ADB

Report and Recommendation of the President to the Board of Directors

Project Number: 47015-003
May 2017

Proposed Policy-Based Loan for Subprogram 3 Islamic Republic of Pakistan: Sustainable Energy Sector Reform Program

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 8 May 2017)

Currency unit	–	Pakistan rupee/s (PRe/PRs)
PRe1.00	=	$0.0095
$1.00	=	PRs104.75

ABBREVIATIONS

ADB	–	Asian Development Bank
CPPA-G	–	Central Power Purchasing Agency Guarantee Limited
DISCO	–	distribution company
ECC	–	Economic Coordination Committee
GDP	–	gross domestic product
GENCO	–	generation company
IMF	–	International Monetary Fund
JICA	–	Japan International Cooperation Agency
MOWP	–	Ministry of Water and Power
MPNR	–	Ministry of Petroleum and Natural Resources
NEPRA	–	National Electric Power Regulatory Authority
NTDC	–	National Transmission and Despatch Company
PCU	–	program coordination unit
PHCL	–	Power Holding Company Limited
SDR	–	special drawing right

NOTES

(i) The fiscal year (FY) of the Government of Pakistan ends on 30 June. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2016 ends on 30 June 2016.

(ii) In this report, "$" refers to United States dollars.

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CONTENTS

PROGRAM AT A GLANCE

1. Basic Data

Project Number: 47015-003

Project Name	Sustainable Energy Sector Reform Program - Subprogram 3	**Department /Division**	CWRD/CWEN
Country	Pakistan	**Executing Agency**	Ministry of Finance
Borrower	Islamic Republic of Pakistan		

2. Sector

Sector	Subsector(s)	ADB Financing ($ million)
✓ **Energy**	Energy sector development and institutional reform	300.00
	Total	**300.00**

3. Strategic Agenda

Strategic Agenda	Subcomponents
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded
Environmentally sustainable growth (ESG)	Environmental policy and legislation Global and regional transboundary environmental concerns

Climate Change Information

Mitigation ($ million)	20.00
Climate Change impact on the Project	Low

4. Drivers of Change

Drivers of Change	Components
Governance and capacity development (GCD)	Anticorruption Client relations, network, and partnership development to partnership driver of change Institutional development Institutional systems and political economy Organizational development Public financial governance
Knowledge solutions (KNS)	Knowledge sharing activities
Partnerships (PAR)	International finance institutions (IFI) Official cofinancing
Private sector development (PSD)	Conducive policy and institutional environment

Gender Equity and Mainstreaming

No gender elements (NGE) ✓

5. Poverty and SDG Targeting

Geographic Targeting	No
Household Targeting	No
SDG Targeting	Yes
SDG Goals	SDG7

Location Impact

Nation-wide High

6. Risk Categorization: Complex

7. Safeguard Categorization

Environment: C **Involuntary Resettlement:** C **Indigenous Peoples:** C

8. Financing

Modality and Sources	Amount ($ million)
ADB	**300.00**
Sovereign Program (Regular Loan): Ordinary capital resources	300.00
Cofinancing	**0.00**
None	0.00
Counterpart	**0.00**
None	0.00
Total	**300.00**

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed policy-based loan to the Islamic Republic of Pakistan for subprogram 3 of the Sustainable Energy Sector Reform Program.[1]

2. The Asian Development Bank (ADB) approved the programmatic approach and subprogram 1 in April 2014, and subprogram 2 in November 2015. The program supports the National Power Policy, 2013 of the Government of Pakistan, which seeks to build an affordable, reliable, sustainable, and secure energy sector to support the country's economic growth.[2] The program, fully coordinated with the International Monetary Fund (IMF) under its extended fund facility,[3] takes a phased approach over multiple years to provide dynamic, long-term support to multidimensional reforms, with subprograms that match the government's budget cycle. The IMF completed its final review in September 2016.[4] The World Bank and Japan International Cooperation Agency (JICA) cofinanced subprograms 1 and 2, and Agence Française de Développement (AFD) will cofinance subprogram 3, which is the third and final year of the programmatic approach[5] and builds on the reforms initiated during previous subprograms.

II. THE PROGRAM

A. Rationale

3. Economic reforms are a priority of the Government of Pakistan. In 2017, the World Bank recognized Pakistan as among the countries with the most improved business environment.[6] After 10 failed attempts, Pakistan successfully completed an IMF program in 2016. Apart from minor deviations, the results of the program were promising: (i) during FY2016, the economy grew by 4.7%, above the global growth of 3.1%; (ii) inflation was 0.8%, well below the IMF target of 4.0%; and (iii) the foreign reserves had more than doubled since June 2013.[7] The IMF believes that as structural reforms take hold, bottlenecks will ease, growth will accelerate, and vulnerabilities will recede.

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1 The design and monitoring framework is in Appendix 1.

2 Government of Pakistan, Ministry of Water and Power (MOWP). 2013. *National Power Policy, 2013.* Islamabad; and ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Programmatic Approach and Policy-Based Loan for Subprogram 1 to the Islamic Republic of Pakistan for the Sustainable Energy Sector Reform Program*. Manila.

3 On 4 September 2013, the IMF board approved a $6.7 billion, 36-month program under IMF's extended fund facility to reduce the inflation rate in Pakistan and lower the country's fiscal deficit to a sustainable level. IMF. 2013. Pakistan: 2013 Article IV Consultation and Request for an Extended Arrangement under the Extended Fund Facility. *IMF Country Report*. No. 13/287. Washington, DC. http://www.imf.org/external/pubs/ft/scr/2013/cr13287.pdf.

4 IMF. 2013. IMF Executive Board Completes the Twelfth and Final Review Under the Extended Fund Facility for Pakistan. News release. 28 September. https://www.imf.org/en/News/Articles/2016/09/28/PR16434-Pakistan-IMF-Completes-Twelfth-Final-Review-Under-the-Extended-Fund-Facility.

5 The programmatic approach's initial design had five subprograms to be implemented annually from FY2014. All result indicators have been met or substantially met except for one (footnote 24).

6 World Bank. Most Improved in Doing Business 2017. http://www.doingbusiness.org/reforms/top-reformers-2017.

7 IMF. 2016. Pakistan: Twelfth and Final Review Under the Extended Arrangement, Request for Waivers of Nonobservance of Performance Criteria, and Proposal for Post-Program Monitoring-Press Release; Staff Report; and Statement by the Executive Director for Pakistan. *IMF Country Report*. No. 16/325. Washington, DC. https://www.imf.org/external/pubs/cat/longres.aspx?sk=44327.0. As of the end of FY2016, Pakistan's gross public debt stood at 66.5% of gross domestic product (GDP), while its net public debt was 60.2% of GDP. Under the Fiscal Responsibility and Debt Limitation Act, 2005 (as amended), the government must reduce public debt to 60% of estimated GDP by FY2018, and progressively reduce public debt to 50% of GDP during a 15-year transition period.

4. Energy data also demonstrate the positive results of the reforms: (i) load shedding in urban areas was reduced from 12 hours in FY2013 to 6 hours in FY2015; (ii) electricity losses were reduced, while collections increased; and (iii) better fuel management helped cut power generation costs. However, Pakistan's electricity generation capacity is about 5,500 megawatts short, and the inadequate energy supply has been a constraint to the economy. Further, only two-thirds of the population have access to power.[8] Despite the improvements, persistent blackouts and brownouts negatively affect investor confidence and economic growth.

5. Resolving energy problems require massive investments that cannot be accomplished solely by the state, even with assistance from development partners. The financing gap can only be closed by improving self-financing capacity and by attracting private investments globally. Sector reforms are crucial for enhancing the business environment for long-term investments.

6. Since the 1990s, Pakistan has taken steps to restructure and improve its energy sector, but the results have been mixed and the expected outcomes were not always achieved. Previous reforms led to the unbundling of the Water and Power Development Authority into 15 corporatized entities: nine regional power distribution companies (DISCOs), four thermal power generation companies (GENCOs), the National Transmission and Despatch Company (NTDC), and the Water and Power Development Authority. Central Power Purchasing Agency Guarantee Limited (CPPA-G), the country's sole buyer and seller of electricity, used to be a unit within NTDC but became an independent corporate entity in 2015. The government fully owns all these companies except for the Karachi Electric Supply Company, which was privatized in 2005. Independent power producers generate 56% of the country's power. The National Electric Power Regulatory Authority (NEPRA), established in 1997, sets tariffs, issues licenses, and regulates the sector.

7. In 2013, the government settled PRs480 billion in electricity payment arrears (circular debt).[9] Since that time, arrears have accumulated at a slower pace, reaching PRs321 billion by the end of FY2016, slightly above the target set in subprogram 2.[10] Major causes of this continued accumulation include (i) the ambiguity in legislation, which has blocked the government's efforts to introduce surcharges and other policy decisions to boost the sector's financial sustainability; and (ii) delays in the privatization of the DISCOs. In addition, various entities are challenging over 1,300 of NEPRA's decisions, including those related to surcharges, in court. Since an average case has a 7-year life span, court challenges add uncertainty to the investment climate. Public disclosure of the sector's operational and financial information has improved, but misinterpretation of sector data is often used for political purposes.

8. The government is expecting significant investments in Pakistan's energy sector. The China–Pakistan Economic Corridor initiative has attracted $33 billion in investments through 2022, primarily for electricity generation and transmission.[11] Of this amount, about 80% is from private investors. Decisive reforms are needed to (i) further reduce the gap between end-user and cost-recovery tariffs,[12] (ii) streamline the sector's legal and regulatory environment; and (iii) institutionalize information disclosure.

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[8] National Electric Power Regulatory Authority (NEPRA). 2016. *State of the Industry Report, 2015*. Islamabad.

[9] Circular debt represents payables to electricity producers and fuel suppliers, caused by insufficient cash flows from power DISCOs.

[10] Fiscal Analysis (accessible from the list of linked documents in Appendix 2).

[11] China–Pakistan Economic Corridor. Energy Priority Projects. http://cpec.gov.pk/energy.

