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12TH ASIAN DEVELOPMENT BANK BUSINESS OPPORTUNITIES FAIR 2024
9-10 OCTOBER 2024 | 9 A.M. to 5 P.M. | ADB HEADQUARTERS, MANILA

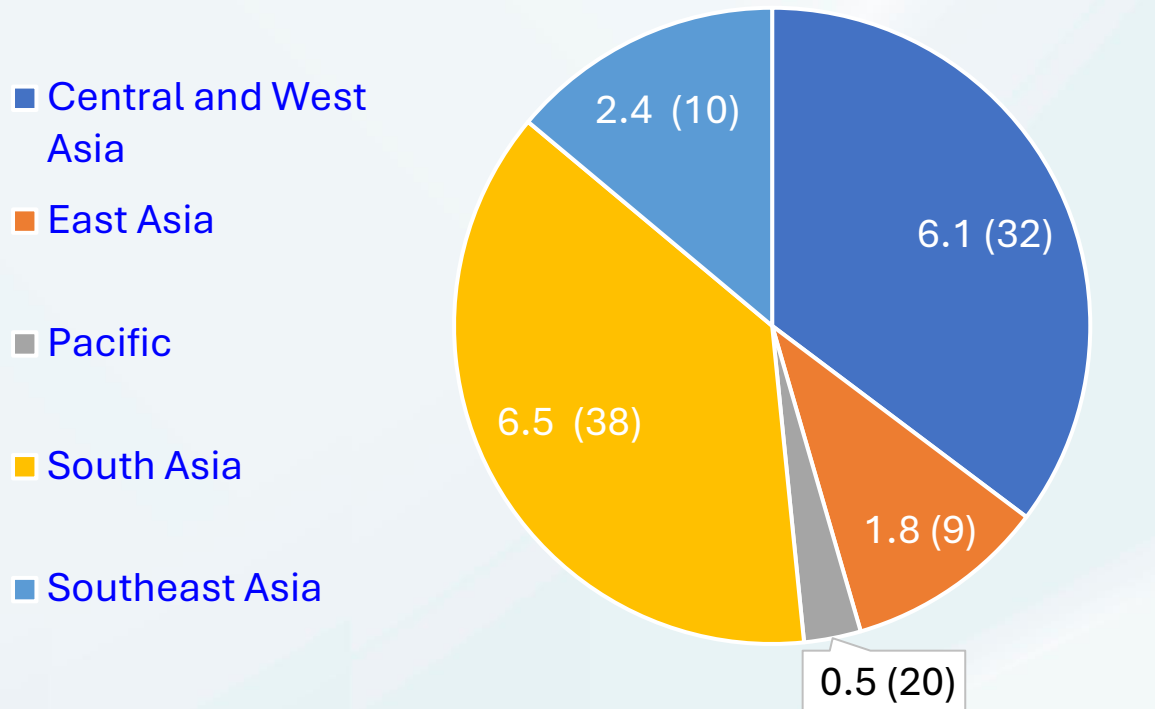
Business Opportunities in Energy Sector, Central West and East Asia; South Asia Region

Lei Zhang, Unit Head, Project Administration
Energy Sector Office, Sectors Group
9 OCTOBER 2024

