analytical framework would have provided a stronger basis for assessing efficiency in this context.

The PLR does not question the suitability of this hybrid financing approach, which proved effective in this case. Rather, it encourages AIIB to further define internal appraisal and evaluation standards for such operations, to enable a more consistent application of efficiency criteria and to strengthen the evidence base for assessing value for money in future FI engagements.

SUSTAINABILITY

The Facility is rated **Most Likely Sustainable**, with strong indications of long-term viability across financial, institutional, and E&S dimensions.

Financially, TSKB remains a well-capitalized and stable institution, positioned to support ongoing operations under the Facility's framework. The sub-projects financed through the Facility are expected to remain viable over time, supported by Türkiye's continued policy commitment to renewable energy, the ongoing provision of the Renewable Energy Support Mechanism (YEKDEM) incentives, and a generally favorable long-term financial outlook. Nonetheless, the potential impacts of regulatory shifts, macroeconomic volatility, market uncertainty, and geopolitical developments represent risks that warrant continued monitoring, as they could influence revenue flows and demand for renewable energy investments.

Institutionally, both TSKB and the sub-project sponsors demonstrated strong capacity and resilience. TSKB effectively managed the on-lending process and maintained portfolio performance despite broader macroeconomic pressures. Sub-project sponsors similarly showed institutional robustness, enabled by diversified business models, sector-specific experience, and proactive risk mitigation strategies.

From an E&S perspective, TSKB's management system was found to be well-aligned with AIIB's ESF and consistent with international good practices. The client applied a rigorous due diligence process across the project cycle, incorporating comprehensive risk screening, environmental and social impact assessments, integration of safeguards, functioning grievance redress mechanisms, and ongoing monitoring. No major E&S issues were observed during implementation. That said, continued oversight remains critical, particularly for geothermal sub-projects with higher risks associated with CO_2 and hydrogen sulfide emissions. Sustained environmental monitoring and mitigation will be important to ensure that the Facility's positive impacts are preserved over the long term.

Overall, the Facility demonstrates a solid foundation for sustainability, though maintaining long-term impact will depend on the Bank's and TSKB's continued attention to evolving risks and adaptive management practices.

AIIB WORK QUALITY

AIIB's Work Quality is rated **Satisfactory**, reflecting the Bank's adequate preparation and supervision of the Facility, particularly considering it was undertaken during AIIB's formative years and represented its first standalone FI operation. The Facility was strategically aligned with Türkiye's national priorities and TSKB's institutional focus on sustainable infrastructure, and it contributed meaningfully to establishing AIIB's early presence in intermediary lending.

The Bank ensured that the Facility was well-structured, policy-compliant, and operationally sound, conducting careful due diligence and coordinating closely with the Client and the Ministry of Treasury and Finance of Türkiye. Both institutions recognized and appreciated AIIB's client-responsive and flexible approach, which contributed to a high degree of trust and paved the way for subsequent repeat operations with TSKB.

While AIIB managed implementation remotely, it maintained constructive engagement through consistent communication and targeted support. As its portfolio and country engagements grow, the Bank may explore opportunities to strengthen its field-level presence further to deepen client relationships and operational reach.

Overall, AIIB's performance reflected a credible and adaptive institutional effort that balanced innovation with risk management. The Facility served as an important stepping stone in expanding the Bank's operational capabilities in FI lending and building enduring partnerships with clients in its early years of operation.

CLIENT WORK QUALITY

TSKB's Work Quality is rated **Highly Satisfactory**, as it effectively managed sub-loan disbursements, ensured compliance with E&S safeguards, and maintained high-quality monitoring and reporting. As a capable and experienced intermediary, TSKB leveraged its deep expertise in infrastructure and energy financing, along with strong local market knowledge, to rapidly identify and finance eligible sub-projects. This allowed AIIB to rely on TSKB's institutional systems and processes, reducing the need for extensive on-site supervision and enabling more efficient execution than would have been feasible through direct lending.

The successful and timely implementation of all eight sub-projects, despite external challenges such as COVID-19, further demonstrated TSKB's operational strength and reinforced AIIB's confidence in the partnership. TSKB's performance under the Facility also contributed to the design and approval of follow-on operations, including Phase 2 and COVID-19 relief projects, and has positioned TSKB as a trusted partner for potential future collaboration under Phase 3.

LESSONS

Lesson 1: Strategic Partnerships and In-Country Engagement

Partnering with a high-capacity client was instrumental in enabling AIIB to pilot its first FI operation. The collaboration with TSKB provided a reliable platform to test AIIB's engagement model, manage risks, and establish operational credibility in a new market. This strategic entry point helped build a foundation for long-term partnerships and repeat operations.

AIIB's lean operational model, characterized by direct engagement, streamlined decision-making, and stable teams, was positively received by stakeholders and supported effective delivery. At the same time, the experience suggested that, as AIIB's portfolio grows, the Bank could consider options for enhancing its in-country engagement in a manner consistent with its business model, strategic direction, and evolving operational needs.

Lesson 2: Project Classification in FI Structures with Sovereign Guarantee

The experience with the Facility highlights the value of enhancing internal clarity in classifying FI projects involving sovereign guarantees, particularly when implemented through private financial institutions. In this case, the operation was categorized as SBF due to the presence of a government guarantee. However, its structure and risk allocation more closely reflected characteristics typical of NSBF, with credit risk and repayment responsibility borne by TSKB and with a direct sovereign guarantee.

This hybrid arrangement led to some variation in operational approaches, particularly in areas such as risk assessment, RMF design, disclosure practices, and the application of economic and financial analysis. The use of SBF financing terms for on-lending at market rates also pointed to the importance of aligning financing modalities with the distribution of financial benefits.

The PLR does not suggest that the hybrid model is inappropriate or ineffective. On the contrary, the structure functioned well in this case and supported the achievement of the Facility's objectives. Rather, the experience highlights that greater internal clarity and tailored guidance would help optimize the application of such models, ensuring consistent alignment between project structure, risk ownership, and policy requirements while supporting sound operational planning and risk management as AIIB's portfolio evolves.

Lesson 3: Guidance on FI Projects and Results Measurement

The Facility illustrates the importance of advancing internal frameworks to guide the design, monitoring, and assessment of FI projects. In indirect lending models, where attribution of development outcomes is inherently complex, greater clarity on expectations is essential to support consistent implementation and results measurement.

While AIIB contributed positively to E&S sustainability by aligning sub-projects with its ESF, the experience also highlighted opportunities for greater clarity in the depth of analysis and reporting required at the sub-project level particularly with respect to economic and financial assessments, E&S monitoring, and the scope of results tracking.

The Facility's RMF revealed some limitations, including an incomplete indicator set and unclear performance targets, which reduced the ability to systematically assess sub-project outcomes. Similarly, limited reporting in Project Implementation Monitoring Reports (PIMRs) constrained visibility into implementation progress.

As AIIB's FI portfolio grows, developing clear internal guidance and outcome-oriented monitoring tools adapted to the layered nature of FI structures will help strengthen operational consistency, improve transparency, and enhance the credibility of development effectiveness assessments.

Lesson 4: Institutional Learning

The Facility, as AIIB's first FI operation, offered a valuable opportunity to generate insights on structuring, supervising, and delivering FI projects. It contributed meaningfully to AIIB's institutional learning, particularly in shaping future engagements with TSKB and informing the broader development of FI projects.

The experience suggests that, in operations where learning is an explicit objective, the impact could be further amplified through a more structured approach to knowledge management. This includes proactively identifying learning goals, capturing key insights throughout implementation, and sharing lessons beyond the immediate project team.

As AIIB continues to scale its FI portfolio, embedding systematic knowledge capture and dissemination mechanisms into project design and supervision can help ensure that learning is institutionalized, supports continuous improvement, and informs the design of future operations across sectors and clients.

Lesson 5: Integration of E&S Risk Assessment

I**ntegrating E&S risk assessment into the credit due diligence process of FIs enhances both accountability and the effectiveness of safeguard implementation.** A key strength of TSKB's approach lies in the direct incorporation of E&S considerations into its financial screening, due diligence, and approval processes. This ensures that sub-borrowers are aligned with sustainability requirements from the outset of project appraisal.

Further, embedding E&S commitments into legal loan agreements reinforces institutional accountability by making these obligations contractually binding. AIIB can draw lessons from this approach and encourage its replication with other FIs, particularly those with less mature E&S management systems.

In addition, strengthening Grievance Redress Mechanisms (GRMs) in parallel with E&S due diligence can help ensure that affected stakeholders have effective channels to raise concerns, thereby improving the overall performance and credibility of the FI's E&S risk management system.

RECOMMENDATIONS

Recommendation 1: Strengthening Institutional Consistency Through a Guidance Note on FI Projects

As AIIB's engagement in FI projects continues to expand, there is value in developing a dedicated guidance note to support the design, implementation, and oversight of FI on-lending operations. Such a note would help promote consistency, enhance transparency, and reinforce alignment with the Bank's development mandate, while accommodating the specific characteristics of FI structures.

Building on early operational experience, the guidance note could provide structured direction across the project cycle, including sub-project eligibility, appraisal expectations, monitoring practices, and results reporting.

The use of standardized tools and indicators, aligned where appropriate with recognized practices such as the Harmonized Indicators for Private Sector Operations (HIPSO), would support comparability and improve the tracking of outputs and outcomes across sub-projects.

As AIIB advances its green finance agenda, the inclusion of consistent financial performance reporting for relevant sectors—such as renewable energy and energy efficiency—would further support assessments of sub-project viability while reinforcing the institution's climate-related objectives.

Recommendation 2: Clarify Operational Guidance for FI Structures with Sovereign Guarantees and Private Implementation

As AIIB expands its engagement in FI projects, there is value in developing internal guidance for operations involving a sovereign guarantee but implemented through private financial institutions. The experience with the Facility, which is legally classified as SBF due to the presence of a government guarantee, but structured and executed with characteristics more typical of NSBF, underscored the need for greater clarity on how such operations should be processed and monitored.

While the hybrid model functioned effectively in this case, it raised practical questions about the application of existing SBF-related requirements, including economic and financial analysis, results monitoring, and disclosure protocols, which are generally designed for projects implemented

directly by sovereign entities. In such cases, NSBF-aligned operational requirements may be more appropriate to reflect the nature of credit risk and project execution.

To support consistency, transparency, and efficiency, AIIB could consider preparing a guidance note that clarifies how to apply operational procedures in FI projects with sovereign guarantees but private implementation. This could include defining when NSBF-related tools and expectations apply and establishing a review mechanism at the concept or early appraisal stage to help determine the most appropriate processing route. Such an approach would help ensure alignment between project characteristics, policy application, and risk management practices without altering the legal classification of the operation.

Recommendation 3: Consider Enhancing In-Country Engagement to Support Effective FI Implementation

The experience with the Facility highlighted the benefits of AIIB's lean and responsive operational model, characterized by direct engagement, streamlined decision-making, and stable teams. This approach was well received by stakeholders and contributed to strong client relationships and efficient delivery. At the same time, the experience also pointed to the potential value of deeper in-country engagement in supporting implementation, particularly in complex FI projects involving multiple sub-projects and diverse local stakeholders.

In line with the AIIB Approach to Global Presence, which was approved by the Board in August 2024, the Bank could consider ways to strengthen in-country engagement, where appropriate, in line with its business model, strategic direction, and operational needs. This may include leveraging local representatives, consultants, or partnerships to enhance day-to-day client interaction, support E&S oversight, and facilitate timely problem-solving, especially in periods of uncertainty or external disruption.

As AIIB's FI portfolio grows in scale and complexity, a tailored approach to in-country engagement could help reinforce the Bank's client-focused delivery model while strengthening implementation monitoring and responsiveness in the field.

Recommendation 4: Integrate Structured Learning Approaches into Projects with Explicit Learning Objectives

The Facility, AIIB's first FI operation, generated valuable insights relevant to future FI engagements and broader institutional learning. To build on this experience, AIIB is encouraged to adopt a structured approach to learning in projects where learning is an explicit objective.

Specifically, this could involve asking project teams to plan for and implement learning activities from the outset, such as structured learning reflections, after-action reviews, internal learning sessions, cross-departmental debriefings, or early engagement with CEIU through an Early Learning Assessment. These activities would help ensure that lessons are systematically identified, captured, and disseminated beyond the immediate project team.

To complement these efforts, AIIB could also consider developing an internal knowledge-sharing mechanism or platform that consolidates and makes accessible key learnings from past operations. Such a system would help institutionalize learning and support continuous improvement across the project cycle.

This approach would help ensure that learning is intentional, actionable, and applied more broadly across the institution, enhancing the effectiveness of future operations.

Management Response

Management welcomes the Project Learning Review (PLR) Report for the TSKB Sustainable Energy and Infrastructure On-Lending Facility (the Project) prepared by the Complaints-Resolution, Evaluation, and Integrity Unit (CEIU) in accordance with the AIIB Learning and Evaluation Policy (LEP). This Management Response is prepared in accordance with LEP para 13(f).

The Project sought to advance Türkiye's infrastructure – primarily in the field of renewable energy and energy efficiency – but also in the sectors of transport, power transmission, water management and treatment and telecommunications. The PLR rates the Project as highly relevant, effective, efficient, and most likely sustainable. Management acknowledges that CEIU assessed the Project as overall **Successful** and concurs with CEIU's rating.

Management considers the PLR a high-quality, thorough, and insightful review. The report offers a balanced evaluation that affirms the overall rating, while also highlighting areas for institutional learning. Importantly, the lessons drawn are presented in a constructive manner and offer valuable insights to inform and strengthen AIIB's future operations through financial intermediaries (FI).

Since the Project was approved in 2018, the Asian Infrastructure Investment Bank (AIIB or the Bank) has significantly advanced its experience in the origination and implementation of both SBF and NSBF FI operations. In this context, it would be advisable for CEIU to formulate their lessons and recommendations in a way that clearly defines the scope under which these apply, whether specific to the TSKB Facility or systemic in nature across the portfolio. Such an approach would also support the identification of lessons that are tailored to be either widely applicable or context specific (e.g., by sector, Member, client, investment type, etc.).

Management is pleased to share the following response to the recommendations included in the PLR:

Recommendation 1: Strengthen Institutional Consistency Through a Guidance Note on FI Projects.

Management agrees with the recommendation. Management will consider options to provide project teams originating SBF FI projects and monitoring their implementation with tailored internal guidance to guide them and ensure consistency. This may take the form of a self-standing note, or integration of FI-specific considerations into existing guidance documents for SBF projects. Management recognizes how this effort may help to equip teams with practical, fit-for-purpose resources that reflect the evolving nature of the Bank's FI portfolio and promote the application of good practices drawn from operational experience.

Recommendation 2: Clarify Operational Guidance for FI Structures with Sovereign Guarantees and Private Implementation.

Management agrees with the recommendation. Management will discuss the potential benefits

of the "hybrid model" approach, in terms of impact and responsiveness to client needs. This will enable Management to assess how this model has performed in practice and to identify key factors that contributed to its success or presented challenges. The insights gained from this reflection will be shared with project teams involved in the design and implementation of similar operations, with the aim of informing future structuring choices and promoting greater clarity and effectiveness.

While CEIU has raised questions regarding certain aspects of project classification under the hybrid structure of the TSKB Facility, Management notes that these classification aspects did not hinder project delivery or outcomes. On the contrary, the Facility has demonstrated strong performance, as reflected in the positive results achieved and confirmed by CEIU's "Effective" rating. This suggests that, despite some structural complexities, the hybrid approach can be a viable and impactful financing modality when well-implemented.

Recommendation 3: Consider Enhancing In-Country Engagement to Support Effective FI Implementation .

Management agrees with the recommendation. As articulated in the *Approach to AIIB's Global Presence*, Management concurs that in-country engagement is important in enhancing day-to-day client interaction, support E&S oversight, and facilitate timely problem-solving.

Recommendation 4: Integrate a Structured Learning Approach in Projects with Explicit Learning Objectives.

Management agrees with the recommendation and concurs that adopting a learning-oriented approach adds value to the Bank's portfolio by enabling the capture and dissemination of lessons to inform both ongoing and future operations. Management also proposes to take a more active role in identifying suitable candidates for Early Learning Assessments (ELAs), contributing its perspective on projects with strong potential for learning and evaluability.

In the specific case of the TSKB Facility, however, Management does not consider there to have been a missed opportunity to extract and structure lessons, as evidenced by the constructive collaboration with CEIU during the ELA and the integration of key insights into the Project Completion Note.

Introduction

PROJECT DESCRIPTION

1. Guided by the Learning and Evaluation Policy of the Asian Infrastructure Investment Bank (AIIB), the Complaints-resolution, Evaluation and Integrity Unit (CEIU) conducts Project Learning Reviews (PLRs) for completed standalone projects.[1] PLRs are undertaken after AIIB Management submits the Project Completion Note (PCN) to the Board. PLRs assess the project's performance and the work quality of both AIIB and the Client, identify lessons, and provide actionable recommendations.

2. Consistent with CEIU's approach of being "independent and engaged," PLRs are prepared by CEIU staff and expert consultants in close collaboration with the relevant operating departments. This approach facilitates candid reflection and promotes learning across the institution. While collaboration is essential, the final responsibility for the content and conclusions of the PLR rests solely with CEIU. After discussion in the Policy and Strategy Committee (PSC) of the Board, the PLRs are published on the AIIB website.