[12] The gap between end-user and cost-recovery tariffs is the difference between (i) cost-recovery and NEPRA-determined tariffs; and (ii) NEPRA-determined and government-notified tariffs, which are balanced through subsidies.

9. **Tariff and subsidies.** A primary goal of the program is to improve the financial sustainability of the energy sector. Electricity subsidies introduced by previous governments surged to 1.8% of gross domestic product (GDP) in FY2013. A time lag in determining tariffs delayed the reflection of current costs in electricity prices. These factors, combined with legislative constraints that prevent policy actions from recognizing higher losses and lower collections in areas with security concerns, have led to insufficient financial resources to fully pay for electricity and fuel supply, exacerbating the circular debt problem.

10. The program is intended to help the government remove these financial constraints. In 2014, the Economic Coordination Committee (ECC) approved the National Power Tariff and Subsidy Policy Guidelines, which eliminated subsidies for industrial, commercial, and residential consumers that use more than 300 kilowatt-hours per month. As a result, subsidies decreased to 0.8% of GDP in FY2015 and 0.7% in FY2016; a further decrease to 0.4% of GDP is envisaged for FY2017. The subsidies were focused to benefit the poor and the middle class, and further cuts are subject to the social considerations. Under the previous subprograms, NEPRA approved multiyear tariff guidelines and all DISCOs submitted 5-year investment plans, which is the first step under the multiyear tariff mechanism to reduce the overall time required for tariff determinations. The first multiyear tariffs were determined in subprogram 3 (para. 24).

11. In October 2014, the government introduced surcharges to service the debt obligations assumed by Power Holding Company Limited (PHCL)[13] as part of a previous effort by the government to clear accumulated circular debt. These surcharges were stayed by the Lahore High Court because of ambiguity in legislation. In June 2015, the Supreme Court allowed the reinstatement of the surcharges until a final decision is issued. The legislative changes under subprogram 3 eliminate the ambiguity in the law and therefore ensure that the government can secure revenue sources for the sector by imposing surcharges when required (para. 23).

12. **Sector performance and private sector participation.** Government initiatives requiring DISCOs to protect revenues and commit to operational and financial targets under performance-based contracts resulted in an increase in electricity bill collections from 86.0% in FY2013 to 94.4% in FY2016, and a reduction of losses from 21.9% to 17.8% in the same period. Further improvements can be achieved through investments that are supported by ADB and other development partners.[14] A key achievement under the previous subprograms was to separate the commercial settlement functions of the Central Power Purchasing Agency from the NTDC, the grid's technical operator. The CPPA-G buys electricity on behalf of DISCOs, but it is envisaged to expand into Pakistan's wholesale electricity market. Further operationalization of the CPPA-G was supported under subprogram 3 through NEPRA's approval of a market operator fee for CPPA-G activities (paras. 25 and 27).[15]

13. Energy-efficiency awareness in Pakistan is low. Through subprogram 2, the government developed energy-efficiency guidelines and labels for three energy-intensive types of

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[13] The government created the PHCL in 2009 to issue indebtedness that was used to pay off the debt accumulated by DISCOs, GENCOs, the NTDC, and other energy sector entities. In 2009, PRs226 billion was transferred from these entities to the PHCL. In 2015, PHCL's debt increased to PRs335 billion and has since remained unchanged.

[14] ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Islamic Republic of Pakistan for the Second Power Distribution Enhancement Investment Program.* Manila.

[15] ADB. 2014. *Technical Assistance to the Islamic Republic of Pakistan for Strengthening Central Power Purchasing Agency*. Manila; and ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Islamic Republic of Pakistan for the Second Power Transmission Enhancement Investment Program.* Manila.

appliances. Subprogram 3 further institutionalized energy efficiency and conservation by passing legislation that promotes energy efficiency and conservation (para. 26).

14. Because of civil unrest, the government suspended ambitious plans to privatize DISCOs and GENCOs through strategic sales. However, under subprogram 3, the government took an alternative approach to improving efficiency in electricity enterprises by initiating steps toward the public offering of minority interest in three DISCOs (para. 25).

15. The program supports the government's initiative to reduce the country's dependence on imported fuel through the development of the domestic gas subsector. The greater use of fuel through economic growth has resulted in increased imports and balance-of-payment issues, which constrains further growth. Reforms in the electricity and gas subsectors are crucial in resolving the link between growth and fuel imports. Subprograms 1 and 2 supported the implementation of the Petroleum Exploration and Production Policy, 2012 by introducing competitive gas pricing for existing and new gas concessions.[16] Subprogram 3 initiated the corporate restructuring of the state gas subsector and the regulatory environment to respond to market needs (para. 28).

16. **Accountability and transparency.** Before the program, the state-owned power utilities did not systematically share Pakistan's electricity information with the public or other stakeholders. However, through previous subprograms, (i) the NTDC created web-based open access to operational information; (ii) DISCOs began publishing monthly billing and collection data; (iii) NEPRA has been analyzing and publishing the performance of DISCOs since 2011; and (iv) the CPPA-G publishes on its website the amounts due and payments made by each DISCO to the CPPA-G, and by the CPPA-G to each generator, including arrears. These steps contributed to greater participation of the stakeholders in restructuring the sector. Transparency was further enhanced under subprogram 3 by (i) providing training to the media to improve its understanding of the operational and financial information disclosed by the sector operators, and (ii) publishing the results of NEPRA's monitoring reviews of these operators (para. 29).

17. **Development coordination.** Subprogram 3 was prepared in coordination with the AFD, the IMF, JICA, the World Bank, and other development partners to increase the program's overall economic impact in Pakistan. The development partners coordinated closely on the proposed amendments to the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, commonly known as the NEPRA Act, to ensure that they reflect best practices for oversight and regulation of energy sector operations.

18. **Lessons.** The National Power Policy[17] and the programmatic approach follow the recommendations of the Friends of Democratic Pakistan Energy Sector Task Force, which ADB co-chaired with the government.[18] Through the Energy Sector Restructuring Program, ADB supported the initiation of key sector reforms in 2000.[19] Energy sector reforms were also part of the Accelerating Economic Transformation Program in 2008 and 2009.[20] Lessons related to the

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[16] Since the beginning of the program, the government has signed 46 new gas concessions and 105 supplementary agreements.

[17] Government of Pakistan, MOWP. 2013. *National Power Policy, 2013.* Islamabad.

[18] Membership consists of the government and 26 donors, including the People's Republic of China, France, Germany, Japan, the United Kingdom, and the United States. Friends of Democratic Pakistan, Energy Sector Task Force. 2010. *Integrated Energy Sector Recovery Report & Plan.* Islamabad.

[19] ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loans to the Islamic Republic of Pakistan for the Energy Sector Restructuring Program*. Manila.

[20] ADB. 2008. *Report and Recommendation of the President to the Board of Directors: Proposed Program Cluster and Loans for Subprogram 1 to the Islamic Republic of Pakistan for the Accelerating Economic Transformation*

actual implementation of the reforms designed under the previous programs and subprograms 1 and 2 of the Sustainable Energy Reform Program are reflected in the design of subprogram 3.

19. **Link to country partnership strategy.** The program aligns with the priorities of ADB's country partnership strategy for Pakistan, 2015–2019, which emphasizes policy reforms and structural transformation in the energy sector to remove the barriers to economic growth, stimulate job creation, and improve macroeconomic and political sustainability.[21] The program is included in ADB's country operations business plan, 2017–2019 for Pakistan.[22] Reform policy actions will contribute to knowledge-related issues, which align with the midterm review of ADB's Strategy 2020.[23] Taking a holistic approach to the sector, ADB will continue policy dialogue through project interventions and may consider further policy-based lending with the government after the general elections.

B. Impact and Outcome

20. The impact of the overall program will be a more reliable, sustainable, and secure energy sector that supports the country's economic growth. The outcome will be an improved reliability, sustainability, and affordability of the energy system.

C. Outputs

21. All fourteen policy conditions for subprogram 3 were attained in the period from January 2016 till May 2017. The dynamics of the reform program required the revision of some policy actions.[24] The entire program was originally designed to support the government's reform initiatives through five annual subprograms corresponding with the government's fiscal year, commencing from FY2014. However, as it will likely not be feasible to pursue additional significant policy reforms until after the general elections scheduled for mid-2018, subprogram 3 is planned as the last for this program. Overall, the program achieved a broader range of reforms than initially planned and, as of the end of subprogram 3, most of the result indicators for the entire program, as specified in the policy matrix, had been achieved or partially achieved.[25] Subprogram 3 delivered three outputs.

22. **Output 1: Tariffs and subsidies managed.** The main objective of this output was to propose legislative changes that will allow the government to address the financial sustainability issues of the sector. On 2 May 2017 the Council of Common Interests approved amendments to one of the fundamental laws of the energy sector, the NEPRA Act, and submitted them to Parliament for consideration. This major additional achievement of the program (i) clearly defined the roles of and the functional separation between the government as the policy maker and NEPRA as the sector regulator, (ii) improved the decision-making process and accountability of the government as a policy maker and NEPRA as a sector regulator, (iii) clarified the definition and applicability of surcharges, and (iv) established the foundation for the

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Program. Manila; and ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loans for Subprogram 2 to the Islamic Republic of Pakistan for the Accelerating Economic Transformation Program*. Manila.

[21] ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

[22] ADB. 2016. *Country Operations Business Plan: Pakistan, 2017–2019.* Manila.

[23] ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and the Pacific.* Manila.

[24] A comparison of indicative triggers and prior actions of subprogram 3 (planned at the time of subprogram 2) is in Appendix 4, Table A4.1.

[25] Only one indicator was not attained. Details of the results indicators under subprograms 1–3 are in the planned and actual results indicators of the policy matrix in Appendix 4, Table A4.2.

development of a competitive electricity market.[26] The amendments to the NEPRA Act would better align the operations of the electricity regulatory framework of Pakistan with international best practices, which is crucial to attracting private investments.

