- Appendix -

<Appendix 1>

SCHEDULE – 1

Classification of industrial units or projects based on its location and impact on environment.
[See Rule 7(2)]

(A) GREEN Category

1. Assembling and manufacturing of TV, Radio, etc.
2. Assembling and manufacturing of clocks and watches.
3. Assembling of telephones.
4. Assembling and manufacturing of toys (plastic made items excluded).
5. Book-binding.
6. Rope and mats (made of cotton, jute and artificial fibers).
7. Photography (movie and x-ray excluded).
8. Production of artificial leather goods.
9. Assembling of motorcycles, bicycles and toy cycles.
10. Assembling of scientific and mathematical instruments (excluding manufacturing).
11. Musical instruments.
12. Sports goods (excluding plastic made items).
13. Tea packaging (excluding processing).
14. Re-packing of milk powder (excluding production).
15. Bamboo and cane goods.
16. Artificial flower (excluding plastic made items).
17. Pen and ball-pen.
18. Gold ornaments (excluding production) (shops only).
19. Candle.
20. Medical and surgical instrument (excluding production).
21. Factory for production of cork items (excluding metalic items).
22. Laundry (excluding washing).

Foot Notes:

(a) Units of all kinds of cottage industries other than those listed in this Schedule shall remain outside the purview of Environmental Clearance Certificate (Unit of cottage industry means all industrial units producing

goods or services in which by full-time or part-time labour of family members are engaged and the capital investment of which does not exceed Taka 5 (five) hundred thousand).

(b) No industrial unit listed in this Schedule shall be located in any residential area.

(c) Industrial units shall preferably be located in areas declared as industrial zones or in areas where there is concentration of industries or in vacant areas.

(d) Industrial units likely to produce sound, smoke, odor beyond permissible limit shall not be acceptable in commercial areas.

(B) ORANGE-A Category

1. Dairy Farm, 10 (ten) cattle heads or below in urban areas and 25 cattle heads or below in rural areas.
2. Poultry (up to 250 in urban areas and up to 1000 in rural areas).
3. Grinding/husking of wheat, rice, turmeric, pepper, pulses (up to 20 Horse Power).
4. Weaving and handloom.
5. Production of shoes and leather goods (capital up to 5 hundred thousand Taka).
6. Saw mill/wood sawing.
7. Furniture of wood/iron, aluminum, etc.,(capital up to 5 hundred thousand Taka).
8. Printing Press.
9. Plastic & rubber goods (excluding PVC).
10. Restaurant.
11. Cartoon/box manufacturing/printing packaging.
12. Cinema Hall.
13. Dry-cleaning.
14. Production of artificial leather goods (capital up to 5 hundred thousand Taka).
15. Sports goods.
16. Production of salt (capital up to 10 hundred thousand Taka).
17. Agricultural machinery and equipment.
18. Industrial machinery and equipment.

19. Production of gold ornaments.
20. Pin, U Pin.
21. Frames of spectacles.
22. Comb.
23. Production of utensils and souvenirs of brass and bronze.
24. Factory for production of biscuit and bread (capital up to 5 hundred thousand Taka).
25. Factory for production of chocolate and lozenge. (capital up to 5 hundred thousand Taka).
26. Manufacturing of wooden water vessels.

(C) ORANGE-B Category

1. PVC items.
2. Artificial fiber (raw material).
3. Glass factory.
4. Life saving drug (applicable to formulation only).
5. Edible oil.
6. Tar.
7. Jute mill.
8. Hotel, multi-storied commercial & apartment building.
9. Casting.
10. Aluminum products.
11. Glue (excluding animal glue).
12. Bricks/tiles.
13. Lime.
14. Plastic products.
15. Processing and bottling of drinking water and carbonated drinks.
16. Galvanizing.
17. Perfumes, cosmetics.
18. Flour (large).
19. Carbon rod.
20. Stone grinding, cutting, polishing.

21. Processing fish, meat, food.
22. Printing and writing ink.
23. Animal feed.
24. Ice-cream.
25. Clinic and pathological lab.
26. Utensils made of clay and china clay/sanitary wares (ceramics).
27. Processing of prawns & shrimps.
28. Water purification plant.
29. Metal utensils/spoons etc.
30. Sodium silicate.
31. Matches.
32. Starch and glucose.
33. Animal feed.
34. Automatic rice mill.
35. Assembling of motor vehicles.
36. Manufacturing of wooden vessel.
37. Photography (activities related to production of films for movie and x-ray).
38. Tea processing.
39. Production of powder milk/condensed milk/dairy.
40. Re-rolling.
41. Wood treatment.
42. Soap.
43. Repairing of refrigerators.
44. Repairing of metal vessel.
45. Engineering works (up to 10 hundred thousand Taka capital.)
46. Spinning mill.
47. Electric cable.
48. Cold storage.
49. Tire re-treading.
50. Motor vehicles repairing works (up to 10 hundred thousand Taka capital).

51. Cattle farm: above 10 (ten) numbers in urban area, and above 25 (twenty five) numbers in rural area.
52. Poultry: Number of birds above 250 (two hundred fifty) in urban area and above 1000 (one thousand) in rural area.
53. Grinding/husking wheat, rice, turmeric, chilly, pulses – machine above 20 Horse Power.
54. Production of shoes and leather goods, above 5(five) hundred thousand Taka capital.
55. Furniture of wood/iron, aluminum, etc., above 5(five) hundred thousand Taka capital.
56. Production of artificial leather goods, above 5(five) hundred thousand Taka capital.
57. Salt production, above 10(ten) hundred thousand Taka capital.
58. Biscuit and bread factory, above 5 (five) hundred thousand Taka capital.
59. Factory for production of chocolate and lozenge, above 5(five) hundred thousand Taka capital.
60. Garments and sweater production.
61. Fabric washing.
62. Power loom.
63. Construction, re-construction and extension of road (feeder road, local road).
64. Construction, re-construction and extension of bridge (length below 100 meters).
65. Public toilet.
66. Ship-breaking.
67. G.I. Wire.
68. Assembling batteries.
69. Dairy and food.

Foot Notes:

(a) No industrial unit included in this list shall be located in any residential area.

(b) Industrial units shall preferably be located in areas declared as industrial zones or in areas where there is concentration of industries or in vacant areas.

(c) Industrial units likely to produce sound, smoke, odor beyond permissible limit shall not be acceptable in commercial areas.

(D) RED Category

1. Tannery.
2. Formaldehyde.
3. Urea fertilizer.
4. T.S.P. Fertilizer.
5. Chemical dyes, polish, varnish, enamel.
6. Power plant.
7. All mining projects (coal, limestone, hard rock, natural gas, mineral oil, etc.)
8. Cement.
9. Fuel oil refinery.
10. Artificial rubber.
11. Paper and pulp.
12. Sugar.
13. Distillery.
14. Fabric dying and chemical processing.
15. Caustic soda, potash.
16. Other alkalis.
17. Production of iron and steel.
18. Raw materials of medicines and basic drugs.
19. Electroplating.
20. Photo films, photo papers and photo chemicals.
21. Various products made from petroleum and coal.
22. Explosives.
23. Acids and their salts (organic or inorganic).
24. Nitrogen compounds (Cyanide, Cyanamid etc.).
25. Production of plastic raw materials (PVC, PP/Iron, Polyesterin etc.)
26. Asbestos.
27. Fiberglass.