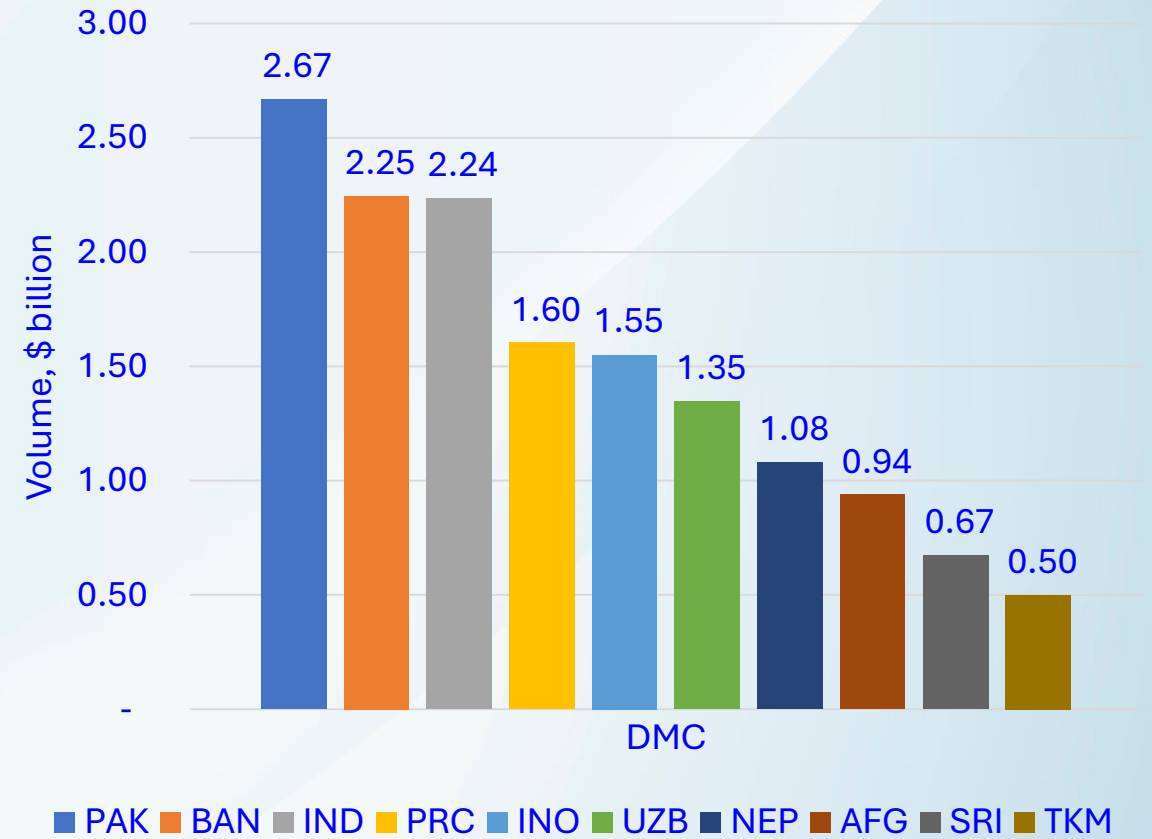


Overview- Lending Portfolio (Energy)

Energy Sector Active Lending: \$17.25 billion



Top 10 DMCs by active lending portfolio

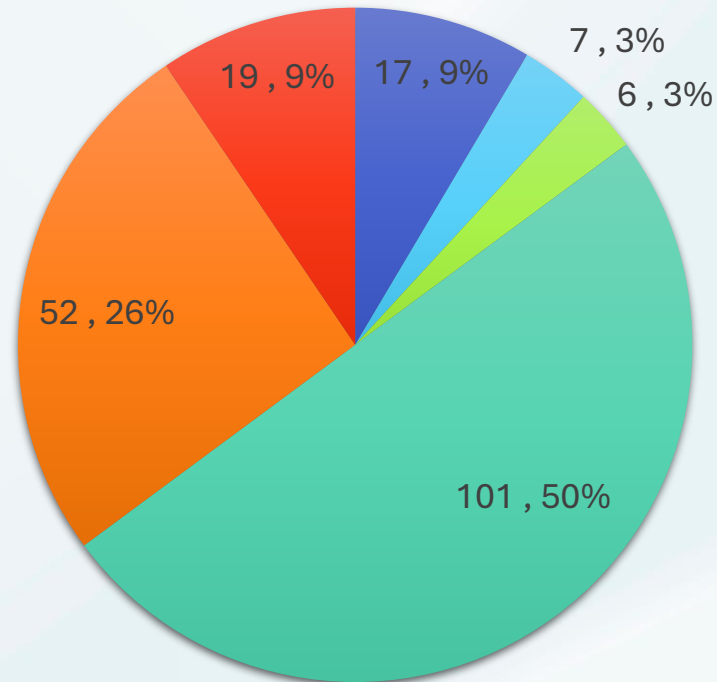




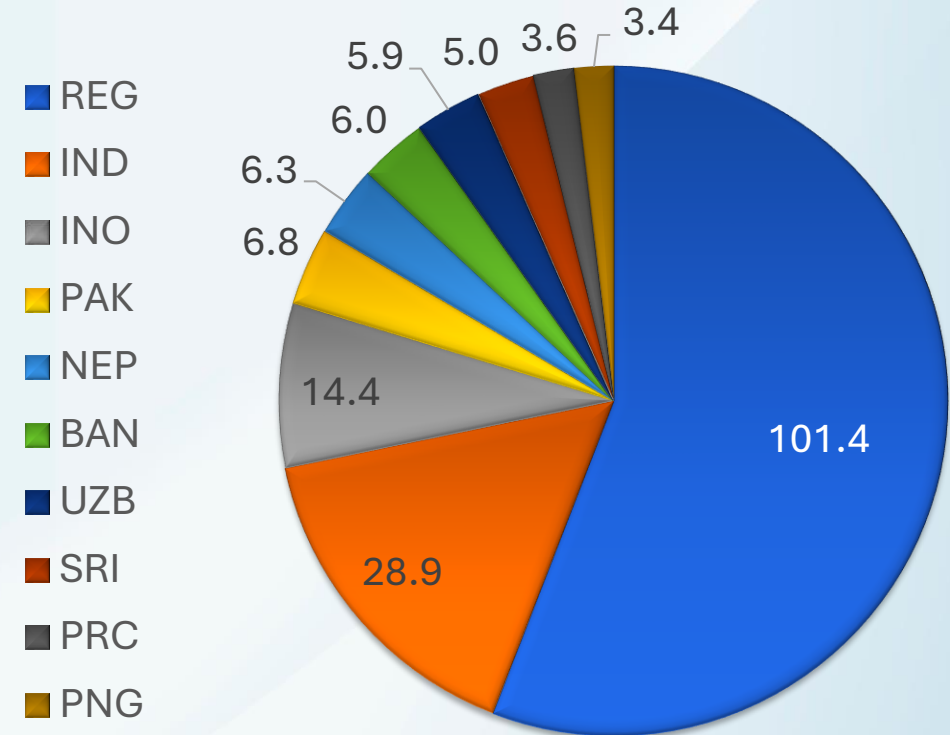
Overview- Non-lending Portfolio (Energy)

