



Turkey-Korea Cooperation Forum
Kyrgyzstan, Tajikistan, and Uzbekistan Contracting Market

ADB's Assistance for Infrastructure Sector and Project Finance

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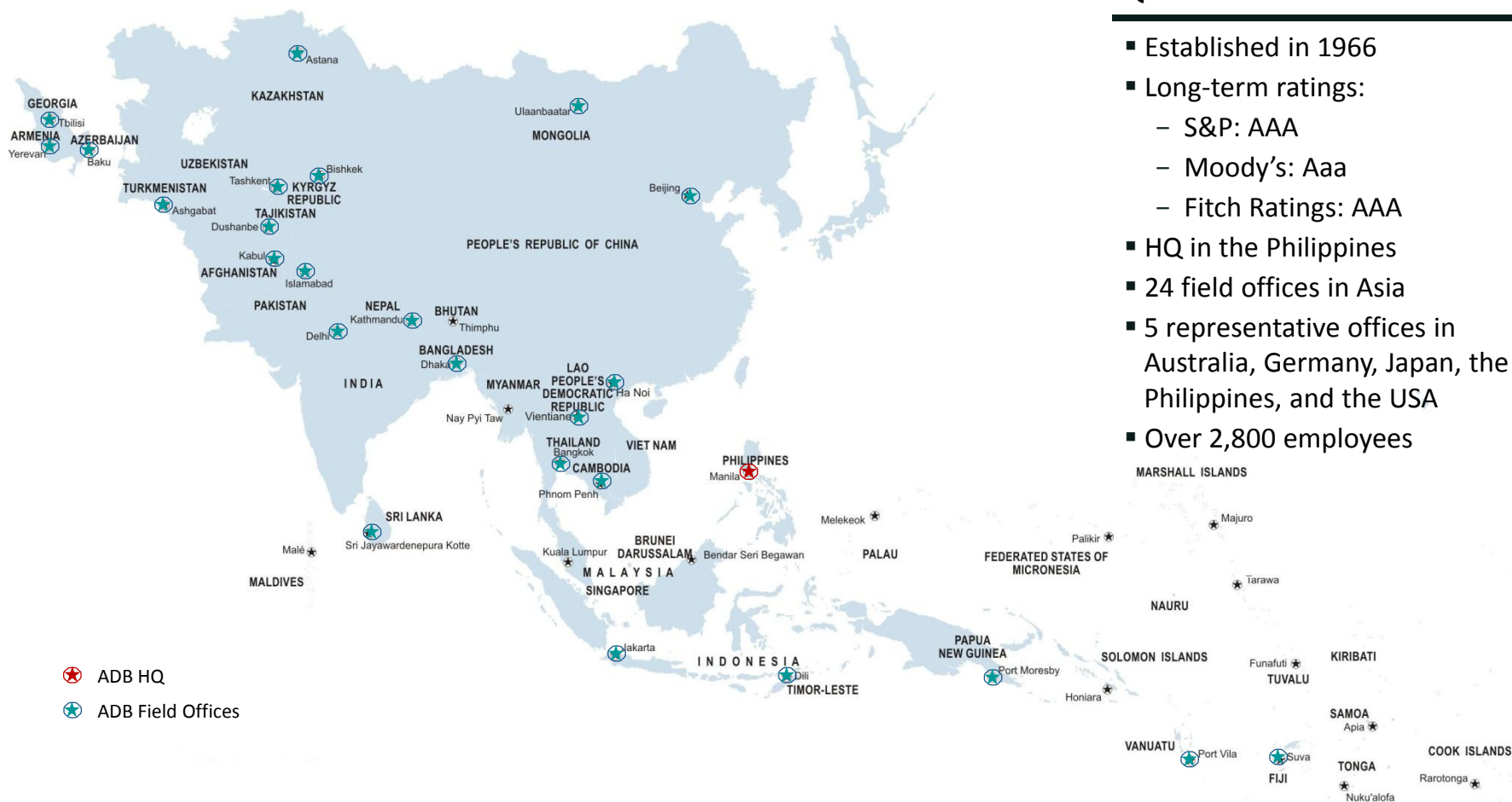
Istanbul, 27 August 2013

The Asian Development Bank

ADB was established by agreement of its member countries to foster economic growth and co-operation in the Asia Pacific region, and to contribute to economic development of its developing member countries in the region, collectively and individually.

