



Technical Assistance Report

Project Number: 46389
Capacity Development Technical Assistance (CDTA)
April 2013

Republic of the Union of Myanmar: Institutional Strengthening of National Energy Management Committee in Energy Policy and Planning (Financed by the Japan Fund for Poverty Reduction)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 April 2013)

Currency unit	–	kyat (MK)
MK1.00	=	\$0.00113
\$1.00	=	MK859.78

ABBREVIATIONS

ADB	–	Asian Development Bank
EDC	–	Energy Development Committee
MOE	–	Ministry of Energy
MOEP	–	Ministry of Electric Power
NEMC	–	National Energy Management Committee
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Capacity development technical assistance (CDTA)
Targeting	–	General intervention
classification		
Sector (subsector)	–	Energy (energy sector development)
Theme (subtheme)	–	Capacity development (institutional development), economic growth (promoting economic efficiency and enabling business environment)
Location (impact)	–	National (high)

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The Government of the Republic of the Union of Myanmar has requested assistance from the Asian Development Bank (ADB) to strengthen the ability of the National Energy Management Committee (NEMC) to prepare policies and strategies in the energy sector and to help formulate a long-term energy master plan.¹ The government has agreed to the impact, outcome, outputs, and key activities of ADB's proposed technical assistance (TA), which are presented in the design and monitoring framework in Appendix 1.²

2. In line with major government reforms to move the country toward a democratic political system and a market-based economy, ADB adopted a phased approach in February 2012 to re-engagement with Myanmar. ADB has since prepared an initial assessment of the country's energy sector.³ It showed the need for a more detailed, comprehensive assessment of the sector, the revision of existing policies and strategies, and preparation of long-term plans for sustainable energy development. The TA is aligned with ADB's interim country partnership strategy for Myanmar for 2012–2014.⁴ The strategy's aims are to build human and institutional capacity in ADB's areas of focus and strength as ADB re-engages with the country and to lay the foundation for further medium-term support and effective development processes.

II. ISSUES

3. Myanmar has abundant energy development potential, particularly in hydropower and natural gas. The rivers that drain the main Ayeyarwady, Chindwin, Thanlwin, and Sittaung basins are estimated to offer scope for more than 100,000 megawatts in hydroelectricity generation, and 92 large-scale hydropower projects with a total installed capacity of 46,101 megawatts have already been identified. Proven natural gas reserves total 11.8 trillion cubic feet, and the potential for additional discoveries is considered by the government. Offshore gas is the country's most important source of export revenue. Myanmar now supplies gas to Thailand and a new gas pipeline to the People's Republic of China is being planned. The oil and gas sector accounts for one-third of foreign direct investment, or \$13.6 billion, from January 1995 to September 2011. Myanmar is one of the five major energy exporters in Southeast Asia.

4. Despite these large energy resources, Myanmar's commercial per capita energy consumption is the lowest in Southeast Asia. This is due to its low per capita income and lack of energy infrastructure. The electrification rate⁵, for example, is only 26%. The government has no energy balance data. The limited data on energy that exists are scattered between government ministries. This has forced ADB to rely on secondary sources for energy information. According to the International Energy Agency, Myanmar's total primary energy supply in 2009 was about 15.1 million tons of oil equivalent.⁶ The country's primary energy supplies come from biomass (69.9%), gas (18.2%), oil and petroleum (8.6 %), hydropower (2.4%), and coal (0.9%). Energy consumption expanded at an annual average of 2.4% during 2000–2009. The highest growth was in the commercial sector, followed by the industrial and transport sectors. The residential

¹ During an ADB mission in February 2013, the Ministry of Energy, which was originally to be the executing agency, asked that National Energy Management Committee (NEMC) take on this responsibility instead. Established on 9 January 2013, the NEMC will take charge of energy policy formulation and long-term energy planning.

² The TA first appeared in the business opportunities section of ADB's website on 19 February 2013.

³ ADB. 2012. *Myanmar: Energy Sector Initial Assessment*. Manila.

⁴ ADB. 2012. *Interim Country Partnership Strategy: Myanmar, 2012–2014*. Manila.

⁵ It is defined as the number of electrified households connected to the grid over the total number of households. Off-grid electrification by mini hydros and diesel generators are not included.

⁶ International Energy Agency. 2012. *Energy Balances of Non-OECD Countries*. Paris.

sector, which is the largest consumer of energy (mainly through its use of biomass), showed the slowest growth.