Energy Sector Active TAs: \$ 203 million

- Central and West Asia
- East Asia
- Pacific
- Regional
- South Asia
- Southeast Asia



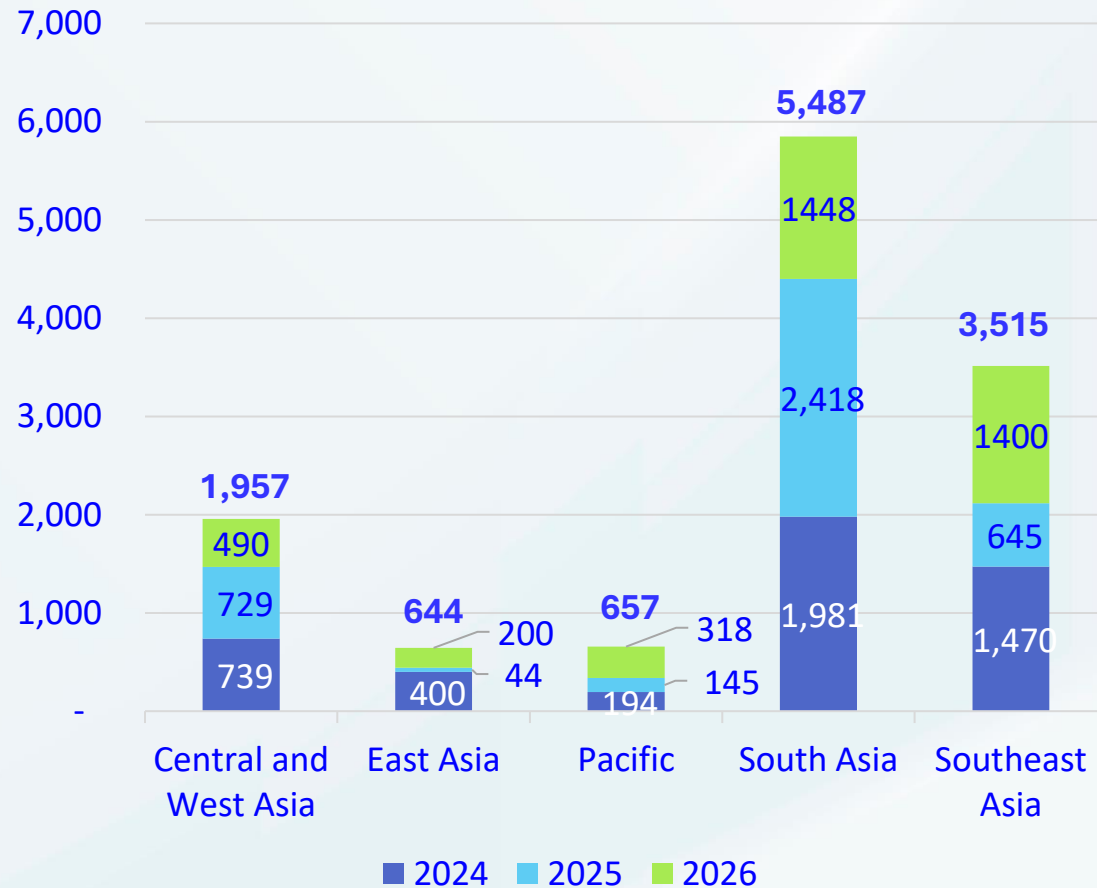
Top 10 DMCs by active TA portfolio



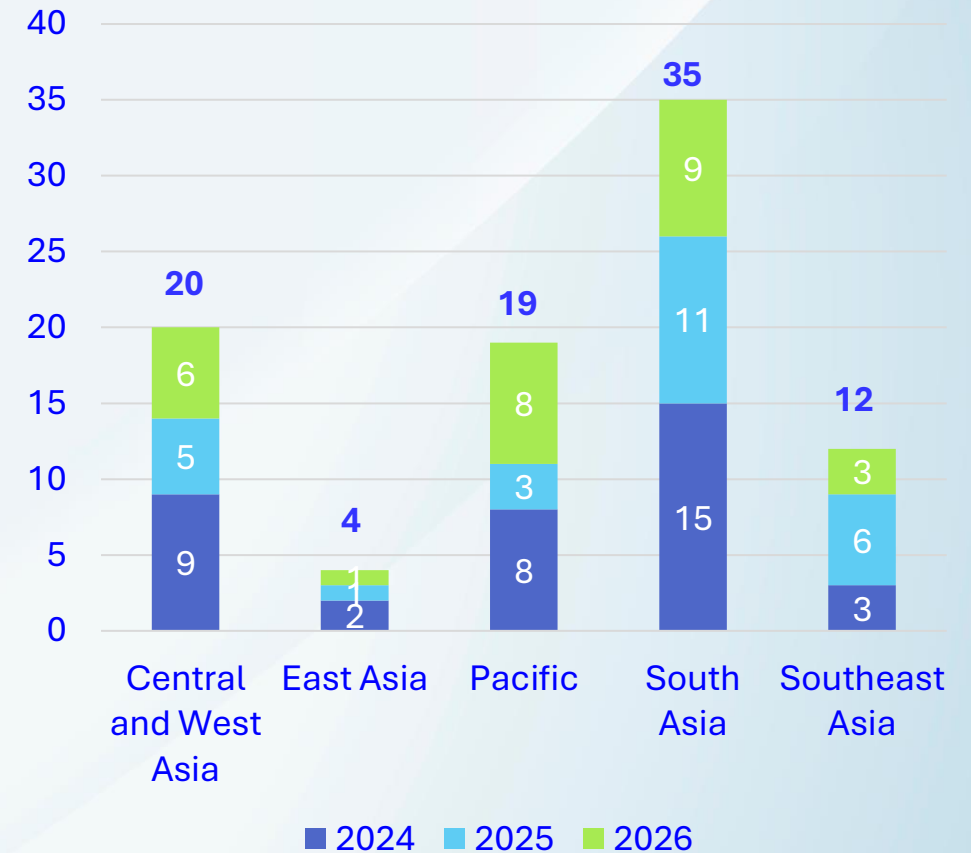


Indicative Lending Pipeline 2024-2026 (Energy)

Volume \$ billion



Number of projects





Central West and East Asia Region: Our Priorities (2024-2026)

Energy Security –increased availability, sustainable yet affordable pricing

- **New infrastructure,**
- **Rehabilitation of aging and inadequate infrastructure**

Energy efficiency –increased generation with same resources

- **Change consumer behavior**
- **Improve efficiency from demand side**

Sector sustainability

- **Policy reform to improve financial performance**
- **Increase private investment**

Low carbon energy transition

- **Low carbon energy transition in urban area**
- **Low carbon energy transition in rural area**

Regional Integration

- **Energy sharing to boost energy security**



Opportunities (under Ongoing Projects)