23. Approval of the NEPRA Act amendments will enable the government to update the 2015 circular debt management plan, which placed clearance of the stock of the debt entirely on the proceeds generated by the proposed strategic sale of electricity enterprises to the private sector. After parliamentary ratification, these amendments, taken together with the sale of minority stakes in certain DISCOs through public offerings, will allow the government to reduce the flow and stock of the debt, which stood at PRs374 billion at the end of December 2016. The updated plan has different scenarios to manage circular debt. Application of surcharges starting from 2019 are expected to reduce the stock to PRs240 billion by the end of FY2021, and the combination of full cost-recovery tariff and surcharges could bring it down to PRs65 billion by the end of FY2021. The amended act will also allow the government to impose surcharges for environmental protection, energy efficiency, demand management, climate change management, and energy supply security.

24. In 2016, NEPRA issued determinations on multiyear tariffs for three DISCOs and annual tariffs for all remaining DISCOs. However, as with other tariff determinations, eight DISCOs challenged the determinations in court (para. 7). Following a practice of other jurisdictions around the world, the proposed NEPRA Act amendments would introduce an appellate tribunal to deal with the issue. The tribunal would be subject to strict deadlines to review appeals of NEPRA's decisions and, if found to have merit, would return the case to NEPRA for further action consistent with the decision. NEPRA, in turn, would be bound by strict timelines to reconsider its decisions. The time-bound mechanism aims to substantially reduce the processing time of future appeals.

25. **Output 2: Sector performance and market access for private sector participation improved.** The change to the electricity structure supported under subprogram 2 required revisions to the security package offered to new investors in the electricity subsector and a novation of the existing commercial agreements. The government bifurcated nine power purchase agreements and transferred commercial responsibilities from the NTDC to the CPPA-G.[27] On 28 April 2017, the ECC approved and published the new security package. In addition, the government merged the Alternative Energy Development Board and the Private Power Infrastructure Board, both established to promote private sector participation in the electricity subsector but for different scales and types of energy, for operational efficiency purposes.[28] The government was planning to improve operational efficiency of the DISCOs through strategic sale, however, the original privatization plan required a revision as a result of public resistance. Forced as an alternative solution, in 2016 the Cabinet Committee on Privatization approved initiating the steps toward a public offering of a minority interest in three DISCOs.

26. Efficiency is pursued by the government in other areas as well. Based on the foundation created by previous subprograms, the government passed the National Energy Efficiency and Conservation Act into law in July 2016. The act established the National Energy Efficiency and Conservation Authority, which develops mandatory energy-efficiency labels and recommends standards, carries out energy audits; prohibits the manufacture, sale, or import of equipment that is not energy efficient; and imposes fines for using energy-intensive appliances.

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[26] NEPRA Act amendments were submitted for parliamentary ratification in May 2017.
[27] The remaining agreements will be gradually novated as permits and licenses expire.
[28] The federal government approved the amendments to the Private Power Investment Board Act, 2012 on 27 April and submitted them for parliamentary ratification on 19 May 2017.

27. Anticipating the increase in electricity participants and the development of a competitive power market, NEPRA established the Electricity Sector Market Operations Unit in July 2016 and approved a market operator fee for the CPPA-G in January 2017. Separately, in response to demand, NEPRA developed transmission tariff guidelines that were published in April 2017.

28. After the successful application of the Petroleum Policy, 2012 in subprograms 1 and 2, the Ministry of Petroleum and Natural Resources (MPNR) directed its attention to the gas subsector. On 9 September 2016, the MPNR adopted a mid- and downstream gas subsector restructuring plan, which was prepared with World Bank support. As a first stage, the MPNR has completed the operational and accounting unbundling of the transmission and distribution businesses of Sui Northern and Sui Southern companies. Legal unbundling is expected to be completed by the end of FY2018. To ensure the adequacy of the new structure, on 11 August 2016, the MPNR initiated a review of the roles and responsibilities of upstream and downstream regulatory agencies.

29. **Output 3: Accountability and transparency in power subsector achieved**. During FY2016 and part of FY2017, NEPRA published performance evaluation reports on public GENCOs, DISCOs, Karachi Electric Supply Company, and NTDC compliance with license provisions. However, energy sector data is complex and often misunderstood by media. In May 2017, the Ministry of Water and Power (MOWP), together with other sector stakeholders, conducted the first media training on how to use and interpret sector data disclosed on the websites of the NTDC, the CPPA-G, DISCOs, and the ministry itself. Media training of this type is expected to become a regular activity.

D. Development Financing Needs

30. ADB approved and disbursed subprogram 1 as a single-tranche loan of SDR257,443,000 ($400 million equivalent) in April 2014. ADB approved and disbursed two loans in December 2015 under subprogram 2: (i) a loan of SDR213,543,000 ($300 million equivalent) from ADB's Special Funds resources, and (ii) a loan of $100 million from ADB's ordinary capital resources. These loans were used to fund the government's budgetary needs for FY2014 and FY2016. The policy matrix (Appendix 4) lists actions taken prior to Board consideration for subprograms 1–3. The government has requested a regular loan of $300 million from ADB's ordinary capital resources to help finance subprogram 3.[29] The loan will have a 15-year term, including a grace period of 3 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan agreement. Based on the custom amortization method, the average maturity is 10.45 years, and there is no maturity premium payable to ADB. The AFD will provide collaborative cofinancing for subprogram 3 in the form of a loan in the amount of €100 million. The AFD loan will have a 20-year term, including a grace period of 5 years; and an annual interest rate based on the 6-month euro LIBOR plus 55 basis points (floating), with an appraisal fee of 0.25% and no commitment charges. The programmatic approach will support reforms outlined in the development policy letter (Appendix 3) and the policy matrix (Appendix 4).

31. The subprogram 3 loan is for general budget support and does not finance any specific budget item. The amount of the loan for subprogram 3 was determined based on the

[29] The initial amount of subprogram 3 as contemplated in subprogram 1 (ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Programmatic Approach and Policy-Based Loan for Subprogram 1 to the Islamic Republic of Pakistan for the Sustainable Energy Sector Reform Program*. Manila) was $150 million. The increase in the loan amount is justified by the additional accomplishments of the reform program (footnote 24).

government's financing needs until the results of the reforms are fully realized. The government's internal procedures will require about 6 months before legislative changes in the NEPRA Act are reflected in the notified tariffs. Meanwhile, the government will have to support the cost of excess losses and lower collections, which for the 6 months are estimated at PRs55 billion. Total ADB financing and cofinancing under subprogram 3 is PRs42.6 billion.

E. Implementation Arrangements

32. The ECC is the final government authority on the reforms. The Ministry of Finance is the program's executing agency, supported by a program coordination unit (PCU). The PCU has overall responsibility for coordinating program monitoring and reporting. The MPNR and MOWP are the implementing agencies, supported by their monitoring units established under previous subprograms. Each monitoring unit is responsible for program reporting and discussing implementation issues with the PCU. The monitoring units submit reports to the ECC, which are also provided to ADB and cofinanciers.[30] The technical assistance to support the program is provided by ADB, JICA, the United States Agency for International Development, the World Bank, and other development partners through their ongoing and new initiatives. The proceeds of the policy-based loan will be withdrawn following ADB's *Loan Disbursement Handbook* (2015, as amended from time to time).

III. DUE DILIGENCE

A. Economic and Financial

33. The proposed policy reforms under the program will support economic growth through increased energy investments by tapping private funding sources, which will be achieved by the program's outputs and outcome.

34. Circular debt is the major financial issue in the power subsector. As of the end of December 2016, payables to power producers and fuel suppliers amounted to PRs374 billion. This represents an increase of about 80% from the end of FY2013 after the PRs480 billion clearance. Despite improvements in the subsector's performance, the remaining losses and collection issues, and the gap between NEPRA-determined tariffs and actual cost-recovery levels continue to hamper DISCOs' ability to make full power purchase payments. In the first quarter of FY2017, the reflection of higher capacity charges from a settlement of royalty issues with provincial governments contributed to a rapid increase in generation costs and circular debt. As the subsector suffers from a chronic shortage of funds, it remains vulnerable to these unplanned events. A sound regulatory framework that allows for full cost-recovery tariffs, a dispute settlement mechanism, and surcharges when required, which the NEPRA Act amendment tries to establish, will be key to the financial sustainability of the subsector (para. 23).

35. The government has successfully reduced the amount of electricity subsidies during the program, which overlapped with the IMF program period. Electricity subsidies in FY2016 were PRs171 billion, significantly less than PRs292 billion in FY2014 and PRs221 billion in FY2015.[31] The key factor in controlling the amount of electricity subsidies was the introduction of tariff rationalization surcharges as a cross-subsidy mechanism in different parts of the country. With the surcharges in place, the government estimates FY2017 electricity subsidies to be

[30] Technical Memorandum (accessible from the list of linked documents in Appendix 2).
[31] Government of Pakistan, Ministry of Finance. 2015. *Federal Budget 2015–16: Budget in Brief.* Islamabad.

PRs118 billion, or about 0.4% of GDP. Clarity on the government's power to introduce required surcharges through NEPRA Act amendments therefore plays a key role in managing subsidies.

B. Governance

36. In line with its Second Governance and Anticorruption Action Plan,[32] ADB conducted a governance, institutional, and corruption risk assessment in 2015 as part of the preparation of the country partnership strategy for Pakistan. In the assessment, Pakistan's score for various governance indicators fell below the regional average in 2012. However, the country has made progress in improving accountability, increasing transparency, and raising efficiency. The government has embarked on several reforms to strengthen the institutional framework, including budget management, financial accounting, and reporting and expenditure controls. As part of the IMF extended fund facility, the government has changed its tax policy to increase transparency. In September 2016, Pakistan became signatory to OECD's Multilateral Convention on Mutual Administrative Assistance in Tax Matters, which aims to tackle tax evasion and avoidance through adoption of international best practices. Overall improvement in the governance system resulted in the improved credit rating of Pakistan.[33] Since 2014 focus has been on capacity building and training at the federal and provincial levels. A fiduciary risk assessment found that overall fiduciary risk at the federal level remains *medium* to *high* despite progress observed in individual areas about public expenditure and financial accountability assessment. Internal control and audit requires improvements, as does the legislative oversight of budget formulation and execution. Although the institutional setup for public procurement has been established, the government has to make additional efforts to augment the capacity and budgets of the procurement authorities. To support the government's public financial management reforms, initiatives financed by various development partners should be coordinated and complementary.

37. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government. The government is acting against corruption, which includes monitoring and reporting work by the public accounts committee of Parliament.

C. Poverty and Social

38. The reforms supported under the program will accelerate economic growth and help create jobs, which are key to reducing poverty. Reliable power will benefit poor and vulnerable consumers, including hospitals and schools, which are hit hard by inadequate power supply, load shedding, and poor power quality. Small industries will be able to operate for more hours per day and thereby increase productivity, which in turn will create more work opportunities for the poor. Increases in the Human Development Index are strongly correlated with access to commercial electricity supplies. The indirect benefits of a reliable energy supply include reduced work time and improved health of household members through a reduction of fume-related indoor pollution, and water- and food-borne diseases through refrigeration and boiling of water and food.

D. Safeguards

39. The subprogram has been assessed *category C* for the environment, involuntary resettlement, and indigenous peoples. Policy actions to be supported under the subprogram are

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[32] ADB. 2006. *Second Governance and Anticorruption Action Plan (GACAP II)*. Manila.
[33] Trading Economics, Pakistan Credit Rating. http://www.tradingeconomics.com/pakistan/rating.

not expected to have any adverse direct or indirect impacts on the environment, involuntary resettlement, or indigenous peoples.

E. Risks and Mitigating Measures

40. Major risks and mitigating measures are summarized in the table and described in detail in the risk assessment and risk management plan.[34] The integrated benefits and impacts are expected to outweigh the costs.

Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
The country's overall public financial management issues prevent the effective use of this policy loan.	The budget framework for FY2017 has undergone close consultation with the IMF, and the IMF program was successfully completed in October 2016.
Increased electricity payables discourage private investments in the power subsector.	Amendments to the NEPRA Act allow the Government of Pakistan to take additional policy actions, including introducing surcharges to address the flow and stock of electricity payables.
Reforms stall because of the change in government due to the outcome of the general elections in 2018.	ADB will continue the policy dialogue and lead the coordination of development partners' activities in energy sector reforms to ensure timely implementation of the medium-term development policy agenda.
Legislative process may be slow and face resistance from vested interests.	The program is based on the government's own policy and reform initiative and is backed by strong political will and commitment. The program is strongly supported by the donor community, and technical assistance will be provided to assist the government.

ADB = Asian Development Bank, IMF = International Monetary Fund, NEPRA = National Electric Power Regulatory Authority.
Source: Asian Development Bank.

IV. ASSURANCES

41. The government has assured ADB that implementation of subprogram 3 shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement, as described in detail in the loan agreement.

V. RECOMMENDATION

42. I am satisfied that the proposed policy-based loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve the loan of $300,000,000 to the Islamic Republic of Pakistan for subprogram 3 of the Sustainable Energy Sector Reform Program, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 15 years, including a grace period of 3 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Stephen Groff
Vice-President

25 May 2017

[34] Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

DESIGN AND MONITORING FRAMEWORK

Impact the Program is aligned with
More reliable, sustainable, and secure energy sector that supports the country's economic growth attained (National Power Policy, 2013)[a]

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Reliability, sustainability, and affordability of the energy system improved	a. Gas supply increased to 5.0 billion scfd by June 2017 (2013 baseline: 3.8 billion scfd) b. Private investment as a share of total investments in the power subsector increased to 23% by June 2018 (2012 baseline: 19%) c. Average power distribution and transmission system losses reduced to 17.86% by June 2017 for all DISCOs and the NTDC (2013 baseline: 21.86%) d. Gas unaccounted for reduced to 8% by June 2018 (2013 baseline: 11%) e. Power subsidy reduced to 0.3%–0.4% of GDP by June 2016 (2013 baseline: 1.8%)	a. OGRA report b. NEPRA state of industry report c. NEPRA state of industry report d. OGRA report e. Ministry of Finance data	Reforms stall because of the change in government due to the outcome of the general elections in 2018.
Outputs 1. Tariffs and subsidies managed	1a. Tariff determination for all DISCOs reduced to within 4 months of submission of petition by June 2017 (2013 baseline: more than 7 months) 1b. Guidelines for DISCO tariff determination issued by 2015 (baseline: not applicable)	1a–b. NEPRA website	Legislative process may be slow and face resistance from vested interests.
2. Sector performance and market access for private sector participation improved	2a. Collection rate of DISCOs improved to 94% of total billing by 2017 (2014 baseline: 89%) 2b. Age of government receivables reduced to 90 days by June 2016 (2013 baseline: 410 days for provincial and 180 days for federal)	2a. NEPRA state of industry report 2b. Annual audited financial statements of the DISCOs	Increased electricity payables discourage private investments in the power subsector.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	2c. Energy-efficiency labels for the 20 most energy-intensive appliances issued by June 2018 (baseline: not applicable)	2c. Energy-efficiency standards	
	2d. Payment arrears kept below PRs314 billion starting from 2015 (2013 baseline: PRs503 billion)	2d. MOWP website	
	2e. Long-term, least-cost generation and transmission expansion plan issued; and bidding for additions to three new power generation plants based on LCP completed by January 2018 (baseline: not applicable)	2e. Government official gazette	
	2f. At least 5% of new gas supply contracted directly to large gas customers and producers by January 2018 (baseline: not applicable)	2f. Government official gazette	
	2g. Performance targets set in the executed performance contracts met by all DISCOs by December 2017 (baseline: not applicable)	2g. NEPRA state of industry report	
	2h. CPPA-G becomes operational as an independent agency by October 2015 and starts bulk customer trading by December 2017 (baseline: not applicable)	2h. Amended NTDC license	
3. Accountability and transparency in the power subsector achieved	3a. All key operational and payment information of the power subsector published on the CPPA-G's and DISCOs' websites by January 2016 (baseline: not applicable)	3a. CPPA and DISCO websites	
	3b. Licensees' performance information published on the NEPRA website and updated monthly by January 2018 (baseline: not applicable)	3b. NEPRA website	
		3c. MOWP website	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	3c. Monitoring report on the implementation status of the National Power Policy, 2013 issued (baseline: not applicable)		
Key Activities with Milestones Not applicable.			
Inputs ADB: $300 million (ordinary capital resources)			
Assumptions for Partner Financing AFD: €100 million			

ADB = Asian Development Bank, AFD = Agence Française de Développement, CPPA-G = Central Power Purchasing Agency Guarantee, DISCO = distribution company, GDP = gross domestic product, LCP = least-cost generation plan, MOWP = Ministry of Water and Power, NEPRA = National Electric Power Regulatory Authority, NTDC = National Transmission and Despatch Company, OGRA = Oil and Gas Regulatory Authority, scfd = standard cubic feet per day.

[a] Government of Pakistan, MOWP. 2013. *National Power Policy, 2013.* Islamabad.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=47015-003-3

1. Loan Agreement
2. Sector Assessment (Summary): Energy
3. Contribution to the ADB Results Framework
4. Development Coordination
5. Economic Analysis
6. Country Economic Indicators
7. International Monetary Fund Assessment Letter[1]
8. Summary Poverty Reduction and Social Strategy
9. Risk Assessment and Risk Management Plan
10. List of Ineligible Items

Supplementary Documents

11. Fiscal Analysis
12. Technical Memorandum
13. Fiduciary Risk Assessment

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[1] The linked document is the press release related to the recent Article IV review dated 5 April 2017. According to the International Monetary Fund (IMF), responses to multilateral development banks' requests for the IMF assessment of a country's macroeconomic conditions and policies will be conveyed whenever possible through the most recent press release; Chairman's statement produced in the context of Article IV surveillance, IMF-supported program, or staff monitoring program; or a previous assessment letter, if it remains valid. Barring any major changes in country circumstances, the public information notice, Chairman's statement, or previous assessment letters are expected to remain valid up to 6 months. An assessment letter would only be called for if (i) the most recent assessment is more than 6 months old, or (ii) IMF staff considers that there have been material changes in the country's circumstances that call for an updated assessment.

DEVELOPMENT POLICY LETTER

No.415-FM(1)/2017

Senator Mohammad Ishaq Dar
Minister for Finance, Revenue,
Economic Affairs, Statistics and
Privatization

ISLAMABAD
9th May, 2017

Dear President Nakao,

The government continues to pursue its long term strategy to strengthen macro-economic stability and improve its economic growth. Our policies have begun to bear fruit and this is evident in successful completion of the IMF program in 2016 and improvement in GDP growth rate which remained highest in 8 years. We wish to maintain the momentum of the programme especially with respect to:

- Fiscal consolidation and stability;
- Rebuilding foreign exchange reserves; and
- Structural reforms.

Our efforts in the energy sector remain central to this programme, and its reform will directly impact the overall economic growth of Pakistan. Through this letter we wish to inform you of the progress of the Government of Pakistan's energy sector reform programme and our plans for the future. Our focus has been the development of a credible and actionable programme which can be supported over the medium term by the Asian Development Bank (ADB) and Agençe Française de Développment (AFD).

I. RECENT DEVELOPMENTS

We inherited severe economic imbalances and vulnerabilities in May 2013. In the previous five years, economic growth had averaged below 3%, well below potential and about half its average of past decades, and inflation was running at about 11.8 percent. By end-June 2013, State Bank of Pakistan's (SBP's) international reserves had dropped to around 1.5 months of imports; investment to GDP ratio had fallen to 15.0 percent; tax to GDP ratio had declined to 9.8 percent while the fiscal deficit was 8.2 percent of GDP.

Our democratic transition in May 2013 went a long way to support the implementation of effective measures to address Pakistan's challenging economic situation. As a result of our reform efforts and initiatives, we have been able to make considerable progress in restoring macroeconomic stability. During the fiscal year ending June 30, 2016 (FY16), growth continued to pick up and reached 4.7 percent; tax to GDP ratio was improved to be 12.4%; and the fiscal deficit was contained at 4.6 percent.