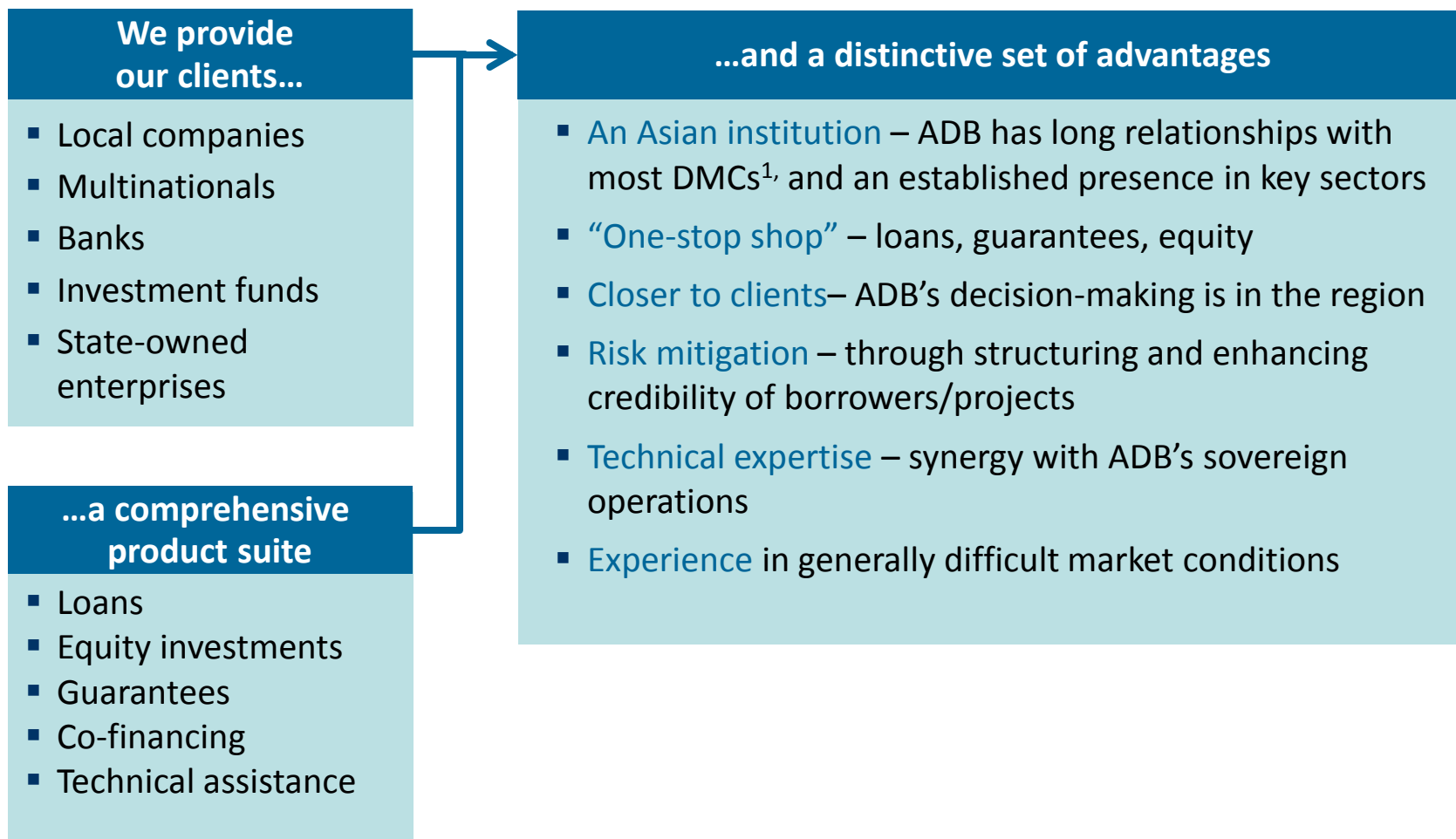
Quick Facts

- Established in 1966
- Long-term ratings:
 - S&P: AAA
 - Moody's: Aaa
 - Fitch Ratings: AAA
- HQ in the Philippines
- 24 field offices in Asia
- 5 representative offices in Australia, Germany, Japan, the Philippines, and the USA
- Over 2,800 employees



Our Value Proposition

Private sector partners benefit from ADB's unique set of advantages.