28. Pesticides, fungicides and herbicides.
29. Phosphorus and its compounds/derivatives.
30. Chlorine, fluorine, bromine, iodine and their compounds/derivatives.
31. Industry (excluding nitrogen, oxygen and carbon dioxide).
32. Waste incinerator.
33. Other chemicals.
34. Ordnance.
35. Nuclear power.
36. Wine.
37. Non-metallic chemicals not listed elsewhere.
38. Non-metals not listed elsewhere.
39. Industrial estate.
40. Basic industrial chemicals.
41. Non-iron basic metals.
42. Detergent.
43. Land-filling by industrial, household and commercial wastes.
44. Sewage treatment plant.
45. Life saving drugs.
46. Animal glue.
47. Rodenticide.
48. Refractories.
49. Industrial gas (Oxygen, Nitrogen & Carbon-dioxide).
50. Battery.
51. Hospital.
52. Ship manufacturing.
53. Tobacco (processing/cigarette/Biri-making).
54. Metallic boat manufacturing.
55. Wooden boat manufacturing.
56. Refrigerator/air-conditioner/air-cooler manufacturing.
57. Tyre and tube.
58. Board mills.

59. Carpets.
60. Engineering works: capital above 10 (ten) hundred thousand Taka.
61. Repairing of motor vehicles: capital above 10 (ten) hundred thousand Taka.
62. Water treatment plant.
63. Sewerage pipe line laying/relaying/extension.
64. Water, power and gas distribution line laying/relaying/extension.
65. Exploration/extraction/distribution of mineral resources.
66. Construction/reconstruction/expansion of flood control embankment, polder, dike, etc.
67. Construction/reconstruction/expansion of road (regional, national & international).
68. Construction/reconstruction/expansion of bridge (length 100 meter and above).
69. Murate of Potash (manufacturing).

Foot Notes:

(a) No industrial unit included in this list shall be allowed to be located in any residential area.

(b) Industrial units shall preferably be located in areas declared as industrial zones or in areas where there is concentration of industries or in vacant areas.

(c) Industrial units likely to produce sound, smoke, odor beyond permissible limit shall not be acceptable in commercial areas.

(d) After obtaining location clearance on the basis of Initial Environment Examination (IEE) Report, the Environmental Impact Assessment (EIA) Report in accordance with the approved terms of reference along with design of ETP and its time schedule shall be submitted within approved time limit.

<Appendix 2>

Environmental Standards

Table A.2.1 Standards for Air quality in Bangladesh [1]

No.	Parameter	Concentration (mg/m^3)		Exposure Time
		ECR	IFC Guideline (General: 2007)*	
a)	Carbon Mono-oxide	10	-	8 hours
		40	-	1 hour
b)	Lead (Pb)	0.5	-	Year
c)	Nitrogen Oxide	0.1	0.04	Year
		-	0.2	1 hour
		-	0.2	1 hour
d)	Suspended Particulate Matter (SPM)	0.2	-	8 hours
e)	Particulate Matter 10μm (PM_{10})	0.05	0.02	Year
		0.15	0.05	24 hours
f)	Particulate Matter 2.5μm ($PM_{2.5}$)	0.015	0.01	Year
		0.065	0.025	24 hours
g)	Ozone	0.235	-	1 hour
		0.157	0.160	8 hours
h)	Sulfur Dioxide	0.08	-	Year
		0.365	0.125	24 hours

Notes: * Air quality standard of IFC Guideline is quoted from WHO Guideline.
(Source: Bangladesh Gazette July 19, 2005, IFC Environmental Health and Safety Guidelines 2007

Table A.2.2 Ambient water quality standards (inland surface water)[2]

No.	Best Practice Based Classification	pH	BOD mg/1	Dissolved Oxygen (DO), mg/l	Total Coliform Bacteria quantity/ml
a)	Potable water source supply after bacteria freeing only	6.5-8.5	2 or less	6 or above	50 or less
b)	Water used for recreation purpose	6.5-8.5	3 or less	5 or above	200 or less
c)	Potable water source supply after conventional processing	6.5-8.5	6 or less	6 or above	5000 or less
d)	Water used for pisci-culture	6.5-8.5	6 or less	5 or above	5000 or less
e)	Industrial use water including chilling & other processes	6.5-8.5	10 or less	5 or above	5000 or less
f)	Water used for irrigation	6.5-8.5	10 or less	5 or above	5000 or less

(Source：The Environmental Conservation Rules,1997)

[1] Not exceed one time in year
[2] Textual annotations are as follows.
(1) Maximum amount of ammonia presence in water are 1.2 mg/l (as nitrogen molecule) which is used for pisciculture.
(2) For water used in irrigation Electrical Conductivity-2250 micro mho/cm (at 25oC). Sodium less than 26 mg/l, Boron less than 2 mg/l

Table A.2.3 Standards for Sound [3]

No	Zone Class	Limits in dBA			
		ECR		IFC Guideline (General: 2007)	
		Day	Night	Day	Night
a)	Silent Zone	45	35	55	45
b)	Residential Zone	50	40		
c)	Mixed Zone (this area is used combining residential, commercial and industrial purposes)	60	50	70	70
d)	Commercial Zone	70	60		
e)	Industrial Zone	75	70		

(Source: The Environmental Conservation Rules, 1997 IFC Environmental Health and Safety Guidelines 2008)

[3] Textual annotations are as follows.
(1) The day time is considered from 6 a.m. to 9 p.m. and the night time is from 9 p.m. to 6 p.m.
(2) From 9 at night to 6 morning is considered night time.
(3) Area within 100 meters of hospital or education institution or educational institution or government designated / to be designated / specific institution / establishment are considered Silent Zones. Use of motor vehicle horn or other signals and loudspeaker are forbidden in Silent Zone.

<Appendix 3>

Table A.3.1 Surface water quality in the CFPP project site

Parameter	Unit	Results		Standards for Inland Surface Water					
		Rainy season: 7/Oct/2012	Dry season: 30/Jan/2013	A	B	C	D	E	F
Depth	M	0.5	0.5	-	-	-	-	-	-
Temperature	°C	30.6	18.0	-	-	-	-	-	-
Salinity	-	9.8	35.8	-	-	-	-	-	-
pH	-	7.82	8.00	6.5-8.5	6.5-8.6	6.5-8.7	6.5-8.8	6.5-8.9	6.5-8.9
DO	mg/L	5.5	5.8	6 or above	5 or above	6 or above	5 or above	5 or above	5 or above
BOD	mg/L	0.8	0.4	2 or less	3 or less	3 or less	6 or less	10 or less	10 or less
COD	mg/L	97	241	-	-	-	-	-	-
Oil&Grease	mg/L	4.2	-	-	-	-	-	-	-
SS	mg/L	613	-	-	-	-	-	-	-

Source EIA Report of Matarbari 1200MW CFPP

Notes: Category of water body is as below.

A: Potable water source supply after bacteria freeing only

B: Water used for recreational purposes

C: Potable water source supply after conventional processing

D: Water used for pisciculture

E: Industrial use water including chilling and other processes

F: Water used for irrigation

Table A.3.2 The ground water quality in the CFPP project site

Parameter	Unit	Results		Standards for Drinking Water
		Rainy season 7/October/2012	Dry season 30/January/2013	
Temperature	°C	29.7	20.1	20 – 30
pH	-	7.48	7.20	6.5 8.5
Chloride	mg/L	167	167	150 – 600
NH_3	mg/L	0.04	0.04	0.5
Iron (Fe)	mg/L	0.92	0.92	0.3 1.0
Hardne	mg/L	164	164	200 – 500
Arsenic (As)	mg/L	0.01	0.01	0.05
DO	mg/L	3.5	4.7	6.0
BOD	mg/L	0.4	0.2	0.2
COD	mg/L	0	0	4.0
SS	mg/L	0.2	-	10
Coliform	N/100mL	0	-	0
Salinity	-	0.3	0.7	-