Pakistan's electricity sector, which is a pivotal contributor to the overall economic situation, was facing a severe crisis in June 2013. Despite tariff increases, revenues were still falling short of costs, and the government subsidized electricity to the tune of about 1.8 percent of GDP in FY13. Chronic electricity shortages, peaking at an estimated level of over 7,000MW in 2013 contributed to reduced economic output. The circular debt had reached PKR 503 billion in mid - 2013. The underlying cause of this problem was, and to a large extent remains, our over-dependence on the expensive imported fuel used for generation. Additional factors that affected the availability of electricity for consumption were high levels of losses and theft, and poor equipment maintenance.

In the past two years we have seen significant improvements in the financial and technical performance of the electricity sector. By virtue of significant tariff increases in August and October 2013, subsidies were substantially reduced for industrial, commercial and bulk consumers and households using more than 300 kilowatt hours (kWh) per month. With the introduction of surcharges aimed at recovering some costs disallowed from the tariff, we further reduced subsidies in FY16 to 0.7 percent of GDP. At the end of FY16, losses had decreased to around 17.8 percent, and collections had edged up to 94.4 percent. We have enforced merit order dispatch of power generation plants, pushing down the cost of generation and the increased generation thus enabled, plus new plant additions, means that we have been able to keep up with demand growth: last year the average daily shortfall was 2500 MW compared with 2,900MW in FY15 and 3,800MW in the year before that. This has allowed us to reduce load shedding to six hours in urban areas and eight in rural areas, while also supplying uninterrupted electricity to industry.

There is still more to do. Technical losses and theft remain higher than acceptable, and bill collection needs further strengthening. The circular debt has re-emerged despite our payment of PKR 480 billion in June and July 2013, because revenues from sales to consumers and subsidies from government do not cover the full cost of supply. Load shedding needs to be further brought down by making sufficient inroads into the generation deficit and strengthening transmission system. We continue to bring significant additional finance from private and public sources to support the much-needed investment in electricity infrastructure that will improve supply and bring down costs.

II. OUR PROGRAMME

A. The Government's Vision and Objectives for the Energy Sector

In July 2013, within three months of taking office, we announced a National Power Policy, 2013. The key goals and targets envisioned under the Policy include:

Goals	• To enhance generation capacity in a sustainable manner • Promote and ensure a culture of conservation and responsibility • Ensure affordable electricity, based (where possible) on indigenous fuels • Minimize losses (technical, financial) and inefficiency • Control pilferage and theft, and • Align the sector ministries provincial and federal authorities, regulators, and implementing entities, to coordinate activities, and strengthen governance
Targets – to be achieved	Decrease/eliminate the demand/supply gap – 4500 - 5000 MW today to zero by end 2017

by 2017	• Decrease weighted average generation cost from about USc 12/kWh today, to below 10 USc per kWh • Reduce transmission and distribution losses from 23-25% today to about 16% • Increase collection rates from 85% (system wide) to above 95%, and • Reduced decision time for the Government, related departments, regulators, etc.

In September 2013, the Government prepared a detailed plan aimed at turning this vision into an actionable programme. Subsequently, the programme was discussed with stakeholders, including the private sector, academia and civil society, multilateral and bilateral partners, the utility providers, and their respective role in support of the programme was identified, i.e.

- Supporting the implementation of the Government's policies;
- Ensuring that public sector counterparts and utilities meet their obligations for various projects and programmes; and
- Enabling the Government to monitor the progress in achieving the objectives and targets set out in the Government's policies, and take corrective actions where required.

The proposed policy actions, and for which we seek support from ADB and AFD, are discussed in more detail below.

B. Structural Reform of the Energy Sector

We attribute the positive results in the sector that we have described above in large part to the reform programme which was supported under the first phase of programme lending approved in April and May 2014. We wish to maintain this program and look to the continued support of your institutions through the proposed third phase of programme lending. In this next phase, the reform programme is aimed at continuing to improve the financial viability of the power sector but also in bringing about lasting structural reform that will encourage improved service and additional investment. It involves a three pronged strategy, i.e.

- To manage better tariffs and subsidies;
- To improve sector performance and open the market to private participation; and
- To improve the transparency and accountability of sector institutions.

1. Managing Tariffs and Subsidies

Following the policy issued by government in early 2014, and the guidelines of tariff determination issued by the National Electric Power Regulatory Authority (NEPRA) in FY15, three Power Distribution Companies (DISCOs), namely Faisalabad Electric Power Supply Company (FESCO), Islamabad Electric Power Supply Company (IESCO) and Lahore Electric Power Supply Company (LESCO), have received multi-year tariff determination. While these and other DISCO tariff determinations are challenged at court for the level of allowable losses and collections, the Multi Year Tariff (MYT) will bring stability to tariff determination and in the five year tariff period, adjustment will be formula-based and therefore much quicker.

We decreased government subsidies for electricity consumption from 1.8 percent of GDP in FY13 progressively to 1.3 percent in FY14, 0.8% in FY15 and to 0.7 percent in FY16. Subsidies remain now only for households which use less than 300 kWh/month, certain classes of consumer including those in Federally Administered Tribal Areas (FATA), Balochistan and some bulk power consumers. We will continue to make efforts to reduce subsides to the electricity sector to 0.4 percent in FY17 and on. We will also take steps to ensure that the remaining subsidies are focused on the poor.

We have also eliminated the subsidy mechanism that was used to finance the uniform tariff policy through the introduction of a surcharge as permitted under the Regulation of Electricity Generation, Transmission and Distribution Act of 1997 (NEPRA Act). However, the government's right to raise surcharges has been challenged in the Courts due to the ambiguity in the Act. As a consequence, amendments to the NEPRA Act were prepared and submitted to the parliament for ratification. NEPRA Act amendments clarify the power of the government and enable imposition of surcharges as needed including debt servicing surcharge and Neelum Jhelum Surcharges.

The proposed NEPRA Act amendments also allow incorporation of real costs in the electricity tariff. In particular, there is still a shortfall between the combination of revenues from sales to consumers and subsidies provided by the government on the one hand, and the cost of running the system on the other. The shortfall gives rise to the circular debt and is caused by a number of factors, including:

- Sector inefficiencies arising from DISCOs having higher levels of losses and lower levels of collections (in areas where security is a concern) than those allowed by the Regulator;
- Discrepancies in the tariff regime that does not recognize some costs, including the cost of delays in determination of new tariffs;
- Some costs are imposed on the DISCOs by virtue of government policy, including subsidies, and failure by Federal and Provincial government departments to pay their bills.

We developed a circular debt management plan in FY16. With the revisions to our divestment program, this management plan also needed to be updated. First, the government is still committed to the divestment process and utilizing receipts to pay the outstanding stock of circular debt. The updated plan, therefore, entails reduction of outstanding stock through Initial Public Offering (IPO) of GEPCO in 2017 and two DISCOs (IESCO and FESCO) in FY 2017/18 and eventually through strategic sale of DISCOs beginning from FESCO in FY2018/19 till FY2021/22.

In case the IPO/divestment process is delayed, there will be a funding gap which will increase the stock of arrears. The funding gap can be eliminated by promulgation of Surcharge, which will be contingent on the court decision and NEPRA Act amendments. In case the court decision comes in GOP's favour and privatization program is delayed, the GOP can levy a surcharge equivalent to the loss in privatization proceeds to reduce the outstanding stock of arrears. In either case when the privatization takes place or a surcharge is levied, the outstanding stock of arrears is estimated to decrease in the plan from 374 billion rupees in FY2017 to 224 billion rupees in FY2021.

In the updated CD capping plan, we have considered another potential policy where the regulator allows higher than average T&D losses for DISCOs and less than 100% recoveries. Currently NEPRA has allowed only 15.3% of average T&D losses and 100% recoveries. However, some DISCOs experience levels of losses that are up to 5-10% worse than those allowed, and of collections that are up to 20-30% lower than the 100% recovery assumed by the regulator. Until recently the late payment surcharge charged by IPPs due to late or short payment of invoiced amounts but not allowed to be collected in the tariff and service of debt incurred to pay for operational inefficiencies beyond the NEPRA target were also not permitted to be collected in the tariff. A revisit to the regulatory regime may be warranted to curtail the further build-up of flow and stock of circular debt. The combination of the CD reduction surcharge and the level of losses and recoveries closer to reality is expected to help the government reduce the circular debt to PRs 65 billion.

2. Improving Sector Performance and Opening the Market to Private Participation

We have identified three areas of action on which our program efforts will focus to improve the performance of the sector. The first is to address efficiency of machinery and appliances, on both the supply and the demand side, and thus ensure we extract maximum value from our investments in the electricity sector. To that end, the Energy Efficiency and Conservation Act was enacted in 2016, and a new authority dedicated to energy conservation activities, National Energy Efficiency and Conservation Authority, was established. We intend to use this vehicle to prioritise energy conservation in our future electricity policy.

On the supply side, the lack of focus on selection of least cost generation projects, and the failure to optimize generation and transmission investments has contributed toward the high cost of supply. We are well advanced in the preparation of a generation and transmission long-term least-cost plan to ensure that only those projects are considered for implementation which take into account considerations of location, fuel choice, and economic cost of power to be produced over the lifetime of the project, as well as making explicit social, environmental and other associated safeguard costs. We will ensure that least-cost plan is submitted to NEPRA during FY16. Thereafter we will ensure rigorous implementation of the plan and will not finance in the public sector, or approve investments by the private sector that do not feature in the least cost plan. We will also adhere to the retirement schedule in the plan, so that old and inefficient plants are taken out of service and replaced with modern, efficient and reliable plants.