Notes: (1) DMCs = Developing Member Countries

Our Products

Competitive, well-structured financings to maximize project growth

Loans

- **Direct loan**: market-based pricing with major international and/or local currencies
- **B-loan**: ADB as Lender of Record (funded by eligible third-party financing)
- **Unfunded risk participations**: fronting arrangement with IFIs and/or commercial banks

Guarantees

- **Political Risk Guarantee**: FX restrictions, expropriation, political violence and contract dispute
- **Partial Credit Guarantee**: non-payment by the borrower of the principal and interest due

Equity Investment

- **Investment into enterprises**: common shares, preferred stock, and/or convertibles
- **Investment into financial institutions**: common shares, preferred stock, and/or convertibles
- **Investment into funds**: no involvement in management or control

Technical Assistance

- **Project Preparatory Technical Assistance (PPTA)**
- **Policy & Advisory Technical Assistance (PATA)**
- **Capacity Development Technical Assistance (CDTA)**
- **Research & Development Technical Assistance (RDTA)**

Meeting Basic Human Needs

By financing critical infrastructure and providers, ADB expands access to essential services

Water & Sanitation



- Access to clean and reliable water
- Expand wastewater treatment, sludge management, sanitation, solid waste management, and water recycling

Social Sector



- Access and quality of education and health services
- Assist capable private-sector service providers
- Support ADB's education initiatives

Food & Agribusiness



- Develop the agribusiness value chain for crops delivery, livestock production, and value-added processing


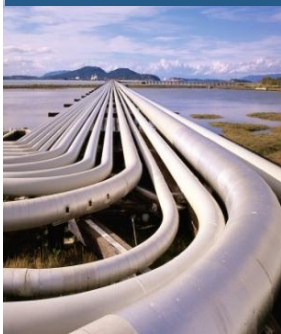




Housing



- Secure safe and permanent shelter
- Partner with major banks and financial institutions
- Promote inclusive growth

Expanding Energy Access for All

For over 40 years, ADB has assisted Asia's energy sector in capital investment, institutional capacity building and governance, and efficiency improvements.

Oil & Gas			Electricity		
Upstream	Midstream	Downstream	Generation	Networks	Utilities
					
<ul style="list-style-type: none">Oil/gas field development	<ul style="list-style-type: none">LNG trainOil refineryOil/gas pipelineOil/gas storage	<ul style="list-style-type: none">Oil/gas distributionPetrochemical productsGas utilities	<ul style="list-style-type: none">Gas-firedHydroWindSolarGeothermalBiomassWaste-to-energy	<ul style="list-style-type: none">High-voltage transmissionInterconnection facilitiesDistribution system	<ul style="list-style-type: none">Power utilitiesIntegrated utilities

Connecting People

ADB recognizes logistics and communications are key elements for commercial activities, and necessary for industrialization and economic growth.

Information & Communication Technologies

Mobile Network



- With ADB's financial assistance, the price of mobile service could lower while accessibility improves

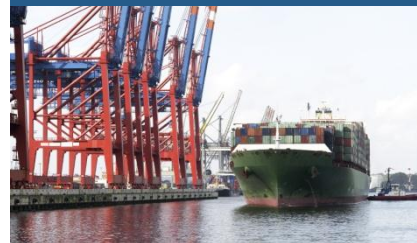
Broadband



- Broadband networks can provide remote communities with online services in education and health

Transportation

Ports



Road



Railways



Aviation



- Development of basic infrastructure resolves a key constraint to economic growth

Providing Clean Energy & Addressing Climate Change

Environmentally sustainable development is one of ADB's five core operational priorities.

Solar



- Support solar power (both PV and CSP) as sustainable and affordable energy

Wind



- Support wind power to materialize ADB's vision of wind as energy mainstream

Hydro



- Hydro power is a clean, renewable and indigenous energy source

Geothermal



- Geothermal power strengthens environment and natural resource management

Waste-to-Energy



- Enables waste management and energy generation simultaneously, and reduces DMCs' financial burden to import fossil fuel

Climate Finance



- Create innovative financing solutions with partner banks and financial institutions
- Support private equity and venture capital funds that target clean technology

Energy Efficiency



- Support energy efficiency initiatives and reduce DMCs' incremental generation capacity requirements

Surgil Natural Gas Chemicals (Uzbekistan)