3. The TSKB Sustainable Energy and Infrastructure On-Lending Facility ("the Facility") in Türkiye was AIIB's first standalone on-lending facility extended to a bank. In its early years, AIIB sought a reliable partner to implement its inaugural Financial Intermediary (FI) loan to a bank. The Türkiye Sinai Kalkinma Bankasi (TSKB, Turkish Industrial Development Bank, "the Client") had extensive experience in managing multilateral development bank (MDB) financing and a strong focus on sustainability within Türkiye's market, which were pivotal factors in AIIB's decision to select TSKB for this Facility.[2]

4. The Facility aimed to support sustainable infrastructure development in Türkiye by providing long-term financing. AIIB extended a USD200 million loan backed by a Sovereign Guarantee[3] to TSKB for on-lending to private sector borrowers in eligible sectors, primarily renewable energy and energy efficiency, as well as transport, power transmission, water management and treatment, and telecommunications. The Facility proceeds were on-lend to eight sub-projects: four wind power plants (WPPs), two geothermal power plants (GPPs), one energy efficiency project, and one energy transmission and distribution (T&D) project. All financed sub-projects became operational before the Facility's completion.

5. This PLR is timely and highly relevant. AIIB Board members repeatedly expressed interest in evaluations covering AIIB's FI projects. Approved in September 2018, this Facility marked AIIB's first FI loan to a bank, offering a unique opportunity for learning for future FI projects through this PLR. AIIB's FI projects are expanding and are forming a substantial portion of the existing

1 *AIIB Learning and Evaluation Policy*. (2021, May 19). bit.ly/4eujPKF

2 *Project Document*. (2018, August 31). bit.ly/4nAaTri pages 15; 20

3 The Ministry of Treasury and Finance of Türkiye carries out external debt transactions within the scope of Law No. 4749 on the Regulation of Public Finance and Debt Management. Loans under sovereign-backed financing are not specifically sectorized, but some sectors may be prioritized depending on the country's situation.

and prospective portfolio.[4] The PLR is particularly timely as the operational team is currently preparing the third Facility with TSKB, allowing for the consideration of learnings derived from this PLR for this next Facility.

PLR PURPOSE AND PROCESS

6. The purpose of this PLR is to assess the performance of the Facility, identify lessons for AIIB, and derive recommendations for continuous improvement.[5] The PLR assessment of project performance utilizes the four Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD/DAC) criteria aligned with the revised guidance for AIIB PCNs: Relevance, Effectiveness, Efficiency, and Sustainability.[6] Each criterion is rated on a four-point scale, and an overall project rating is then derived from these assessments. Additionally, the PLR examines AIIB Work Quality and Client Work Quality, using a four-point rating scale. Appendix A shows the detailed Evaluation Framework with the rating scales. This first PLR for an FI facility required a two-level methodology: assessing both individual sub-projects and the Facility's overall performance.

7. The PLR assessment is based on quantitative and qualitative evidence collected by the CEIU team. The PLR builds on the Early Learning Assessment (ELA) on the Facility that CEIU completed in March 2021 during implementation.[7] The PLR draws on evidence from: (1) interviews with AIIB staff and representatives and staff of the Ministry of Treasury and Finance of Türkiye, (2) desk reviews of Facility documents and data, AIIB and national strategy and policy documents, and official socioeconomic indicators, and (3) visits to TSKB headquarters and to two sub-projects. During the visit to Türkiye on Feb. 3-7, 2025, the PLR team held meetings with TSKB's development finance institutions, engineering, and credit teams. The site visits to two sub-projects included interviews with sub-borrowers' engineering, environmental and social (E&S), human resource, and finance staff. These discussions provided insights into sub-project implementation, current operations, and the application of TSKB's E&S risk management (see Chapter 3.5 for details on the sub-projects).

8. The draft PLR report underwent a comprehensive quality assurance and review process. This included a CEIU review and editing process and an external peer review by Dr. Natalia Kryg, Principal Economist in the Independent Evaluation Department of the European Bank for Reconstruction and Development (EBRD). Following internal clearance, CEIU requested comments from the Project Team, the Client, and Management before issuing the final report.

9. Nearly three years have passed since the completion of the Facility, and the PLR team acknowledges that AIIB's policies and practices have evolved in this time. The subsequent

4 As of end-2024, the current portfolio consisted of three projects in the Signing stage, 25 projects in the Implementation and Monitoring stage, and nine closed projects. The prospective pipeline consisted of two projects that cleared Screening Review, 16 projects that cleared Concept Review, and one project that cleared Final review.

5 *AIIB Learning and Evaluation Policy.* (2021, May 19). bit.ly/4eujPKF

6 *AIIB LEF Guide on Evaluation Criteria.* (September, 2021). bit.ly/44wGS2P page 2

7 The ELA was conducted during the Facility implementation and provided early lessons for internal use.

TSKB Phase 2 Facility, approved in 2022 and currently under implementation, directly integrates lessons learned from the Facility. Additionally, AIIB further developed its guidelines and standards, including a criteria-based rating approach for PCNs and updated Guidelines for the Results and Monitoring Framework (RMF). While this PLR highlights lessons from earlier stages of AIIB's operations, its recommendations aim to align with AIIB's evolution.

10. The report is organized into five sections. The current chapter introduces the Facility and the PLR's purpose and process. Chapter 2 provides an overview of the Facility's objectives, design and implementation. Chapter 3 evaluates the performance across the four key criteria: relevance, effectiveness, efficiency, and sustainability. Chapter 4 assesses the work quality of AIIB and the Client. Chapter 5 concludes the report with an overall assessment, a discussion of lessons learned, and a presentation of recommendations.

Project Design and Implementation

RATIONALE AND OBJECTIVES

11. The Facility aimed to support sustainable infrastructure development in Türkiye with long-term loans, addressing the financial sector's limitations in providing long-term funding. Türkiye's financial sector is dominated by banks, which had limited capacity to provide the long-term financing required for infrastructure projects. At the time of approval, almost half of bank loans were provided for less than one year, 40% extended between one and five years, and only 12% extended beyond five years. One reason for this short-term lending structure was the banking system's reliance on deposits, of which 88% had maturities of less than three months, restricting banks' ability to offer long-term loans.[8]

12. The Facility primarily focused on renewable energy and energy efficiency to support Türkiye's transition toward a more diversified and secure energy sector. Prior to the Facility's approval, Türkiye experienced high energy demand growth, with an annual average increase in primary energy consumption of 4% between 2003 and 2013. Despite this growth, only 26% of total energy demand was met through domestic resources. To reform the energy sector and ensure a sufficient, cost-effective power supply, Türkiye was working toward establishing a competitive market with greater private sector participation and set ambitious goals for renewable energy and energy efficiency.[9] Türkiye targeted a 30% share of renewable energy in electricity production with 61 gigawatts (GW) of installed renewable capacity and a 20% reduction in energy consumption per unit of gross domestic product (GDP) by 2023. In 2015, Türkiye also committed to reducing greenhouse gas (GHG) emissions by up to 21% by 2030.

13. The Facility also aimed to support the transport, power transmission, water management and treatment, and telecommunications sectors. All included sectors were part of Türkiye's 10th (2014-2018) and 11th (2019-2023) Development Plans, which outlined strategies to enhance Türkiye's logistics capacity as a crucial hub between Asia and Europe, improve water efficiency, and address regional water scarcity challenges.[10]

14. The Facility's objectives were measured through three RMF indicators. At approval, the results indicators and targets to be achieved by the fourth year after the Facility signing were established as follows:[11]

8 *Project Document*. (2018, August 31). bit.ly/4nAaTri pages 14. Despite these constraints, the banking sector's capital position remained strong, with a Tier 1 capital adequacy ratio of 14.1% and a low non-performing loans ratio (NPL) of 3%. *2018 IMF-Türkiye Article IV Consultation Staff Report*. (2018, April 30). imf.org. bit.ly/45YmhqB page 6.

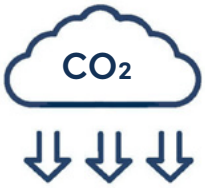
9 *Project Document*. (2018, August 31). bit.ly/4nAaTri page 12

10 *Türkiye's 10th Development Plan (2014-2018)*. (2013, July 2). sbb.gov.tr. bit.ly/44v3TDq; *Türkiye's 11th Development Plan (2019-2023)*. (2019, July 18). sbb.gov.tr. bit.ly/4llPiLD

11 *Project Document*. (2018, August 31). bit.ly/4nAaTri pages 15; 26

Share of renewable energy, energy efficiency in the sub-loan portfolio generated by AIIB's loan: >60%.

Installed capacity of renewable energy sub-projects: 70 megawatts (MW).



Total reduction in CO_2 emissions due to sub-projects: no target set.

15. The Facility also aimed to support broader macroeconomic objectives—reducing reliance on imported energy, enhancing energy security, and narrowing the current account deficit. The improved energy infrastructure was expected to enable the country to reduce its reliance on imported energy and, in turn, reduce its current account deficit.[12] However, such impacts are often not solely attributable to the project itself but to a set of interventions and broader economic conditions. Appendix B depicts the full Theory of Change of the Facility, which was developed by the CEIU evaluation team based on the Facility documentation at appraisal.

DESIGN

16. In its early years, AIIB sought a reliable partner to implement its inaugural FI loan to a bank. TSKB's extensive experience in managing MDB financing and its strong focus on sustainability within Türkiye's market were pivotal factors in AIIB's decision to select TSKB for this Facility.[13] During the PLR meetings with TSKB, it was communicated that the Ministry of Treasury and Finance of Türkiye had identified TSKB as one of several financial institutions for potential on-lending facilities during the AIIB Roadshow in Türkiye. This underscores the Government of Türkiye's strategic interest in mobilizing long-term financing for energy projects and further reinforcing collaboration between AIIB and Türkiye.

17. TSKB was Türkiye's first investment and development bank, founded in 1950, and is currently Türkiye's only private development bank. TSKB was founded in 1950 with the support of the World Bank, the government, the Central Bank of Türkiye, and leading commercial banks in Türkiye. TSKB is Türkiye's only private development bank, with its major shareholders including İş Bankası (51.4%), the country's largest private bank by assets, and Vakıf Bank (8.4%), the fifth-largest private bank by assets. The remaining shares were publicly traded on Borsa İstanbul, with a market capitalization of TRY2.4 billion in 2018, exceeding TRY30 billion in 2025.[14]

12 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 15
13 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 20
14 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 15; client data.

18. AIIB approved a USD200 million loan to TSKB in September 2018, covered by a sovereign guarantee. The Facility was granted a 15-year term, a three-year grace period, and at AIIB's standard interest rate for Sovereign-Backed Financing (SBF). It was not co-financed and was solely provided by AIIB. The Facility was guaranteed by the Republic of Türkiye and was therefore classified by AIIB as SBF. The USD200 million loan was intended to be complemented by an estimated USD35 million in equity contributions from sub-borrowers, reflecting an average 17.5% equity requirement across eligible sub-projects. Accordingly, the project's total estimated cost at appraisal was USD235 million.

19. The Facility was designed to be implemented through TSKB, extending and managing sub-loans to eligible privately owned companies in Türkiye to invest in sub-projects. The Client was required to follow the eligibility criteria and established procedures for on-lending. Essentially, functions that AIIB would typically handle for directly financed projects were delegated to the Client at the sub-project level. The Client was responsible for evaluating sub-loans, ensuring compliance with legislation in Türkiye and AIIB's policies, monitoring adherence to sub-loan agreements, and providing AIIB with relevant documentation, including financial statements and E&S reports. The Client was allowed to use principal repayments to finance further sub-loans. However, AIIB retained oversight responsibilities regarding the Client and the Facility, including the right to monitor the Client's performance in fulfilling its functions and the right to monitor sub-projects financed under the Facility.

20. AIIB defined eligibility criteria for sub-projects, ensuring adequate quality and alignment with AIIB priorities, with a focus on the energy sector. The sub-projects were required to be technically sound, financially viable, and economically feasible. Only sub-projects within renewable energy, energy efficiency, transport, power transmission, water management and treatment, and telecommunications were eligible. The minimum tenor of a sub-loan was 48 months, and the maximum sub-loan principal was USD30 million.[15] The Facility required a minimum sponsor equity contribution of 15% for renewable energy sub-projects and 20% for all other sub-projects. Additionally, a minimum debt coverage ratio of 1.1 for renewable energy projects and 1.2 for all other projects was mandated to be maintained throughout the sub-loan's duration. AIIB prioritized financing renewable energy and energy efficiency projects, with a required allocation of at least 60% (up to 75% on a best-effort basis) of the Facility to renewable energy and energy efficiency sub-projects.

21. AIIB assigned a risk rating of "Medium" to the Facility, considering that the Facility was the first engagement with a bank as an FI. The Project Document (PD) describes five main areas of risk and mitigation measures as indicated in Table 1.

15 *Project Document*. (2018, August 31). bit.ly/4nAaTri pages 40-41

Table 1: Summary of Risks and Mitigation Measures

Risks Identified	Assessment	Mitigation Measures Proposed at Appraisal
Risk 1: Macro-economic Risk	**Medium**	Financial criteria for the sub-borrowers are set in the Operational Manual to ensure a stringent financial assessment of the sub-projects for on-lending. These criteria would include a minimum debt service coverage of the sub-borrower and an analysis of its sensitivity to FX risk.
Risk 2: Forex Risk	**Medium**	The Client has a well-managed open currency position as it lends predominantly in hard currency and uses forex derivatives to hedge the remaining position. The Client also has a strong capital adequacy ratio, which could sustain potential further devaluation. For the sub-projects, (i) a significant portion of the loan will be utilized in the renewable energy project where the tariff will be adjusted to reflect foreign exchange rate and (ii) stringent financial criteria are set out in the Operational Manual. The Client is also well-experienced in conducting financial evaluations of the sub-borrowers to ensure repayment of the sub-loans. The amendments to the Council of Ministers Decree no. 32, which regulates the foreign exchange lending provisions, also introduced restrictions on forex borrowing to ensure the corporate sector forex debt remains manageable.
Risk 3: Deterioration of Asset Quality	**Medium**	The Client has a good capital adequacy ratio and a proven track record of managing the loan portfolio with low non-performing loans levels even in times of crisis (i.e., during the banking crisis in 2001-2002 and the 2008-2009 global financial crisis). This is in large part due to its good corporate governance, accounting (already implemented IFRS 9), and risk management systems in place.
Risk 4: Environmental, Social and Reputational Risk	**Medium**	The Client has internal E&S resources and a proven track record in implementing their ESMS across a wide range of sub-projects, including higher-risk sub-projects. AIIB will also continue to supervise the Client's implementation and monitoring of the sub-projects through the regular reports provided by the Client.
Risk 5: Implementation Risk	**Low**	The Client has a positive track record in implementing similar facilities of other institutions. It also reports under the Green Bond Compliance Framework. All sub-projects shall be in compliance with AIIB's policies. AIIB is committed to continue to supervise the Client's implementation and monitoring of the sub-projects.

Source: *Project Document*. (2018, August 31). bit.ly/4nAaTri page 24

IMPLEMENTATION

22. The Facility became effective on Nov. 6, 2018, and was fully disbursed by Feb. 25, 2022—ahead of the original closing date of April 1, 2022. Table 2 provides an overview of the Facility's implementation progress, drawing on insights from the five publicly available Project Implementation Monitoring Reports (PIMRs).[16] The PIMRs highlight key milestones, disbursement patterns, and operational progress.

Table 2: Key Features of the Facility Implementation Progress

PIMR Date	Physical Progress	E&S Compliance	Procurement
July 1, 2019			
Oct. 4, 2019			
Nov. 6, 2020	The portfolio presents projects under construction as well as projects already in operations.	In compliance, subject to individual sub-project assessment and monitoring	In compliance, subject to individual sub-project assessments.
June 7, 2021	The portfolio presents projects under construction as well as projects already in operations.	In compliance, subject to individual sub-project assessment and monitoring.	In compliance, subject to individual sub-project assessments.
Nov. 8, 2021	The portfolio presents projects under construction as well as projects already in operations.	In compliance, subject to individual sub-project assessment and monitoring. The last virtual monitoring visit (July 2021) did not identify implementation red flags.	In compliance, subject to individual subproject assessments. The last virtual monitoring visit (July 2021) did not identify implementation red flags.

Source: *Project Implementation and Monitoring Report*. bit.ly/406vyJy

23. The Facility proceeds were fully on-lent to eight sub-projects. These included four wind power plants (WPPs), two geothermal power plants (GPPs), and one energy efficiency project collectively accounting for 86.6% of the Facility's allocation to renewable energy and energy efficiency. Additionally, one transmission and distribution (T&D) sub-project received 13.4% of the Facility's funding. The sub-projects were financed in stages, and later disbursements were primarily used for final completion and commissioning. Based on available reporting from the Client, all sub-projects were operational or in the final stages of completion by the time the Facility was closed. No sub-projects in transport, water management and treatment, or telecommunications were financed. However, since the Facility allows the Client to reinvest repayments into new eligible sub-projects, the portfolio may expand in the future.

