

Roles of Development Banks in Regional Cooperation

Promoting a Sustainable Energy Future
in Northeast Asia: Facilitation of Energy
Cooperation and Its Impact on World
Energy Security

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The disparity

- Just over a billion people in the industrialized countries use 60% of the world's commercial energy supply, while the 5 billion living in developing countries consume the remaining 40%.
- About 1.6 billion people do not have access to reliable modern forms of energy like electricity, and liquid fuels.

THE VISION

ADB's goal in the energy sector is to increase availability and access to energy, particularly for the poor, in a least-cost, clean and environmental-friendly manner.

PAST OPERATIONS

Item	1967-1994		1995-1999	
	No. / %	Amount	No. / %	Amount
Loans, Total ADB	1,288	\$51.1b	364	\$31.2b
Loans, Energy Sector	231	\$12.7b	40	\$4.8b
Share of Energy Sector	17.9%	24.8 %	11.%	15.5%
TAs, Total ADB	2,786	\$970.5m	1,439	\$811.1m
TAs, Energy Sector	317	\$101.3m	141	\$74.1m
Share of Energy Sector	11.4%	10.4 %	9.8 %	9.4%

Recent Operations

Item	2000		2001	
	No. / %	Amount	No. / %	Amount
Loans, Total ADB	74	5,850m	60	5,339m
Loans, Energy Sector	8	1,141m	5	662m
Share of Energy Sector	10.8%	19.5%	8.3%	12.4%
TAs, Total ADB	233	136.9	206	116.5
TAs, Energy Sector	15	9.2	16	9.4
Share of Energy Sector	6.4%	6.7%	7.8%	8.1%

Poverty reduction strategy

recognizes **three** core areas of intervention:

- sustainable economic growth: broad socially and environmentally responsible
- inclusive social development: programs for equity and empowerment
- governance for effective policies and institutions: public sector management, legal and judicial reform, accountability

Cross-cutting themes

Three core areas are complemented by three cross-cutting themes

- Private sector in development
- Regional cooperation: integration, address shared problems, and pool information
- Environmental sustainability: forefront of development planning, and reversing damage

Common approaches

Applicable to all subsectors

- Poverty Reduction: pro-poor growth, focus in pro-poor areas, rural electrification, lifeline tariffs etc.,
- Private Sector Participation: Create enabling environment and catalyze other financing.
- Sector Restructuring: Restructure, including unbundling and establishing competition.
- Social Development: measures to address adverse social impacts, emphasis on analysis of poverty impact.

Common approaches

- Subsidies: Encourage withdrawal of subsidies, except transparent pro-poor subsidies
- Governance: emphasis on accountability, participation, predictability and transparency.
- Environmental Protection: address acid rain problems, and sustainable use of cleaner energy forms.
- Efficiency Improvement: measures to improve efficiency of energy supply and use, including reduction of losses.

Common approaches

- Energy Conservation: measures for energy conservation and DSM.
- Cofinancing: Catalyze additional funds, where needed extend PRG (political risk) and PCG (commercial and political risk), and GEF for renewable energy.
- Capacity Building and Information Systems: preparation and sharing of reliable database for informed decision making.

Regional Cooperation

ADB is leading regional cooperation in Asia and the Pacific and supports the following sub-regional programs:

- Greater Mekong Program
- Central Asian Regional Economic Cooperation Unit
- South Asia Economic Cooperation initiative
- Indonesia, Malaysia, Thailand Growth Triangle
- Brunei, Indonesia, Malaysia, Philippines East ASEAN Growth Area
- Regional Economic Monitoring Unit

Subregional Electricity Trade

- Central Asia
- Greater Mekong Subregion (GMS) comprising: Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, and Yunnan Province in PRC
- South Asia comprising: Bangladesh, Bhutan, India, Nepal, and Pakistan

Electricity Trade in GMS

- ADB-funded subregional study in 1995 to examine the potentials for cooperation
- Policy Statement on Regional Power Trade was adopted in 2001-a commitment to integrate power systems
- Inter-Governmental Agreement on Regional Power Trade (IGA) signed in November 2002
 - Minister-level commitment, principles, creation of Regional Power Trade Coordination Committee (RPTCC)
 - guidelines for establishing RPTCC adopted in 2004
 - ADB-funded advisory TA approved in April 2003 to prepare the Regional Power Trade Operating Agreement, containing specific rules

Electricity Trade in GMS (contd.)

- Regional Indicative Master Plan of Power Interconnection completed in 2002
- ADB loan approved in December 2003 for interconnection between Cambodia and Viet Nam
- Project preparatory TA also approved for GMS Power Interconnection Project (Phase I), to realize benefits of power trade between Thailand and Viet Nam

Cross-Border Trade Issues

- Need to recognize long-term gains from, and work towards, subregional trade
- Perceived threat to national security
- Most countries require large capacity creation to meet projected domestic electricity demand – seek security of supply at a national level

Cross-Border Trade Issues

(contd.)

- Lack of a basic agreement like the Energy Charter
- Lack of harmonization of trading framework
- Multiple standards (voltage level and frequency)
- Countries seeking comparative advantage for direct foreign investments

Cross-Border Trade Issues

(contd.)

- Inadequate understanding of transmission tariffs, transit charges
- Generally, electricity tariffs are below marginal costs and the services are implicitly subsidized; these introduce uncertainties

Cross-Border Trade Issues

(contd.)

- Inadequate regulatory capacity increase risks in all transactions, cross-border transactions are further away
- Problems seen in early stages of competitive electricity markets in developed economies have slowed the move towards similar markets in Asia; the lack of reforms make it difficult to determine the appropriate price of bulk electricity

Sector Reform to Support Regional Cooperation – The Big Picture

Industry structure:

- ↗ Level of competition – The Model
- ↗ Organizational structure and behaviour (“performance culture”)

Desired outcome:

- ↗ Tradeoffs:
 - ↗ Efficiency
 - ↗ Transparency
 - ↗ Pricing (social consequences)
 - ↗ Environmental impact
 - ↗ Security
 - ↗ Regional competition
 - ↗ Realisation of value

Available tools:

- ↗ Clear policy objectives – consistent application
- ↗ Pragmatic approach – practical roadmap
- ↗ Appropriate incentives:
 - ↗ Regulatory framework
 - ↗ Governance arrangements
 - ↗ Related policies (e.g. taxes)
- ↗ Transition arrangements (recognition of constraints)

Reform – One Size Does Not Fit All

- Power sector reform – introduction of competition does achieve benefits
- Each country has made choices based on its own circumstances:
 - nature of transmission system and generation plant
 - degree of development of the legal and contractual framework
 - culture of the country
 - political objectives for electricity industry de-regulation
- Before industry restructuring took place (pre 1990) significant benefits were achieved through regional trading arrangements (e.g. Norway, USA, and Australia) and commercialisation and corporatization

Conclusions

- Technological barriers (communications, protection, metering) are lower now, which allows integration of large power grids
- In the interim, bilateral agreements will continue to provide the basis for electricity trade
- Asian countries generally lack public sector resources, therefore, a suitable private or a public-private model will be needed for cross-border electricity trade

Conclusions (contd.)

- More open electricity trade will be preceded by cross-border natural gas and oil pipelines; these will provide security of supply and help increase the comfort level
- Asia will be the largest electricity consumer and environmental sustainability will be a critical requirement; planners will need to seek new options, including regional least-cost solutions

Conclusions (contd.)

- There is a need of a capable and credible Asian energy agency, which can project subregional energy demand based on inputs from the participating countries, and propose bankable subregional projects
- ADB will continue to play a significant role in supporting the cooperation in the region