Source EIA Report of Matarbari 1200MW CFPP

<Appendix 4>

A.3.1 Environmental Checklist(Other Infrastructure Project) (Tentative Version at IEE stage in Nov. 2015: This should be updated and finalized prior to the JICA Environmental Review)

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
1 Permits and Explanation	(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process?	(a) N	Draft IEE report was prepared in the JICA preparatory survey. TOR for the EIA study is proposed in the IEE report. EIA study should be conducted after TOR approval by DoE.
		(b) Have EIA reports been approved by authorities of the host country's government?	(b) N	Following the comment on the IEE report from the DoE, EIA report should be prepared under responsibility of the CGCBL.
		(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?	(c) N	The IEE report has not been submitted and the actual EIA process is required hereinafter.
		(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	(d) N	The IEE report has not been submitted and the actual EIA process is required hereinafter.
	(2) Explanation to the Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders?	(a) Y	The contents of the project was explained stakeholder in the area. Most of the opinions and comments made by local stakeholders were mere concerns and worries without articulate understanding on the environment. Anticipated impacts were properly explained, leading to proper understanding on those impacts. It is necessary that a series of public consultations be held in the course of EIA process for adequate information sharing with local stakeholders.
		(b) Have the comment from the stakeholders (such as local residents) been reflected to the project design?	(b) Y	
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	(a) Y	To minimize the impact, 3 alternatives were compared in the draft IEE report.
2 Pollution Control	(1) Air Quality	(a) Do air pollutants, (such as sulfur oxides (SOx), nitrogen oxides (NOx), and soot and dust) emitted from the proposed infrastructure facilities and ancillary facilities comply with the	(a) Y (b) N/A	The dust caused by the earth works at the construction phase and coal dust caused by the winds at the operation phase, are likely occurred. The facility allocation should be planed considering the

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		country's emission standards and ambient air quality standards? Are any mitigating measures taken? (b) Are electric and heat source at accommodation used fuel which emission factor is low?		location with the existing residents. Also, adequate mitigation measure such as wind prevention net, frequent watering should be applied to minimize those impacts.
	(2) Water Quality	(a) Do effluents or leachates from various facilities, such as infrastructure facilities and the ancillary facilities comply with the country's effluent standards and ambient water quality standards?	Y	The facilities should be designed to meet the country's effluent standards.
	(3) Wastes	(a) Are wastes from the infrastructure facilities and ancillary facilities properly treated and disposed of in accordance with the country's regulations?	Y	Waste from the infrastructure should be properly treated to meet the country's standard and regulation.
	(4) Soil Contamination	(a) Are adequate measures taken to prevent contamination of soil and groundwater by the effluents or leachates from the infrastructure facilities and the ancillary facilities?	Y	Effluent from the facilities should be treated properly to meet the country's effluent standards before discharge.
	(5) Noise and Vibration	(a) Do noise and vibrations comply with the country's standards?	Y	The impact should be minimized applying the low noise equipments to meet the country's standards.
	(6) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	N	(a) Ground water is not planned to be used for construction and operation. No large impact is anticipated.
	(7) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	N	(a)General waste at the terminal operation should be properly treated to meet the country's standard and regulation.
3 Natural Environment	(1) Protected Areas	(a) Is the project site or discharge area located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	(a) N	(a) The project site is not located in the protected area. Sonadia ECA, the nearest protected area in Cox's Bazar district is located approximately 15km south of the project site and no large impact is anticipated at the moment.
	(2) Ecosystem	(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?	(a) N	The project site is used for salt and shrimp cultivation.
		(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?	(b) N	There is no particular observed endangered species at project site. However, at the beach at the other side of the Matarbari island , some sea turtle and spoon billed sandpiper, endangered species, were seasonally observed for their spawning and impact to those species should be minimized.
		(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?	(c) N	No large impact to the ecosystem is anticipated at the moment.

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		(d) Are adequate measures taken to prevent disruption of migration routes and habitat fragmentation of wildlife and livestock?	(d) N	No large impact on the migration routes and habitat fragmentation of wildlife is anticipated at the moment.
		(e) Is there any possibility that the project will cause the negative impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, and disturbance of ecosystem due to introduction of exotic (non-native invasive) species and pests? Are adequate measures for preventing such impacts considered?	(e) N	No large impact to the ecosystem is anticipated at the moment.
		(f) In cases where the project site is located in undeveloped areas, is there any possibility that the new development will result in extensive loss of natural environments?	(f) N	The project site is used for salt and shrimp cultivation by the local residents for long period.
	(3) Hydrology	(a) Is there a possibility that hydrologic changes due to the project will adversely affect surface water and groundwater flows?	(a)N	The project does not involve large alteration of the permanent water body and no large impact to the hydrology is anticipated at the moment.
	(4)Topography and Geology	(a) Is there a possibility the project will cause large-scale alteration of the topographic features and geologic structures in the project site and surrounding areas?	(a)N	No large impact to the topography and geology is anticipated at the moment.
4 Social Environment	(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	(a) N	Although approximately 100ha of private land will be acquired, no involuntary resettlement is envisaged.
		(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?	(b) N	IEE Report recommends to hold public consultations. Based on this, proper consultation process will be arranged in the future LARAP Study.
		(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?	(c) N	IEE Report recommends compensation based on the principle of replacrement costs and the formulation of the action pland for land acquisition and livelihood compensation. Based on the proposal, the action plan will be formulated in the course of the future LARAP Study.
		(d) Is the compensations going to be paid prior to the resettlement?	(d) N	LARAP will set the timing of payments of compensation.
		(e) Is the compensation policies prepared in document?	(e) Y	IEE formulates overall land acquisition and livelihood compensation framework and the upcoming LARAP will finalize details including entitlement matrix.

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?	(f) Y	LARAP Study will undertake focused group meetings with local residents. Based on consultations with local residents including socially vulnerable people, whenever necessary, a livelihood restoration and improvement plan will be formulated.
		(g) Are agreements with the affected people obtained prior to resettlement?	(g) N	LARAP will seek consesus with PAPs.
		(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?	(h) Y	The Ordinance 1982 stipulates that it is the Deputy Commissioner's Office of the concerned district that is responsible for handling the land acquisition and compensation on behalf of the project owner. CPGCBL will follow the official framework for any possible resettlement in order not to do any harm to other similar resettlement cases. The Project Management Unit (PMU) will keep in close touch with DC Office and monitor the procedure. CPGCBL has undertaken land acquisition, resettlement, and livelihood compensation for Matarbari CFTP project and been versed with the process.
		(i) Are any plans developed to monitor the impacts of resettlement?	(i) Y	PMU will work in accordance with the Ordinance 1982 and the Electricity Act 1910, and keep in close touch with DC Office.
		(j) Is the grievance redress mechanism established?	(j) Y	Grievance is legitimately mentioned in the Ordinance 1982, and CPGCBL will be in close touch with DC Office to handle it. PMU will be the entry point for any grievance from the project affected people.
	(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	(a) Y	By acquiring land for the CTT, land owners and sharecroppers will lose their means of livelihood.
	(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws?	(a) N	There are no such religious heritage places etc., in and around CTT designated area.
	(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken? (b) Is there a possibility that landscape is spoiled by construction of high-rise buildings such as huge hotels?	(a) N	There are no such places designated by law in and around CTT designated area.
	(5)Ethnic Minorities and	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?	(a) N/A	There is no ethnic minority or indigenous people confirmed in and around the CTT designated area.