- The largest oil and gas project in Uzbekistan, producing gas for commercial use and for conversion into chemicals
 - Owned and developed by Uz-Kor Gas Chemical as it is the first investment agreement based on strategic cooperation between Korea and Uzbekistan
 - Total project cost is \$4 billion
 - ADB's role:
 - \$125 million direct loan
 - \$275 million Political Risk Guarantee
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- Key Features:
 - The largest multisource financing in Central Asia funded by ADB, KEXIM, KSure, China Dev Bank, NBU, and European ECAs
 - Untested commercial and political risk for PF banks, which ADB helped mitigate through its appraisal and PRG offering



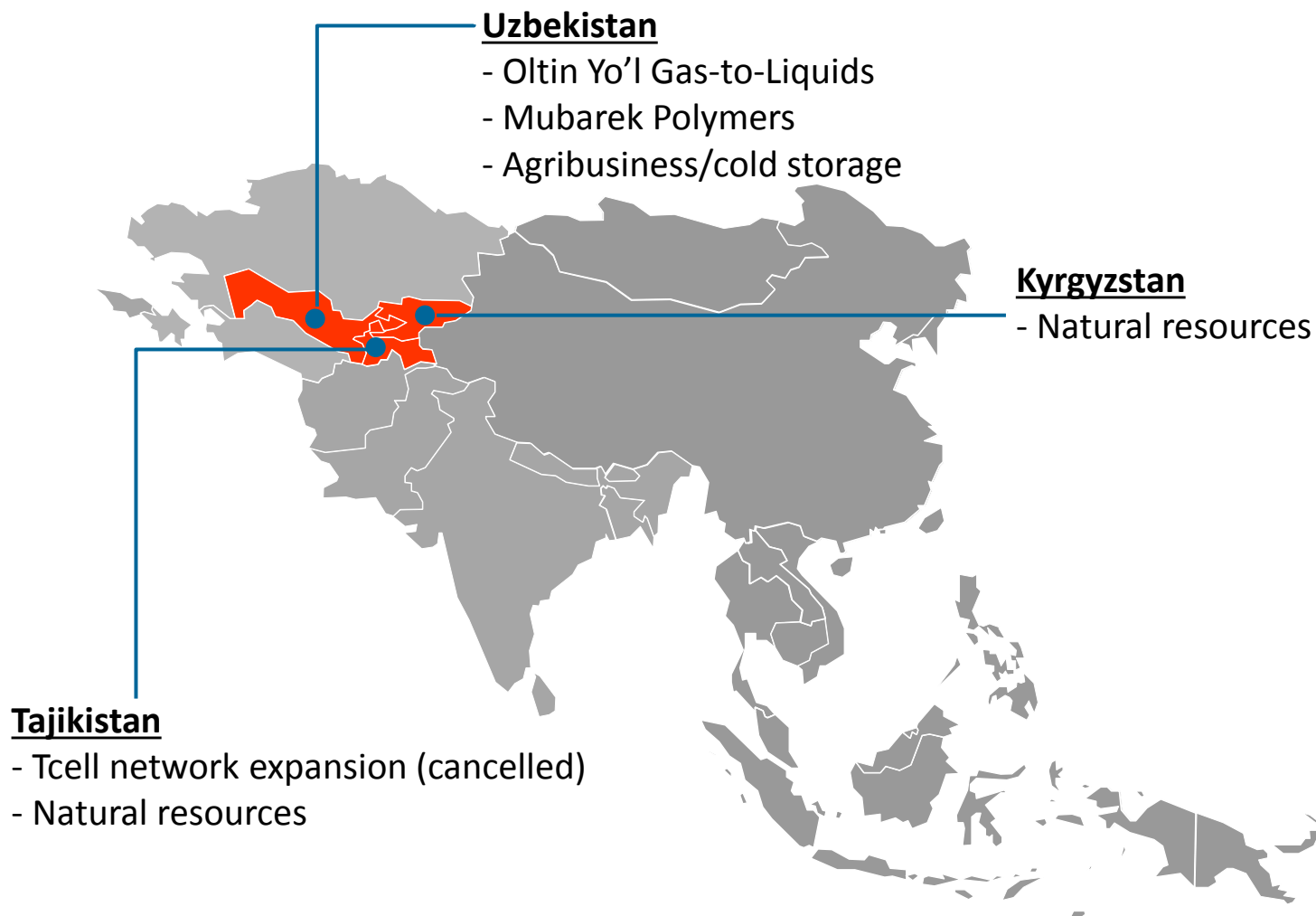
***European Petrochemical
Deal of the Year***

Kandym Gas Field Development Project (Uzbekistan)