5. The Ministry of Energy (MOE) has set the basis of Myanmar's energy policy framework—(i) fulfilling domestic energy requirement, (ii) implementing the status of sustainable energy development, (iii) promoting the wider use of new and renewable sources of energy, (iv) promoting energy efficiency and conservation, (v) promoting use of alternative fuels, (vi) implementing effective utilization of discovered crude oil and natural gas resources in the interest of the entire nation, and (vii) promoting more private participation. The energy sector currently lacks the overall planning, policies, and strategy needed to achieve these goals. Medium- and long-term planning for subsectors and the sector overall is limited and fragmented. No clear policies or programs exist for planning the sector's development, achieving energy efficiency, promoting renewable energy, or addressing climate change in 2011.

6. Responsibility for energy sector matters is divided among seven line ministries. The MOE is a focal point for coordinating policy and planning by the concerned ministries but it has done little of either, except in regard to oil and gas. The MOE has not given priority to its responsibility for national energy planning. The other responsibilities are divided between (i) the Ministry of Electric Power—the power sector⁷; (ii) the Ministry of Mines—coal development; (iii) the Ministry of Agriculture and Irrigation—micro-hydro for irrigation purposes, and biofuels; (iv) the Ministry of Science and Technology—renewable energy; (v) the Ministry of Environmental Conservation and Forestry—fuelwood, climate change, and environmental safeguards requirements; and (vi) the Ministry of Industry—energy efficiency. The lack of cohesion is exacerbated by the fact that the separate functions of policy making, regulation, and operation and maintenance have been mixed together within the seven ministries.

7. To address this fragmented approach and ensure that the energy sector and the electricity subsector are developed in a coordinated way, the Office of the President authorized formation of the NEMC and the Energy Development Committee (EDC) in January 2013. The NEMC comprises 14 members: vice president (2) as patron, the minister of energy (chairman), the minister for electric power (vice-chairman), nine members,⁸ the deputy minister of energy (secretary), and the deputy minister of electric power (joint secretary). The NEMC's main duties are to (i) formulate national energy policy and energy regulation for ensuring implementation of the energy policy; (ii) supervise the facts and figures on accurate energy statistics; (iii) coordinate with the country's Privatization Commission and the Myanmar Investment Commission on privatization; (iv) carry out oil and gas production through local and international investments, in accordance with international regulations; (v) adopt convenient pricing policy for consumers and investors, depending on international prices; (vi) assess the environmental and social impacts in a region before implementation of an energy project and inform the people in the project area of the results; (vii) enforce energy sufficiency ambition and reduce energy waste; (viii) solicit foreign and local investment in energy sector development and increase foreign direct investment; and (ix) make arrangements for drafting necessary laws, rules, and regulations related to the energy sector.

⁷ The Ministry of Electric Power No.1 and The Ministry of Electric Power No.2 were merged as the Ministry of Electric Power in September 2012.

⁸ Other members include the ministers of agriculture and irrigation, environmental conservation and forestry, industry, mines, national planning and economic development, and science and technologies. U Myint Soe (Senior Geologist of Geological Survey and Minerals Exploration Department; U Win Kaing, Chairman of Myanmar Engineering Society; and U Ang Myint, General Secretary of Renewable Energy Association Myanmar.

8. The EDC will act as a working level committee of the NEMC. It comprises the minister of energy as chairman, the director general of the MOE's energy planning department as secretary, and 12 other members.⁹ The government established a secretariat for the NEMC and EDC within the MOE with staff seconded from concerned ministries. The secretariat will be supervised by the deputy minister of the MOE. The institutional strengthening of the newly established NEMC and EDC and of the ministries involved in energy planning and policy is urgently needed for sustainable development of the energy sector in Myanmar.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact of the TA will be an improved policy and planning environment for sustainable development of the energy sector in Myanmar. The outcome will be strengthened institutional arrangements for energy planning and enhanced staff capacity within the NEMC, the EDC, and the ministries concerned with energy matters.

B. Methodology and Key Activities

10. The TA has the following outputs: (i) Output 1: established coordination mechanism and institutional arrangement for the energy sector; (ii) Output 2: improved policy frameworks for energy policy, energy efficiency, and renewable energy development strategy; (iii) Output 3: prepared medium-term capacity development plan in the energy sector; (iv) Output 4: prepared a 20-year energy master plan; and (v) Output 5: enhanced staff skills for energy planning through training.