Installation & Rehab of T&D lines and Substations (UZB, PAK, TAJ, TKM)

EPC of Hydropower

- Balakot (PAK), Uch Kurgan & Toktogul (KGZ), Rogun (TAJ)

Transport Electrification

- Electric buses (KGZ)

Metering (PAK, TAJ, UZB)

Solar development

- Floating solar (KGZ and AZE)

<https://www.adb.org/projects/tenders>



Projected Lending Commitment (\$ Million)

Region/Country	2024	2025	2026	Remarks
CWEA	1,139	772.5	690	
Afghanistan				
Armenia				
Azerbaijan				
Georgia	103	3		electricity T&D; energy sector development and institutional reform
Kazakhstan				
Kyrgyz Republic		0.5	70	RE generation-solar; electricity T&D
Pakistan	215	200		large hydropower generation; electricity T&D; RE generation-solar
Tajikistan	36	250	10	electricity T&D; Large hydropower generation; EE and conservation
Turkmenistan				
Uzbekistan	385	275	410	RE-solar; RE-wind; energy sector development and institutional reform; electricity T&D
Mongolia		44		electricity T&D; RE-PSHP; Clean heating- GSHP
PRC	400		200	EE and RE integrated with urban housing, rural low-carbon energy transition;



Projected Non-lending Commitment (\$ Million)