- Kandym & Khauzak-Shady are 2 large gas fields in the Bukhara-Khiva region, South of Central Uzbekistan
 - LUKOIL is developing these 2 fields under a PSA signed in June 2004 with a 35-year term
 - ADB's role:
 - \$100 million loan
 - \$200 million of Political Risk Guarantee (PRG)
-
- Key features:
 - First private sector project financed in Uzbekistan
 - First major gas project in UZB with foreign commercial banks financing

Projects Under Early Stage ADB Appraisal



Awards and Recognitions

YEAR	PROJECT	AWARD RECEIVED
2012	THA: Ayudhaya Natural Gas Power Project	Asia Pacific Power Deal of the Year 2012 --Project Finance International
2012	UZB: Surgil Natural Gas Chemicals Project	2012 European Petrochemical Deal of the Year
2012	PAK: Foundation Wind Energy I & II Projects	Pakistan Deal of the Year by Islamic Finance news
2012	AFG: Roshan	US Treasury Department has picked Roshan for the Development Impact Award
2011	PAK: Zorlu Enerji Power Projects	Euromoney Project Finance Magazine Middle East renewables deal of the year award
2009	PAK: New Bong Escape Hydropower Project	Euromoney Project Finance Magazine Middle East renewable deal of the year award
2008	IND: Mundra Ultra Mega Power Project	Thomson Reuters Project Finance International Asia Pacific Power Deal of the Year Euromoney Project Finance Magazine Asia Pacific Power Deal of the Year

Representative Clients

- Banks
- Investment Funds
- Multinational companies
- Local companies
- SOEs



Contact Us



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SUPPLEMENT - SUCCESS STORIES

NED Solar (Thailand)



- IPP thin-film PV solar project in Thailand: net generating capacity of 55MW (73MW gross capacity)
 - Thailand's first utility-scale solar power plant
 - Power sales under 5-year automatically renewable PPA with utility EGAT (with tariff adder)
 - Project cost: \$250 million
 - ADB's role:
 - \$70 million equivalent in THB direct loan (in local currency)
 - \$2 million grant provided by the Clean Energy Fund to cover contingency funding
-
- Key features:
 - Well-developed PPA regime underpins private sector participation in power sector
 - Renewables incentives encouraged investment in new technology space
 - Long-term financing (beyond 10-year tariff subsidy period) improved financial viability

Dahanu Solar Photo Voltaic Power Project (India)



- 40 MW PV solar power generation
 - One of the first and largest PV projects developed to meet the Renewable Energy Purchase Obligation (RPO)
 - SPV 100% owned by Reliance Power Limited
 - Total project cost is: INR6,787 million
 - ADB's assistance:
 - \$48 million debt
-
- Key Features:
 - Supports the RPO requirement
 - Long-term, limited recourse financing to develop large source of untapped, indigenous energy
 - Promotes private sector participation in solar energy
 - Lowers emissions from power generation

Rajasthan Concentrating Solar Power Project (India)



- 100 MW concentrating solar power (CSP) generation
- One of the largest projects under phase 1 of the Jawaharlal Nehru National Solar Mission (NSM)
- Developed by Reliance Power Limited
- Total project cost is: \$415 million
- ADB's assistance:
 - \$103 million debt

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- Key Features:
 - First large-scale commercial CSP project in Asia using compact linear fresnel technology
 - Cofinanced by FMO (Netherlands) and US EXIM
 - Long-term, limited recourse financing to develop large source of untapped, indigenous energy



Foundation Wind Energy I & II Projects (Pakistan)



- The government of Pakistan has set a target to have 5% of renewable in the country's energy mix by 2030
 - Under such policy, Fauji Foundation develops 2 identically structured wind farms near Karachi
 - 50MW each of generated power will be sold to national grid under 20-year PPAs
 - Total aggregate project cost is \$266.4 million
 - ADB's role:
 - \$66.6 million Partial Credit Guarantee: a synthetic Shariah finance with IDB's fronting arrangement
-
- Key Features:
 - The first fully Shariah-compliant facility for ADB
 - Avoidance of total 136 thousand tons per year of greenhouse gas emission
 - Provide local employment in one of the poorest region in Pakistan

Nam Theun 2 Hydropower Project (Lao PDR)



- BOT hydroelectric project in Lao PDR: 1,070 MW
 - Power sold to Thailand under 25y take-or-pay PPA
 - Project cost: \$1.3 billion, \$1.0B debt raised
 - ADB's role:
 - \$50 million project loan
 - \$50 million political risk guarantee
 - \$20 million loan to the Lao government to fund its equity investment in the project
-
- Key features:
 - Large financing requirements: 27 lenders
 - Robust environmental and social safeguards program
 - Multilateral bank financing of Lao PDR's equity stake