11. Key activities for outputs 1, 2, and 3 include: (i) reviewing the existing institutional arrangements for the energy sector and strengthen the current coordination mechanism among NEMC, EDC and concerned ministries in preparing and implementing energy policy, particularly renewable energy development; (ii) identifying weaknesses and recommend necessary measures to enhance staff capability; (iii) preparing immediate and medium-term capacity development plans for sustainable development of the energy sector; and (iv) assisting the government in preparing sector assessment, strategy and road map for the energy sector, and preparing and/or revising the energy policy and strategy, energy efficiency policy, and renewable energy development strategy of the Government.

12. For outputs 4 and 5, key activities include: (i) consolidating the existing fragmented medium- and long-term energy plan within the concerned ministries and agencies; (ii) preparing a 20-year energy master plan for each primary energy subsector and the energy sector as a whole, including demand projections, supply options with required investment, and financing modalities in line with Myanmar's national development plan; and (iii) training concerned staff in NEMC, EDC, and concerned ministries to enhance necessary staff skills in dealing with long-term energy planning and prepare capacity development plan for energy planning activities. In the donor coordination meeting in September 2012, it was agreed with the Japan International Cooperation Agency (JICA) that this TA will complement JICA's work in preparing the long-term power sector expansion plan.

⁹ Other members include deputy ministers of agriculture and irrigation, environmental conservation and forestry, electric power, energy, and industry; directors general from the Ministry of Mines and the Ministry of Science and Technologies; and five civil experts.

C. Cost and Financing

13. The TA is estimated to cost \$1,450,000 of which, \$1,350,000 will be financed on a grant basis by the Japan Fund for Poverty Reduction, and administered by ADB. The government will provide counterpart support in the form of counterpart salaries and office space and other in-kind contributions.

D. Implementation Arrangements

14. The executing agency will be the MOE through the NEMC and the implementing agency will be the MOE through the EDC. The TA will be implemented from May 2013 to October 2014. Individual consultants and a team of consultants will be recruited by ADB in accordance with the Guidelines on the Use of Consultants (2010, as amended from time to time). The TA will require 32 person-months of international consultancy and 40 person-months of national consultancy. The terms of reference are in Appendix 3. ADB will administer the TA and recruit the consultants, manage the contract administration, and be responsible for ensuring that the consultants deliver the TA reports. The training and workshops, conferences, and a survey will be administered by the consultants.

15. Equipment will be procured in accordance with ADB's Procurement Guidelines (2010, as amended from time to time). On completion of the TA, all equipment will be turned over to the NEMC. Disbursements under the TA will be done in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

16. Several interactive public stakeholder discussions will be held with civil society organizations, development partners, and the government during formulation of the energy policy, the energy efficiency policy, the renewable energy development strategy, and the draft 20-year energy master plan. Approved policies and strategies will be disclosed to the public through electronic media in both English and the Myanmar language, as well as through other means appropriate to reaching other interested stakeholders.

IV. THE RANKING VICE-PRESIDENT'S DECISION

17. The Ranking Vice-President, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, and acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$1,350,000 to the Government of the Republic of the Union of Myanmar to be financed on a grant basis by the Japan Fund for Poverty Reduction for Institutional Strengthening of National Energy Management Committee in Energy Policy and Planning, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved policy and planning environment for sustainable development of the energy sector in Myanmar	By 2016 A new energy policy, a new energy efficiency policy, and a renewable energy development strategy are approved.	Government policy and strategies	Assumption Government remains committed to sustainable development of the energy sector.
Outcome Strengthened institutional arrangements for energy planning and enhanced staff capacity within the NEMC, the EDC, and the ministries concerned with energy matters	By end 2014 An energy planning unit is created. Implementation of medium-term capacity development plan has begun.	Government policy and strategies	Assumption Government remains committed to new institutional and legal arrangements for the energy sector. Risk Staff capability is insufficient to handle energy planning.
Outputs 1. Established coordination mechanism and institutional arrangement for the energy sector 2. Improved policy frameworks for energy policy, energy efficiency, and renewable energy development strategy 3. Prepared medium-term capacity development plan in the energy sector 4. Prepared a 20-year energy master plan 5. Enhanced staff skills for energy planning through training	By October 2014 The recommended coordination mechanism is approved by the NEMC. (i) Revised energy policy and renewable energy development strategy is reviewed at workshops, and (ii) comprehensive ASR for energy sector is formulated. Medium-term capacity development and implementation plans for the energy sector are approved. The 20-year energy master plan is reviewed by the NEMC. 30 staff from seven ministries are trained in energy planning.	Government policy and strategies MOE investment program	Assumption Government officials participate proactively, and government remains committed. Risk Not enough data and information is available to carry out energy planning.