Country/\$ mil	2024	Remarks
CWEA	8.13	
Afghanistan		
Armenia		
Azerbaijan	0.50	energy sector development and institutional reform; energy utility services; capacity development
Georgia	0.40	energy sector development and institutional reform; capacity development
Kazakhstan	1.50	energy sector development and institutional reform, research and development
Kyrgyz Republic	0.95	energy efficiency and conservation; capacity development
Pakistan	1.0	capacity development
Tajikistan		
Turkmenistan	1.05	research and development
Uzbekistan		
Mongolia	1.0	energy sector development and institutional reform; capacity development; policy advice
PRC	1.73	Research on urban buildings life-cycle decarbonization; research on RE integrated agriculture development, ecology rehabilitation and environmental protection



Opportunities (under Ongoing Projects)

Loan #	Country	Project Description	Procurement Package Name	Cost Estimate	Contract Type	Advert Date
Ongoing/Active Projects						
4149/0808	KGZ	Urban Transport Electrification Project (formerly Promotion of Electric Buses in Bishkek)	Civil works for Bus Depot (Shelters and Lighting)	2.50	OCB: Works	Q4 2024
			Electrical Works for Bus Depot (Electric Supply)	3.00	OCB: Works	Q4 2024
4271	PAK	Second Power Transmission Enhancement Investment Program, Tranche 4	Procurement of 500 kV, 220 kV, 132 kV Control, Relay, AC/DC Panels along with Design Installation, Testing & Commissioning	3.47	OCB: EPC	Q4 2024
			Procurement of Telecom Equipment alongwith Design, Installation, Testing & Commissioning	4.35	OCB: EPC	Q4 2024
4383	PAK	Power Transmission Strengthening Project	Plant – design, supply, installation, testing and commissioning of 220kV D/C Twin Bundle T/Line from Bund Road G/S to NKLP G/S	41.00	OCB: EPC	Q4 2025
			Procurement of Goods for Transmission Line (var lots)	20.00	OCB: Goods	Q4 2026
4326	UZB	Digitize to Decarbonize—Power Transmission Grid Enhancement	Rehabilitation of 4 high-voltage substations - Lot 2: 2 high-voltage substations (Substation 220 kV "Zafar" and Substation 220 kV "Fayzobod" (GIS substations)	18.31	OCB: EPC	21 Aug. 2024 (Deadline: 21 Oct. 2024)
4347	UZB	Distribution Network Digital Transformation and Resiliency Project	Rehabilitation and modernization of substations - Package: EPC-005 (Tashkent Region, Fergana, Samarkand, Syrdarya, Namangan, Djizzak, Bukhara, Karakalpakstan)	98.00	OCB: EPC	Q4 2024
Pipeline Projects						
54448-001	GEO	Energy Storage and Green Hydrogen Gas Development Project	Procurement of Plant - Design, Supply, and Installation: A climate and disaster resilient Battery Energy Storage System (Lot 1 & 2) (BESS+HV package)	100.271		
			Lot 1: BESS	96.036	OCB: EPC	Q1 2025
			Lot 2: HV	4.235	OCB: EPC	Q1 2025
57259-001	PAK	Power Distribution Strengthening Project	- Procurement of STG equipment for 25 grid stations (LESCO). '- EPC of AMI 332,000 units (LESCO, MEPCO and SEPCO). '-EPC of APMS 15,800 units (LESCO, MEPCO and SEPCO). '-EPC aerial bundled cable (LESCO and SEPCO). '- Consulting services (LESCO, MEPCO and SEPCO)	200	OCB: EPC & Goods QCBS	 2025
58309-001	UZB	Second Distribution Network Digital Transformation and Resiliency Project	Rehabilitation and modernization of substations (2 lots)	150	OCB:EPC	Q3 2025
	UZB	Digitize to Decarbonize—Power Transmission Grid Enhancement - Phase 2	Rehabilitation and modernization of TLs and substations (3 lots)	104	OCB:EPC	Q3 2025



Opportunities (under Ongoing Projects)

- ❖ <https://www.adb.org/projects/tenders>
- ❖ <https://www.adb.org/projects/documents/ind-51308-008-pp>

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WHO WE ARE WHAT WE DO WHERE WE WORK

Projects & Tenders

Projects Documents Tenders

Filter results CLEAR ALL

Country/Economy (2) [CLEAR] ▾

- Azerbaijan
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- China, People's Republic of
- Cook Islands
- India

Sectors (1) [CLEAR] ▾

- Agriculture, natural resources and rural development
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- Energy

Procurement of goods, works, and consulting services

Search tenders

Results 1-20 of 90 RSS Sort by ▾

Pakistan X Uzbekistan X Energy X Invitation for Bids X

4271-PAK: Second Power Transmission Enhancement Investment Program - Tranche 4	Status: Active	Deadline: 28 Oct 2024
48078-006; Pakistan; Energy; Posting date: 11 Sep 2024		
Notice Type:	Invitation for Bids	
Approval Number:	4271	

4271-PAK: Second Power Transmission Enhancement Investment Program - Tranche 4	Status: Active	Deadline: 30 Oct 2024
48078-006; Pakistan; Energy; Posting date: 11 Sep 2024		
Notice Type:	Invitation for Bids	
Approval Number:	4271	

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WHO WE ARE WHAT WE DO WHERE WE WORK

> What We Do > Projects > Documents > Uttarakhand Climate Resilient Power Syst...