The second area where we are focusing our efforts is in the gas sector. We recognize the importance of natural gas to the power sector as well as to other key industries. Domestically-produced gas is a readily-available, comparatively inexpensive and environ mentally-friendly fuel for electricity generation companies. We are making efforts to ensure that exploration and production of gas in Pakistan has adequate incentives, and have awarded 46 new concessions for exploration and production of domestic gas in August 2013. Simultaneously, we adopted a model supplementary agreement that gives better prices to existing concessions. Since completing the DPC prior action in June 2015, we have converted further two gas concessions bringing the total to 105 existing agreements of 120 that applied and were eligible for the new prices under the 2012 Petroleum Policy. In the coming year we will start amendments to the concession agreements to provide 2012 policy prices to incremental gas produced from existing concessions. In the medium term we will review the results achieved under the 2012 policy with a view to making the domestic gas sector more attractive to private capital.

To supplement our domestic supplies, we started importing liquefied natural gas (LNG) in April 2015 and have adopted a policy of cost recovery in the gas sector. We have defined those consumers who are eligible to receive LNG, namely power generation, bulk consumers, fertilizer production and compressed natural gas, since these are the ones that are able to extract the maximum economic value from gas. We have also mandated that these users of LNG will pay the full cost of the gas. No LNG will be added to the pool of domestic production and no consumer who does not pay the full cost of LNG will be supplied with it.

We prepared a plan and started restructuring of the mid and downstream gas sector. First steps, operational and accounting separation of transmission and distribution business units have already been completed. In response to the new gas sector structure, we initiate a comprehensive review of upstream and downstream gas regulatory framework.

The third area is the power sector reform. As part of the government plans to commercialize the operations of DISCOs and improve efficiencies, we initially intended strategic sales of DISCOs during this government's term. While some privatization attempts in other sectors were successful, the electricity sector faced significant challenges, especially in consultation with the labour unions. This led us to revise the electricity sector divestment program and Cabinet Committee on Privatization approved the initial public offerings of DISCOs instead of strategic sales. As DISCOs faced financial challenges in FY16, the initial group of DISCOs for IPOs have yet to commence the process. But we have identified Gujranwala Electric Power Supply Company (GEPCO) as the next candidate and aim for its IPO by FY18.

On the electricity trading market development, NEPRA has formally established a market development unit to prepare for the development of new market models, rules and regulations in the near future. Further, NEPRA has issued a determination of the first market operator fees for Central Power Purchasing Agency Guarantee Limited (CPPA-G), a single buyer that was separated from the National Transmission and Despatch Company in 2015 as a part of the efforts in subprogram 2. We have made further progress in this development by novating 9 power purchase agreements by including CPPA-G as a party to a tri-partite agreement to clarify the role of market operator and system operator.

3. Improving Accountability and Transparency

Implementation of actions under the Petroleum Exploration and Production Policy 2012 and National Power Policy, 2013 is monitored regularly by the ECC of the Federal Cabinet. Review at the highest level demonstrates the importance which the Government attaches to implementing the energy sector reform plan.

We established a mechanism for monitoring of the power and petroleum policies set out in this letter during the period of subprogram 1. These units have produced monitoring reports in both electricity and gas sectors as key areas of the energy sector reform. They have just published comprehensive reports to sum up the reform activities thus far since 2013. We have established monitoring units in MWP and MPNR charged with monitoring of the progress of the reforms, reporting to the ECC and disseminating energy sector information to the public.

Further measures to promote transparency, some of which have already been initiated, will increase access to information in the energy sector through implementing web-based access to operational information on electricity generation, including the merit order dispatch. We have also publicly made available on the CPPA-G website the monthly amounts due and payments made by DISCOs and to generators.

We implemented public web-based information about the performance of key sector players. NEPRA has published its review of the performance of DISCOs, GENCOs, K-electric and NTDC on its web site; DISCOs have published their own annual performance reports on their web sites. We also initiated media training where all public entities of the sector explained the information posted on their respective websites. We are strongly committed to ensuring that all the information we publish is kept up to date.

Sd/-

Mr. Takehiko Nakao
President
Asian Development Bank

III. GOVERNMENT COMMITMENT

We take this opportunity to reiterate our commitment to reforms and dealing with the policy issues. We have already taken difficult decisions including substantial tariff increases and the settlement of the power sector circular debt which are already yielding positive results. We are committed to continue to take necessary decisions to improve the power sector's financial viability.

You will appreciate that the measures described above to reform the energy sector constitute the strongest efforts yet undertaken for many years. Notwithstanding, we recognize that bringing the energy sector back on track requires continued efforts. The government's plan to deal with the structural impediments to the performance of the energy sector is matched by our commitment for improving the quantity and quality of physical investment in the sector, wherever possible with private sector investment participation.

In closing, I would like to express our continued appreciation to ADB and AFD for working with the government in the development of a single programme for the energy sector that is closely integrated and coordinated with other development partners. We look forward to continuing to work closely with your institutions in our common purpose of improving Pakistan's economic prospects.

Kind regards,

Sincerely,

Mr. Takehiko Nakao,
President,
Asian Development Bank,
Manila,
Philippines

POLICY MATRIX

Objective	Prior Actions completed in Subprogram 1	Prior Actions completed in Subprogram 2	Prior Actions completed in Subprogram 3	Results
Policy Area A: Managing Tariff and Subsidy				
Adoption of clear policies on tariffs and subsidies to target low-income consumers; ensuring policy implementation through NEPRA rules and regulations; and reduction of discretionary policy decisions and lag in tariff approval and implementation.	1. The ECC approved the Tariff and Subsidy Policy Guidelines covering: (i) subsidy policy for low-income residential customers; (ii) multi-year tariffs; (iii) guidance for tariff setting as envisaged in the NEPRA Act, including forward-looking fuel price adjustment through NEPRA proceedings; and (iv) guidance for circular debt management: (a) monthly accounting for arrears of payment by DISCOs to CPPA, and (b) mechanism to cap the overdue payables to the power generators. 2. NEPRA published on its website for consultation draft guidelines for DISCOs tariff determination covering principles, methodologies, timetable, formula and procedures for annual tariffs and MYTs, including: (a) a procedure for DISCOs to submit investment costs prior to filing of petition; and (b) adjustment mechanisms during the year, including formula-based forward-looking automatic FPA.	1. Nine DISCOs submitted tariff petitions to NEPRA for FY2015, including forms and data requirements stipulated in the NEPRA Guidelines for Determination of Consumer End Tariff, in order for NEPRA to start tariff determination; and 8 DISCOs submitted 5-year investment plans in order for NEPRA to start the determination of MYTs in FY2016. 2. MOWP has published on its website a cap for total due and overdue payables to generators not to exceed PRs314 billion and a plan to reduce the flow of new overdue payables to PRs39 billion by FY2018.	1. NEPRA issued determination on MYT for 3 DISCOs. 2. Bill amending NEPRA Act 1997 submitted for parliamentary approval, enabling the Federal Government to, among others, undertake policy decisions to address financial sustainability of the electricity sector	*Result Indicator A1: Time taken for DISCOS tariff determination.* • Baseline (FY2013): more than 7 months after admission of petition for all DISCOs. • Target (FY2017): within 4 months admission of petition for all DISCOS. *Result Indicator A2: Regulation for DISCOs tariff determination covering methodologies, timetable, formula, and procedures for both annual and MYT, procedure for earlier submission of investment costs by DISCOs, and forward-looking automatic FPA.* • Baseline (FY2012): not notified. • Target: notified by January 2015 *Result Indicator A3: Subsidies reduced.* • Baseline (FY2013): 1.8% of GDP. • Target (FY2017): 0.3%–0.4% of GDP.

Policy Area B: Improving Sector Performance and Opening the Market to Private Participation				
Reducing losses and improving collections in DISCOs.	3. (i) MOWP instructed PESCO, HESCO, SEPCO, and MEPCO to outsource to the private sector collection of their respective feeders with losses of 50% or above; (ii) MOWP instructed all DISCOs to implement revenue protection programs that ensure correct billing; reduce losses (and in particular theft) and improve collections; (iii) the Council of Common Interests initiated discussion on a mechanism to automatically adjust the amount of receivables owed by provincial governments and agencies; and (iv) the federal government adjusted receivables of federal agencies or entities to not exceed 90 days of billing by DISCOs.			*Result Indicator B1: Reduction in distribution and transmission losses.* • Baseline (FY2013): 21.86% for DISCOs and NTDC. • Target (FY2017): 17.86% for DISCOs and NTDC. *Result Indicator B2: Increase collection in DISCOs.* • Baseline (FY2013): 86% of bills collected by DISCOs. • Target (FY2017): 94% of bills collected by DISCOs. *Results Indicator B3: Reduction of government receivables.* • Baseline (FY2013): provincial 410 days, federal 180 days.
Improving demand-side efficiency and strengthening energy conservation.		3. MOWP issued guidelines on MEPS and appliance labeling for at least 3 energy consumption-intensive appliances or technologies	3. National Energy Efficiency and Conservation Bill 2015 enacted and National Energy Efficiency and Conservation Authority (NEECA) established.	*Result Indicator B4: Notification of energy efficiency standards.* • Baseline (FY2013): no MOWP issued MEPS. • Target (FY2017): at least five MEPS issued by MOWP.
Managing generation cost through the LCP, and ensuring new generation follows the LCP.	4. MOWP issued an instruction establishing the principles and process for NTDC to prepare and periodically update the long-term least-cost generation and transmission expansion plan.		4. NEPRA approved Transmission Tariff Guidelines. 5. A new Act for merging AEDB and PPIB approved by the government for parliamentary consideration.	*Results Indicator B5: Introduce LCP and entry of new generation based on LCP.* • Baseline: no approved LCP. • Target (FY2017): LCP issued and additions