Activities with Milestones	Inputs Japan Fund for Poverty Reduction: \$1,350,000
	Item Amount (\$'000)
1. Established coordination mechanism and institutional arrangements between relevant ministries 1.1 Recruit consultants (3 months after TA effectiveness) 1.2 Review the existing institutional arrangements and strengthen current coordination in energy policy and planning (5 months) 1.3 Identify weaknesses and recommend necessary measures to be undertaken by the government (7 months) 1.4 Workshop for institutional arrangements for better coordination (8 months) 1.5 Make recommendations to coordinate mechanisms and institutional arrangements (9 months)	Consultants 985.00 Equipment 30.00 Training, seminars, and conferences 150.00 Surveys 20.00 Miscellaneous administration and support cost 20.00
2. Improved policy framework for the government's energy policy and strategy, energy efficiency policy, and renewable energy development strategy 2.1 Recruit consultants (4 months after TA effectiveness) 2.2 Review the existing policy and strategy (6 months) 2.3 Conduct workshops for consultations (7–8 months) 2.4 Recommend revised energy policy, energy efficiency policy, and renewable energy development strategy (9 months) 2.5 Prepare ASR for energy sector (10 months)	Representative for contract negotiations 10.00 Contingency 135.00
3. Prepared immediate and medium-term capacity development plans for sustainable development of the energy sector 3.1 Recruit consultants (4 months after TA effectiveness) 3.2 Assess need for capacity development in the energy sector (7–8 months) 3.3 Recommend immediate and medium-term capacity development plan for the energy sector (9 months)	Note: The government will provide counterpart support in the form of counterpart salaries and office space and other in-kind contribution.
4. Prepared a 20-year energy master plan for each subsector and the energy sector as a whole, including demand projections, supply options with investment requirements, and financing modalities 4.1 Recruit consultants (3 months after TA effectiveness) 4.2 Submit inception report (4 months) 4.3 Consolidate the existing fragmented medium- and long-term energy plan within the concerned ministries and agencies (5 months) 4.4 Submit interim report (9 months) 4.5 Submit draft final report (14 months) 4.6 Submit final report (17 months)	
5. Enhanced staff skills for energy planning through training 5.1 Recruit consultants (3 months after TA effectiveness) 5.2 Conduct three workshops in preparing long-term energy planning (from 6–14 months)	

ASR = assessment, strategy, and roadmap; EDC = Energy Development Committee; MOE = Ministry of Energy; NEMC = National Energy Management Committee.
 Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Japan Fund for Poverty Reduction^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	770.0
ii. National consultants	140.0
b. International and local travel	70.0
c. Reports and communications	5.0
2. Equipment ^b	30.0
3. Training, seminars, and conferences	150.0
4. Surveys	20.0
5. Miscellaneous administration and support costs	20.0
6. Representative for contract negotiations	10.0
7. Contingencies	135.0
Total	1,350.0

Note: The technical assistance (TA) is estimated to cost \$1,450,000, of which contributions from the Japan Fund for Poverty Reduction are presented in the table above. The government will provide counterpart support in the form of counterpart salaries, office space, and other in-kind contribution. The value of government contribution is estimated to account for 6.89% of the total TA cost.

^a Administered by the Asian Development Bank.

^b This includes computers, printers, and photocopy machines.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Scope of Work

1. Under the technical assistance for Institutional Strengthening of National Energy Management Committee in Energy Policy and Planning, a team of consultants will be engaged to prepare a 20-year energy master plan for Myanmar, including an energy demand forecast, supply options, investment requirements, and legal and institutional arrangements. To strengthen the abilities of National Energy Management Committee (NEMC) and the Energy Development Committee (EDC) to prepare an energy policy, a renewable energy development strategy, and an energy efficiency policy in coordination with seven concerned ministries, three international and three national experts will also be engaged. The project team will be required to prepare several reports, set up systems and procedures, implement a variety of capacity development activities, and monitor project implementation.

B. Long-Term Energy Master Plan

2. A team of international and national consultants from a consulting firm will be engaged to prepare the 20-year energy master plan. This will be done in accordance with the Asian Development Bank (ADB) Guidelines on the Use of Consultants (2010, as amended from time to time). The work will require about 18 person-months of international consulting services and 20 person-months of national consulting services. A team of experts comprising an energy statistician, an energy planner, and an energy economist will be engaged from a consulting firm that has expertise in energy demand and market analysis, demand projections, assessing supply options to meet energy demand, investment requirements, and legal and institutional arrangements.