Patrind Hydropower Project (Pakistan)



- 147 MW run-of-river hydropower plant on a BOOT basis (30 year concession period)
 - PPA signed with National Transmission & Dispatch Company (NTDC) – Pakistan's state-owned single buyer
 - Financial closure achieved with other co-lenders – IDB and South Korea-Exim
 - ADB's role:
 - \$97 million loan
-
- Key features:
 - ADB's participation assures compliance with international environmental and social practices
 - Reduction in greenhouse gas emissions
 - Generates local employment

Cambodia Power Transmission Lines Ltd. (Cambodia)



- 221-km 115kv BOT transmission line to import electricity from Thailand
 - Addresses insufficient, expensive electricity due to fragmented power system
 - Connects major towns of Siem Reap and Battambang, first power to some villages en route
 - Project cost: \$32 million
 - ADB's role:
 - \$7 million long-tenor (15y) project loan
-
- Key features:
 - Landmark PPP between state utility and CPTL; first project in Cambodia to attract long-term commercial financing
 - First PSOD project in Cambodia

Nong Saeng Power Plant (Thailand)



- Thailand's IPP program promotes low-cost power through competitive project bidding
 - ADB assisted J-Power to finance the 1,600MW Nong Saeng CCGT Plant, 100km north of Bangkok
 - \$1.6B project cost, \$1.2B limited-recourse debt
 - 25-year PPA with EGAT, parallel 25-year contracted gas supply from PTT (via dedicated 20km pipeline)
 - ADB's role:
 - \$170 million project loan (23-year tenor)
-
- Impact:
 - ADB's assistance catalyzed the participation of commercial and bilateral lenders
 - 23-year tenor allows project to sustain a competitive power tariff

Phu My Power Projects (Vietnam)



- BOT power projects in Ba–Ria Vung Tau Province:
 - Phu My 2.2: 715 MW CCGT, 20-year BOT
 - Phu My 3: 717 MW CCGT, 23-year BOT
 - But for both, it is after 20 years after commercial operations date (COD)
 - Power sales to EVN under long-term PPAs
 - ADB's role:
 - Phu My 2.2: \$50 million project loan
\$25 million political risk guarantee
 - Phu My 3: \$40 million project loan
\$32 million political risk guarantee
-
- Key features:
 - First international IPP projects in Viet Nam
 - Established in conjunction with broader BOT regulations (decrees)
 - Well-structured, successful projects set a precedent for subsequent BOT power plants

Masinloc Power Plant Privatization (Philippines)



- 600 MW power plant bid out to private sector to acquire, refurbish, and operate
 - Project supports AES winning bidder (\$930 million acquisition)
 - Electricity generated from the plant is sold through the spot market and bilateral contracts
 - ADB's role:
 - \$200 million loan (with local currency option)
-
- Key features:
 - Privatization builds on ADB advisory to Philippine government on power sector restructuring
 - Plant upgrades are increasing output; improving efficiency; and raising environment, health, and safety standards

ENERGY

Tangguh LNG Project (Indonesia)



- Major greenfield development to extract natural gas with LNG facility of up to 7.6 million tons per annum
 - Total project cost of \$6.3 billion
 - Environmental and social impacts mitigations closely monitored by independent panels and ADB
 - ADB's role:
 - \$350 million loan
-
- Impact:
 - ADB's assistance catalyzed the participation of commercial and bilateral lenders
 - ADB's involvement enhanced investors' commitments to implement comprehensive environment and social safeguards and development programs