Uttarakhand Climate Resilient Power System Development Project: Procurement Plan

Procurement Plans | March 2023

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Procurement plans describe and update the procurement of major goods, works and consulting services either ongoing or expected to take place related to a project or program.

This document dated 20 March 2023 is provided for the ADB project 51308-008 in India.



Lending pipeline 2024-2025

Approval Yr	DMC	Project Lead	Modality	Project Name	Total (\$M)
2024	GEO	Adnan Tareen	Project	Energy Storage and Green Hydrogen Gas Development Project	147
2024	PAK	Areg Barseghyan	PRF	Hydropower Development (WAPDA) Project Readiness	17.3
2025	PAK	Seung Duck Kim	Project	Power Distribution Strengthening Project	300
2024	PRC	Yun Zhou	FIL	Ningbo Urban Green and Low-Carbon Development Project	517.8
2025	PRC	Lei Zhang	RBL	Shaanxi Low-Carbon and Integrated Urban-Rural Sustainable Development Project	1344.98
2024	TAJ	Serik Zharkinbayev	Project	Reconnection to the Central Asian Power System Project - Additional Financing	15
2024	TAJ	Daler Qubodbekov	Project	Golovnaya 240-Megawatt Hydropower Plant Rehabilitation Project - Additional Financing	21.15
2025	UZB	Martin Jaer	PCG	Solar PPP Investment Program Tranche2 (Guzar Solar Project)	10
2024	UZB	Adnan Tareen	PBL	Power Sector Reform Program, Subprogram 2	408
2025	UZB	Yun Ji Suh	PCG	UZB: Samarkand 1 Solar PV and BESS Project	75
2025	UZB	Alfredo	Project	Second Distribution Network Digital Transformation and Resiliency Project	365
2025	UZB	Nana G.	Project	Digitize to Decarbonize: Power Transmission Enhancement Project – Phase 2	124
2025	UZB	Nana G.	Project	Digitize to Decarbonize: Power Transmission Enhancement Project – Phase 2	124
					\$ 3,345.2



Non-lending pipeline 2024-2025

Country	PTL	TA Name	\$ 000
ARM	Areg Barseghyan	TA 6959-ARM Viability Assessment of Wind Energy Projects (additional financing)	325
AZE	Nana Gurgenidze	Azerbaijan District Heating Optimization and Decarbonization	500
GEO	Adnan Tareen	TA Subproject 3- Strengthening the Energy sector (Per Adnan, not happening this 2024)	400
KAZ	Yun Ji Suh	Supporting Renewable Kazakhstan's Energy Transition	500
KAZ	Serik Zharkinbayev	TA10085 KAZ: Opportunities to Accelerate Coal to Clean Power Transition in Kazakhstan (additional financing) {S&C TASF-others}.	100
KGZ	Johannes E. Vogel	TA 9564-REG Floating Solar Energy Development (additional financing) [replacing Urban Transport Electrification Project, Phase II]	250
PAK		Strengthening Regulatory Capacity of Power Sector (requesting \$1m TASF)	1000
TKM	Catherine Santiago	Evaluation of Wind Potential for Renewable Energy Development	750
REG		SSTA on Caspian Sea Cable	225
MON		Energy Sector Reform and Development	500
PRC	Qingyu Zhao	Research on Application of Solar Photovoltaics Integrated Ecological System Rehabilitation and Agriculture Synergy Development	800
PRC	Lei Zhang	Research on New-pattern Low-Carbon Urban Construction Path and Policy	600
			\$5,950



Tajikistan: Enhancing Sustainability: Financing for the Rogun Hydropower Project (Proposed)

- ❖ **Implementation:** Tentatively Q3 2025 to Q4 2039
- ❖ **ADB Financing:** \$500 million
- ❖ **Total investment:** \$6,300 million

Key Project Features

- Rockfill dam with central impervious core – 335m high
- Underground Powerhouse – installed capacity 3,780 MW – 6 Francis turbine units.
- Reservoir capacity 13.3 km³, reservoir surface 170 km²
- Annual Energy Production: 14,400 GWh (70% of total Tajik generation, 7% of total Central Asia)
- Location: 110 km east of Dushanbe on the Vakhsh river, upstream of Nurek HPP