1. Energy Statisticians (international, 6 person-months; national, 12 person-months)

3. The energy statisticians will undertake the following activities:

- (i) Consolidate the existing fragmented energy statistics and planning studies and reports for the energy sector from the seven concerned ministries, including the Ministry of Energy (oil and gas sectors); the Ministry of Electric Power (power sector); the Ministry of Mines (coal development); the Ministry of Agriculture and Irrigation (biofuels, and micro-hydro for irrigation purposes); the Ministry of Science and Technology (renewable energy); the Ministry of Environmental Conservation and Forestry (fuelwood, climate change, and environmental safeguards requirements); and the Ministry of Industry (energy efficiency).
- (ii) Collect and compile energy statistics and energy outlooks prepared by the International Energy Agency, ADB, the Association of Southeast Asian Nations, and other development partners.
- (iii) Conduct the surveys on the use of energy in various sectors.
- (iv) Review existing energy data and develop an energy balance for 2000–2012 for Myanmar, adapting the methodology used by the Asia-Pacific Economic Cooperation forum in its Energy Demand and Supply Outlook, including overall energy balances, as an input to energy projection.
- (v) Develop the manual or tool kit for preparing a primary energy consumption and energy balance table.

- (vi) Train staff from concerned ministries on the developed manual or tool kit and will develop a capacity development plan.

2. Energy Planners (international, 5 person-months; national 4 person-months)

4. The energy planners will undertake the following activities:

- (i) Develop a common methodology for energy demand and supply analysis and make demand projections for each primary energy and each sector based on the developed energy balance for the next 20 years. These projections will take into account projections for gross domestic product, population and other economic indicators in close consultation with the Ministry of National Planning and Economic Development and research institutions.
- (ii) Assess the supply potential of primary energy sources in Myanmar such as biomass, coal, oil, gas, hydro, and renewable energy.
- (iii) Assess the technical feasibility of primary energy supply options in close consultations with the energy economist.
- (iv) Recommend least-cost options for delivering the energy supply required to meet the energy demand, in close consultation with the energy economist.
- (v) Train staff from the concerned ministries on the developing common methodology and develop the capacity development plan.
- (vi) Design, organize, facilitate, and document public discussions with a range of stakeholders, including civil society, and ensure that these discussions follow ADB models of good practice for consultation.

3. Energy Economists (international, 7 person-months; national, 4 person-months)

5. The energy economists will undertake the following activities:

- (i) Assess the economic feasibility of primary energy supply options in close consultations with the energy planner.
- (ii) Recommend least-cost options for delivering the energy supply required to meet energy demand, also in close consultation with the energy planner.
- (iii) Assess the availability of financial resources from domestic and international bilateral, multilateral, and private sector sources to meet investment needs, and develop a financing plan to implement the long-term planning.
- (iv) Suggest the financing modality, including public–private partnerships.
- (v) Identify the institutional and regulatory impediments to collecting energy information and preparing the long-term outlook.
- (vi) Determine the improvements necessary in the institutional and regulatory framework to support the function of energy planning in the Ministry of Energy (MOE).
- (vii) Supervise and organize the necessary workshops and seminars and conduct the necessary training and capacity building on energy balance and planning, including a capacity development implementation program.

6. The consultants will prepare an inception report within 1 month, an interim report within 6 months, and a draft final report within 11 months from the commencement of consulting services. For each report, the consultants will organize a workshop to enhance staff skills in energy planning from the concerned ministries.

C. Coordination for Energy Policy

7. Three individual international and three individual national experts will be engaged to prepare the energy policy, the renewable energy strategy, and the energy efficiency policy in close coordination with the seven concerned ministries. The work will require about 14 person-months of international consulting services and 20 person-months of national consulting services. They will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time).