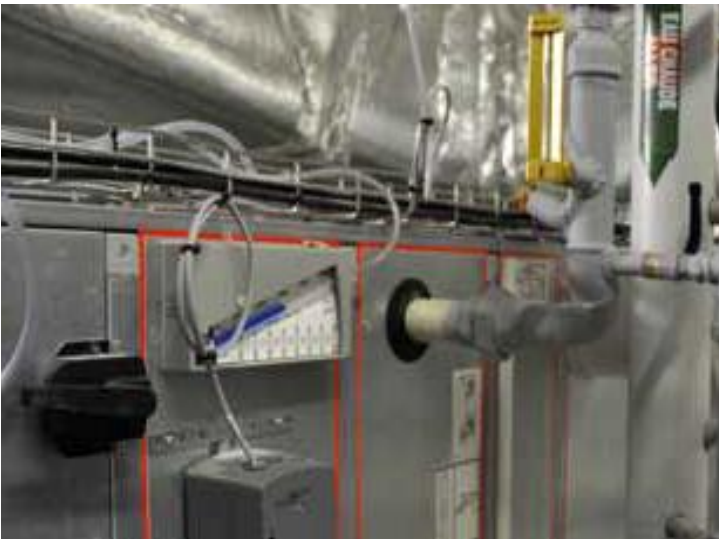
- The first LNG import and regasification terminal constructed in India
 - The first phase capacity of 5 million metric tons per annum (MMTPA) with the intention of expanding to 10 MMTPA in the second phase
 - ADB's role:
 - \$150 million loan in local currency partially risk participated by KfW
 - \$9 million equity investment
-
- Key Features:
 - Developed based on a study conducted by ADB on setting up a public-private joint venture to build and operate LNG terminals
 - Offered other financial institutions to participate in a local currency transaction

China Gas Holdings Limited (PRC)



- Natural gas distribution company with 160 concessions in PRC
 - Promote environment improvement by increasing usage of cleaner fuel (i.e. natural gas)
 - ADB assists to enhance corporate governance to attract investors and financiers
 - ADB's role:
 - \$25 million equity investment
 - \$125 million USD loan
 - \$25 million RMB loan
 - \$125 million B loan
-
- Impact:
 - ADB assisted China Gas to tap both international and PRC financial markets

Southeast Asia Energy Efficiency (Regional)



- Remove financial constraints and information barriers in the development of energy efficiency market
 - Pioneer in multicurrency and multi-project loan in energy efficiency to reduce transaction costs
 - Cooperation with GDF Suez Energy Service, worldwide leader in energy efficiency solutions
 - ADB's role:
 - \$40 million project loan in THB, PHP, IDR, MYR
 - \$ 0.6 million Regional Development Technical Assistance
-
- Key features:
 - Demonstrate the limited risks and reliable returns associated with energy efficiency investments
 - Dissemination of energy efficiency case studies, advocacy of technologies and financing structures
 - Add substantial value in structuring single loan for multiple projects and multiple local currencies significantly reducing transaction costs

Industrial Energy Efficiency Program (Bangladesh)



- Program to encourage investment in energy efficient technologies
 - Contribute to reducing the energy supply-demand gap
 - Target industries – textiles, cement, steel, brick marking and chemicals
 - ADB's role:
 - \$30 million credit line
 - \$1.5 million of Technical Assistance
-
- Key features:
 - Estimated energy savings equivalent to 350GWh per year and reduction in carbon emission up to 150,000 tons per year
 - ADB's first non-sovereign project in Bangladesh since 2004

URBAN INFRASTRUCTURE

Municipal Waste-to-Energy Project (PRC)



- Municipal solid waste is a growing challenge for PRC, with 50% of MSW currently untreated
- ADB supported China Everbright, a leading PRC player in waste-to-energy (WTE), build and operate 4-5 WTE facilities by 2013
- \$650m project expands waste treatment by 8k tons per day, and power output by 800 GWh/yr
- ADB's role:
 - \$100 million direct loan
 - \$100 million syndicated loan (B-loan)
 - \$653,000 technical assistance for knowledge dissemination and capacity building
- Key features:
 - Corporate finance loan, channelled as equity into subproject SPVs
 - ADB's first private sector MSW project

Municipal District Energy Infrastructure (PRC)



- ADB supported Dalkia SAS, world's largest heating provider, to acquire, rehabilitate, and operate district heating JVs with municipal governments
 - Two subprojects in Heilongjiang Province (northeastern PRC): refurbishment of existing network; greenfield development of new district
 - ADB's role:
 - \$150 million loan (in local currency)
 - \$200 million syndicated loan (B-loan); Unutilized
-
- Key features:
 - Catalyzes first foreign investment in PRC's district heating market
 - Corporate finance loan, channelled as equity into subproject SPVs

WATER AND WASTEWATER

Songhua River Basin Pollution Control (PRC)



- Northern PRC's Songhua River Basin is the third-largest, fourth-most polluted basin in PRC
 - ADB assisted Longjiang Environmental Protection (LJEP) with funds to build/upgrade and operate wastewater treatment plants (WWTPs)
 - Projects structured as city BOT concessions
 - Targeted addition of 2 mcm/d of treatment capacity, approx. 10-13 WWTPs
 - ADB's role:
 - \$10 million equity (local currency)
 - \$37 million loan (local currency)
 - \$100 million syndicated loan (B-loan)
-
- Impact:
 - LJEP scaled up 4x under ADB assistance, is now a leading PRC private WWTP operator