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	Indigenous Peoples	(b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	(b) N/A	Not applicable
	(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project?	(a) N	CPGCBL will not violate any laws and ordinances associated with the working conditions of Bangladesh.
		(b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials?	(b) Y	The construction company shall establish a work safety plan and submit it to CPGCBL for prior approval. The work safety plan will include mitigation measures on safety training, etc. and on provision of appropriate protective equipment to the workers, etc.
		(c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.?	(c) Y	
		(d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	(d) Y	
5 Others	(1) Impacts during Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?	(a) Y	During construction period, air pollution, noise, increase water turbidity and solid waste is anticipated. The impact should be mitigated with the adequate measure such as frequent watering to the working road, applying low noise and vibration equipments, construction of sedimentation ponds and enhancement of recycle/reuse.
		(b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts?	(b) N	Associated with the earth works and facility construction, the impact to surrounding natural environment is anticipated but those expected temporally and within limited area.
		(c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?	(c) N	The employment of local people will be promoted for increased employment opportunities for various subcontract work resulting from the CTT construction activity. Local people will be employed to the maximum extent possible. Lodgings of project workers will be equipped with sufficient living facilities so that workers remain at the project site as much as possible.

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
				Labor contracts between the construction industry and children shall be prohibited. Regular patrols to check for child workers will be conducted Local people will be recruited for simple work to the extent possible, which will lower the potential risk of infectious diseases transmitted from external workers. Pre-employment and periodic medical check-ups will be conducted for external workers (technical workers, etc.).
	(2) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?	(a) Y	The Monitoring Plan should be established and strictly observed by the responsible bodies, especially for the items to be classified what the monitoring is required.
		(b) What are the items, methods and frequencies of the monitoring program?	(b)Y	The detail description should be compiled in EIA report.
		(c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?	(c) Y	CPGCBL should organize required measure for the monitoring.
		(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?	(d)Y	The report should be conducted based on the legislation.
6 Note	Reference to Checklist of Other Sectors	(a) Where necessary, pertinent items described in the Roads, Railways and Bridges checklist should also be checked (e.g., projects including access roads to the infrastructure facilities).	(a) N	No large impact to the existing roads.
	Note on Using Environmental Checklist	(a) If necessary, the impacts to transboundary or global issues should be confirmed (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).	(a) N	The emission gas associated with the construction is negligible and no large impact to global warming.

1) Regarding the term “Country's Standards” mentioned in the above table, in the event that environmental standards in the country where the project is located diverge significantly from international standards, appropriate environmental considerations are required to be made. In cases where local environmental regulations are yet to be established in some areas, considerations should be made based on comparisons with appropriate standards of other countries (including Japan's experience).
2) Environmental checklist provides general environmental items to be checked. It may be necessary to add or delete an item taking into account the characteristics of the project and the particular circumstances of the country and locality in which the project is located.

<Appendix 5>

Screening Format (Tentative at IEE Stage, Nov. 2015: This should be revised based on the EIA process)

Name of Proposed Project:

Construction and Operation of Coal Transshipment Terminal (CTT) Project at Matarbari Area, Moheshkhali, Cox's Bazar, Bangladesh

Project Executing Organization, Project Proponent or Investment Company:

Coal Power Generation Co. (Bangladesh) Limited (CPGCBL)

Name, Address, Organization, and Contact Point of a Responsible Officer:

Name:

Address:

Organization:

Tel:

Fax:

E-Mail:

Date:

Signature:

Check Items

Please write "to be advised (TBA)" when the details of a project are yet to be determined.

Question 1: Address of Project Site

Dhalghata Union, Moheshkhali Upazila, Cox's Bazar District, Bangladesh.

Question 2: Scale and contents of the project (approximate area, facilities area, production, electricity generated, etc.)

2-1. Project profile (scale and contents)

Project components include construction of Port Facilities, Coal Stock Yard and Control Terminal etc., related to the coal transshipment and those operations including secondary ship operation. The location of the facility is at the south of the planned Matarbari Coal Power Plant and Port area at Matarbari Union. The area is expected 2 locations in the Matabari area for approximately 45-50 ha of

stock yard to accommodate above mentioned facilities and the detail of the facilities are shown in **Table-1.**

Table-1: Project Components

No.	Project Components	Specification/ Quantities	Remarks
1	Port Facilities	Unloading Berth L: 300 m, D:16.0 m 3 unit Unloader C: 2,500 t/h 6 unit Loading Berth L:130 m, D:7.5 m 5 unit Ship Loader C: 1,500 t/h 5 Unit	Unloading berth is planned to construct at northern side of harbor of CFPP. Loading berth is planned to construct at southern side of harbor of CFPP.
2	Coal Stock Yard	Coal handling volume: 11.0 mil ton/year Area：45ha (1st Phase) Coal handling volume: 26.5 mil ton/year Area : 50ha (2nd Phase), Total 95ha(1 and 2 Phase) Stacker/Reclaimer total 14 unit Belt Conveyor : approximately 2.5 km(only internal transport between harbor and CTT) Facilities of disaster prevention or dust control	Coal stock yard is planned to construct around southern side of power plant
3	Control tower, maintenance shop	Building Maintenance yard	Control tower of maintenance shop is planned to construct in coal stock yard around power plant
4	Dredging and land reclamation	Expand of inner harbor : Approximately 8.5ha and 1.7 million m3. Secondary transportation in river (if any) Land reclamation for coal Stock Yard: 95ha for 1 & 2 phases with the height of 5m	
5	Handling vessel at operation of the CTT	Handling Vessel : Phase -1: 171 vessels for Panamax Phase-2: 375 vessels for Panamax 1,600 vessels for 5,000tones	

2-2. How was the necessity of the project confirmed?

Is the project consistent with the higher program/policy?

☒YES: Please describe the higher program/policy.

（To be advised (TBA）

☐NO

2-3.Did the proponent consider alternatives before this request?

☒YES: Please describe outline of the alternatives

（With/Without project and adequate site selection are considered. ）

☐NO

2-4.Did the proponent implement meetings with the related stakeholders before this request?

☒Implemented □Not implemented

If implemented, please mark the following stakeholders.

☒Administrative body

☒ Local residents

☒ NGO

☐Others（ ）

Question 3:

Is the project a new one or an ongoing one? In the case of an ongoing project, have you received strong complaints or other comments from local residents?

☒New ☐Ongoing(with complaints) ☐Ongoing (without complaints)

☐Other （As relevant projects for this CTT, the Coal Fire Power Plant (CFPP) development project is ongoing in the same area without objection.）

Question 4:

Is an Environmental Impact Assessment (EIA), including an Initial Environmental Examination (IEE), required for the project according to a law or guidelines of a host country? If yes, is EIA implemented or planned? If necessary, please fill in the reason why EIA is required.

☒Necessity (☐Implemented ☒Ongoing/planning)

(Reason why EIA is required: This project is categorized as **RED category** according to DoE guidelines, which requires both IEE and EIA study)

☐Not necessary

☐Other (please explain)

Question 5:

In the case that steps were taken for an EIA, was the EIA approved by the relevant laws of the host country? If yes, please note the date of approval and the competent authority.

☐Approved without a supplementary condition	☐Approved with a supplementary condition	☐Under appraisal

(Date of approval: Competent authority:)

☐Under implementation

☒Appraisal process not yet started

☐Other( )

Question 6:

If the project requires a certificate regarding the environment and society other than an EIA, please indicate the title of said certificate. Was it approved?

☐Already certified

Title of the certificate: (No objection Certificate from Local Government authority -Union Chairman))

☒Requires a certificate but not yet approved

☐Not required

☐Other ( )

Question 7:

Are any of the following areas present either inside or surrounding the project site?

☒ Yes ☐No

If yes, please mark the corresponding items.

☐ National parks, protection areas designated by the government (coastline, wetlands, reserved area for ethnic or indigenous people, cultural heritage)

☐ Primeval forests, tropical natural forests

☐ Ecologically important habitats (coral reefs, mangrove wetlands, tidal flats, etc.)