Tajikistan: Enhancing Sustainability: Financing for the Rogun Hydropower Project (Proposed)

Packages and Contracts	Main Scope
Lot 1: Electro-mechanical equipment	Installation of four new generating units; upgrading of the two early generating units; supply of transformers; installation of the balance of plant and control equipment. (EPC contract)
Lot 1A: Additional EM equipment and powerhouse works	Installation of replacement generators for Units 5 & 6 (EPC contract)
Lot 1B: Additional EM Equipment	Design, supply and installation of replacement generators for Units 5 & 6 (EPC contract)
Lot 2: Main dam	Construction of an upstream cofferdam; treatment of the salt wedge that exists beneath the dam; construction of the 140 m high Stage 1 dam and the 330 m high Main Dam; and grouting of the foundation and abutments (EPC contract)
Lot 3: Limited right bank structures	Completion of Diversion Tunnel 4 (DT-4), completion of investigations for atypical zone (ATPZ); excavation and lining of grouting galleries 1 and 3; grouting operations. (red book FIDIC, on-measurement basis)
Lot 3A: Full scope of right bank structures Potential ADB financing	Flood-discharging structures, which progressively provide the required discharge capacities as construction of the dam and the impoundment of the reservoir proceeds. They consist of two high-level outlets (HL01 and HL02), and two surface spillways. Plus remaining grouting galleries and grouting operations. (red book FIDIC, on-measurement basis)
Lot 4 Early Works (EW)	Works for the permanent intakes of the powerhouse complex and the associated upstream waterways of the plant. Construction is ongoing on excavation and slope stabilization works for the power intake, the headrace tunnels, and the shafts
Lot 4: Left bank structures	Remaining headrace and tailrace civil works required to provide inflows for the generating units and direct outflows to the tailrace; construction of grouting galleries left bank and grouting operations. (red book FIDIC, on-measurement basis)



South Asia Region: Our Priorities (2024-2026)

Modernization and Strengthening T&D Networks

- RE evacuation
- Automation and ancillary services for RE integration
- Climate resilience
- Reliability & efficiency of supply
- Livelihoods and inclusiveness

Enabling Private Sector Participation

- OMDP will support the first competitive bidding for solar in Assam
- Sovereign loan to support solar park development and evacuation infrastructure

Strengthening Sector Governance and Regulatory Framework

- India PBL: power market reform & regulations for RE integration and energy transition
- Sri Lanka PBL: unbundling, electricity pricing reforms, RE development through private investment

Integrated Cross Sector Approach

- Low carbon agriculture private solar investments +VGF
- Distribution system strengthening: feeder solarization + grid integration SRT + distributed BESS
- Green energy-based gender inclusive livelihoods - “just transition” – skills of rural population

Collaboration within ADB and beyond

- MDB cofinancing
- Regional power trade



Projected Lending Commitment (\$ Million)

Region/Country	2024	2025	2026	Remarks
South Asia	1781	2618	1148	
Bangladesh	360	595	450	T&D expansion/enhancement
Bhutan	30	0	170	Distributed solar/solar farm expansion
India	905	938	393	Solar/rooftop solar/floating solar; power sector reform, distribution improvement
Maldives	0	0	35	RE
Nepal	341	750	0	T&D; hydropower
Sri Lanka	145	335	100	RE; power system strengthening, power sector reform



Projected Non-Lending Commitment (\$ Million)

Region/Country	2024	Remarks
South Asia	26	
Bangladesh	4	Preparation for pipeline projects, capacity building
Bhutan	2	Capacity building for distributed solar
India	9.2	Preparation for pipeline projects, capacity building for revamped distribution sector scheme
Maldives	0	
Nepal	8	Implementation support for T&D project
Sri Lanka	3	Power sector reform



Opportunities (under Ongoing Projects)

Country	Package No.	General Description	Estimated Cost (\$ million)	Bidding Procedure
Bangladesh	Dhaka Power System Expansion and Strengthening Project		256.9	
	GD6	Supply of Conductor and Conductor Accessories and Insulator and Insulator Accessories	2.47	1S2E
India	Tripura Power Distribution Strengthening and Generation Efficiency Improvement Project		277.4	
	A4	High Voltage Distribution System and its associated facilities	8	1S2E
	C-01	Project Management Consultant for TSECL	1.5	FTP
	C-03	Project Implementation Consultant for TPGL	2	FTP



Opportunities (under Ongoing Projects)