Municipal Water Distribution Infrastructure Development (PRC)



- The PRC is gradually privatizing tap water utilities to address widespread underinvestment in the sector
 - China Water Affairs Co. Ltd (CWA) acquires/turns around utilities in partnership with local gov't
 - ADB project will fund CWA equity in 10 new utilities; cut waste, improve water and service for 5m people
 - ADB's role:
 - \$100 million RMB/USD dual currency loan
 - \$100 million syndicated loan (B-loan); Unutilized
-
- Impact:
 - ADB “multi-project” financing package bundles multiple small investments into single loan
 - Local currency option channels proceeds from ADB's landmark “dim-sum” bond issue

ICT

Roshan Telecoms (Afghanistan)



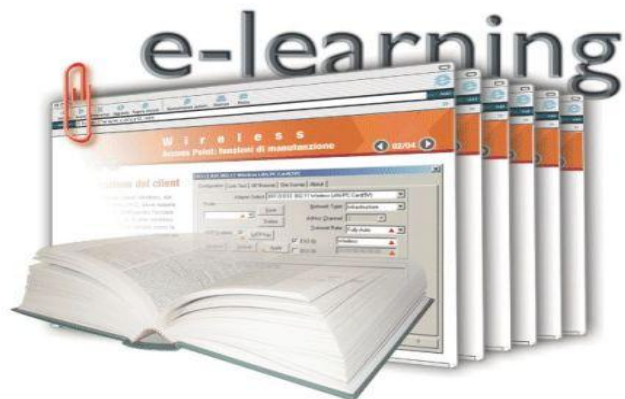
- ADB assists Afghanistan's leading telecom provider for its mobile network expansion and operational industrialization in three phases from 2005 to 2008
 - ADB co-finances with Proparco, DEG, and commercial banks
 - ADB's financing assistance aggregates to a total of:
 - \$130 million direct loans
 - \$22 million B-loans
 - \$7 Political Risk Guarantee
-
- Key Features:
 - Many innovative services have been put in place, including mobile money, telemedicine, women's public call offices, and western-style call center
 - These services increased female employment, extended coverage with lower fees, and provided with unbanked people ways to transfer money

Bemobile Expansion Project (Papua New Guinea)



- Bemobile to strengthen telecommunication backbone infrastructure
 - Upgrading and expansion of existing network in Papua New Guinea
 - Continued roll-out of nationwide network in Solomon Islands
 - ADB's role:
 - \$40 million loan
 - \$9 million of Equity funding
-
- Key features:
 - High political risk project
 - Improved network facilities providing access to rural areas and benefit large no. of rural people

Tele Taleem Education PPTA (Pakistan)



- First education project for many years by PSOD
- Project supports the basic education and technical & vocational training segments through use of e-learning technologies
- Innovative use of reimbursable TA modality; TA funds to be swapped into equity upon TA completion
- ADB's role:
 - \$1.1 million TA facility
 - Investment in an area traditionally in the public sector domain
- Key features:
 - Focuses on UNDP MDG of literacy rates, and access to quality education
 - Removes geographic boundaries between learners/students and teachers/trainers
 - Uses 3,000 plus internet access points across the country

TRANSPORTATION

Bangalore Metro Rail Transit Project (India)



- An urban metro rail transit system in Bangalore comprising two intersecting corridors of 42.3 km, with 40 stations and 2 station depots.
 - The project supports economic growth, employment generation, connectivity, better air quality and time savings
 - Project cost: INR122 billion (\$2.7 billion)
 - ADB's assistance:
 - \$250 million foreign currency loan
-
- Key Features:
 - Innovative funding structure based on financial support from the state government
 - First ADB-supported metro rail project
 - ADB's first non-sovereign transport project in India and first rail project

Zvartnots Airport Phase 2 Expansion Project (Armenia)



- Terminal building is based on latest seismic structural design
 - Best practice in the area of energy management and environmentally sustainable design
 - Project having high risks i.e. reputational risk, completion risk, funding and sponsor risk
-
- ADB's role:
 - \$40 million loan
-
- Key features:
 - First ADB involvement in civil aviation in Armenia
 - First to have less energy intensive terminal