1. Energy Sector Experts (international, 6 person-months; national, 8 person-months)

8. The international energy sector expert will have extensive knowledge and experience in the energy sector and have strong international experience and expertise in policy analysis, strategic planning, organization management, and project management in the energy sector. The expert should have a master's degree with at least 20 years of experience in the energy sector. She or he will supervise the work undertaken by the renewable energy expert and the energy efficiency expert and work closely with them as a team. The national energy sector expert will assist the international energy sector expert in accomplishing their work, which will include the following tasks:

- (i) Conduct participatory consultation activities within the MOE to determine issues and areas requiring strategic and policy advice and action plans for the overall energy, energy efficiency, and renewable energy.
- (ii) Design, organize, facilitate and document public stakeholder discussions with a range of stakeholders, including civil society, ensuring that they follow ADB models of good practice for consultation.
- (iii) Set up the coordination mechanism among the seven concerned ministries in formulating overall energy sector policy, strategy, and planning; and promote energy efficiency and renewable energy development, including developing institutional development plans and identifying support needed and action plans.
- (iv) Review the existing energy sector laws, policies, and strategies and prepare energy policy and strategy papers (except for the power sector).
- (v) Conduct workshops, seminars, and conferences for the MOE.
- (vi) Conduct institutional development activities such as (but not limited to) strategic planning, organizational performance assessment, sector development planning and action plan preparation for the MOE.
- (vii) Propose new policies, systems, and procedures for consideration by the MOE, in line with institutional development objectives.
- (viii) Together with the renewable energy expert and the energy efficiency expert, prepare a capacity development plan and an assessment, strategy, and road map (ASR) for the energy sector.
- (ix) Procure necessary equipment under the TA, in accordance with ADB's Procurement Guidelines (2010, as amended from time to time).
- (x) Prepare periodic reports assessing implementation progress (for example, an assessment report within one month from the commencement date with recommendations on how and what needs to be undertaken. Another two reports in every two months will be prepared to see if the recommendations are being taken on board by the government).

2. Renewable Energy Experts (international, 5 person-months; national, 8 person-months)

9. The international renewable energy expert will have extensive knowledge and experience in renewable energy policy. He or she should have a master's degree and at least 20 years of experience in the power sector. The expert will work closely with the energy sector expert. The national renewable energy expert will assist the international renewable energy expert in accomplishing their work, which will include the following tasks:

- (i) Review the existing renewable energy policy, law, regulations, and institutional arrangements in the concerned ministries.
- (ii) Consolidate information on promoting renewable energy development from concerned ministries.
- (iii) Review existing studies and reports on the development of renewable resources.
- (iv) Prepare renewable energy development strategy for Myanmar, including target, implementation strategy, necessary investment, and institutional arrangements.
- (v) Conduct workshops, seminars, and conferences.
- (vi) Design, organize, facilitate, and document public stakeholder discussions with a range of stakeholders, including civil society, ensuring that they follow ADB models of good practice for consultation.
- (vii) Conduct institutional development activities such as (but not limited to) strategic planning, organizational performance assessment, sector development planning and action plan preparation.
- (viii) Advise the public-private partnership scheme for renewable energy development.
- (ix) Recommend immediate and long-term capacity development plan for renewable energy.
- (x) Prepare ASR for renewable energy.
- (xi) Prepare periodic reports assessing implementation progress (for example, an assessment report within one month from the commencement date with recommendations on how and what needs to be undertaken. Another two reports in every month will be prepared to see if the recommendations are being taken on board by the government).

3. Energy Efficiency Experts (International, 3 person-months; national, 4 person-months)

10. The international energy efficiency expert will have extensive knowledge and experience in promoting energy efficiency, formulating energy efficiency policy, and implementing various policy options. The expert should have at least a bachelor's degree and more than 20 years of experience. The national energy efficiency expert will assist the international energy efficiency expert in accomplishing their work, which will include the following tasks:

- (i) Review the existing energy efficiency policy, law, regulations, and institutional arrangements in the concerned ministries.
- (ii) Consolidate information on promoting energy efficiency from concerned ministries.
- (iii) Review existing studies and reports for energy efficiency.
- (iv) Prepare energy efficiency policy for Myanmar, including target, implementation strategy, necessary investment, and institutional arrangements.
- (v) Conduct workshops, seminars, and conferences.

- (vi) Design, organize, facilitate, and document public stakeholder discussions with a range of stakeholders, including civil society, ensuring that they follow ADB models of good practice for consultation.
- (vii) Conduct institutional development activities such as (but not limited to) strategic planning, organizational performance assessment, sector development planning and action plan preparation
- (viii) Advise the public–private partnership scheme for promoting energy efficiency.
- (ix) Recommend immediate and long-term capacity development plan for energy efficiency.
- (x) Prepare ASR for energy efficiency.
- (xi) Prepare periodic reports assessing implementation progress (for example, an assessment report within one month from the commencement date with recommendations on how and what needs to be undertaken. Another two reports in every month will be prepared to see if the recommendations are being taken on board by the government).