

BANGLADESH**1.4.1.3 Technology action plan for Advanced Combustion Turbine Technology**

a) Aggregation and grouping of identified measures

Following identification of measures in the stakeholder consultation workshop, the identified measures have been grouped under broader strategic measures presented in the table below;

Table 9: Grouping of measures under broader criteria

Technology	Strategic measures	Specific measure	Timeline	
			Short Term (1-5 years)	Long Term 1-10 years
Advanced Combustion Turbine Technology	Investment	Making detail cost estimation with the targeted implementation timeline of Advanced Combustion Turbine Technology	√	
		Making technology specific proposal and generating funds from the development partners and other international mitigation funding sources	√	
		Syndicated loans from a consortium of banks		√
		Introducing public-private partnership for resource mobilization as well as earning carbon credits on saved emission due to higher efficiency;		√
	Capacity development	Reviewing technical and institutional capacities of the existing public and private institutions for promotion and management of Advanced Combustion Turbine Technology	√	
		Training for technical and managerial personnel to be provided by vendors for turn-key projects; for build-own-operate type of projects, training of Bangladeshi personnel must be made mandatory, particularly for joint or wholly-owned foreign ownership	√	

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		Developing of a comprehensive action plan for technical and institutional capacity building	√	
	Organizational/ behavioral change	Establishing coordinated efforts among public and private institutions for knowledge sharing on the new technology.	√	
	Laws/ Policy	Reviewing of Power Sector Master Plan to facilitate private investment on power generation	√	
		Solving of IPR issues through international cooperation and coordination.	√	
		Establishing clear institutional framework and policy for PPP		√

b) Technology Action Plan

Table 10: Technology action plan for Advanced Combustion Turbine Technology

Sector: Power generation					
Specific technology: Advanced Combustion Turbine Technology					
Measures (Grouped under broader category)	Importance of the measure	Implementing agency	Timescale	Cost for the measures (1000 USD)	Monitoring, Reporting and verification for measure
	1	2	3	4	5
Investment					
Making detail cost estimation with the targeted implementation timeline of Advanced Combustion Turbine Technology	To help policy makers and investors to have a clear idea on investment requirement for the implementation of the technology.	MoPMR, Power Division; Planning and Finance ministry; Private sector; WIPO	2013-2017	120	Readily available detail const estimation for the policy makers and investors
Making technology specific proposal and generating funds from the development partners and other international mitigation funding	To ensure immediate and long-term funds from international sources.	MoPMR, Power Division; Planning and Finance ministry;	2013-2017	80	Communicated technology specific proposal to the development partners and private sector investors

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sources					
Organizing syndicated loans from a consortium of banks	To generate matching funds from national international sources.	Power Division; IDCOL Domestic & foreign private sector companies	2013-2023	50	Ensured long-term project funding for technology installation on PPP basis
Introducing public-private partnership for resource mobilization as well as earning carbon credits on saved emission due to higher efficiency;	To generate immediate and long-term funds from national international sources.	Power Division; IDCOL Domestic & foreign private sector companies	2013-2023	70	Ensured long-term project funding for technology installation on PPP basis
Capacity development					
Reviewing technical and institutional capacities of the existing public and private institutions for promotion and management of home solar PV technology	To identify technical and institutional capacity gaps.	Power Division; private sector; Domestic & foreign private sector companies, NGOs, IDCOL	2013-2017	70	Identified capacity gap of the respective power sector institutions
Training for technical and managerial personnel to be provided by vendors for turn-key projects; for build-own-operate type of projects, training of Bangladeshi personnel must be made mandatory, particularly for joint or wholly owned foreign ownership	To increase technical capacity of power sector experts, this in turn, will help designing and implementing build-own-operate type of projects	Power Division; Ministry of Science and Technology; private sector; Domestic & foreign private sector companies	2013-2017	150	Power sector Institutions are staffed with skilled and expert human resource

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Developing of a comprehensive action plan for technical and institutional capacity building	To help policy makers and other stakeholders to prioritize actions and make investment decision on the priority action.	Power Division; Ministry of Planning	2013-2017	80	Readily available comprehensive action plan for the policy makers and investors
Organizational/ behavioral change					
Establishing coordinated efforts among public and private institutions for knowledge sharing on the new technology.	To facilitate cooperation and information sharing between institutions and experts	Division; Ministry of Science and Technology; private sector; Domestic & foreign private sector companies	2013-2017	60	Increased sharing of information among experts and institutions.
Policy and law					
Reviewing of Power Sector Master Plan to facilitate private investment on power generation	To facilitate private sector investment in power generation	Power Division; Ministry Planning and Finance ministry;	2013-2017	80	Developed private sector supportive laws and policies to leverage investment in power generation.
Solving of IPR issues through international cooperation and coordination.	To have free access to the advanced tools and technologies	Power Division; Ministry of Planning, Ministry of Science and Technology; WIPO	2013-2017	100	Removed IPR barriers in accessing modern tools technologies
Establishing clear institutional framework and policy for PPP	To facilitate private sector involvement in power generation sector	MoPMR, Power Division; Ministry of Planning, Ministry of Finance	2013-2023	90	Developed private sector supportive institutional framework and policy to leverage investment in power generation.

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Note: In addition to the above cost the required capital operation and maintenance cost of the technology has been presented in the technology fact sheets (Annex I)

1.4.1.4 Technology action plan for Advanced Natural Gas Combined Cycle (ANGCC) technology

a) Aggregation and grouping of identified measures

Following identification of measures in the stakeholder consultation workshop, the identified measures have been grouped under broader strategic measures presented in the table below;

Table 11: Grouping of measures under broader criteria

Technology	Strategic measures	Specific measure	Timeline	
			Short Term (1-5 years)	Long Term 1-10 years
Advanced Combustion Turbine Technology	Investment	Making detail cost estimation with the targeted implementation timeline of Advanced Combustion Turbine Technology	√	
		Making technology specific proposal and generating funds from the development partners and other international mitigation funding sources	√	
		Syndicated loans from a consortium of banks may be tapped		√
		Introducing public-private partnership for resource mobilization as well as earning carbon credits on saved emission due to higher efficiency;		√
	Capacity development	Reviewing technical and institutional capacities of the existing public and private institutions for promotion and management of Advanced Combustion Turbine Technology	√	
		Training for technical and managerial personnel for turn-key projects; for build-own-operate type of projects,	√	
		Developing of a comprehensive action plan for technical and	√	