☒ Habitats of endangered species for which protection is required under local laws and/or international treaties

☐ Areas that run the risk of a large scale increase in soil salinity or soil erosion

☐ Remarkable desertification areas

☐ A reas with special values from an archaeological, historical, and/or cultural points of view

☐ Habitats of minorities, indigenous people, or nomadic people with a traditional lifestyle, or areas with special social value

Question 8:

Does the project include any of the following items?

☒ Yes ☐No

If yes, please mark the appropriate items.

☐Involuntary resettlement (scale: households persons)

☐Groundwater pumping (scale: m3/year)

☒ Land recl amation, l and devel opment, and/or l and-cl earing (scal e: 95hectors)

☐ Logging (scale: hectors)

Question 9:

Please mark related adverse environmental and social impacts, and describe their outlines.

☒ Air pollution

☒ Water pollution

☒ Soil pol l ution

☒ Waste

☒ Noise and vibrations

☐ Ground subsidence

☒ Offensive odors

☐ Geographical features

☒ Bottom sediment

☒ Biota and ecosystems

☐ Water usage

☒ Accidents

☐ Global warming

☒ Involuntary resettlement

☒ Local economies, such as employment, livelihood, etc.

☒ Land use and utilization of local resources

☒ Social institutions such as social infrastructure and local decision-making institutions

☐ Existing social infrastructures and services

☐ Poor, indigenous, or ethnic people

☒ Misdistribution of benefits and damages

☒ Local conflicts of interest

☒ Gender

☒ Children's rights

☐ Cultural heritage

☒ Infectious diseases such as HIV/AIDS

☐ Other ( )

Outline of related impact:

The project site is located in the coastal low land that is used for salt and shrimp farming depending on the natural weather. Although the project site is selected in the land where the actual resettlement can be avoided, the private land for those cultivations should be acquired.

Associated with the land development, the land level will be elevated for the facility construction in entire 95ha of the project site in the height of 5m-8m. Although the area is not included activity to modify actual water body, the land for salt and shrimp farming will be reclaimed for securing disaster prevention from flood. Additional dredging also is associated with the port improvement to meet transshipment of coal and 8.5ha and 1.7 million tons of dredging and is required for expansion of water area at the port.

Natural Environment:

Current study for the CTT project is considered to avoided/minimized those environmental impacts. The project is principally been planning not to affect coastline through avoiding large scale land reclamation and land development. Project site is used for salt and shrimp farms and not primeval forests or tropical rain forests. A sandy beach is located in front of the proposed project site, with no mangrove forests and tidal flats. The area is the presumed habitat of birds, dolphins, and sea turtles of IUCN (International Union for Conservation of Nature and Natural Resources) Red list (endangered species, etc.) at the EIA study in Matarbari 1200MW Thermal Power Station Project(CFPP), and there is the possibility of impact caused by construction on the rare species and ecosystem even its scale is not large.

Social Environment:

Principally, the involuntary resettlement associated with the project was avoided. However, with the 95 ha of land acquisition of salt and shrimp farming land, it is anticipated that employers/ employees of salt farms, shrimp farms, and fishermen will lose their means of livelihood. Fishing activities around the site will also be affected due to a rise of water pollution and restriction of fishing.

Pollution control:

Construction and operation phase, dust related pollution such as air pollution, water pollution and noise should be considered to minimize impact to surrounding communities with the mitigation measure following the environmental standard. Especially, at the operation phase, coal dust related pollution such as suspended particles in the air and run-off water to the surrounding area should be minimized with the adequate prevention measures such as wind prevention net, frequent watering for the air and water treatment plant for the water.

Question 10:

In the case of a loan project such as a two-step loan or a sector loan, can sub-projects be specified at the present time? TBA

☐Yes ☒No

(To be advised –TBA)

Question 11:

Regarding information disclosure and meetings with stakeholders, if JICA's environmental and social considerations are required, does the proponent agree to information disclosure and meetings with stakeholders through these guidelines?

☐Yes ☐No

(To be advised –TBA)

<Appendix 6>

Table A.6.1 : EMP during Pre-construction & Construction Phase(Tentative at IEE Stage, Nov. 2015: This should be revised based on the EIA process)

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
Pre-construction Phase									
1	Land acquisition	- Loss of land at CTT	- the Acquisition and Requisition of Immovable Property Ordinance 1982 - JICA Guidelines for Environmental and Social Considerations (2010)	- Consideration for land owners, sharecroppers and compensation for standing agriculture products	- - Land acquisition should be conducted in compliance with relevant laws and regulations - Cost related to relocation (if any) will be given to the relocated residents	- Construction Area	- During land acquisition process	- Office of the Deputy Commissioner - CPGCBL	Expenses to be paid by CPGCBL
2	Social Institutions such as Social Infrastructure and Local Decision-making Institutions	- Changes in people's thinking through interacting with local government officers, local residents and others in the land acquisition procedure	-----	- Consideration to affected peoples' emotions	- Compensation should be conducted in compliance with relevant laws and regulations	- Construction Area	- Prior to the start of construction	- Office of the Deputy Commissioner - CPGCBL	Expenses to be paid by CPGCBL

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
Construction Stage									
1	Air Quality	1) Dust resulting from construction work 2) Exhaust gas from construction machinery and vehicles used for mobilization of equipment 3) Air pollution arising from incineration of construction materials and waste	1) - 3) - Ambient Air Quality Standard	1) - 3) - Prevention of air pollution in the surrounding construction area	1) Dust prevention - Watering access roads and construction site, especially in the dry season - Using cover sheet on trucks for the transportation of soil 2) Gas emission prevention - Periodic maintenance and management of all construction machinery and vehicles 3) Waste management - Prohibit open burning and illegal dumping	1) - 3) - Construction area	1) - 3) -During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor
2	Water Quality	1) Run off water from construction area 2) Domestic wastewater of workers 3) Inappropriate disposal of waste	1) -3) - Waste water standards	1) - 3) - Prevention of water pollution in the surrounding construction area	1) Run off water - CTT - Preventing soil loss by stabilizing any slopes of the construction area with concrete, as necessary based on geological survey 2) Domestic wastewater	1) - 3) - Construction area	1) - 3) - During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
					- Install wastewater treatment facility for workers, such as septic tanks 3) Waste management - Prohibit illegal waste disposal				
3	Waste	1) Construction waste from construction work 2) Domestic waste from workers 3) Hazardous waste such as dry batteries, etc.	1) - 3) -Waste Management Rule	1) - 3) - Prevention of inappropriate waste disposal	1), 2) Construction and domestic waste - Conduct separate waste collection and promote recycling and reuse - Appropriate disposal of non-recyclable waste according to rules 3) Hazardous waste - Hazardous waste should be treated under the related regulations	1) - 3) - Construction area	1) - 3) - During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor
4	Noise and Vibration	1) Noise and vibration caused by construction machinery 2) Noise caused by vehicles used for mobilization	1), 2) - Noise level standards	1), 2) - Reduction of noise level from construction activities	1) Construction machinery - Optimizing construction schedule - Perform construction work during daytime, especially piling	1), 2) - Construction area	1), 2) - During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
		of equipment and workers			work -Using low-noise/ low vibration equipment, as much as possible 2) Mobilization - Limit truck speed, especially around residential areas				
5	Ecosystem	1) Removal of vegetation 2) Loss of protected species	1) Cover of vegetation and trees 2) Existence of protected species	1), 2) - Mitigation of environmental impact on the loss of vegetation and protected species	1) Vegetation -Boundary of CTT construction area should be re-vegetated with native plants 2) Protected species - Consult with specialists about moving individual animals if any protected species are discovered	1), 2) - Construction area	1), 2) - During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor
6	Topography and Geology	- Soil runoff	-Soil runoff	-Prevention of soil runoff	- CTT site was selected avoiding any steep sloped areas - Preventing soil loss by stabilizing any slopes of construction areas with concrete, as necessary based on geological survey	- Construction area	- During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor
7	Deterioration of Local Economy	- Loss of Salt / shrimp field	- Employment of local residents	- Consideration of local	- Employ as many local residents as	- Construction area	- During construction	- Implementation: Contractor/	Expenses included in