16 *Project Implementation and Monitoring Report*. bit.ly/406vyJy

24. All sub-projects were substantially compliant with the selection criteria defined at the approval of the Facility. However, to expedite the deployment of the Facility and to mobilize capital for eligible renewable energy (wind) sub-projects, AIIB granted two waivers: one for the maximum sub-project amount (over USD30 million) and another one for relaxing the individual sub-project debt-to-equity ratio (80:20). The Facility and sub-loans were reported as compliant with AIIB's safeguard policies, including those related to E&S, Procurement, and Financial Management. [17] No changes were made to the original objectives, the Facility design, and RMF indicators during the implementation period of the Facility. Table 3 provides an overview of the sub-projects financed under the Facility, including sectoral distribution, financial allocation, and key project characteristics. [18]

Table 3: Sub-Projects Financed Under the Facility

	Sector	Province	Project Cost	Physical Progress	E&S Compliance	Procurement
1	GPP	Aydın	463.2	30.0	97.6	A
2	GPP	Manisa	146.9	17.2	48	A
3	WPP	Kırklareli	85.5	15.6	75	B+
4	WPP	Çanakkale	180.6	41.0	138	B+
5	Energy efficiency	Tekirdağ	11.3	9.0	N/A	B-
6	WPP	Bursa	70.8	30.0	70	B+
7	WPP	Çanakkale	73.8	30.0	51	B+
8	T&D	Bursa, Balıkesir, Çanakkale, Yalova	164.0	26.7	N/A	B-
		Total:	1,196.1	199.5	479.6	

Source: *Project Completion Note*. (2022, August 24). bit.ly/44RUKWQ page 4

25. Due to the double-layered structure of the FI operation, AIIB monitored both the Client and the sub-projects to ensure compliance and effective implementation. This dual-level monitoring enabled AIIB to track performance at both the institutional and sub-project levels, ensuring alignment with the Bank's standards and objectives, adherence to financial, environmental, and social safeguards, and providing valuable insights for institutional learning and future FI projects.

26. During implementation, AIIB conducted five supervision visits between January 2019 and March 2022, which included on-site inspections of select GPPs and WPPs. These

17 *Project Completion Note*. (2022, August 24). aiib. org. bit.ly/44RUKWQ page 5

18 USD0.5 million of the total USD200 million Facility was allocated as a capitalized front-end fee.

visits focused on assessing project implementation progress, compliance with financial and procurement requirements, and alignment with AIIB's E&S policies. No major compliance issues were reported, and the sub-projects were largely progressing as planned. As part of sub-projects visits, in addition to meetings with the sub-projects staff, the Project Team met with the heads of nearby villages to gather community feedback. Overall, the villagers reported no negative impacts from the sub-projects and confirmed that they had access to channels for providing feedback or raising concerns if needed. Additionally, the villagers expressed their appreciation for the social responsibility initiatives undertaken by the sub-project sponsors.

27. Following the Facility's closure in April 2022, the AIIB project team visited TSKB in September 2023. While the primary purpose of the visit was to assess the Phase 2 and Türkiye: COVID-19 Credit Line Project, discussions also covered TSKB's financial management, procurement, and E&S practices. This visit provided an opportunity to review the long-term performance of the Facility sub-projects, ensuring that the Facility continued to support its intended objectives. Overall, AIIB's active monitoring approach aimed to ensure the Facility's successful implementation and identification and management of key risks throughout the Facility lifecycle.

28. The Facility became known as the "Phase 1 Facility," as it marked the beginning of a series of AIIB operations with TSKB, establishing a framework for long-term collaboration. Building on this foundation, the Phase 2 Facility—a USD200 million loan—was approved on Nov. 23, 2022, to support climate mitigation, climate adaptation, and climate industry sub-projects across Türkiye's energy, infrastructure, and other productive sectors. As of the latest PIMR dated November 2024, 76.1% of the Phase 2 Facility had been disbursed, supporting four approved sub-projects. A third Facility with TSKB is currently under consideration, reflecting AIIB's confidence in the operational model, strong market demand, and TSKB's institutional capacity to deliver on strategic priorities. In addition, AIIB provided a USD200 million loan to TSKB as part of the Türkiye: COVID-19 Credit Line Project, a separate initiative approved in June 2020. This project allocated USD500 million to banks in Türkiye for on-lending and was fully repaid as of June 18, 2023.[19]

29. All subsequent facilities built on the experience, procedures, and systems established during the implementation of Phase 1, strengthening AIIB's approach to FI projects. Notably, Phase 1 informed several refinements in subsequent facilities, including narrower eligibility sector targeting, an extended retroactive financing window of 12 months, and a more selective sub-project review process to ensure compliance with E&S framework requirements. Additionally, it placed greater emphasis on direct co-financing opportunities from AIIB, introduced a more comprehensive RMF with beneficiary recognition, refined sub-project selection criteria, enhanced risk management protocols, and improved disbursement efficiency—all of which have been integrated into later facilities.

19 Türkiye: TSKB Sustainable Energy and Infrastructure On-lending Facility, Phase 2 - Projects - AIIB. bit.ly/4IlyU3S; Türkiye: COVID-19 Credit Line Project - Projects - AIIB. bit.ly/4IhWQVX

ENVIRONMENTAL AND SOCIAL SAFEGUARDS

30. The Facility was classified as Category FI under AIIB's Environmental and Social Policy (ESP) due to its structure involving a FI. During appraisal, AIIB evaluated TSKB's Environmental and Social Management System (ESMS) and found it to be materially consistent with AIIB's ESP and Environmental and Social Standards (ESSs). TSKB's ESMS was also deemed comparable to the E&S policies of other international financial institutions. [20]

31. AIIB's ESP applied to both TSKB and the sub-borrowers. TSKB was responsible for ensuring compliance with national legislation and AIIB's ESP, monitoring sub-projects, implementing necessary E&S action plans, and establishing appropriate ESMS where needed. TSKB was required to communicate the results of E&S monitoring to AIIB through semi-annual E&S Monitoring Reports.

32. TSKB uses its own model for E&S risk categorization. TSKB employed its Environmental Risk Evaluation Tool (ERET) Model to categorize sub-projects into four E&S risk levels: A, B+, B, and C. This system guided due diligence, monitoring, and mitigation measures based on project risk levels. Higher-risk sub-projects, particularly Category A and B+, underwent enhanced assessments, including additional stakeholder engagement, stricter compliance reporting, and tailored mitigation strategies. Key E&S information, such as Environmental and Social Impact Assessments (ESIAs) and monitoring reports, was publicly disclosed on TSKB's website to promote transparency. AIIB conducted prior E&S reviews for all financed sub-projects, verifying compliance with its E&S standards and ensuring effective implementation of mitigation measures. These assessments confirmed that TSKB's ESMS was functioning as intended, with robust monitoring and reporting mechanisms in place. AIIB's oversight aimed to ensure that the sub-projects adhered to both national regulations and AIIB's ESP, mitigating environmental and social risks while strengthening accountability.

33. E&S Covenants were included in the sub-loan agreements. In the sub-loan agreements, the Client incorporated standard E&S covenants, monitoring, and reporting requirements, along with sub-project-specific Environmental and Social Action Plans (ESAP) where necessary. AIIB's E&S requirements were annexed to these agreements, as confirmed through the project team's sampling of sub-project documentation. To ensure compliance, sub-borrowers were required to submit ESIA, environmental, health, and safety clearance certificates, Environmental and Social Management Plans (ESMPs), and specialist studies where applicable, reinforcing the Facility's adherence to AIIB's E&S policies and national regulatory standards. [21]

34. All four WPP sub-projects were classified "B+," while the energy efficiency and T&D sub-projects were classified "B-."[22]

20 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 22
21 *Project Completion Note.* (2022, August 24). bit.ly/44RUKWQ page 7
22 *Project Completion Note.* (2022, August 24). bit.ly/44RUKWQ page 4

35. The two GPP sub-projects financed under the Facility were classified as "Category A" due to significant E&S risks associated with geothermal energy development. These risks included concerns related to the overground network of connecting pipelines, their proximity to populated areas and agricultural land, cumulative land acquisition for the GPPs, and operational emissions of carbon dioxide (CO_2) and hydrogen sulfide (H_2S). These factors created potential indirect, cumulative, and induced social impacts that could affect areas beyond the immediate sites or facilities undergoing physical works or planned operations. To mitigate these risks, comprehensive ESIAs were conducted, and ESMPs were developed and implemented. These plans included measures such as continuous monitoring of emissions, implementation of advanced emission control technologies, regular health and safety training for workers, and ongoing engagement with local communities to address concerns related to land use and environmental impacts. The implementation of these mitigation measures was closely monitored by TSKB and reported to AIIB through semi-annual E&S Monitoring Reports, ensuring that the sub-projects complied with both national regulations and AIIB's E&S standards.[23]

23 *AIIB Direct Financing Project Summary.* (2019, July 17). bit.ly/4ksNMfs

Project Assessment

RELEVANCE

36. The Facility's renewable energy and energy efficiency objectives fully aligned with Türkiye's energy sector priorities. The National Renewable Energy Action Plan of Türkiye (2014) recognized the country's heavy reliance on imported energy, exposing it to geopolitical risks, while highlighting the significant potential for renewable energy.[24] The Facility supported Türkiye's goals by providing essential long-term financing for renewable energy projects, including wind and geothermal energy, contributing to the targets of 30% of energy generation from renewable sources and 61 GW of renewable energy capacity by 2023. Additionally, the Facility supported the objectives of Türkiye's Energy Efficiency Strategy (2012-2023), which aimed for a 20% reduction in energy consumption per unit of GDP by 2023 compared to 2008 levels.[25] In 2015, Türkiye also targeted to reduce its GHG emissions by up to 21% by 2030, which aligned with the target of CO_2 emissions reduction in the RMF.[26]

37. The Facility's sub-projects tied in with the Government of Türkiye's renewable energy support mechanism. In 2013, the government introduced the Renewable Energy Support Mechanism (YEKDEM) to incentivize investments in renewable energy generation.[27] YEKDEM offered fixed payments to producers for electricity generated from renewable sources. Under this scheme, renewable energy producers were guaranteed a fixed price for the electricity they supply to the grid, typically for a 10-year period until 2030. The tariff rates vary based on the type of renewable energy, with WPPs receiving USD73 per megawatt-hour (MWh) and geothermal plants USD105 per MWh. Additional incentives are provided for using locally manufactured equipment, which further supports the growth of the renewable energy sector in Türkiye.[28] All six financed renewable energy generation sub-projects were commissioned on time to qualify for YEKDEM.

38. The Facility remains highly relevant to Türkiye's energy sector. Türkiye made significant progress in developing its renewable energy potential, with the share of electricity generated from renewable sources reaching 34.5% and renewable capacity reaching 69 GW in January 2025.[29] However, Türkiye continues to face significant energy sector challenges, as its increasing demand outpaces domestic production, with the country experiencing the fastest growth in energy consumption among OECD members. The country's reliance on foreign energy—with 72% of its needs met by imports in 2023[30]—still exposes it to price volatility and strategic challenges, emphasizing the critical need to harness its renewable energy potential to reduce import dependency, strengthen energy security, and meet ambitious environmental

24 *Türkiye's National Renewable Energy Action Plan (2014)*. (2014, December). asiapacificenergy.org. bit.ly/46vP99T
25 *Energy Efficiency Strategy Paper*. asiapacificenergy.org. bit.ly/4kuS6e5
26 *Türkiye: Intended Nationally Determined Contribution*. unfccc.int. bit.ly/44AAVCe
27 *Project Document*. (2018, August 31). bit.ly/4nAaTri page 12
28 *Overview of the Turkish Electricity Market. PWC (2023).* (2023, September). pwc.com. bit.ly/44xygcm page 51
29 *TSKB Monthly Energy Bulletin, January 2025,* (2025, February 19). tskb.com. bit.ly/3TvpgiS
30 International Energy Agency. bit.ly/4kwUSzN

goals. Expanding domestic renewable energy resources and enhancing energy efficiency remain crucial for Türkiye's long-term economic stability and achieving its net-zero emissions target by 2053.[31]

39. While the Facility also permitted funding for transport, water, and telecommunications sectors,[32] no sub-projects were financed in these sectors. The selection of these sectors was consistent with Türkiye's 10th (2014-2018)[33] and 11th (2019-2023)[34] Development Plans, which outlined strategic goals for the development of these sectors. However, given the lack of industry-specific objectives in the RMF and the absence of financing of projects in these sectors, assessing the Facility's continued alignment with specific objectives was not feasible.

40. The Facility's objectives are closely aligned with the Client's mission and strategic objectives. TSKB, as a development bank, promotes sustainable development in Türkiye, with a focus on the energy sector.[35] Its long-standing commitment to renewable energy and energy efficiency aligned well with the priority objectives of the Facility. TSKB financed 290 renewable energy projects between 2002 and 2018, with a total installed capacity of 6,066 MW, representing 13% of Türkiye's total renewable energy capacity. Additionally, TSKB financed 84 energy efficiency projects, further demonstrating its commitment to the energy sector and sustainable development.[36] By 2023, TSKB reinforced its commitment to renewable energy, with the installed capacity of its financed projects reaching 8,862 MW across 421 renewable energy projects.[37]

41. Contrary to other MDBs, AIIB does not pursue financial sector development, it uses FI projects to support its strategic objectives.[38] AIIB does not target developing the capacity of the financial sector and does not have a dedicated strategy for its FI projects. Rather, FI projects are used to advance AIIB's strategic objectives, which are built around the mandate of "Financing Infrastructure for Tomorrow." Thus, the applicable objectives for assessing the Facility's alignment with AIIB's strategic priorities are derived from the Corporate Strategy (2020)[39] and the Energy Sector Strategy (2017).[40]

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31 Siccardi, F. *Understanding the Energy Drivers of Turkey's Foreign Policy.* (2024, February 28). carnegieendowment.org. bit.ly/4lG0ylu Carnegie Endowment for International Peace. February 2024.

32 AIIB's relevant sector strategies were approved after the Facility's approval: the Transport Sector Strategy was approved on Oct. 9, 2018; the Water Sector Strategy in May 2020; and the Digital Infrastructure Sector Strategy in June 2020.

33 *Türkiye's 10th Development Plan (2014-2018).* (2013, July 2). sbb.gov.tr. bit.ly/44v3TDq

34 *Türkiye's 11th Development Plan (2019-2023).* (2019, July 18). sbb.gov.tr. bit.ly/4llPiLD

35 *TSKB's Mission and Vision Statements.* tskb.com. bit.ly/4lkCbAy

36 *TSKB 2018 Integrated Annual Report.* (2019, March 28). tskb.com. bit.ly/3Tvb61f

37 *TSKB Integrated Annual Report 2023*. tskb.com. bit.ly/4kmCvNL page 56

38 For example, see *EBRD: Credit Lines - Lending through financial intermediaries (2018, December).* ecgnet.org. bit.ly/4nA9fWv

39 *AIIB Corporate Strategy.* (2025, June). bit.ly/4kBY5y8

40 *AIIB Energy Sector Strategy: Sustainable Energy for Asia (2017).* (2017, June 15). bit.ly/405lKye

42. The Facility's design and implementation were well-aligned with AIIB's Mandate and Energy Sector Strategy (2017).[41] The Facility supported the AIIB's overarching objective of fostering sustainable economic development, as outlined in its Articles of Agreement.[42] The Facility's focus on renewable energy and energy efficiency directly reflected the priorities of the 2017 Energy Sector Strategy, which emphasized investments in T&D, renewable energy, and energy efficiency, while advancing the principles of energy access, energy security, and environmental sustainability. Furthermore, the Energy Sector Strategy embraced Sustainable Development Goal (SDG) 7 (Affordable and Clean Energy),[43] to which the Facility contributed through increasing renewable energy capacity and improving energy efficiency.[44]

43. The Facility remained relevant to AIIB's evolving strategic direction, particularly its Corporate Strategy (2020)[45] **and the updated 2022 Energy Sector Strategy.**[46] The Facility aligns well with the thematic priorities outlined in the Corporate Strategy that was developed after the Facility's approval, including financing green infrastructure and private capital mobilization (PCM). The Facility also aligns with AIIB's commitment to supporting the Members achieve the SDGs. Specifically, the Facility's focus on the energy sector contributed to SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation and Infrastructure), and SDG 13 (Climate Action). The Energy Sector Strategy (2022) maintained AIIB's strategic focus on T&D, energy efficiency, and renewable energy, while further strengthening AIIB's commitment to the clean energy transition, explicitly committing to align all energy sector investments with the Paris Agreement from 2023 onward.[47] The focus on clean energy transition is aligned with the Facility's objectives, underscoring the continued strategic relevance of the Facility within AIIB's long-term vision.

44. The Facility was implemented during the early stages of AIIB's institutional efforts to engage in PCM. Both the Energy Sector Strategy and the Corporate Strategy emphasize AIIB's catalytic role in supporting PCM. The Strategy on Mobilizing Private Capital for Infrastructure (2018) acknowledged that AIIB was still in an early operational phase, primarily relying on third-party referrals to build experience, capacity, and a track record. As a foundational step for this Facility, AIIB required 15%–20% equity contributions from sub-borrowers. In practice, the total sub-project cost of USD1,196 million was financed through AIIB's loan (16.7%), TSKB funds (9.9%), sponsor equity (19%), and other sources (54.5%). While the Facility was not designed as a dedicated PCM vehicle, it contributed to AIIB's institutional learning and operational experience in structuring co-financed projects with multiple funding sources. Going forward,

41 *AIIB Energy Sector Strategy: Sustainable Energy for Asia (2017).* (2017, June 15). bit.ly/405IKye
42 *AIIB Articles of Agreement.* bit.ly/3TWZCDQ page 2
43 *AIIB Energy Sector Strategy: Sustainable Energy for Asia (2017).* (2017, June 15). bit.ly/405IKye page 11
44 *AIIB Energy Sector Strategy: Sustainable Energy for Asia (2017).* (2017, June 15). bit.ly/405IKye page 2
45 *AIIB Corporate Strategy.* (2025, June). bit.ly/4kBY5y8
46 *AIIB Energy Sector Strategy: Sustainable Energy for Tomorrow (2022).* (2022, November 22). bit.ly/4lkCjA2
47 *AIIB Energy Sector Strategy: Sustainable Energy for Tomorrow (2022).* (2022, November 22). bit.ly/4lkCjA2 page 2

AIIB can adopt a more proactive and targeted approach to PCM, leveraging its now more mature operations and balance sheet.