			6. ECC approved new security package for PPIB (revised template Implementation Agreement of PPIB, a template Connection Agreement of NTDC and templates for Power Purchase Agreement and Energy Purchase Agreement of CPPA-G).	to new generation capacity based on LCP.
Increasing gas supply and opening the gas market to direct contracting sales to large gas consumers.	5. (i) MPNR disclosed the 2013 Model Petroleum Concession Agreement on its website, (ii) MPNR announced the award of petroleum exploration blocks for the 2013 bidding round, and (iii) OGRA issued at least 3 pricing notifications under the 2012 Petroleum Policy.	4. MPNR has signed supplemental agreements agreeing to revised prices for 92 exploration concessions and production leases at the levels set out in the 2012 Petroleum Policy, including 26 from the private sector. 5. The Economic Coordination Committee has approved policy directives stating that LNG will be provided to consumers who pay its full cost through the tariff.	7. MPNR approved general restructuring plan for midstream and downstream gas sector and issues respective policy directives to initiate the unbundling. 8. Sui Northern and Sui Southern completed: (i) operational unbundling (separate transmission and distribution business units under same legal company); (ii) accounting unbundling between transmission and distribution business units. 9. MPNR (Gas Sector Leadership Committee) undertook review of the roles and responsibilities of upstream and downstream regulatory agencies to improve efficiency and ensure adequacy in respect of ongoing sector restructuring.	*Result Indicator B6: Increasing gas supply.* • Baseline (FY2013): 3.8 billion scfd. • Target (FY2017): 5 billion scfd.
Commercialization and improvement of the performance of public companies in the power sector.	6. MOWP signed a performance contract, including operational and financial performance indicators and a monitoring framework, with at least 3 DISCOs.	6. MOWP signed performance contracts, including operational and financial performance indicators and a monitoring framework, with all remaining DISCOs, GENCOs, and NTDC. 7. Roadmap for privatization was developed and implementation	10. CCOP approved Initial Public Offering (IPO) for 3 DISCOs.	*Result Indicator B7: DISCOs meet key targets in performance contracts.* • Baseline (FY2013): 3 DISCOs signed performance contracts. Target (FY2017): DISCOs

		started.		meet set performance targets.
Commercial Operation of CPPA as an independent agency to buy power on behalf of DISCOs, and implementation of a multiple buyers market by allowing generators to contract sales directly with large consumers.	7. (i) The Memorandum and Articles of Association of CPPA amended to establish CPPA as an agent to purchase electricity on behalf of distribution companies (including DISCOs); and (ii) CPPA signed on behalf of DISCOs with GENCO's Holding Company on behalf of GENCO, HOAs reflecting key principles for power purchase agreements for existing thermal plants, with the energy price based on heat rate testing; HOAs have been endorsed by the respective board of directors.	8. (i) CPPA-G has demonstrated the operational capability to handle all steps in the billing and settlement cycle of electricity sales by generators and purchases by DISCOs, and (ii) NEPRA has granted an amendment to the NTDC license to eliminate CPPA functions.	11.NEPRA established electricity market operations unit and approved Market Operator's Fee for CPPA-G. 12. 9 Power Purchase Agreements novated to CPPA-G from NTDC.	*Result Indicator B8: CPPA legally, institutionally and operationally independent from NTDC.* • Baseline (FY2013): CPPA is still a unit within NTDC. Target (FY2016): All contracted power generated by IPPs, GENCOs and WAPDA are traded through an independent CPPA.
Policy Area C: Accountability and Transparency				
Increasing access to information in the energy sector.	8. NTDC implemented web-based open access to operational information, including merit order, and daily payment instructions to generators. 9. Each DISCO (i) included the subsidy amount in their customer's bills; and (ii) published on its website monthly billing and collection data aggregated by consumer category.	9. CPPA-G publicly disclosed on its website the monthly amounts due, and payments made, by each DISCO to CPPA-G, and by CPPA-G to generators, including arrears.	13. MOWP together with other sector participants (NTDC, CPPA-G, MOWP, DISCOs) conducted annual joint media training on how to use and interpret sector data disclosed on websites.	*Result Indicator C1: Access to operational and payment information publicly available from website.* • Baseline (FY2013): information not available on website. • Target (FY2017): information available on CPPA and DISCOs websites.
Strengthening NEPRA.		10. NEPRA has disclosed the annual performance and evaluation report of DISCOs, and has initiated outreach actions to consumers regarding the content; DISCOs have disclosed on their respective websites their annual performance reports, including their plans to improve service delivery.	14. NEPRA published the Performance Evaluation Report on the results of review of public generation companies, DISCOs, K-Electric and NTDC compliance with license provisions and actions taken against violations.	*Result Indicator C2: Access to licensees' performance available on NEPRA website.* • Baseline (FY2013): information available only in NEPRA annual State of Industry Report. • Target (FY2017): information available

				on NEPRA website and updated monthly.
Monitoring and Surveillance.	10. ECC approved establishment of monitoring units within both MOWP and MPNR with responsibility for monitoring the energy sector, reporting on a quarterly basis, and publicly disclosing the report; and MOWP and MPNR formulated the scope of work for advisors to review quarterly monitoring reports and provide advice and recommendations on the implementation of the reforms, which will be made public.			*Result Indicator C3: Quarterly reporting and public disclosure on the implementation status of the energy sector reforms.* • Baseline (FY2013): not available. • The reports are published quarterly.

AEDB = Alternative Energy Development Board, CCOP = Cabinet Committee on Privatization, CPPA = Central Power Purchasing Agency, CPPA-G = CPPA Guarantee, DISCOs = distribution companies, ECC = Economic Coordination Committee, FPA = fuel price adjustment, GENCOs = Power Generation Companies, GDP = gross domestic product, HESCO = Hyderabad Electric Service Company, HOAs = Heads of Agreement, IPP = Independent Power Producer, K-Electric = Karachi Electric Supply Company, LCP = least-cost generation plan, LNG = liquefied natural gas, MEPCO = Multan Electric Power Company, MEPS = minimum energy performance standards, MOWP = Ministry of Water and Power, MPNR = Ministry of Petroleum and Natural Resources, MYT = multi-year tariff, NEPRA = National Electric Power Regulatory Authority, NTDC = National Transmission and Despatch Company, OGRA = Oil and Gas Regulatory Authority, PESCO = Peshawar Electric Supply Company, PPIB = Private Power Infrastructure Board, SCFD = standard cubic feet per day, SEPCO = Sukkur Electric Power Company, WAPDA = Water and Power Development Authority.

Table A4.1: Comparison of Indicative Triggers and Prior Actions of Subprogram 3

Original Indicative Triggers for Subprogram 3 (as of Subprogram 2 approval)	Prior Actions in Subprogram 3	Reasons for the change
1. NEPRA issues determination on MYT for at least 2 DISCOs.	1. NEPRA issues determination on MYT for 3 DISCOs.	NEPRA approved MYT for one more DISCO than initially planned.
2. The flow of overdue payables is reduced to PRs[92] billion based on the action plan. 3. The government implements a mechanism based on tariff surcharges and the Universal Obligation Fund to maintain national uniform tariffs in DISCOs while ensuring cost recovery.	2. Bill amending NEPRA Act 1997 submitted for parliamentary approval, enabling the Federal Government to, among others, undertake policy decisions to address financial sustainability of the electricity sector	This is an additional achievement. The revised prior action reflects a more fundamental reform than was initially planned. Amendment of one of the primary electricity sector legislations—Regulation of Generation, Transmission and Distribution of Electricity Act 1997—will enable the government to implement policy actions that will: (i) address the issue of electricity sector payables in a sustainable manner, (ii) identify clear borderlines between policy and regulations, (iii) introduce an arbitral tribunal system to resolve challenges to the regulator's decisions in timely and efficient manner, and (iv) prepare foundation for the creation of competitive electricity marker. The impact of this action will go beyond the energy sector, as it will also reduce the volume of the work imposed on the juridical system when the regulator's decisions are challenged in court, as is the current practice. Originally planned two policy actions are still attained under the revised action. The flow of overdue payables by the end of FY2016 was PRs 63 billion. Tariff rationalization surcharge is currently applied and is envisaged under the revised Circular Debt Management Plan.
4. Each DISCO provides information regarding current revenue protection initiatives, and their plans to comply with a full revenue protection program as instructed in subprogram 1. Outsourcing implemented in 5 DISCOs.	Removed.	The action is not relevant anymore. As a result of the performance contracts (introduced under subprograms 1 and 2), DISCO's are implementing various measures (revenue based load shedding, mobile metering, etc.) to address losses and collections. Reduction of losses and increase in collections have been achieved. Further improvements will be obtained through ongoing infrastructure investments in metering and billing

		systems.
5. Fiscal incentives and/or disincentives are put in place to promote MEPS for at least one energy-intensive technology or appliances.	3. National Energy Efficiency and Conservation Bill 2015 enacted and National Energy Efficiency and Conservation Authority (NEECA) established.	The action was revised in order to create a legal foundation and an institution (NEECA) responsible for promotion of energy efficiency. Based on this, fiscal incentives/disincentives on a broader scale can be introduced.
6. NTDC submits and NEPRA approves long-term least-cost generation and transmission expansion plan.	4. A new Act for merging AEDB and PPIB is approved by the government for parliamentary consideration.	The long-term least-cost generation and transmission expansion plan (prepared under financing from JICA) is being supplemented with a transmission expansion plan, which is expected to be completed by end of FY2018. This will take into account the $30 billion investment envisaged under CPEC which was not envisaged at the time of program design. Meanwhile the government initiated amendment to the PPIB and AEDB acts to simplify procedures for electricity sector investors and to mainstream renewables in the energy mix. Capacity building support will be provided to strengthen auctioning to promote competition.
7. PPIB updates procedures and documentation for the 2002 IPP policy to ensure consistency with the LCP for competitive and unsolicited bids from IPPs for new capacity.	5. ECC approves new security package for PPIB (revised template Implementation Agreement of PPIB, a template Connection Agreement of NTDC and templates for Power Purchase Agreement and Energy Purchase Agreement of CPPA-G).	The first part of the original prior action is reworded to correctly reflect undertaken actions. Soliciting of the projects under LCP can take place only after approval of LCP (see action 6 above).
8. Government approves a restructuring plan for the midstream and downstream gas sector.	6. MPNR approves general restructuring plan for midstream and downstream gas sector and issues respective policy directives to initiate the unbundling. 7. By March 2017 Sui Northern and Sui Southern complete: (i) operational unbundling (separate transmission and distribution business units under same legal company); and (ii) accounting unbundling between transmission and distribution business units.	The restructuring plan, as stated in the original policy matrix, has been approved. Additionally, the implementation of the plan has commenced.