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
	such as Losses of Employment and Means of Livelihood			residents' feelings	possible - Use the services (i.e., laundry and catering services, etc.) and products offered by the local community		phase	Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	contract cost by Contractor
8	Land Use and Utilization of Local Resources	- Changing the traditional land usage patterns and utilization of local resources	- Employment of local residents	- Consideration of local residents' feelings	- Employ as many local residents possible - Use the services (i.e., laundry and catering services, etc.) and products offered by the local community	- Construction area	- During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: PGCB/ Supervision Consultant	Expenses included in contract cost by Contractor
9	Disturbance to Water Usage, Water Rights, etc.	- Water pollution caused by soil runoff	-----	- Prevention of water pollution in downstream areas	- CTT was selected avoiding any steep sloped areas - Preventing soil loss by stabilizing any slopes of construction areas with concrete, as necessary based on geological survey -Re-greening in construction areas	- Construction area	- During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor
10	Cultural Heritage	- Further destruction of buried cultural heritage due to engineering work	- Loss of cultural heritage	- Protect cultural heritage	- Stop construction work if any cultural heritage area is discovered and immediately consult with specialists	- Construction area	- During construction phase	- Implementation: Contractor/ Environmental Consultant - Supervisor: CPGCBL/ Supervision Consultant	Expenses included in contract cost by Contractor

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
11	Infectious Diseases such as HIV/AIDS	- Temporary influx of migrant labor during construction may increase risk of infection	-----	- Consideration of sanitation of local residents	- Establish medical center and implementation of periodic medical check-ups - Education and training on workers' health care	- Construction area	- During construction phase	- Implementation: Contractor - Supervisor: CPGCBL	Expenses included in contract cost by Contractor
12	Work Conditions (including work safety)	Labor accidents	- Handling heavy loads - Working at heights - Electric shocks	- Prevention measures against labor accidents, accidents, and health problems	- Prepare a manual for labor accident prevention including safety education and training - Provide workers with appropriate protective equipment - Inspect and ensure that any lifting devices, such as cranes, are appropriate for expected loads - Keep lifting devices well maintained and perform maintenance checks as appropriate during the construction period - Use facilities and equipment that protects against	- Construction area	- During construction phase	- Implementation: Contractor - Supervisor: CPGCBL	Expenses included in contract cost by Contractor

No	Potential Impact to be Managed	Sources of Potential Impact	Standard of Impact	Objectives	Management Effort	Management Location	Period of Management	Management Institution	Cost
					electric shocks				
13	Accidents	1) Traffic accidents 2) Soil runoff and Construction equipment breakages	1) Traffic accidents - Land traffic 2) Soil runoff and tower breakages	1) Prevention of traffic accidents 2) Prevention of soil runoff	1) Traffic accidents - Observation of traffic regulations, installation of traffic signs and education on safe driving - Training safe operation of vehicles 2) Soil runoff and tower breakages - CTT was selected avoiding any steep sloped areas - Preventing soil loss by stabilizing any slopes of the construction area with concrete, as necessary based on geological survey	1) Construction area 2）Roads near the construction area	1), 2) - During construction phase	- Implementation: Contractor - Supervisor: CPGCBL	Expenses included in contract cost by Contractor

<Appendix 7>

Table-A.7.1 Environmental Monitoring Plan(Tentative at IEE stage, Nov. 2015: This should be revised based on the EIA process)

Item	Mitigation measure	Parameters to be Monitored	Location	Frequency	Implementing Organization
Pre-construction phase					
All items	- Prepared alignment for Conveyer Belt and Coal Transshipment Terminal (CTT) shall be chosen to avoid land issues and environmental sensitive issues. - The project design shall be prepared to meet the technical standard, budget, and environmental mitigation measures.	Checking the final engineering design and layout of the CTT and Conveyer Belt	Project area	One time for draft final design and one time for final design	CPGCBL
Construction phase					
Air Quality, Noise and vibration	Protection air pollution, noise and vibration from all construction activities and transportations.	Checking dust, noise, the construction site, construction activities and transportation and storage of construction materials.	In construction sites	Monthly	CPGCBL
Water pollution	Prevention of the water pollution of suspended solid or turbidity	Checking the turbidity and soil sediment visually	Surface water near the construction sites	Every 15 days	CPGCBL
Waste management	Proper disposal of solid waste	Check waste management status	In construction sites and field office	Monthly	CPGCBL
Workers safety	Safety tools/equipment/clean water should be provided to workers	Worker's condition	In construction sites	Twice par day in construction period	CPGCBL
Traffic	Traffic facilitator shall be provided at crossing busy road.	Patrol	Around the construction site	During construction of crossing active road	CPGCBL

Operation phase					
Safety Management	Provide warning sign at the high-risk place	Checking the warning sign	CTT and Conveyer Belt	Twice in a year	CPGCBL
Air Quality, Noise and vibration	Protection air pollution by coal dust , noise and vibration from coal transportation activities	Checking dust, noise and vibration from coal transportation activities	CTT and Conveyer Belt	Twice in a year	CPGCBL
Soil and water pollution	Prevention of soil and water pollution by the run-off water from CTT	Checking the run-off water from CTT	CTT	Twice in a year	CPGCBL
Secondary Transportation facility	Prevention of the additional environmental impact associated with the CTT operation. The facilities should be constructed based on the adequate environmental consideration.	Environmental study	Adjacent area of CTT	One time for project design stage prior to the approval	CPGCBL

<Appendix8>
Monitoring Form

A.8.1 Sample Monitoring Form (During Construction) (Tentative Version at IEE stage in Nov. 2015: This should be updated and finalized prior to the JICA Environmental Review)

The latest results of the below monitoring items shall be submitted to the lenders as part of Quarterly Progress Report throughout the construction phase

Construction Phase

1. Response/ Actions to Comments and Guidance from Government Authorities and the Public

Monitoring Item	Monitoring Results during Report Period
Number and contents of formal comments made by the public	
Number and contents of responses from Government agencies	

2. Pollution

- Water Quality

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	Country's Standards	Standards for Contract	Referred International Standards	Measurement Point	Frequency
pH	-							Quarterly
BOD	mg/1							
COD	mg/1							
Oil	mg/1							

- Air Quality (Ambient Air Quality)

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	Country's Standards	Standards for Contract	Referred International Standards	Measurement Point	Frequency
Dust								Quarterly

- Noise

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	Country's Standards	Standards for Contract	Referred International Standards	Measurement Point	Frequency
Noise Level. Leq.	dB(A)							Daily

3. Natural Environment

- Ecosystem

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken
Ecosystem	Details of survey results, such as findings.	

4. Social Environment

- HIV/AIDS and other STDs

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken

HIV/AIDS and other STDs	Incidences per 1000 inhabitants	

A.8.2 Sample Monitoring Form (Operation) (Tentative Version at IEE stage in Nov. 2015: This should be updated and finalized prior to the JICA Environmental Review)

The latest results of the below monitoring items shall be submitted to the lenders on biannual basis for the first two years of operation.

Operation Phase

1. Response/Actions to Comments and Guidance from Government Authorities and the Public

Monitoring Item	Monitoring Results during Report Period	Frequency
Number and contents of formal comments made by the public		Upon receipt of comments/complaints
Number and contents of responses from Government agencies		

2. Natural Environment

- Ecosystem

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
Ecosystem	Details of survey results, such as findings		

- Replanting / Reforestation

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
Completion of reforestation (%)	Details of survey results, such as findings.		