45. Despite the Facility's experimental nature as AIIB's first FI project, AIIB was able to provide financial additionality through countercyclical and long-term financing. In terms of financial additionality, the Facility also supported addressing Türkiye's economic challenges in 2018, highlighting the countercyclical nature of AIIB's operations. Following impressive growth in the 2000s and a 7.4% GDP growth in 2017, Türkiye faced economic turbulence in 2018. Currency volatility and depreciation started accelerating. The Turkish Lira was at its lowest rate since the Global Financial Crisis; inflation surged to 15.9%, and the current account deficit climbed to 5.6% of GDP, primarily due to rising energy prices and gold imports.[48] Additionally, approximately USD182 billion (20% of GDP) in foreign debt was due to mature within 12 months, with banks accounting for 57% of this debt. These factors led to the downgrading of Türkiye's sovereign debt by all three major credit agencies[49] in summer 2018, reflecting the growing financial strain.[50] The International Monetary Fund (IMF) highlighted large external financing needs, limited foreign exchange reserves, shifting investor sentiment against emerging markets, and persistent domestic and geopolitical risks as additional challenges for the country.[51] Against this backdrop, AIIB provided countercyclical, long-term financing, in line with its Corporate Principles of Financial Sustainability and Sound Banking.[52] During discussions with the Client, it was confirmed that funding constraints—rather than a lack of bankable projects—were the primary challenge at the time of the Facility approval. Thus, the Facility's long-term financing provided critical additionality to sustain investment flows in priority infrastructure sectors.

46. As the Facility allowed AIIB to rely on an experienced partner, the non-financial additionality of AIIB remained limited. TSKB's business model emphasizes collaboration with well-established international financial institutions to enhance the economic and E&S development of Türkiye.[53] In 2018, 75% of TSKB's portfolio consisted of investment loans, and TSKB already had extensive experience with institutions such as the EBRD, the European Investment Bank, Kreditanstalt für Wiederaufbau, the International Bank for Reconstruction and Development, and the International Finance Corporation.[54] Therefore, AIIB was able to rely on an experienced partner while TSKB was able to broaden its partnerships with MDBs. This was a highly complementary arrangement that benefited both AIIB and TSKB. However, AIIB's non-financial additionality remained limited, as TSKB was already well-established with strong experience in E&S safeguards and sub-project monitoring. However, the Client highlighted that over the course of the Facility implementation, the TSKB team benefited from learning

48 The Turkish Lira hit USD-TRY7.24 in 2018. The current account deficit reached USD47.4 billion.

49 Fitch, from BB+ to BB on July 14, 2018; S&P, from BB- to B+, on Aug. 17, 2018; Moody's, from Ba2 to Ba3, on Aug. 17, 2018.

50 *Project Document*. (2018, August 31). bit.ly/4nAaTri page 9

51 2018 IMF-Türkiye Article IV Consultation Staff Report. (2018, April 30). imf.org. bit.ly/45YmhqB page 7

52 *AIIB Corporate Strategy*. (2025, June). bit.ly/4kBY5y8 page 8

53 *TSKB's Mission and Vision Statements*. tskb.com. bit.ly/4lkCbAy

54 *TSKB 2018 Integrated Annual Report*. (2019, March 28). tskb.com. bit.ly/3Tvb61f pages 42; 46

about AIIB's innovative approaches on emerging topics and worked with AIIB to enhance E&S monitoring systems.

47. The Facility played a fundamental role in shaping AIIB's institutional development in FI projects and in Türkiye, offering crucial learning and capacity-building opportunities. The Facility was developed during AIIB's fourth year of operations, when AIIB was still in the process of shaping its activities.[55] AIIB took a "learning through doing" approach to its lending through FIs rather than first building an overall framework and then commencing operations. At approval of the Facility, AIIB's Board emphasized that this first FI operation with a development bank was set out as a learning project to strengthen future work. The Facility's learning objectives focused on developing an FI lending business line, understanding Türkiye's financial and infrastructure sectors, and building institutional networks.[56] These objectives were achieved, as evidenced by repeat operations with TSKB, expanded operations with other FIs, and Türkiye's emergence as AIIB's second-largest borrower after India. However, the learning from the Facility occurred mostly informally and did not involve structured learning processes.

48. While the rationale of the Facility is clearly described, the design did not include a logical results chain with specific expected results. The design of the Facility, while broadly framed to support infrastructure development, was in practice highly focused on the energy sector. The project documentation does not provide a logical results chain or Theory of Change. The PLR team reconstructed a Theory of Change based on project documentation, as shown in Appendix B. The project documentation does explain how AIIB envisages supporting the energy sector and formulates the aim of ultimately contributing to the reduction of Türkiye's current account deficit through lowering dependence on energy imports. However, the pathway to achieving this impact remains unclear and potential risks, such as increasing energy demand, were not made explicit. For investments in other eligible sectors such as transport, water, and telecommunications, the project documentation provides minimal insights into the expected results chain. Aside from brief references to Türkiye's transport sector plans, the documentation shows little discussion of development goals or expected outcomes in the water and telecommunications sectors, leaving the rationale for their inclusion unclear. The RMF includes two indicators measuring results of energy sector sub-projects, but a specific target was defined for only one indicator. Indicators for measuring output and/or outcome of sub-projects in other sectors remained absent.

49. The design adequately recognized Türkiye's weakening macroeconomic context and sought to address the need for long-term foreign currency financing. The project documentation included a detailed assessment of risks and mitigation measures (see Chapter 2.2, Table 1). Risks related to the macroeconomic situation, such as foreign exchange volatility, were adequately acknowledged. Given the FI structure, the risk assessment focused primarily on the Client's institutional capacity and creditworthiness, rather than a detailed analysis of infrastructure sector-specific risks. This approach aligned with the FI's operational rationale but

55 *AIIB Annual Report 2018.* bit.ly/40GRsmG
56 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 15

may have limited the Facility's ability to tailor risk mitigation measures or strategic objectives across the broader range of eligible sectors.

50. Overall, the PLR rates the Facility "Highly Relevant." The Facility demonstrated strong alignment with Türkiye's national policy objectives and AIIB's institutional priorities. Specifically, it directly supported Türkiye's National Renewable Energy Action Plan (2014-2023) and Energy Efficiency Action Plan (2017-2023) by financing sub-projects that contributed to enhanced energy security, diversification of the energy mix, and reductions in CO2 emissions. The Facility also aligned closely with TSKB's strategic emphasis on sustainable development, reinforcing synergies between national, institutional, and client-level goals. As AIIB's first standalone FI loan to a bank, the Facility marked a strategic milestone, advancing the Bank's priorities in green infrastructure, PCM, renewable energy, and energy efficiency. AIIB delivered financial additionality through long-term, countercyclical financing, while also contributing non-financial additionality by supporting TSKB's efforts to enhance its E&S sustainability practices, sharing good international standards and aligning project implementation with AIIB's ESF. Importantly, the Facility played a foundational role in AIIB's institutional development, offering first-hand experience in the design, structuring, and oversight of FI projects. This operational learning was significant and contributed to internal capacity building, although it was not systematically captured or leveraged through a structured knowledge and learning framework, an opportunity for enhancement in future operations. While the Facility's design was robust in terms of risk identification and mitigation, it did not incorporate a clear results chain or specific performance indicators, limiting its ability to systematically track development outcomes. Nonetheless, the operation established a solid base for AIIB's future FI engagements and business development in Türkiye, and it generated early lessons that can inform the Bank's evolving approach to intermediary lending.

EFFECTIVENESS

51. Overall, the Facility was effective in advancing renewable energy and energy efficiency in Türkiye, in line with its primary objective of providing long-term financing for infrastructure development. The Facility successfully supported the installation of additional renewable energy generation capacity through the financing of four WPPs and two GPPs, along with one T&D project and one energy efficiency project. The full Facility amount of USD199.5 million (net of the front-end fee) was disbursed as long-term loans to eight eligible sub-projects, with an average sub-loan tenor of 10 years. All financed sub-projects were aligned with the overarching goal of enhancing Türkiye's sustainable infrastructure and supporting the country's transition toward a cleaner, more efficient energy system.

52. Although the Facility was not structured as a dedicated PCM operation, it was implemented in line with AIIB's early efforts to encourage private sector participation. At approval, AIIB required a minimum 15%-20% equity contribution from sub-project sponsors. In practice, the total equity contributions reached USD228 million, exceeding the size of the Facility and were complemented by approximately USD768 million from other private and international lenders. Although AIIB may not have played a direct catalytic role in mobilizing

all co-financing, its participation contributed to creating an enabling environment for private investment by supporting a sound project pipeline, ensuring robust safeguards, and providing long-term financing. The experience also informed AIIB's evolving institutional approach to PCM within its FI projects.

Table 4: RMF Indicators and Actual Achievement of Targets

Project Objective Indicators:	Details	Unit	Target			2022	
			2019	2020	2021	Target	Actual
Indicator #1: Share of renewable energy and energy efficiency projects	Share of renewable energy, energy efficiency in the sub-loan portfolio generated by AIIB's loan	%	N/A	N/A	N/A	≥ 60%	86.6%
Indicator #2: Installed capacity	Installed capacity of renewable energy sub-projects	MW	N/A	N/A	N/A	> 70	Wind: 334.0 MW Geothermal: 145.6 MW Total: 479.6 MW
Indicator #3: Reduced CO_2	Amount of reduced CO_2 per unit energy produced due to the sub-projects	$MtCO_2$	N/A	N/A	N/A	N/A	Emissions avoided by renewable energy and energy efficiency sub-loans: +725,919 tCO_2eq
Indicator #4: Renewable Energy Generated	Renewable energy generated by sub-projects	GWh				1,442.7 GWh[57]	1,278 GWh generated in 2H/2022[58]
Indicator #5: Primary Energy Consumption Saved	Energy consumption saved	MWh				4,664 MWh [59]	No data
Indicator #6: Energy T&D Lines Financed/ Built	Energy T&D lines financed/built	km				No data	No data

Source: *Project Completion Note.* (2022, August 24). bit.ly/44RUKWQ page 6

53. The Facility exceeded the targets on the first two RMF indicators, while no target was initially set for the third indicator. The Facility established three specific RMF indicators,

57 *Project Completion Note.* (2022, August 24). bit.ly/44RUKWQ page 8
58 Client's Periodic Report for 2H/2022.
59 Client's Appraisal Document.

as shown in Table 4. The first indicator measured the share of renewable energy and energy efficiency projects in the sub-loan portfolio, tracking the alignment of the portfolio with the thematic priorities. The target was to allocate at least 60% (with 75% on a best-effort basis) of the AIIB loan to renewable energy and energy efficiency sub-projects. At completion, this figure reached 86.6%, exceeding the target substantially. The second indicator tracked the installed renewable capacity, serving as a measure of sub-project output. The Facility far surpassed expectations, achieving 479.6 MW of installed capacity—nearly seven times the initial target of 70 MW set at approval. The third indicator measured CO_2 reduction, serving as the only outcome indicator in the RMF. However, the absence of a predefined target for Indicator #3 does not allow for effective assessment of the Facility's achievement on emissions reduction, as there is no benchmark against which to measure the achievement.

54. The RMF indicator and target design on the portfolio composition created ambiguity in reporting. The renewable energy and energy efficiency sub-projects' share target was set at a minimum of 60%, with 75% on a "best effort" basis. However, the actual share reached 86.6%, creating ambiguity about whether AIIB's intent was to cap the share at 75% or allow for any exceedance beyond the "best effort" target. While surpassing the target is a positive outcome, it may have inadvertently limited AIIB's exposure to other infrastructure sectors, potentially constraining learning opportunities for future development. Secondly, inconsistencies in outcome reporting raise concerns about the alignment of indicators.

55. The third indicator for CO_2 reduction suffered from inconsistencies between approved CO_2 targets and actual reporting, especially with regard to the emissions caused by GPPs. While the approved indicator #3 was "CO_2 reduction," with the detailed definition as "reduced CO_2 per unit of energy produced," the reported outcome was "emissions avoided," estimated at 725,919 tons of CO_2 equivalent (tCO_2eq). This discrepancy is particularly significant in the case of GPPs. The portfolio includes two baseload geothermal operations, which, due to the release of non-condensable gases into the atmosphere, are expected to emit up to 721,632 tCO_2eq per year. Therefore, the approved "CO_2 reduction" indicator should have accounted for avoided emissions minus emissions from GPPs, ensuring more accurate reporting. However, geothermal emissions are expected to decline over time, while the gap between direct emissions from geothermal and displaced emissions from wind energy and energy efficiency investments (4,287 tCO_2eq) is anticipated to widen, further influencing the long-term impact calculations.[60] These inconsistencies constitute an outcome misalignment that limits confidence in the accuracy of CO_2 result reporting. This data misalignment highlights the need for greater clarity in defining the CO_2 reduction indicator, including the integration of emission intensity metrics (tCO_2/MWh) and GPP-specific considerations.

56. Despite AIIB's approach of pursuing strategic and sector goals through FI projects, the Facility's expected outcomes were not clearly articulated and monitored. FI projects are an instrument to advance AIIB's strategic objective of financing infrastructure for tomorrow,

60 *Project Completion Note.* (2022, August 24). bit.ly/44RUKWQ page 6

rather than a means to develop financial sector capacity, as pursued by some other MDBs.[61] Accordingly, it is crucial for AIIB to assess the outputs and outcomes of the sub-projects of its FI projects, as the sub-projects, and not the FI, are the primary target for AIIB's intervention. The visibility of the Facility's outcomes and incentives for the Client could have been enhanced by incorporating a broader set of indicators to better track outputs and outcomes across various sectors. AIIB could have leveraged indicators from its Energy Sector Strategy (2017) [62] or the Harmonized Indicators for Private Sector Operations (HIPSO)[63] to improve outcome monitoring. For example, the HIPSO "Renewable Energy Generated" indicator (measured in MWh) would have been a low-cost addition, as the Client's periodic reports already included this data, with sub-projects producing 1,278 GWh of renewable energy in the second half of 2022. Similarly, the RMF could have included indicators to capture outcomes of other eligible sectors. For example, monitoring energy efficiency and T&D projects could have been strengthened by including indicators such as "Primary Energy Consumption Saved" and "Kilometers of T&D Lines/Pipelines Financed," both recommended in the Energy Sector Strategy. By integrating these additional indicators, AIIB could have more effectively tracked the Facility's broader outcomes, ensuring greater visibility into the progress and success of all sub-projects.

57. Attributing development outcomes to AIIB projects requires special consideration in FI structures. Indicator #2, which measures installed renewable capacity, significantly exceeded the target, performing nearly seven times higher than anticipated. The primary reason was that AIIB's financing accounted for only 16% of the total cost of renewable energy sub-projects (USD164 million out of USD1,021 million),[64] yet the reported achievement reflected total installed capacity, without adjusting for AIIB's proportional contribution. At the factual cost per MW of installed capacity in the sub-projects, the estimated capacity attributable to the Facility, including 15% required sponsor equity, would be approximately 123 MW. Given AIIB's limited involvement with sub-projects—particularly in FI structures where its financial share may be minimal, and its structuring and catalytic role limited—it would be more adequate to carefully consider attribution, such as adjusting the total reported generation capacity for the share of the AIIB loan.[65] This would also hold true for cases where a sub-project receives both direct and indirect AIIB financing, potentially leading to double-counting of outcomes reported.

58. While the PLR highlights deficiencies in the RMF, it is recognized that the project was appraised during AIIB's early operational phase, when institutional frameworks were still evolving. The Facility lacked a clearly defined and comprehensive RMF, and expected inputs, outputs, outcomes, and impacts across the Facility and sub-projects were not systematically

61 For example, see EBRD: *Credit Lines - Lending through financial intermediaries* (2018, December). ecgnet.org. bit.ly/4IhWQVX

62 *AIIB Energy Sector Strategy: Sustainable Energy for Asia (2017)*. (2017, June 15). bit.ly/405IKye Annex 2

63 Harmonized Indicators for Private Sector Operations (HIPSO) bit.ly/4INM89z is a set of standardized development impact indicators adopted by development finance institutions to streamline performance measurement, enhance comparability, and improve reporting on private sector investments.

64 *Project Completion Note*. (2022, August 24). bit.ly/44RUKWQ page 4

65 Attribution approach of *Harmonized Framework for Impact Reporting for Social Bonds*. (2022, June). icmagroup.org. bit.ly/3Ifrf8C page 6 by ICMA may be relevant.

articulated. Although a results framework was required under the Project Prioritization and Quality Framework, detailed RMF guidelines and templates had not yet been developed. Although a preliminary results framework included in the 2017 Energy Sector Strategy could have served as a reference, the FI structure made it difficult to establish sub-project level indicators at approval, given that specific investments and sectoral allocations were not yet known. These issues were partially addressed in the Phase 2 Facility, where a more detailed RMF was introduced, targets were designed to be updated as sub-projects were approved, and indicator reporting shifted from a focus on potential to expected results. The term "potential" referred to a hypothetical capacity or projected impact under ideal conditions, while "expected results" reflected more realistic projections, informed by actual project design, implementation status, and contextual factors. Since then, AIIB has strengthened its institutional approach to RMFs, supporting more structured, consistent, and outcome-oriented results tracking.[66]

59. During site visits to the sub-projects, the PLR team learned about additional benefits the Facility provided, which were not captured within the RMF. One such benefit is the contribution to the local economy by using locally produced parts and equipment, such as wind towers and blades. The Government of Türkiye incentivizes renewable energy producers to use domestically manufactured components by offering premiums on the guaranteed electricity sale price during the first five years of operations. Furthermore, the sub-projects are incorporating more technologically advanced equipment, which enhances output quality and integrates electronic sensors that help mitigate E&S risks. Local communities are also benefiting from job creation, improved access to electricity, and social responsibility initiatives, such as road repairs, supported by the sub-projects. These indirect benefits underscore the broader outcomes for local development and sustainability, beyond what was initially outlined in the RMF (see Chapter 3.5 for details on the sub-project visits).