9. MPNR reviews and notifies enhanced/revised 2012 Petroleum Policy to promote additional gas production from domestic onshore and offshore areas.	8. MPNR (Gas Sector Leadership Committee) undertakes review of the roles and responsibilities of upstream and downstream regulatory agencies to improve efficiency and ensure adequacy in respect of ongoing sector restructuring	As a result of lower oil prices, conditions offered under 2012 Petroleum Policy remain competitive and do not require revision. Instead, the government has initiated a review of the gas regulatory legislation, which previously was not envisaged.
10. NEPRA ensures either that (i) all NEPRA licensees (Grid Code participants) are fully integrated into SCADA system, and are reporting to NPCC in real time in accordance with Grid Code requirements; or (ii) if any NEPRA licensees are not in compliance with the foregoing, administrative action has been initiated by NEPRA against such licensee in accordance with the provisions of the NEPRA's rules and regulations. NTDC ensures that the SCADA System under the Load Dispatch Center Phase 2 Project is fully implemented.	9. NEPRA approves Transmission Tariff Guidelines.	During the further technical due diligence under the program it was identified that currently installed SCADA system cannot be used fully for power system operations without augmentation to meet the current system. The government requested ADB to finance a new SCADA project (supported by MFF PAK:48078 Transmission Enhancement Investment Program, Tranche 2). This policy action can be implemented after completion of the SCADA project. This will be put in as condition for further tranches in the MFF. Meanwhile the regulators approved Transmission Tariff Guidelines—a prerequisite for approval of the privately financed transmission projects.
11. CPPA submits and NEPRA approves the market rules, allowing generators direct contract sales to bulk power consumers, and covering market registration, balancing operations, and settlement and billing among market participants.	10. NEPRA establishes electricity market operations unit and approves Market Operator's Fee for CPPA-G. 11. 9 Power Purchase Agreements are novated to CPPA-G from NTDC.	Market rules approved under subprogram 2 already allow direct contracts. However, the government took additional actions to operationalize CPPA-G.
	12. CCOP approves Initial Public Offering (IPO) for 3 DISCOs.	Privatization program through strategic sale was approved under subprogram 2. However, due to the political tensions the original privatization program was suspended. The government decided to undertake alternative approach and privatize energy enterprises through a public offering of minority interests in DISCOs rather than the planned strategic sales.

12. MOWP implements public web-based access to monthly information results of performance contract, provided by DISCOs, NTDC, and GENCOs. 13. MOWP discloses on its website annual operational audit reports provided in accordance with the signed performance contracts.	13. MOWP together with other sector participants (NTDC, CPPA-G, MOWP, DISCOs) conducts annual joint media training on how to use and interpret sector data disclosed on websites.	The public sector companies continue to publish performance information on their websites, including the key indicators in the performance contracts. MOWP decided to undertake a public education campaign to introduce the media to the types of available data and how to interpret it.
14. NEPRA publishes review of WAPDA, GENCOs, DISCOs, K-Electric, and NTDC compliance with license provisions. 15. NEPRA notifies licensees who have not provided adequate information and sanctions them if not provided by [December 2015].	14. NEPRA publishes the Performance Evaluation Report on the results of review of public generation companies, DISCOs, K-Electric and NTDC compliance with license provisions and actions taken against violations.	Wording has been changed to more accurately reflect the nature of the publication. Performance and conditions of license provisions are indicated in the published reports. Application of sanctions was restricted to extreme cases in the existing NEPRA Act. These restrictions will be removed by the proposed NEPRA Act amendments.
16. MOWP discloses on its website annual operational audit reports provided in accordance with the signed performance contracts		

ADB = Asian Development Bank, AEDB = Alternative Energy Development Board, CPEC = China-Pakistan Economic Corridor, CPPA = Central Power Purchasing Agency, CPPA-G = CPPA Guarantee, DISCOs = distribution companies, ECC = Economic Coordination Committee, GENCOs = power generation companies, IPP = independent power producer, JICA = Japan International Cooperation Agency, K-Electric = Karachi Electric Supply Company, LCP = least-cost generation plan, MEPS = minimum energy performance standards, MFF = multitranche financing facility, MPNR = Ministry of Petroleum and Natural Resources, MOWP = Ministry of Water and Power, MYT = multi-year tariff, NEPRA = National Electric Power Regulatory Authority, NPCC = National Power Construction Corporation, NTDC = National Transmission and Despatch Company, PPA = power purchasing agency, PPIB = Private Power Infrastructure Board, SCADA = supervisory control and data acquisition, WAPDA = Water and Power Development Authority.

Table A4.2: Planned and Actual Results Indicators of the Policy Matrix

	Result Indicators	
A1	*Time taken for DISCOS tariff determination.* • Baseline (FY2013): more than 7 months after admission of petition for all DISCOs. • Target (FY2017): within 4 months admission of petition for all DISCOS.	**Partially met**: Most of the tariff petitions were processed within 4 months since admission by NEPRA for FY2016 tariffs. It took 5 months for GEPCO's tariff to be determined. However, until all tariffs are determined, notification cannot be processed. GEPCO's petition was not the last one and this 1 month delay was not a cause of further delay of the process. After all DISCOs appealed the decision in March–April 2016, NEPRA issued its re-determination by 18 May 2016 for all DISCOs. However, this is still pending court decision and thus not notified.
A2	*Regulation for DISCOs tariff determination covering methodologies, timetable, formula, and procedures for both annual and MYT, procedure for earlier submission of investment costs by DISCOs, and forward-looking automatic FPA.* • Baseline (FY2012): not notified. • Target: notified by January 2015	**Met**: MYT guidelines were notified in January 2015, as a part of subprogram 2.
A3	*Subsidies reduced.* • Baseline (FY2013): 1.8% of GDP. Target (FY2017): 0.3%–0.4% of GDP.	**Met** (based on estimates for FY2017): Electricity subsidies have been decreased significantly: PRs472.1 in FY2013, PRs292.0 in FY2014, PRs221.0 in FY2015 and PRs171.2 in FY2016. Budget target of electricity subsidies in FY2017 is PRs118 billion, which is less than 0.4% of the forecast GDP.
Pillar B		
B1	*Result Indicator B1: Reduction in distribution and transmission losses.* • Baseline (FY2013): 21.86% for DISCOs and NTDC. • Target (FY2017): 17.86% for DISCOs and NTDC.	**Met**: System losses were 17.8% for FY2016.
B2	*Result Indicator B2: Increase collection in DISCOs.* • Baseline (FY2013): 86% of bills collected by DISCOs. • Target (FY2017): 94% of bills collected by DISCOs.	**Met**: The collection rate of DISCOs was 94.4% for FY2016.
B3	*Results Indicator B3: Reduction of government receivables.* • Baseline (FY2013): provincial 410 days, federal 180 days. • Target: 90 days by June 2016	**Not met**: [to be verified once we receive government electricity sales data from MOWP]
B4	*Result Indicator B4: Notification of energy efficiency standards.* • Baseline (FY2013): no MOWP issued	**Partially met**: MEPS and labeling standards for three appliances were issued in 2015.

	MEPS. • Target (FY2017): at least five MEPS issued by MOWP.	
B5	*Introduce LCP and entry of new generation based on LCP.* • Baseline: no approved LCP. • Target (FY2017): LCP issued and additions to new generation capacity based on LCP.	**Partially met**: LCP has been prepared but is being augmented with transmission expansion plan (presently under preparation). Therefore, the final approval of the plan is expected by end of FY2018. Soliciting of the projects will only take place after the approval of the LCP.
B6	*Result Indicator B6: Increasing gas supply.* • Baseline (FY2013): 3.8 billion scfd. • Target (FY2017): 5 billion scfd.	**Partially met so far and will likely be met**: Total supply of gas is estimated to be about 4.6 billion cfd as of April 2017. Additional LNG imports of 0.6 billion cfd are expected within 2017, which will make the daily supply above 5 billion cfd.
B7	*Result Indicator B7: DISCOs meet key targets in performance contracts.* • Baseline (FY2013): 3 DISCOs signed performance contracts. • Target (FY2017): DISCOs meet set performance targets.	**Met**: DISCOs have met the performance indicators in the IMF program, which were based on performance contracts.
B8	*CPPA legally, institutionally and operationally independent from NTDC.* • Baseline (FY2013): CPPA is still a unit within NTDC. • Target (FY2016): All contracted power generated by IPPs, GENCOs and WAPDA are traded through an independent CPPA.	**Met**. CPPA was separated from NTDC and became an independent entity, CPPA-G in 2015. All commercial settlements are done at CPPA-G since the separation.
Pillar C		
C1	*Access to operational and payment information publicly available from website.* • Baseline (FY2013): information not available on website. • Target (FY2017): information available on CPPA and DISCOs websites.	**Met**: Operational data are published on NTDC's website and payment information are published on CPPA-G's website since 2015.
C2	*Access to licensees' performance available on NEPRA website.* • Baseline (FY2013): information available only in NEPRA annual State of Industry Report. • Target (FY2017): information available on NEPRA website and updated monthly.	**Met:** NEPRA has published performance evaluation reports of all DISCOs, NTDC, K-electric and GENCOs since 2015.
C3	*Quarterly reporting and public disclosure on the implementation status of the energy sector reforms.* • Baseline (FY2013): not available. • Target: The reports are published quarterly.	**Partially met**: Reports were published, but not quarterly. Comprehensive reports to summarize the progress through the Program have now been published.

CPPA = Central Power Purchasing Agency, cfd = cubic feet per day, DISCOs = distribution companies, FPA = fuel price adjustment, GEPCO = Gwadar Electric Power Supply Company, GDP = gross domestic product, IMF = International Monetary Fund, IPPs = Independent Power Producers, K-Electric = Karachi Electric Supply Company, LNG = liquefied natural gas, MEPS = minimum energy performance standards, MOWP = Ministry of Water and Power, MYT = multi-year tariff, NEPRA = National Electric Power Regulatory Authority, NTDC = National Transmission and Despatch Company, scfd = standard cubic feet per day, WAPDA = Water and Power Development Authority.