3. Social Environment

- HIV/AIDS and other STDs

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
HIV/AIDS and other STDs	Incidences per 1000 inhabitants		Annually

A.8.3 Sample Monitoring Form (Resettlement & Land Acquisition) (Tentative Version at IEE stage in Nov. 2015: This should be updated and finalized prior to the JICA Environmental Review)

Preparation of Resettlement Sites (where necessary)

No.	Explanation of the site (e.g. Area, no. of resettlement HH,	Status (Completed (date) / not	Details (e.g. Site selection, identification of candidate sites, discussion with PAPs, Development of the site etc)	Expected Date of Completion
1				
2				

Public Consultation

No.	Date	Place	Contents of the consultation / main comments and answers
1			
2			

Resettlement Activities	Planned Total	Unit	Progress in Quantity			Progress in %		Expected Date of Completion	Responsible Organization
			During the Quarter	Till the Last Quarter	Up to the Quarter	Till the Last Quarter	Up to the Quarter		
Preparation of RAP									
Employment of Consultants		Man-month							
Implementation of Census Survey (including Socioeconomic Survey)									
Approval of RAP			Date of Approval:						
Finalization of PAPs List		No. of PAPs							
Progress of Compensation Payment		No. of HHs							
Lot1		No. of HHs							

Resettlement Activities	Planned Total	Unit	Progress in Quantity			Progress in %		Expected Date of Completion	Responsible Organization
			During the Quarter	Till the Last Quarter	Up to the Quarter	Till the Last Quarter	Up to the Quarter		
Lot 2		No. of HHs							
Lot 3		No. of HHs							
Lot 4		No. of HHs							
Progress of Land Acquisition (All Lots)		ha							
Lot 1		ha							
Lot 2		ha							
Lot 3		ha							
Lot 4		ha							
Progress of Asset Replacement (All Lots)		No. of HHs							
Lot 1		No. of HHs							
Lot 2		No. of HHs							
Lot 3		No. of HHs							
Lot 4		ha							
Progress of Relocation of People (All Lots)		No. of HHs							
Lot 1		No. of HHs							
Lot 2		No. of HHs							
Lot 3		No. of HHs							
Lot 4		ha							

<Appendix 9>

Minutes of the Tripartite Meeting on Draft IEE

IEE for the Construction and Operation of Imported Coal Transshipment Terminal (CTT) Project

Minutes of Tripartite Meeting (DoE, CPGCBL & Consultant)

Venue : Board Room of CPGCBL
Date : 15 December, 2015
Time : 4:30pm

Following officials were present in the meeting:

1) Keisuke Kusuhara, Nippon Koei
2) Toshi Ohashi, TEPCO RPC
3) Mizanur Rahman Khan, EAL
4) Nafisa Sher, CPGCBL
5) Mohammed Humayun Kabir Mazumder, SE, CPGCBL
6) Md. Shahjahan, Environmental Consultant, CPGCBL
7) Syed Nazmul Ahsan, Director (E.C), DOE
8) Md. Samsuzzaman Sarker, DOE
9) Md. Abul Quasem, CPGCBL
10) Nazrul Islam, CPGCBL
11) Rama Nath Roy, EAL

The following discussions were held and decisions were taken in the meeting:

1. Some technical items are to be included in the comparative statement of alternative sites of the CTT to justify the best site for the CTT.

2. “Environmental Conservation Act 1995” is to be rewritten as “Environment Conservation Act, 1995 (Amended 2010)” and “Environmental Conservation Rules 1997” is also to be rewritten as “Environment Conservation Rules 1997”.
3. DoE standards are to be added in separate column in the table for air quality, water quality to compare the measured values with the standard values instantly.
4. During operation phase of the CTT, air will be polluted due to not only coal dust but also exhaust gas discharged from the ships and vessels etc. This should be also included in the impacts of air pollution.
5. Similarly, during operation phase of the CTT, water will be polluted due to maintenance works of the ships or vessels during berthing period. This should also be included in the impacts of water pollution.
6. It was raised that after completion of phase -2 of the CTT, about 375 panamex ships will operate in the port channel in a year. That means, two ships will be required to pass through the channel in a day. Question arises whether two ships can be handled in a day in the port channel or not. This should be taken into consideration.
7. Possible mitigation measures for the impacts are to be included in the IEE report and power point presentation as well.
8. The representative of DOE pointed out that it is very necessary to finalize the project proponent immediately so that the project proponent can submit the IEE report to the DOE within the contract period of the foreign consultant.

Registration for the meeting on feedback of "IEE for the construction and operation of Imported Coal Transshipment Terminal (CTT) Project"

Date- 15th December, 2015 ; CPGCBL's Board Room

Sl No	Name & Designation	Organization	Signature
1	Keisuke Kusuhara	Nippon Koei	
2	Toshi Ohashi	TEPCO RPC	
3	M. Rahman	EAL	
4	NAFISA SHEER	CPGCBL	
5	MOHAMMED HUMAYUN KABIR MAZUMDER, SE	CPGCBL	
6	Md. Shahjahan, Environmental Consultant	CPGCBL	
7.	Syed Nazmul Ahsan Director (E.C)	DOE	
8.	Md. Samsuzzaman Sarker	DOE	
9	Md. Abul Quasem Managing Director	CPGCBL	
10.	Nazrul Islam	CPCCGL	
11.	Rama Nath Roy	EAL	

<Appendix 10>

Terms of Reference for LARAP Study

The Study proposes terms of reference (ToRs) for the study on the Land Acquisition and Resettlement Action Plan (LARAP) as follows. It should be noted that the project proponent shall review and revise the contents of ToRs whenever the status of the proposed CTT area and the project components are updated or altered.

Action Plan (LARAP) for Construction and Operation of Imported Coal Transshipment Terminal Project in Matarbari Area in Bangladesh

1. Introduction

Electric generating capacity of Bangladesh was 7,356MW as of Mar., 2014, but electric power demand at the peak-hour is 8,200MW and electric power outage has frequently occurred. Electrification of Bangladesh is 62% and further increase of electric power demand will be expected along with the expected economic growth of Bangladesh.

Bangladesh has a plan to raise the proportion of thermal power plant by imported coal. Based on this basic principle, many thermal power generation plants were planned by Power Generation Company under MoPEMR and IPP and some others were joint investment plant with other country. Because most of the coastal area of Bangladesh has a shoaling beach and candidate site for deep sea port that can accommodate the large coal carriers were very limited, construction of Coal Transshipment Terminal that can accept the large coal carries is indispensable to the realization of above mentioned many coal fired power plants As the Matarbari area at Cox's Bazar district under Chittagong Division is the only one promising site that have easy access to the deep sea area and have limited adverse impact on the surrounding environment, construction of this Coal Transshipment Terminal with deep sea port that can accommodate the large coal carrier at this Matarbari area and to realize the economic and efficient import coal supply to the coal fired power plant constructed in the country are considered imperative.

Japan International Cooperation Agency (JICA) has undertaken a project for Preparatory Survey on Construction and Operation of Imported Coal Transshipment Terminal (CTT) in Matarbari Area in People's Republic of Bangladesh.

So, JICA has appointed a Study Team comprising of **Nippon Koei Company Limited (NK)** and **Tokyo Electric Power Company (TEPCO)** of Japan hereafter "JICA Study Team" to conduct Preparatory Survey on Construction and Operation of Imported Coal Transshipment

Terminal (CTT) in Matarbari Area in People's Republic of Bangladesh.