60. The sub-projects financed under the Facility were concentrated in the western, relatively wealthier provinces of Türkiye, as measured by income per capita. The sub-projects financed under the Facility were concentrated in the western provinces of Türkiye, primarily due to the region's high renewable energy potential, particularly for wind power. This geographic concentration was driven by considerations of technical viability and project bankability under the YEKDEM mechanism, rather than by regional affluence. While these provinces may include industrialized urban centers, the renewable energy facilities themselves are typically located in remote, sparsely populated, or high-altitude rural areas. Given the interconnected nature of Türkiye's national electricity grid, the benefits of renewable energy generation, such as improved energy security and CO_2 emissions reductions, extend beyond the immediate sub-project sites, contributing to national and regional development goals. However, local co-benefits such as

66 Currently, AIIB mandates an RMF for all projects, ensuring a structured approach to tracking results. The results framework establishes a results chain, demonstrating how project objectives are achieved by tracking the transformation of inputs into activities, outputs, and outcomes. Specifically: (1) project objectives should be defined as outcome statements; (2) inputs refer to resources mobilized to support project activities; (3) outputs are goods or services delivered as a result of the project; (4) outcomes reflect the benefits generated by the outputs, showcasing the project's impact. To track progress and to facilitate reporting, specific, measurable, achievable, relevant, and time-bound (SMART) indicators are developed.

job creation, enhanced economic efficiency from energy efficiency sub-projects, and improved electricity access in T&D areas were not explicitly targeted or analyzed at appraisal and are likely to remain localized to the areas of project implementation.

61. Overall, the PLR rates the Facility "Effective." The Facility achieved its core development objectives and exceeded key performance targets. It successfully financed eight eligible sub-projects, all of which became operational before Facility closure, and it surpassed the expected results related to portfolio composition and installed renewable energy capacity. A notable accomplishment was the mobilization of private equity capital, a significant outcome during the early stages of AIIB's operations. While not all mobilized equity can be directly attributed to AIIB, the Facility played an enabling role by setting sub-loan parameters and eligibility criteria that encouraged private sector participation. The operation also generated positive and unintended development spillovers, including the use of locally manufactured equipment, employment generation, and advances in technological capabilities in the domestic supply chain. These outcomes contributed to broader sectoral and economic benefits beyond the Facility's original scope. While the Facility delivered strong results overall, the measurement of outcomes presents opportunities for enhancement. The RMF, while helpful in tracking implementation progress, did not fully capture output and outcome indicators across all eligible sectors. For example, the CO_2 emissions reduction indicator lacked a defined target, and some inconsistencies in indicator design and reported data limited the evaluability of climate-related outcomes. These limitations, however, did not significantly detract from the achievement of the Facility's objectives but pointed to areas for refinement in future design. Going forward, future FI projects could benefit from strengthened RMFs with clearly defined and sector-specific performance indicators, especially for cross-cutting themes such as climate impact. Enhancing the attribution logic and ensuring greater consistency in data collection and reporting will support more robust assessments of development effectiveness, particularly for operations delivered through FIs.

EFFICIENCY

62. The full loan to TSKB was disbursed in a timely manner, with no reported delays and implementation proceeding as planned. The Facility was initially proposed by the Ministry of Treasury and Finance of Türkiye and presented to AIIB's Screening Committee in December 2017. A draft Project Document was reviewed and cleared at the concept stage on May 8, 2018, and the Facility was subsequently approved on Sep. 28, 2018. The first disbursement occurred in September 2019—approximately 21 months after the initial proposal and 12 months after Board approval. This timeline reflects AIIB's thorough approach, as it undertook its first FI loan operation with careful due diligence to ensure full alignment with its policies and RMF. The loan was disbursed in eight tranches, as detailed in Table 5. The final disbursement took place in February 2022, shortly before the Facility was officially closed ahead of the planned closure date of April 1, 2022.

Table 5: Facility Disbursement Timeline

Disbursement	Amount (USD)	Disbursement Date
1st Utilization	30,000,000.00	Sep.25, 2019
2nd Utilization	25,000,000.00	Dec.27, 2019
3rd Utilization	25,000,000.00	Sep. 2, 2020
4th Utilization	33,880,853.35	Dec. 17, 2020
5th Utilization	40,000,000.00	March 29, 2021
6th Utilization	29,431,029.68	June 9, 2021
7th Utilization	15,840,285.34	Dec. 20, 2021
8th Utilization	347,831.63	Feb. 25, 2022

Source: *Project Completion Note.* (2022, August 24). bit.ly/44RUKWQ page 3

63. AIIB actively supported the rapid deployment of the Facility by processing two waivers. To support the timely deployment of the loan and the mobilization of capital to eligible renewable energy (wind) projects, AIIB processed two waivers of sub-project eligibility conditions on the maximum sub-project amount (>USD30 million) and relaxation of the individual sub-project debt-to-equity ratio (80:20), respectively.[67] The Project Team deemed both waivers non-material, allowing them to be processed in accordance with the Project Operations Manual, and in an expedited manner without requiring approval from AIIB's Board or President. According to the waiver processing documents, these modifications did not constitute a "Project Change" under AIIB policies and did not increase the Facility's risk profile. The Client appreciated the smooth and timely execution of the waiver processing.

Table 6: Sub-projects' Operational Dates

Sub-project	Projection at Appraisal	Factual Final Operational Date
Sub-project 1	October 2020	June 2017 – Dec. 24, 2021
Sub-project 2	Q1/202	Oct. 3, 2019
Sub-project 3	2021	Feb.25, 2021
Sub-project 4	Q1/2021	June 9, 2022
Sub-project 5	2021	July 2021
Sub-project 6	Q4/2020-Q1/2021	Oct.r 20, 2021
Sub-project 7	Q4/2020-Q1/2021	Oct. 12, 2021
Sub-project 8	N/A	Dec.2021

Source: Sub-Project Appraisal Documents; *Project Completion Note. (2022, August 24).* bit.ly/44RUKWQ page 4

67 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 6

64. The eight sub-projects remained materially on track and were completed by the time of Facility closing, with no significant delays or cost overruns reported.[68] All six financed renewable energy generation sub-projects were commissioned on schedule to qualify for YEKDEM, which provided USD-based feed-in tariffs for renewable energy producers operational before June 30, 2021.[69] Meeting this cutoff date was crucial in mitigating risks associated with the GPP and WPP sub-projects, ensuring their long-term financial viability. Some sub-projects were commissioned in phases, with final components becoming operational beyond the planned dates, which did not impact overall success (see Table 6).

65. The Client actively monitored and reported on developments that could have affected the timely completion of the Facility and its sub-projects. Client's periodic reports highlighted two specific events with the potential to cause delays. First, the environmental impact assessment (EIA) of one geothermal sub-project was legally challenged and brought to court prior to its approval, with proceedings continuing during implementation. AIIB was already familiar with the case, having directly financed the same sub-project outside the Facility. This prior involvement provided the Bank with detailed knowledge of the EIA-related issues and mitigation measures, contributing to its decision to include the sub-project in the Facility. Second, another sub-project experienced a technical issue following the Facility's completion. Prompt corrective actions were taken to restore equipment functionality and mitigate associated risks. Furthermore, the Facility was partially implemented during the COVID-19 pandemic, necessitating virtual supervision by both AIIB and TSKB due to travel restrictions. Despite these challenges, TSKB maintained implementation progress and ensured that both the Facility and the sub-projects remained on track.

66. The PIMRs and PCN provided limited information on the physical progress of sub-projects and potential events that could disrupt the Facility's implementation and outcome achievement. The PIMRs' assessment of sub-project progress was general and qualitative, exemplified by statements such as: "The portfolio presents projects which are under construction as well as projects already in operation." While the PIMR offers a column on components of a project, the Facility was treated as one component instead of being differentiated by sub-project. There is a degree of ambiguity in AIIB's policies regarding the extent of monitoring and reporting required for sub-projects under FI structures. However, stronger monitoring framework for FI facilities would provide greater visibility into implementation progress, allowing for improved risk management and learning.

67. The economic and financial analysis of the Facility remained limited, which does not allow for a comprehensive assessment of efficiency. As in most FI financing models, the sub-projects to be funded were not confirmed at the time of project approval, preventing a traditional economic and financial analysis from being conducted.[70] Second, AIIB's Corporate

68 *Project Implementation and Monitoring Report.* bit.ly/406vyJy

69 In response to pandemic-related challenges, Türkiye extended the YEKDEM deadline by six months, from December 2020 to June 2021, allowing additional time for eligible renewable energy projects to qualify for the feed-in tariff scheme.

70 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 20

Strategy and Energy Sector Strategy emphasize the importance of economic evaluation and analysis for all AIIB-financed projects.[71] In practice, it appears that for SBF projects, the focus is on economic analysis, while for NSBF projects, AIIB conducts a financial analysis. Despite the classification of the Facility as SBF, a detailed economic analysis was not performed at appraisal, nor was it required for the sub-projects. During the PLR process, the Client confirmed that economic internal rate of return (EIRR) estimations for financed sub-projects are not conducted. Instead, only financial analysis and financial rate of return (FRR) calculations were performed at appraisal, which is broadly consistent with the private sector nature of the sub-projects.[72] However, the lack of detailed cost-benefit and EIRR analyses weakens the basis for assessing the allocative efficiency of AIIB funds.

68. AIIB conducted a financial assessment of the Client during appraisal and was satisfied with its financial position and overall institutional soundness. To ensure the continued financial viability of the Facility, AIIB required TSKB to comply with applicable regulatory and prudential standards and to submit regular financial reports. No additional or stricter financial covenants were imposed. Given that the Facility accounted for only 2.5% of the Client's total assets, AIIB's direct influence over TSKB's broader financial performance was naturally limited. However, this was not considered a concern, as the Facility was designed to support a specific segment of TSKB's portfolio in line with AIIB's strategic priorities, rather than influence the institution's overall financial standing.

69. In its turn, the Client was expected to evaluate each sub-project and sub-borrower, determining the maturity and interest rate structure to reflect the market conditions or adequately cover risks while maintaining a sustainable profit margin.[73] The Client's appraisal documents included FRR calculations ranging from 2.9% to 16.5%. However, AIIB's limited involvement in these assessments and lack of specific FRR hurdle rate constrained its ability to apply its project analysis policies and financial efficiency criteria at the sub-project level.[74] The Client was not required to perform the FRR recalculation at completion, making it difficult to assess the realized efficiency of the sub-projects in detail.

70. Conducting an economic analysis is essential for assessing the broader development impact of AIIB's projects, particularly in cases where projects are SBF and may cause significant externalities.[75] While the FRR is a key metric for evaluating financial feasibility and repayment capacity, AIIB's mandate extends beyond financial viability to include economic and social benefits that affect a broader set of stakeholders. The Facility, backed by a Sovereign Guarantee, financed sub-projects such as GPPs, which have substantial externalities, including

71 *AIIB Corporate Strategy: Financing Infrastructure for Tomorrow.* (2025, June). bit.ly/4lkCjA2 page 11; *AIIB Energy Sector Strategy: Sustainable Energy for Asia (2017).* (2017, June 15). bit.ly/405lKye page 18

72 Appraisal document of one of the sub-projects did include cash flow and FRR estimations.

73 *Project Document.* (2018, August 31). bit.ly/4nAaTri page 20

74 AIIB contractually set the minimum Debt Coverage Ratio requirement for sub-projects.

75 In the case of the Facility, two key externalities warrant deeper analysis: (1) the significant GHG emissions from GPPs, and (2) the cost burden of the YEKDEM scheme on end-users, which could contribute to higher overall electricity prices.

environmental and energy security benefits. Incorporating an economic analysis at the sub-project level would provide a more comprehensive understanding of the costs and benefits associated with such investments. Given the global infrastructure funding gap projected at USD15 trillion by 2030, efficient resource allocation remains a critical priority. Understanding the economic value of projects within AIIB's portfolio can further enhance decision-making by ensuring that funds are directed toward high-impact investments that align with AIIB's development objectives.

71. AIIB's policies on economic and financial analysis requirements for FI structures and sub-projects remain unclear. AIIB's framework emphasizes ensuring its economic impact and positive economic return "through economic and financial analyses made for all investments of the AIIB."[76] Since the Facility was guaranteed by the Government of Türkiye, it was classified as SBF and should have been subject to the extensive economic analysis required for SBFs under AIIB policies. However, no such detailed economic analysis was conducted. Furthermore, although the sub-projects were private sector operations, applying at least NSBF economic and financial analysis requirements would have been essential. The hybrid structure leads to ambiguity regarding the applicability of AIIB's financial and economic analysis policies, particularly as the role of the government was limited to providing a sovereign guarantee without direct involvement in the Facility and the sub-projects, which effectively remained a private sector operation with a commercial bank and sub-projects sponsored by private companies.

72. The structuring of AIIB's SBF FI facilities for projects implemented by private-sector entities may require further reconsideration to ensure optimal resource allocation. Currently, the Facility is priced at AIIB's standard SBF rate, implying that AIIB's credit risk is primarily tied to the Client and the sovereign guarantor, without formal recourse to individual sub-projects. Consequently, sub-project performance has limited direct impact on AIIB's overall profitability or risk-adjusted return. For this Facility, the structuring under SBF terms played an important role in delivering long-term financing in a context where commercial debt was either unavailable or prohibitively expensive. The Client was required to on-lend to sub-projects at market-based interest rates or rates that adequately reflect costs and associated risks, thereby minimizing market distortions. However, this hybrid structure in SBF FI facilities can inadvertently allow selected private entities to disproportionately benefit from subsidized public resources. It may also result in the financing of less efficient or marginally viable projects due to lower effective borrowing costs for the intermediary. To address these concerns, AIIB may consider refining its policy guidelines to ensure clear criteria for interest-rate pass-through, appropriate pricing of sovereign guarantees, and mechanisms to ensure that subsidies translate into measurable development outcomes and benefits are spread more equally. AIIB acknowledges TSKB's development mandate and its role in extending long-term finance to underserved sectors. Access to attractively priced funding is critical to enabling this mission. While the pricing offered by AIIB was not fully passed to end beneficiaries, AIIB recognizes that this approach was intended to preserve market functioning and avoid distortions. Clarifying the rationale for pricing decisions in future operations can help ensure alignment with the principles of financial sustainability and

76 *AIIB Corporate Strategy: Financing Infrastructure for Tomorrow.* (2025, June). bit.ly/4lkCjA2 page 11

the avoidance of crowding out private capital, while also considering prevailing market conditions and relevant policy frameworks.

73. Overall, the PLR rates the Facility "Efficient." The Facility demonstrated strong operational performance through timely fund disbursement, smooth sub-project execution, and sound financial management, despite the external challenges posed by the COVID-19 pandemic. The AIIB loan was fully disbursed in eight tranches ahead of the planned closure, marking a notable achievement for a first-of-its-kind FI operation. The 21-month period from concept to first disbursement reflected AIIB's deliberate and thorough due diligence, ensuring alignment with its policy and risk management frameworks. This performance was further supported by TSKB's strong implementation capacity, including proactive monitoring and risk management at the sub-project level. These capabilities enabled the efficient allocation of resources and the timely delivery of all eight sub-projects, without major delays or cost overruns. AIIB contributed to the Facility's responsiveness by processing two waivers that allowed for needed adjustments to sub-project eligibility, enabling flexibility in execution. While operational efficiency was clearly demonstrated, the assessment of economic and financial efficiency was constrained by limited quantitative analysis at appraisal and completion. This presents an opportunity to enhance internal clarity around analytical expectations for FI projects, particularly in cases where the structure blends SBF characteristics with those of NSBF, such as a sovereign guarantee combined with a private intermediary and privately sponsored sub-projects. A more structured analytical framework would have provided a stronger basis for assessing efficiency in this context. The PLR does not question the suitability of this hybrid financing approach, which proved effective in this case. Rather, it encourages AIIB to further define internal appraisal and evaluation standards for such operations to enable more consistent application of efficiency criteria and strengthen the evidence base for assessing value for money in future FI engagements.

SUSTAINABILITY

74. TSKB is a financially sound and sustainably operating entity with a 75-year history. TSKB has consistently demonstrated strong financial results despite economic challenges, reporting a 7% net interest margin, a healthy 3% NPL ratio, and an 18% capital adequacy ratio, meeting the regulatory requirements.[77] As of the end of 2024, TSKB's total consolidated assets are valued at USD6.7 billion,[78] making AIIB's funding under the Facility a modest 3% of total assets. When factoring in the Phase 2 Facility, this proportion increases to 6%. Given its solid financial foundation and proven track record, TSKB is well-positioned to continue its operations sustainably after the repayment of the Facility, further strengthening its credibility as a reliable partner for future AIIB-financed initiatives.