Country	Package No.	General Description	Estimated Cost (\$ million)	Bidding Procedure
India	Uttarakhand Climate Resilient Power System Development Project		250	
	5	Turnkey contract for supply, erection, and commissioning of 400/220/132/33 kV AIS Substation at Landhora (Haridwar & Serverkhera)	18.02	1S2E
Bhutan	Distributed Solar for Public Infrastructure Project		34	
	DGPC/02	Design, supply, installation, testing, and commissioning of grid-connected solar photovoltaic systems	8.5	1S1E
Maldives	Accelerating Sustainable System Development Using Renewable Energy Project		100.47	
	G-1	Distribution network and its associated equipment for grid upgrades	12	1S2E
	P-3	Ocean (Tidal Wave) Energy Systems and its associated investments	1.5	1S2E
	P-4	Wind-battery hybrid system and its associated investments	3	1S2E
	P-5	Renewable energy-based farming system and its associated equipment	4.5	1S2E



Opportunities (under Ongoing Projects)

Country	Package No.	General Description	Estimated Cost (\$ million)	Bidding Procedure
Nepal	South Asia Subregional Economic Cooperation Power Transmission and Distribution System Strengthening Project		322	
	A1.1	Construction of 132 kV underground transmission line from Thimi Substation to Koteshwor	11	1S2E
	A1.3	Construction of 132/66/11 kV substation at Koteshwor	11.5	1S2E
Nepal	Electricity Grid Modernization Project		270	
	B1(AF)	Supply and Installation of Enterprise Resource Planning (ERP)	21	1S2E
	C-3	Design, Supply, Install and Commissioning of Smart meter in Kathmandu Valley (Phase II)	35.7	1S2E



Opportunities (New Pipelines)

Country	Package No.	General Description	Estimated Cost (\$ million)	Bidding Procedure
India	Assam Solar Project		672.67	
	P-2	Design, Supply, Installation and O&M of 250 MW Solar Power Plant on turnkey basis -2 lots: (i) Lot 1 of 125 MWac (ii) Lot 2 of 125 MWac	144	1S2E
	P-3	P-3: Design, supply, installation and commissioning of pooling substation switchyard 3X315 MVA (with one additional power transformer bay and switchgear for 750 MW on turnkey basis – 1 lot	32	1S2E
	P-4	Distribution system improvement in Karbi Anglong and Dima Hasao districts – 1 lot	12	1S2E
Nepal	South Asia Subregional Economic Cooperation Electricity Transmission and Distribution Strengthening Project		662	
	P-1	400 kV Transmission Line:	160	1S2E
	P-2	Construction of 400/220/132kV Gas Insulated Substation at Lamahi on turnkey basis	43	1S2E



Sri Lanka: Power System Strengthening and Renewable Energy Integration Project (Proposed)

- ❖ **Implementation:** Tentatively December 2024 to November 2029
- ❖ **ADB Financing:** \$200 million
- ❖ **Approach / Design:**

The project will expand the transmission infrastructure, introduce the country's first grid-scale battery energy storage system, modernize the medium voltage distribution network, and upgrade the grid protection systems to enhance renewable energy penetration and improve the reliability of transmission and distribution networks in Sri Lanka. The project will also strengthen the institutional capacities of Ceylon Electricity Board and Lanka Electricity Company (Pvt.) Ltd. by enhancing their ability to integrate and manage renewable energy systems, adopt digital solutions, and improve rooftop solar capacity. It will introduce innovative components for project design and monitoring, and ensure gender-sensitive workplace practices, creating opportunities for women in the energy sector. Additionally, the project will provide training to women-led groups and businesses on adopting clean energy solutions and efficient electricity use.



Sri Lanka: Power System Strengthening and Renewable Energy Integration Project (Proposed)

❖ Opportunities:

Package No.	Brief Description	Estimated Value (\$)	Advertisement Date
P1 Lot A	Procurement of indoor GIS grid substations on turnkey basis	37,000,000	Q4 / 2024
P1 Lot B	Procurement of 132 kV outdoor AIS grid substations on turnkey basis	21,000,000	Q4 / 2024
P2	Procurement of overhead transmission lines on turnkey basis	20,700,000	Q4 / 2024
P3	Procurement of 132 kV grid substations on turnkey basis	20,500,000	Q1 / 2025
P5	Procurement of grid scale battery energy storage system (BESS) of 100 MW/50 MWh at Kolonnawa grid substation on turnkey basis	27,500,000	Q1 / 2025
P6	Development of Renewable Energy Centre at National System Control Centre (NSCC)	12,000,000	Q4 / 2025
P7 Lot A	Procurement of underground cabling and packaged substations in Kelaniya Branch area on turnkey basis.	20,750,000	Q4 / 2025



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Thank you!

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