77 *Net Negative, Inclusive Development Towards 2053. TSKB Integrated Annual Report 2023.* (2024, March 15).tskb.com. bit.ly/4ljeWH2

78 *TSKB December 2024 Consolidated Financial Report.* (2025, March). tskb.com. bit.ly/40GUqYm

75. The WPP and GPP sub-projects financed under the Facility are likely to remain financially sustainable beyond sub-project completion and sub-loan repayment. The legal operational period for renewable energy generation sub-projects is determined by the license tenure, with WPPs typically having a 49-year license and GPPs a 30-year license. However, the technical lifespan of some wind turbines is reported to be 20 years, and the assumed economic life of GPPs is 25 years.[79] Despite this, the appraisal documents emphasized the strong experience of the sub-project sponsors and the careful consideration of the technology used, both of which contribute to the increased likelihood of sustainable operations. The sponsors' expertise and the choice of long-lasting technologies enhance the probability that these sub-projects will continue to operate effectively throughout their expected lifetimes, ensuring their continued contribution to Türkiye's renewable energy capacity.

76. The financial sustainability of the renewable energy generation sub-projects is strongly supported by Türkiye's Feed-in Tariff (YEKDEM) arrangement.[80] The YEKDEM arrangement provides financial certainty to investors by guaranteeing a fixed USD price for electricity supplied to the grid, typically for a 10-year period through 2030. The tariff rates vary by energy source, with WPPs receiving USD73 per MWh and GPPs USD105 per MWh. Additionally, renewable energy projects benefit from extra feed-in tariffs during the first five years of operation if they use locally manufactured equipment, a provision that further enhances the financial viability of these sub-projects. By ensuring a stable revenue stream, YEKDEM plays a critical role in supporting the long-term sustainability of renewable energy operations, thereby bolstering the financial security of the Facility's sub-projects.

77. Financial projections indicate that the renewable energy sub-projects are expected to remain sustainable even after the phasing out of the YEKDEM arrangement in 2030. After YEKDEM expires, the concerned sub-projects will sell energy at market prices. The financial projections demonstrate the viability of the sub-projects at an estimated market price of USD50-57 per MWh, which was the appraisal price. For context, the actual market-clearing price in 2025 fluctuated around USD70 per MWh,[81] with prices reaching over USD100 per MWh during 2022-2023. Some studies forecast that electricity prices in Türkiye could range between USD48 and USD69 per MWh by 2030, in real 2020 USD terms, depending on varying policy frameworks and demand growth scenarios.[82]

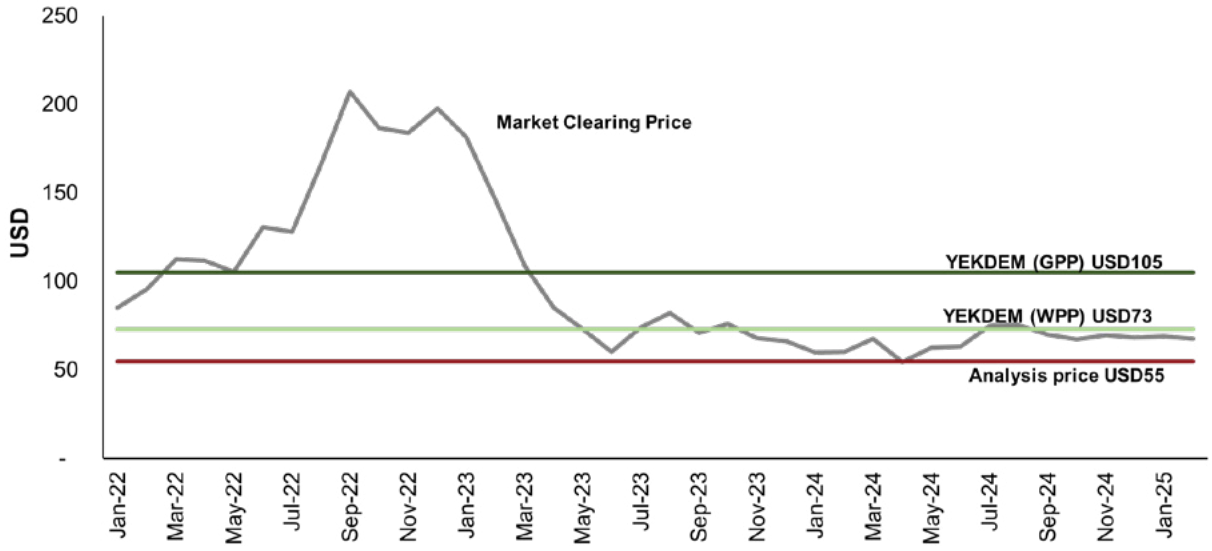
79 The Client's Appraisal Documents

80 YEKDEM is the Government policy designed to incentivize the generation of renewable energy by offering fixed payments to producers for electricity generated from renewable sources.

81 *TSKB Monthly Energy Bulletin, January 2025.* tskb.com. bit.ly/40GUGGO

82 *Optimum electricity generation capacity mix for Turkey towards 2030. SHURA Energy Transition Center (2020).* agora-energiewende.org. bit.ly/4ezlcqm

Figure 1: The Facility Electricity Prices (USD/MWh)



Source: *EPIAS Monthly Electricity Market Bulletins for Market Clearing Prices.* epias.com. bit.ly/405nZTt

78. The long-term financial sustainability of the renewable energy sub-projects remains exposed to a range of risks. While the YEKDEM feed-in tariff scheme has thus far provided a stable revenue stream for renewable energy sub-projects, it is set to phase out in 2030 and be replaced by other forms of support mechanisms. The reversion to merchant pricing after year 10 is anticipated and has been factored into the financial models of both developers and TSKB. Furthermore, under the YEKDEM framework, project developers have a temporary option to opt into market pricing for a given year, allowing them to capture upside potential and optimize revenue generation. In Türkiye, electricity prices are heavily influenced by gas-fired combined cycle gas turbines (CCGT), which frequently serve as the marginal price setter, helping to stabilize expectations for market-based pricing in the post-YEKDEM period. While these dynamics provide some level of predictability, the shift to merchant pricing may increase sub-projects' exposure to market dynamics characterized by heightened price volatility and regulatory uncertainty. This vulnerability may be further compounded by potential policy shifts, including changes in tariff structures and carbon taxation, particularly affecting the GPP sub-projects.[83] Additionally, as observed in other global markets transitioning beyond subsidy regimes, renewable energy projects may face the risk of price cannibalization, where a higher share of variable renewable generation with low marginal costs suppresses spot prices during peak production periods. In the absence of long-term power purchase agreements or robust hedging mechanisms, sub-projects may face increased revenue instability. These evolving conditions underscore the importance of adaptive financial planning and risk mitigation as Türkiye's electricity market continues to mature.

79. As part of larger operations, energy efficiency and T&D sub-projects are expected to continue delivering benefits beyond the Facility's completion. The energy efficiency sub-project represents a profitable and sustainable investment, expected to yield cost savings and quality improvements over time. However, the full realization of its benefits will depend on market

83 The Client's sub-project appraisal documents.

conditions, particularly those influenced by global trends in protectionism. The extent of the sub-project's energy efficiency benefits is closely tied to the production and sales volume achieved through the newly installed equipment, with the sub-project's market comprising both domestic and export-oriented segments. As such, future performance will be shaped not only by Türkiye's economic dynamics but also by geopolitical developments, which may influence external demand and trade conditions. In parallel, the T&D sub-project, operating within a regulated industry, will be significantly influenced by regulatory decisions, particularly in terms of tariff setting and investment incentives. While sales tariffs are set in Turkish Lira and investments are financed with foreign currency loans, the depreciation of the currency has placed financial pressure on the sub-project sponsor. Nevertheless, given the critical importance of electricity T&D infrastructure, the sub-project is likely to continue operating and delivering long-term benefits to the sector.

80. The absence of detailed ex-ante economic and cost-benefit analyses at the design stage limits the assessment of the long-term continuation of specific benefits and costs envisaged for the Facility. This constraint is further compounded by limited post-completion performance data, making it challenging to assess whether the intended economic benefits are being fully realized. For instance, if one sub-project does not reach its expected capacity, it raises concerns about the extent to which anticipated benefits can be achieved. These gaps in monitoring and evaluation hinder a comprehensive assessment of sub-project sustainability and the continuation of broader development impact.

81. AIIB placed significant emphasis on E&S risk management, recognizing its critical role in ensuring the Facility's ability to deliver intended outcomes. This focus encompassed rigorous screening, categorization, assessment, and the implementation of safeguard measures, ensuring that the Client and sub-projects adhered to high E&S standards. A key structural consideration of the Facility is that, while it operates as a purely FI loan, it was classified as SBF due to the loan structure and the guarantee provided by the Government of Türkiye. However, it was clearly classified as FI under AIIB's ESP, requiring the application of AIIB's ESP to both the Client and the sub-projects. The sovereign classification of the Facility due to the government guarantee created oversight at the corporate level through TSKB's ESMS.

82. TSKB has demonstrated a strong institutional commitment to E&S risk management, aligning its practices with national regulations and international best standards, including AIIB's ESP. The ESMS of TSKB was assessed to be materially consistent with the provisions of AIIB's ESP and relevant standards. TSKB has internal E&S resources and a strong record in implementing its ESMS across a broad range of sub-projects.[84] The ERET used by TSKB categorizes projects into risk levels (A, B+, B-, C), guiding the depth of required assessments and monitoring. A key strength of TSKB's approach is that E&S risk assessments are embedded into credit due diligence, screening, and loan agreements, ensuring sub-project compliance with sustainability standards. The integration of E&S risk assessments into credit due diligence and loan agreements has been a notable success, ensuring that E&S considerations are embedded in financial decision-making.

84 *Project Completion Note. (2022, August 24).* bit.ly/44RUKWQ page 5

83. TSKB conducted comprehensive assessments to ensure sub-project compliance with applicable E&S requirements. All AIIB-financed sub-projects were required to adhere to AIIB's ESSs, Exclusion List, and GRM requirements, reinforcing alignment with international best practices. This due diligence included verifying that sub-projects had obtained the necessary EIA Certificates under local legislation, and that relevant certifications—such as the Environmental Management System (ISO 14001:2015) and the Occupational Health and Safety Management System (OHSAS 18001:2007)—were in place. Environmental and Social Management and Monitoring Plans (ESMMPs) were developed where necessary, with support from TSKB and external consultants, in preparation for sub-project implementation. These plans, along with detailed E&S appraisals, were shared with AIIB prior to financing. In one GPP sub-project co-financed by another MDB, the E&S policies and procedures of the co-financier were applied, in line with AIIB's policy of harmonizing requirements with other MDBs on a case-by-case basis to minimize duplication and reduce the compliance burden on clients. Nevertheless, AIIB maintained the application of its own Project-Affected People's Mechanism (PPM) for the sub-project to ensure access to redress consistent with its accountability framework. The Client did not report any significant challenges in managing differing E&S reporting requirements, noting that MDB standards tend to be broadly aligned. Overall, the sub-projects demonstrated a high level of preparedness and compliance with both local and AIIB E&S standards.

84. TSKB ensured that necessary mitigation measures were implemented whenever E&S impacts of the sub-project were significant. For instance, following extensive negotiations with one sub-project sponsor for a WPP, it was agreed to install shadow flicker light sensors on the turbines,[85] with TSKB closely monitoring the situation. Since shadow flicker light sensors had never been installed in a WPP in Türkiye, the sponsor committed to conducting extensive research and reviewing international projects to identify suitable technology. During the PLR team's visit to this sub-project, it was noted that similar sensors were also installed on other sites operated by the sponsor, demonstrating its contribution to advancing best practices in the sector (see Chapter 3.5 for details on the sub-project visits).

85. GRMs were established both at the FI level and the sub-project level. At the FI level, TSKB operates an External Communication Mechanism, which serves as a GRM. At the sub-project level, TSKB required sub-borrowers to establish their own GRMs during the implementation and operation phases. An effective GRM process requires three key elements: (i) a clearly defined and well-prepared mechanism, (ii) accessibility to project-affected communities, and (iii) demonstrated functionality in addressing grievances. During the PLR mission, the team requested and reviewed copies of the GRM at TSKB headquarters and during site visits to selected sub-projects. The team confirmed the existence and accessibility of GRMs through visual verification of on-site arrangements, review of documentation, and assessment of publicly disclosed information on sub-project and Client websites. In addition, the PLR team raised questions about GRM functionality during discussions at TSKB's corporate office and sub-project sites and interviewed the E&S specialist who joined the mission. According to TSKB, grievances received at the sub-project level are generally addressed and closed within defined timelines. However,

85 If shadow flicker is detected, the turbines may be temporarily stopped.

due to limited data availability, a more in-depth assessment of GRM functionality—such as case tracking systems, resolution timelines, and complainant satisfaction—was beyond the scope of this review and would require further follow-up. In the future, the E&S Department could play a stronger role in systematically collecting this type of information, which would provide valuable input for subsequent PLRs and enhance the assessment of GRM effectiveness in FI projects.

86. E&S issues are continuously monitored throughout the implementation and operational phases of the sub-projects. Throughout the implementation period, TSKB provided semi-annual progress reports, which included updates on the monitoring of E&S management plans and the status of grievances at the sub-project level. These reports confirm that E&S risk management has been effectively implemented throughout the construction and operation phases, with no critical accidents reported. The AIIB project team reviewed TSKB's E&S practices, assessed selected sub-projects, and found them to be satisfactory. Following the Facility's completion, the Client continued E&S reporting. Periodic E&S reports did not highlight any significant negative effects of sub-projects and confirmed that sub-project-level ESMPs have been implemented. Key operational-phase monitoring activities include emissions measurements, ongoing occupational health and safety training, periodic ornithological and bat monitoring, flora monitoring studies, installation of permanent shadow flicker sensors, and continued GRM oversight. The two sub-project site visits conducted by the PLR team underscore TSKB's strong commitment to E&S due diligence and the robust risk management practices of the sub-projects. While the E&S framework of TSKB is comprehensive, real-time monitoring systems and data collection on financial performance benefits from energy efficiency projects could be strengthened to further improve risk tracking and project outcome evaluation (see Chapter 3.5 for details on the sub-project visits).

87. CO_2 and H_2S emissions from GPPs continue to pose a significant environmental sustainability risk within the Facility. GPPs in Türkiye are known to have relatively high CO_2 emissions, with the two GPP sub-projects under this Facility estimated to release approximately 721,632 tCO_2eq annually. These emissions are expected to decline over time as reservoir pressure stabilizes and mitigation systems become more effective. Due to their elevated emissions profile, the GPP sub-projects were classified as E&S "Category A," requiring enhanced due diligence, monitoring, and mitigation measures. To manage these risks, GHG and H_2S emissions monitoring systems were implemented at the sub-project level to ensure compliance with national and international environmental standards. AIIB, through TSKB, continues to monitor the environmental performance of the GPP sub-projects, with particular attention to emissions control systems related to non-condensable gas stacks and H_2S release, to uphold long-term environmental sustainability and regulatory compliance. For future Facilities with TSKB, the AIIB project team has indicated a preference to exclude GPPs, not due to concerns about TSKB's institutional capacity, which has proven to be strong and reliable, but rather to enable AIIB to retain direct oversight and conduct detailed E&S risk analysis and due diligence for high-risk projects of this nature. Another reason for excluding GPPs from future Facilities is that other lenders, such as the World Bank, have dedicated facilities for GPPs and were seen as better placed to work with TSKB for lending to GPPs. This reflects a broader institutional approach to managing elevated E&S risks by financing such operations directly or in collaboration with MDBs

that have deeper technical expertise in this sector. This approach reflects emerging practice and internal discussions, although it has not yet been formalized through written guidance on sectoral exclusions within AIIB's FI projects.

88. Overall, the PLR rates this Facility "Most Likely Sustainable." The Facility has strong indications of long-term viability across financial, institutional, and E&S dimensions. Financially, TSKB remains a well-capitalized and stable institution, positioned to support ongoing operations under the Facility's framework. The sub-projects financed through the Facility are expected to remain viable over time, supported by Türkiye's continued policy commitment to renewable energy, the ongoing provision of YEKDEM incentives, and a generally favorable long-term financial outlook. Nonetheless, the potential impacts of regulatory shifts, macroeconomic volatility, market uncertainty, and geopolitical developments represent risks that warrant continued monitoring, as they could influence revenue flows and demand for renewable energy investments. Institutionally, both TSKB and the sub-project sponsors demonstrated strong capacity and resilience. TSKB effectively managed the on-lending process and maintained portfolio performance despite broader macroeconomic pressures. Sub-project sponsors similarly showed institutional robustness, enabled by diversified business models, sector-specific experience, and proactive risk mitigation strategies. From an E&S perspective, TSKB's management system was found to be well-aligned with AIIB's ESF and consistent with international good practices. The client applied a rigorous due diligence process across the project cycle, incorporating comprehensive risk screening, environmental and social impact assessments, integration of safeguards, functioning grievance redress mechanisms, and ongoing monitoring. No major E&S issues were observed during implementation. That said, continued oversight remains critical, particularly for geothermal sub-projects with higher risks associated with CO_2 and hydrogen sulfide emissions. Sustained environmental monitoring and mitigation will be important to ensure that the Facility's positive impacts are preserved over the long term. Overall, the Facility demonstrates a solid foundation for sustainability, though maintaining long-term impact will depend on the Bank's and TSKB's continued attention to evolving risks and adaptive management practices.

INSIGHTS FROM PROJECT SITE VISITS

Visit 1: Energy Efficiency Project – Redefining Industrial Efficiency

Location	Çerkezköy, Tekirdağ Province, Türkiye
Sub-project output	Installation of energy efficient equipment
Total investments	USD11.3 million
AIIB loan	USD9 million
E&S Rating	B-
Interim project results	2,079 tCO2eq/yr emissions avoided

The Project

This **energy efficiency project** was implemented by one of Türkiye's leading **metal manufacturing companies**, with decades of experience and **250 employees**. Given the **high energy intensity** of metal manufacturing, the company sought to **modernize its production line** by replacing outdated equipment with **state-of-the-art technology** from leading European manufacturers. This upgrade aimed to **enhance energy efficiency, reduce costs, and improve production capacity**, aligning with Türkiye's **industrial modernization and sustainability goals**.

Project Category & E&S Assessment

The project was classified as **B- (Medium Risk)** due to **modifications in industrial processes**, but the company maintains **high E&S standards, holding ISO 9001, 14001, 45001, 10002, and 50001 certifications**. Key risks included **energy consumption, emissions, and workplace safety**, which were mitigated through **process optimization, cleaner production techniques, and strengthened occupational health and safety (OHS) protocols**. In 2023, the company further reduced its **carbon footprint** by securing **a renewable energy contract with a hydropower producer**.

Project Results

The modernization led to **30%-60% energy savings per unit of production**, while **enhancing production capacity by 30%-50%**. The integration of **precision sensors** improved product quality, reduced waste, and strengthened competitiveness. However, **full production capacity has not yet been reached**, as demand remains influenced by market conditions. By improving efficiency and sustainability, the project enhances the **global competitiveness of manufacturers in Türkiye**.

Field Observations & Stakeholder Engagement

During the **CEIU field visit**, discussions with **company representatives, workers, and TSKB officials** confirmed that **energy efficiency upgrades had been successfully integrated**, yielding **operational benefits and workplace safety improvements**. The company's **proactive approach to sustainability and commitment to innovation** serve as **a blueprint for Türkiye's industrial modernization**, setting new standards **in energy efficiency, environmental responsibility, and competitiveness.**

Visit 2: Wind Project – Advancing Clean Power and Innovation

Location	Çanakkale Province, Türkiye
Sub-project capacity	51 MW
Total investments	USD73.8 million
AIIB loan	USD30 million
E&S Rating	B+
Project results	232 GWh annual generation 132,240 tCO_2eq/yr emissions avoided
Visit of PLR team	Feb. 6, 2023

The Project

This greenfield WPP was developed and operated by an experienced company with a strong track record in renewable energy. The project was delivered on time, achieving operational status within 12 months of construction, despite COVID-19-related challenges.

The sponsor, experienced in working with multiple lenders, selected TSKB as its financing partner due to longstanding collaboration, active engagement, and the ability to provide long-term financing when many commercial banks could not.

Project Category & E&S Assessment

The project was classified as **B+ (Medium-High Risk)** under AIIB's E&S framework, consistent with TSKB's **ERET Model**. Risks included **biodiversity concerns, noise and shadow flicker, land use, and community safety**, which were mitigated through **a Biodiversity Protection Strategy, turbine positioning adjustments, and a strong GRM**. A notable innovation was the **installation of a shadow flicker sensor, the first of its kind in Türkiye,** which the sponsor has since adopted in other projects, setting a new industry standard. The sponsor holds **ISO 9001 (Quality Management) and ISO 14001 (Environmental Management) certifications**, demonstrating adherence to **international best practices.**

Project Results

The **WPP operates at full capacity**, with **potential for expansion.** All electricity output is sold under **YEKDEM**, though rising electricity prices have led some competitors to explore market-based pricing. The project contributes to **Türkiye's clean energy transition, reduces GHG emissions, and expands electricity generation capacity. A significant portion of the equipment was sourced domestically,** supporting local industry. The project employed **500 workers at its peak construction stage** and now has **16 permanent staff, 15 from nearby villages.**

Field Observations & Stakeholder Engagement

The **CEIU team visited the project site**, verifying that **E&S mitigation measures were effectively implemented**, particularly in biodiversity protection, noise control, and community engagement. Discussions with the sponsor, TSKB representatives, and local community members highlighted **the importance of long-term financing, economic benefits to the region, and the**

effectiveness of the GRM. The sponsor also emphasized **corporate social responsibility (CSR) initiatives, including infrastructure improvements.**

The team inspected **operational turbines, the control center, and affected community areas,** confirming that **turbine placement minimized impacts and safety protocols were in place.** Wildlife monitoring programs were active. **Key documents, including sub-loan agreements, E&S reports, and biodiversity monitoring records, were reviewed and confirmed in compliance with AIIB's ESP and national regulations.**

Work Quality Assessment

AIIB WORK QUALITY

89. AIIB effectively prepared the Facility, selecting a suitable partner and establishing the Bank's engagement in FI lending. This marked AIIB's first on-lending partnership with a bank, providing a structured entry into Türkiye's market and reinforcing AIIB's strategic alignment with national priorities. AIIB selected TSKB based on its strong track record, sound banking operations, and experience with other MDBs. The Facility enabled AIIB to finance smaller-scale projects through an FI model, diversify its portfolio, and contribute to Türkiye's sustainable development agenda.

90. AIIB successfully provided long-term, countercyclical financing that offered stability in a volatile economic environment, ensuring continued investment in critical infrastructure in Türkiye. Although partnering with a well-established institution limited non-financial additionality, AIIB added value through its ESSs, visibility as a new MDB partner, and innovative approaches. Leveraging its development finance approach, AIIB supported reinforcing E&S risk management, despite the Client's existing expertise in this area. The Project Team enhanced sub-project oversight, leading to targeted recommendations for strengthening GRM, operational health and safety standards, biodiversity monitoring, material recycling practices, and E&S reporting quality.[86] The Client highlighted that AIIB provided valuable inputs on new and innovative areas, such as technology-led infrastructure.

91. The Ministry of Treasury and Finance of Türkiye and the Client appreciated AIIB's flexible and client-oriented approach but highlighted challenges due to the lack of local presence. They praised AIIB's project team for its accessibility, expertise, and commitment to strong client engagement. TSKB valued AIIB's hands-on approach, flexibility, and responsiveness, contributing to the efficient deployment of the Facility. AIIB's lean decision-making principles differentiated it from other MDBs, enabling agile financial structuring and efficient implementation. The stability of the Project Team further strengthened the AIIB-TSKB partnership, reinforcing trust and long-term collaboration. However, stakeholders highlighted that the lack of an AIIB country office presents challenges when close communication and quick reactions are needed, impacting the efficient and effective conduct of transactions.

92. The Facility laid the groundwork for a long-term partnership with TSKB, reflected in subsequent repeat operations. Lessons from the Facility influenced the design of the TSKB Sustainable Energy and Infrastructure On-lending Facility, Phase 2,[87] with Phase 3 now in development. AIIB's relationship-building efforts contributed to further engagements, including the Türkiye: COVID-19 Credit Line Project[88] approved in 2020. These follow-on investments underscore AIIB's successful engagement and continued business development. On Feb. 17, 2025, AIIB and Türkiye formalized a strategic partnership for green and resilient infrastructure by

86 AIIB Virtual Mission Notes (2021); *Project Document*. (2018, August 31). bit.ly/4nAaTri page 6

87 Türkiye: TSKB Sustainable Energy and Infrastructure On-lending Facility, Phase 2 - Projects - AIIB. bit.ly/4IlyU3S

88 Türkiye: COVID-19 Credit Line Project - Projects - AIIB. bit.ly/4IhWQVX

signing a Memorandum of Understanding, establishing a three-year rolling investment program aligned with Türkiye's 12th Development Plan (2024-2028). The program focuses on climate and seismic resilience, sustainable transportation, and energy transition, with SBF expected to reach approximately USD5 billion between 2025 and 2027.[89]

93. AIIB classified the Facility as SBF due to the Sovereign Guarantee, although its structure and risk profile more closely resembled an NSBF operation. TSKB, a private bank, took the full credit risk and repayment obligation, with minimal direct involvement from the sovereign. This classification led to procedural misalignments in areas such as risk assessment, RMF design, disclosure requirements, and financial analysis. For instance, sub-project disclosures had to reconcile SBF transparency standards with the commercially sensitive nature of private sector investments. While the Facility was priced on SBF terms and on-lent at market rates, the intent of this observation is not to question the appropriateness of the pricing structure, but to underscore the need for clearer internal guidance to ensure alignment between financing terms, risk ownership, and development objectives in hybrid FI operations.

94. As AIIB's first SBF FI project, the Facility was implemented without FI-specific guidance. The Facility was implemented at an early stage of AIIB's FI operations and was perceived as an opportunity for learning. In this context, the Facility was implemented without clear FI-specific guidance. While AIIB's approach has evolved in the following years, AIIB's FI structures could profit from clearer guidance on sub-project selection criteria and their alignment with AIIB's policy priorities. While monitoring responsibilities typically lie with the Client, AIIB could also benefit from clearer internal guidance on the expected depth of its own oversight in FI projects. AIIB's reporting quality for this Facility was impacted by challenges in tracking sub-project outcomes and limited RMF guidance at approval. The PIMRs and the PCN provided some oversight but lacked detailed progress reporting, relying on general qualitative statements. Additionally, the RMF did not adequately capture the outputs and outcomes of all eligible sub-projects. Strengthening FI-specific RMF policies and developing standardized PIMR templates tailored to FI projects would improve results monitoring. This could also reduce the burden on clients and AIIB project teams by streamlining expectations, simplifying reporting requirements, and enhancing data organization and access.

95. AIIB could strengthen institutional learning and knowledge capture. The Facility achieved its learning objectives, including developing AIIB's FI lending business line, deepening understanding of Türkiye's financial and infrastructure sectors, and building institutional networks. While these lessons informed subsequent operations, learning was primarily captured through informal means. Enhancing the structure and accessibility of project documentation, such as more detailed PIMRs and PCNs and better-organized repositories, would further support institutional learning and knowledge management across AIIB's FI portfolio.

89 *AIIB and Türkiye Formalize Strategic Partnership for Green and Resilient Infrastructure.* (2025, February 17). bit.ly/4IlzQ8o

96. Overall, the PLR rates AIIB Work Quality "Satisfactory." The Bank was able to prepare and supervise the Facility effectively, particularly considering it was undertaken during AIIB's formative years and represented its first standalone FI operation. The Facility was strategically aligned with Türkiye's national priorities and TSKB's institutional focus on sustainable infrastructure, and it contributed meaningfully to establishing AIIB's early presence in intermediary lending. The Bank ensured that the Facility was well-structured, policy-compliant, and operationally sound, conducting careful due diligence and maintaining close coordination with the Client and the Ministry of Treasury and Finance of Türkiye. AIIB's client-responsive and flexible approach was recognized and appreciated by both institutions, contributing to a high degree of trust and paving the way for subsequent repeat operations with TSKB. While AIIB managed implementation remotely, it maintained constructive engagement through consistent communication and targeted support. As its portfolio and country engagements grow, the Bank may explore opportunities to further strengthen its field-level presence and deepen client relationships and operational reach. Overall, AIIB's performance reflects a credible and adaptive institutional effort that balanced innovation with risk management. The Facility served as an important stepping stone in expanding the Bank's operational capabilities in FI lending and building enduring partnerships with clients in its early years of operations.

CLIENT WORK QUALITY

97. AIIB had high expectations of TSKB as a partner at the approval of the project, recognizing the importance of selecting an experienced institution for its first FI loan to a bank. At the time of appraisal, AIIB was still developing its expertise, and learning was identified as one of the most critical objectives of the project. TSKB, as an established development bank in Türkiye, had a proven history in infrastructure financing, with significant experience working with MDBs, which positioned it as a trusted and capable partner. This extensive experience in managing infrastructure financing, along with TSKB's strong institutional framework and governance, made it an ideal partner for AIIB, ensuring that the project would not only meet its objectives but also contribute to AIIB's learning and growth as an institution. The Ministry of Treasury and Finance of Türkiye underscored TSKB's strong institutional capacity and important role for development banking in Türkiye.

98. TSKB was a highly relevant and strategic partner for AIIB's first FI on-lending facility with a bank, proving strong capacity throughout the Facility's implementation. As a development bank with a strong focus on infrastructure and sustainability, TSKB brought deep expertise in the energy sector and extensive experience in financing investment projects, including with the financial support of MDBs. TSKB's strong presence in the local market provided AIIB with critical local insights, facilitating a smoother market entry with FI facilities and enabling AIIB to expand its lending operations effectively. The sub-projects pipeline was largely built on TSKB's long-standing relationships with sub-project sponsors, ensuring timely fund allocation to bankable projects. TSKB selected high-quality sub-projects, as evidenced by the absence of significant delays and cost overruns despite the disruptions caused by the COVID-19 pandemic and Türkiye's macroeconomic challenges. AIIB's monitoring reports highlight the timeliness

and quality of the documentation and reports submitted by TSKB, demonstrating the Client's commitment to transparency and efficiency. AIIB had the opportunity to closely observe TSKB's operations and confirmed that the institution has maintained E&S and other monitoring practices that meet AIIB's standards. The subsequent projects with TSKB further attest to AIIB's high regard for the Borrower's capabilities, reflecting the strength of their ongoing partnership.

99. TSKB demonstrated a strong commitment to high E&S standards at both the corporate level and within sub-projects. The Client maintained robust in-house E&S expertise that allowed AIIB to leverage an established institutional framework. With prior experience working with other MDBs' E&S policies, TSKB was already well-aligned with AIIB's E&S requirements, ensuring smooth policy integration. The Client maintained a dedicated in-house E&S personnel with expertise in relevant sectors such as renewable energy and energy efficiency, strengthening its ability to oversee sustainable sub-project implementation.[90] TSKB highlighted its ongoing sustainability initiatives in discussions with the PLR team, including the TSKB Integrated Annual Report 2023, "Net Negative, Inclusive Development Towards 2053."

100. The Client played an active role in facilitating the preparation of the PLR. Given that AIIB does not have an office in Türkiye, the PLR team worked directly with TSKB and AIIB's project team. TSKB demonstrated a strong commitment to the process by hosting a productive meeting on its premises, where the Client presented its lending processes and ensured that relevant departments were available to address PLR-related questions. Additionally, TSKB assisted in organizing visits to two sub-project sites and facilitated meetings with key specialists, which provided valuable insights into the sub-project's implementation. These activities provided crucial information and data for the PLR, enhancing AIIB's understanding of the Facility's performance and outcomes. This proactive collaboration further solidified the strong partnership between AIIB and TSKB, and facilitated the smooth gathering of key learnings for future projects.

101. Overall, the PLR rates Client Work Quality as "Highly Satisfactory." TSKB effectively managed sub-loan disbursements, ensured compliance with E&S safeguards, and maintained high-quality monitoring and reporting. As a capable and experienced intermediary, TSKB leveraged its extensive expertise in infrastructure and energy financing and strong local market knowledge to rapidly identify and finance eligible sub-projects. This allowed AIIB to rely on TSKB's institutional systems and processes, reducing the need for extensive on-site supervision and enabling more efficient execution than would have been feasible through direct lending. The successful and timely implementation of all eight sub-projects, despite external challenges such as the COVID-19 pandemic, further demonstrated TSKB's operational strength and reinforced AIIB's confidence in the partnership. TSKB's performance under the Facility also contributed to the design and approval of follow-on operations, including Phase 2 and COVID-19 relief projects, and has positioned TSKB as a trusted partner for potential future collaboration under Phase 3.

90 *Project Completion Note*. (2022, August 24). bit.ly/44RUKWQ page 6

Conclusions

OVERALL ASSESSMENT

102. The PLR rates the Facility Successful.

103. The operation is assessed Highly Relevant, demonstrating close alignment with Türkiye's national development priorities, AIIB's strategic mandate, and TSKB's institutional focus on sustainable infrastructure finance. The Facility's design provided a sound and adaptable platform that not only met immediate financing needs but also laid important groundwork for AIIB's evolving FI lending model.

104. The Facility is found to be Effective, delivering long-term, countercyclical financing that enabled the implementation of eight sub-projects in renewable energy, energy efficiency, and energy transmission. While key performance targets under the RMF were exceeded, the monitoring of outputs and outcomes could benefit from enhanced precision and consistency, an area for continued improvement in future operations.

105. The Facility is also assessed Efficient, marked by timely disbursements, streamlined sub-project implementation, and prudent financial management even in the face of operational challenges brought about by the COVID-19 pandemic.

106. Looking ahead, the Facility is considered Most Likely Sustainable, supported by TSKB's robust institutional capacity, the financial viability of the sub-projects, Türkiye's enabling renewable energy policies, and strong E&S safeguards, which continue to be actively monitored. These elements provide a stable foundation for long-term development impact while offering valuable lessons to inform AIIB's future engagements in FI lending.

107. The PCN did not provide ratings of the Facility's performance, which was not required as per the guidance for PCN at the time of PCN preparation. Therefore, Table 7 presents only the assessment of the Facility's performance from the PLR.

Table 7: Overall Assessment of the Facility Performance

Evaluation Criteria	PCN	PLR	Rating Scale
Relevance	Not assessed	Highly Relevant	*Highly relevant - Relevant - Less than relevant – Irrelevant*
Effectiveness	Not assessed	Effective	*Highly effective – Effective - Less than effective – Ineffective*
Efficiency	Not assessed	Efficient	*Highly efficient – Efficient - Less than efficient – Inefficient*
Sustainability	Not assessed	Most Likely Sustainable	*Most likely sustainable - Likely sustainable - Less than likely sustainable - Unlikely sustainable*
Overall Assessment	*Not assessed*	*Successful*	*Highly successful - Successful - Less than successful - Unsuccessful*

Evaluation Criteria	PCN	PLR	Rating Scale
AIIB Work Quality	Not assessed	Satisfactory	*Highly satisfactory – Satisfactory - Less than Satisfactory – Unsatisfactory*
Client Work Quality	Not assessed	Highly Satisfactory	*Highly satisfactory – Satisfactory - Less than Satisfactory – Unsatisfactory*

LESSONS

108. The PLR identified the following five lessons:

109. Lesson 1: Strategic Partnerships and In-Country Engagement

110. Partnering with a high-capacity client was instrumental in enabling AIIB to pilot its first FI operation. The collaboration with TSKB provided a reliable platform to test AIIB's engagement model, manage risks, and establish operational credibility in a new market. This strategic entry point helped build a foundation for long-term partnerships and repeat operations. AIIB's lean operational model, characterized by direct engagement, streamlined decision-making, and stable teams, was positively received by stakeholders and supported effective delivery. At the same time, the experience suggested that, as AIIB's portfolio grows, the Bank could consider options for enhancing its in-country engagement in a manner consistent with its business model, strategic direction, and evolving operational needs.

111. Lesson 2: Project Classification in FI Structures with Sovereign Guarantee

112. The experience with the Facility highlights the value of enhancing internal clarity in classifying FI projects involving sovereign guarantees, particularly when implemented through private financial institutions. In this case, the operation was categorized as SBF due to the presence of a government guarantee. However, its structure and risk allocation more closely reflected characteristics typical of NSBF, with credit risk and repayment responsibility borne by TSKB and with a direct sovereign guarantee. This hybrid arrangement led to some variation in operational approaches, particularly in areas such as risk assessment, RMF design, disclosure practices, and the application of economic and financial analysis. The use of SBF financing terms for on-lending at market rates also pointed to the importance of aligning financing modalities with the distribution of financial benefits. The PLR does not suggest that the hybrid model is inappropriate or ineffective. On the contrary, the structure functioned well in this case. It did not materially affect project performance and supported the achievement of the Facility's objectives. Rather, the experience highlights that greater internal clarity and tailored guidance would help optimize the application of such models, ensuring consistent alignment between project structure, risk ownership, and policy requirements, while supporting sound operational planning and risk management as AIIB's portfolio evolves.

113. Lesson 3: Guidance on FI Projects and Results Measurement

114. The Facility illustrates the importance of advancing internal frameworks to guide the design, monitoring, and assessment of FI projects. In indirect lending models, where attribution of development outcomes is inherently complex, greater clarity on expectations is essential to support consistent implementation and results measurement. While AIIB contributed positively to E&S sustainability by aligning sub-projects with its ESF, the experience also highlighted opportunities for greater clarity in the depth of analysis and reporting required at the sub-project level, particularly with respect to economic and financial assessments, E&S monitoring, and the scope of results tracking. The Facility's RMF revealed some limitations, including an incomplete indicator set and unclear performance targets, which reduced the ability to systematically assess sub-project outcomes. Similarly, limited reporting in PIMRs constrained visibility into implementation progress. As AIIB's FI portfolio grows, developing clear internal guidance and outcome-oriented monitoring tools adapted to the layered nature of FI structures will help strengthen operational consistency, improve transparency, and enhance the credibility of development effectiveness assessments.

115. Lesson 4: Institutional Learning

116. The Facility, as AIIB's first FI operation, offered a valuable opportunity to generate insights on structuring, supervising, and delivering FI projects. It contributed meaningfully to AIIB's institutional learning, particularly in shaping future engagements with TSKB and informing the broader development of FI projects. The experience suggests that, in operations where learning is an explicit objective, the impact could be further amplified through a more structured approach to knowledge management. This includes proactively identifying learning goals, capturing key insights throughout implementation, and sharing lessons beyond the immediate project team. As AIIB continues to scale its FI portfolio, embedding systematic knowledge capture and dissemination mechanisms into project design and supervision can help ensure that learning is institutionalized, supports continuous improvement, and informs the design of future operations across sectors and clients.

117. Lesson 5: Integration of E&S Risk Assessment

118. Integrating E&S risk assessment into the credit due diligence process of FIs enhances both accountability and the effectiveness of safeguard implementation. A key strength of TSKB's approach lies in the direct incorporation of E&S considerations into its financial screening, due diligence, and approval processes. This ensures that sub-borrowers are aligned with sustainability requirements from the outset of project appraisal. Further, embedding E&S commitments into legal loan agreements reinforces institutional accountability by making these obligations contractually binding. AIIB can draw lessons from this approach and encourage its replication with other FIs, particularly those with less mature E&S management systems. In addition, strengthening GRMs in parallel with E&S due diligence can help ensure that affected stakeholders have effective channels to raise concerns, thereby improving the overall performance and credibility of the FI's E&S risk management system.

RECOMMENDATIONS

119. The PLR presents the following four recommendations

120. Recommendation 1: Strengthening Institutional Consistency Through a Guidance Note on FI Projects

121. As AIIB's engagement in FI projects continues to expand, there is value in developing a dedicated guidance note to support the design, implementation, and oversight of FI on-lending operations. Such a note would help promote consistency, enhance transparency, and reinforce alignment with the Bank's development mandate, while accommodating the specific characteristics of FI structures. Building on early operational experience, the guidance note could provide structured direction across the project cycle, including sub-project eligibility, appraisal expectations, monitoring practices, and results reporting. It could also help clarify the application of economic and financial analysis in different contexts—particularly where SBF is extended to private intermediaries. The use of standardized tools and indicators, aligned where appropriate with recognized practices such as the HIPSO, would support comparability and improve the tracking of outputs and outcomes across sub-projects. As AIIB advances its green finance agenda, the inclusion of consistent financial performance reporting for relevant sectors—such as renewable energy and energy efficiency—would further support assessments of sub-project viability while reinforcing the institution's climate-related objectives.

122. Recommendation 2: Clarify Operational Guidance for FI Structures with Sovereign Guarantees and Private Implementation

123. As AIIB expands its engagement in FI projects, there is value in developing internal guidance for operations involving a sovereign guarantee but implemented through private financial institutions. The experience with the Facility, which is legally classified as SBF due to the presence of a government guarantee, but structured and executed with characteristics more typical of NSBF, underscored the need for greater clarity on how such operations should be processed and monitored. While the hybrid model functioned effectively in this case, it raised practical questions about the application of existing SBF-related requirements, including economic and financial analysis, results monitoring, and disclosure protocols, which are generally designed for projects implemented directly by sovereign entities. In such cases, NSBF-aligned operational requirements may be more appropriate to reflect the nature of credit risk and project execution. To support consistency, transparency, and efficiency, AIIB could consider preparing a guidance note that clarifies how to apply operational procedures in FI projects with sovereign guarantees but private implementation. This could include defining when NSBF-related tools and expectations apply and establishing a review mechanism at the concept or early appraisal stage to help determine the most appropriate processing route. Such an approach would help ensure alignment between project characteristics, policy application, and risk management practices without altering the legal classification of the operation.

124. Recommendation 3: Consider Enhancing In-Country Engagement to Support Effective FI Implementation

125. The experience with the Facility highlighted the benefits of AIIB's lean and responsive operational model, characterized by direct engagement, streamlined decision-making, and stable teams. This approach was well received by stakeholders and contributed to strong client relationships and efficient delivery. At the same time, the experience also pointed to the potential value of deeper in-country engagement in supporting implementation—particularly in complex FI projects involving multiple sub-projects and diverse local stakeholders. In line with the AIIB Approach to Global Presence, approved by the Board in August 2024, the Bank could consider ways to strengthen in-country engagement, where appropriate, in line with its business model, strategic direction, and operational needs. This may include leveraging local representatives, consultants, or partnerships to enhance day-to-day client interaction, support E&S oversight, and facilitate timely problem-solving, especially in periods of uncertainty or external disruption. As AIIB's FI portfolio grows in scale and complexity, a tailored approach to in-country engagement could help reinforce the Bank's client-focused delivery model while strengthening implementation monitoring and responsiveness in the field.

126. Recommendation 4: Integrate a Structured Learning Approach in Projects with Explicit Learning Objectives

127. The Facility, as AIIB's first FI operation, generated valuable insights relevant to future FI engagements and broader institutional learning. To build on this experience, AIIB is encouraged to adopt a structured approach to learning in projects where learning is an explicit objective. Specifically, this could involve asking project teams to plan for and implement learning activities from the outset, such as structured learning reflections, after-action reviews, internal learning sessions, cross-departmental debriefings, or early engagement with CEIU through an ELA. These activities would help ensure that lessons are systematically identified, captured, and disseminated beyond the immediate project team. To complement these efforts, AIIB could also consider developing an internal knowledge-sharing mechanism or platform that consolidates and makes accessible key learnings from past operations. Such a system would help institutionalize learning and support continuous improvement across the project cycle. This approach would help ensure that learning is intentional, actionable, and applied more broadly across the institution, enhancing the effectiveness of future operations.

Appendices

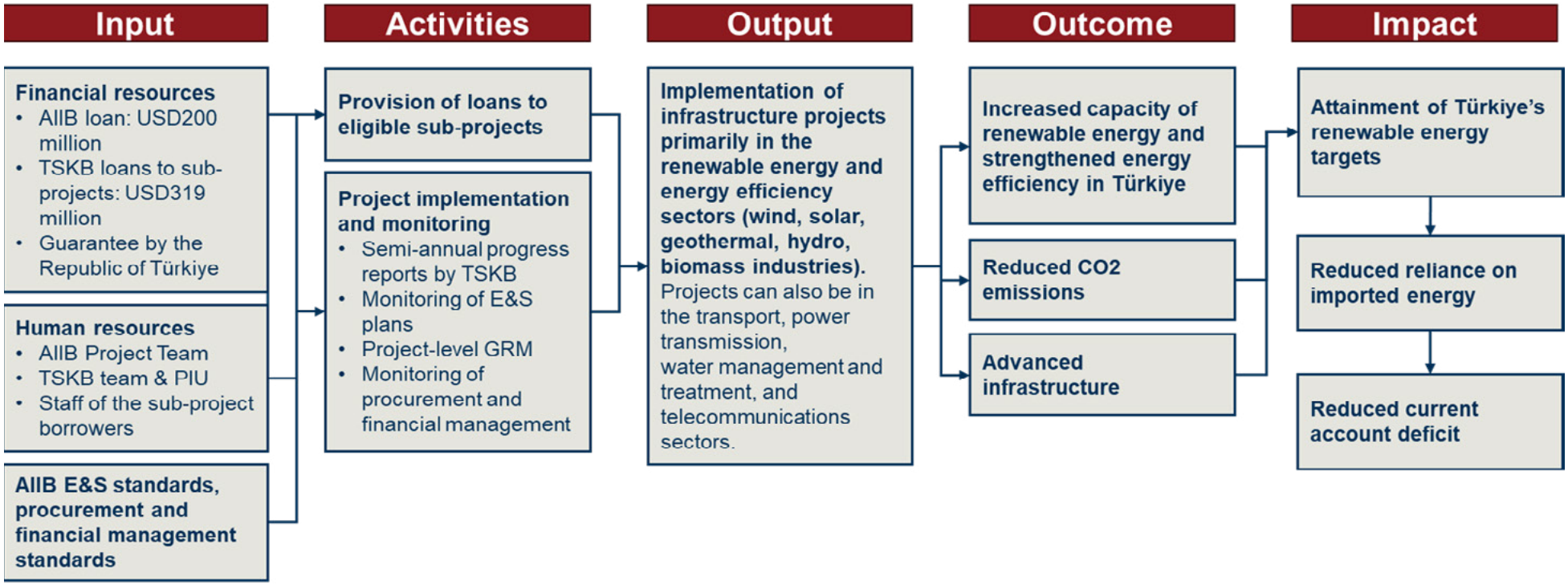
A. EVALUATION FRAMEWORK

Evaluation Criteria	Rating Scale	Evaluation Questions	Indicators/ Information Required	Source of Information	Methods/ Analysis
Relevance	*(1) Highly relevant* *(2) Relevant* *(3) Less than Relevant* *(4) Irrelevant*	Was the Project aligned to national development priorities/strategies/plan? Was the Project aligned with AIIB's policies and strategies? Was the Project aligned with the strategic objectives of the client? Was the design appropriate in addressing the envisaged impact, outcome, and outputs? Did the project inputs, outputs, and outcomes follow the results chain to achieve the project's objective?	Government policies and strategies/plans AIIB's corporate and sector strategies Project design and monitoring framework	Project Document, PCN, official documents, ELA, Minutes of Board meetings, Project Committee meetings Discussions with project staff, government officials, and other key stakeholders	Desk review Key informant interviews Analysis of project results indicators
Effectiveness	*(1) Highly effective* *(2) Effective* *(3) Less than effective* *(4) Ineffective*	What are the results of the Project? Were there any unintended or adverse results on local society and economy? To what extent were project outputs and outcomes achieved as indicated in the RMF? What factors contributed to achievement/ non-achievement of expected outputs and outcomes? Did the Project comply with safeguard requirements? Are there residual or new issues post-completion?	Realized project outputs and outcomes in relation to targets Project monitoring framework implementation process Issues and challenges related to achieving outputs and outcomes	PCN, PIMRs, environmental management reports Discussions with project staff, government officials, and other key stakeholders	Desk review Key informant interviews Analysis of indicators Direct observation through field visit
Efficiency	*(1) Highly efficient* *(2) Efficient* *(3) Less than efficient* *(4) Inefficient*	How well were project resources used in achieving the expected outcomes of the facility? How do the costs of the sub-projects compare to the generated benefits? Did the facility experience delays in disbursement? Did the subprojects experience delays in implementation?	Loan disbursement and fund utilization Implementation and procurement data Monitoring data on inputs and outputs, EIRR, FIRR	Project documents Discussions with project staff, government officials, and AIIB procurement staff Data on sub-projects	Desk review Key informant interviews Cost-benefit analysis

A. EVALUATION FRAMEWORK (CONTINUED)

Evaluation Criteria	Rating Scale	Evaluation Questions	Indicators/ Information Required	Source of Information	Methods/ Analysis
Sustainability	*(1) Most likely sustainable* *(2) Likely sustainable* *(3) Less than likely sustainable* *(4) Unlikely sustainable*	What is the likelihood that the benefits of the investment will be sustained in the long-term? Are there any institutional/operational/financial risks that affect the sustainability of the facility? How likely is TSKB to continue supporting this product? To what extent is the facility likely to have medium- to long-term effects on natural resource management, pollution, biodiversity, and greenhouse gas emissions as well as effects on social sustainability?	Information on revenue generating capacity and activities of the sub-projects Information on TSKB Monitoring data	Discussions with project staff, government officials, and other key stakeholders Government reports and statistics Financial statements and relevant operational data of the sub-projects	Desk review Key informant interviews Direct observation through field visits
AIIB Work Quality	*(1) Highly satisfactory* *(2) Satisfactory* *(3) Less than satisfactory* *(4) Unsatisfactory*	To what extent did AIIB ensure adequate work quality at project entry, including the soundness of the Project Document and loan agreement? Were Bank due diligence assessments and identified lessons adequate for preparing the financing and did they influence design? To what extent did AIIB support effective implementation through timely and adequate support for the borrower? Was Bank monitoring, feedback, adaptive management, and derivation of lessons timely and adequate in implementation oversight? What was AIIB's value added?	Information on project preparation Stakeholder consultation records, GRM registry information Complete set of E&S assessments Monitoring data	Project design and monitoring documents E&S consultant reports and GRM records Discussions with project staff, government officials, and other key stakeholders	Desk review Key informant interviews
Client Work Quality	*(1) Highly satisfactory* *(2) Satisfactory* *(3) Less than satisfactory* *(4) Unsatisfactory*	To what extent was the quality of project preparation and project implementation by the client adequate? How does TSKB's work compare to banking best practices and benchmarks? To what extent did the client comply with loan covenants, E&S requirements, and other requirements? Was there sufficient high-level support and stakeholder engagement for the project?	Project design and RMF Monitoring data Complete set of E&S assessments Stakeholder consultation records	Project design and monitoring documents E&S consultant reports and GRM records Discussions with project staff, government officials, stakeholders	Desk review Key informant interview

B. THEORY OF CHANGE



Source: AIIB CEIU (based on project documentation). The Theory of Change presents the logical results chain as described at project approval.

The Independent Evaluation Function (IEF) of the Asian Infrastructure Investment Bank (AIIB) conducts Project Learning Reviews (PLRs) for selected closed projects, promoting accountability and learning at AIIB. This PLR report presents the findings of the independent evaluation on the TSKB Sustainable Energy and Infrastructure On-Lending Facility in the Republic of Türkiye. Approved in September 2018, the Asian Infrastructure Investment Bank (AIIB) extended a USD200 million loan to TSKB to support sustainable infrastructure development in Türkiye. The financing enabled the successful implementation of eight sub-projects, including two geothermal power plants, four wind power plants, one energy efficiency project, and one transmission and distribution initiative. The Facility represents AIIB's first standalone financial intermediary loan to a bank, serving as a valuable learning opportunity to inform future FI lending. The PLR evaluates the project performance, drawing on comprehensive evidence from document reviews, a site visit, and in-depth interviews with key stakeholders. The PLR identifies lessons learned and presents recommendations for improvements in AIIB's processes and projects.

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