2. Project components

The project includes construction of loading and unloading berth at the port of Matarbari 1200MW CFPP, Coal Stockyard, control tower of maintenance shop, conveyer belt from the port to Coal Stock Yard., The activities are civil works, building works, electrical and mechanical works etc.

3. Study Area:

The proposed Coal Transshipment Terminal will be located at Dhalghata union of Moheshkhaliu upazila under Cox's Bazar district on the west bank of Kohelia river. So, the study area for IEE study has been identified as 5km radius around the proposed CTT site. The study area covers the three unions of Moheshkhali Upazila. Unuions are as follows:

1. Matarbari union
2. Dhalghata union
3. Kalarmarchara union.

A google earth map showing the location of the study area is given in **Figure-1**.

Figure- 1 Google earth Map showing location of the Study Area

4. Scope of the Study:

The scope of services under the LARAP Study is as follows:

a) Study on Legislations in Bangladesh, JICA's policy on land acquisition and resettlement, procedures for land acquisition etc.

b) Carry out social impact survey through focus group discussion, stakeholder meetings, in-depth interview etc.

c) Identification of impacts and category of PAPs

d) Livelihood restoration and improvement Plan

e) Organizational responsibilities and implementation procedures

f) Grievance Redress Mechanism

g) Estimate land acquisition and resettlement cost

h) Local consultation, participation, monitoring and evaluation procedures etc

5. Output

The study should produce an LARAP report on construction of the CTT containing the following:

- Project description;

i) Legislations in Bangladesh and JICA's policy on land acquisition and resettlement, procedures for land acquisition etc.

- Description of impacts and category of PAPs
- Livelihood restoration and improvement Plan
- Organizational responsibilities and implementation procedures
- Grievance Redress Mechanism
- Estimate land acquisition and resettlement cost
- Local consultation, participation, monitoring and evaluation procedures etc

6. Methodology

LARAP study of construction of CTT to be constructed under this project should be conducted on the basis of the information of the project activities supplied by the project proponent (CPGCBL). After reviewing the IEE report, the LARAP study should be conducted following the DOE Guidelines for selected industries (DOE, 1997), and also JICA Environment and Social Consideration Guideline (2010). The Consultant's multi-disciplinary team of experts should conduct social survey to identify the impacts and project affected people (PAP) through questionnaire survey, focus group discussion, in-depth interview, stakeholder meetings etc. The study team will prepare livelihood restoration and improvement plan, grievance redress mechanism, estimate the cost of land acquisition and resettlement, monitoring and evaluation procedures etc.

7. Contents of LARAP

The table of contents of LARAP report is given below:

List of Tables and Figures

Abbreviations

Definitions

1. Summary

9. Estimated Land Acquisition and Resettlement Cost

10. Local Consultation, Participation, Monitoring and Evaluation Procedures

10.1 Further Consultation Process

10.2 Monitoring and Evaluation Procedures

8. Staffing

The LARAP of construction of CTT at matarbari area in Bangladesh should be carried out by a multi-disciplinary team supported by field researchers as given in the table below:

SI. No.	Position
1.	Team Leader
2.	Social Expert
3	Civil Engineer
4.	Socio-Economist
5.	Legal specialist

<Appendix 11>

Registered No. D.A.-1

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

Bangladesh Gazette

Additional Copy

Published by the Authority

Tuesday, October 12, 2010

Bangladesh Jatiya Sangshad

Dhaka, 12 October, 2010/27 Aashin, 1417

The following Act, passed by the Parliament, received the assent of the President on 7 October 2010 (22 Aashin 1417) and is hereby published for the information of the general public:-

Act No. 54 of 2010

An Act to provide for procedures to be followed in order to ensure continuous supply of electricity and energy as per demand of agriculture, industry, commercial business and household needs in order to ensure an increase in their production, transmission, transportation and marketing measures to facilitate the effective means to quickly, and if necessary, plan to import electricity and fuel from abroad and the rapid implementation of the decision on retrieval and use of minerals related to energy.

Whereas the shortage of **electricity** and energy is acute in the country; and

Whereas the planning for the growth of electricity production cannot be implemented rapidly for the shortage in the supply of energy; and

Whereas due to the shortage of **electricity** and energy in the country, the activities in agriculture, industry, trade-commerce and household works are greatly being hindered and investments in these sectors are not being done as desired; and

Whereas due to inadequate supply of **electricity**, the target of high economic growth, achieving the development goal of the new millennium, technology development, poverty alleviation programs, agricultural production and overall economic development targets are being hindered and discomfort is prevailing in the lives of common people.

Whereas, at present, resolving the shortages of **electricity** and energy following the procedures under the prevailing law/act is a time-consuming matter; and

Price: TK. 4.00

Whereas it is essential to quickly resolve the shortages and inadequacy of **electricity** and energy; and

Whereas in order to ensure uninterrupted supply of **electricity** and energy, for increasing its production, transmission, transportation and marketing as per demand of agricultural, industrial, business-commercial and household purposes, effective means to facilitate action, and if necessary for the quick implementation of plan for importing **electricity** and energy from abroad and for quick implementation of the decision on extraction and use of energy related minerals, the use of the following special provisions shall be expedient.

Now, therefore, it is hereby enacted as follows:

1. Short title and term.- (1) This Act shall be called The Increase in Rapid Supply of Electricity And Energy (Special Provision) Act, 2010.

(2) Unless abolished or the term is extended, this Act shall be in force for two (2) years from the date of its commencement.

2. Definitions. - (1) In this Act, unless there is anything repugnant in the subject or context.-

(a) "**Rule**" means rules made under this Act;

(b) "**Energy**" means-

(i) Natural Gas, Natural Liquid Gas (NGL), Liquefied Natural Gas (LNG), Compressed Natural Gas (CNG), Synthetic Natural Gas (SNG) or such natural hydrocarbon gas mixture, such matter that is converted to gas due to general pressure and temperature, etc;

(ii) Coal;

(iii) Petrol, Diesel, Kerosene, Furnace Oil and other petroleum substances; and

(iv) Renewable Energy.

(2) The meanings of the words or expressions which are not defined in this Act will carry the same meaning as in Bangladesh Gas Act, 2010 (Act No. 40 of 2010), Bangladesh Energy Regulatory Commission Act, 2003 (Act No. 13 of 2003), Mines and Mineral Resources (Control and Development) Act, 1992 (Act No.39 of 1992) and The Electricity Act, 1910 (Act IX of 1910).

3. This Act's precedence over other laws- The Public Procurement Act, 2006 (Act No.24 of 2006) or notwithstanding anything contained in any other law, the provisions of this Act shall prevail.

4. Acceptance of plans and preparations of proposals- The Government and all the establishments owned or controlled by the Government can accept any plans for the rapid growth of production, transmission, transportation and marketing of Electricity and Energy or accept any plans regarding the importation of Electricity or Energy from foreign countries, its transmission, transportation and marketing thereon and can accept any proposal for the rapid implementation of the same, under this Act.

5. Proposal Processing Committee and its Scope of Work:- **(1)** For the purposes of this Act, the Government, with an aim to implement any accepted plans and proposals, maintaining a conformity with the technical and other aspects, shall form a processing committee consisting of necessary numbers of members with experience in that particular technical and other aspects of the plan, and such committee shall have the decision-making capacity from the initial phase of the plan up to the preparation of the proposal and until the matter reaches the stage of representation to the Economic Affairs or the Cabinet Committee on Economic Affairs (CCEA).

(**2**) For implementing the plan, the processing committee shall formulate such a recommendable proposal through communication, consultation and negotiation with any organization associated with the plan that the qualification, experience and financial capability of that organization will be considered by preserving the highest public interest.

6. Promoting the Plans or Proposals- (1) The implementing authority can invite participants through advertisement for purchasing and implementing investment plans or proposals, as mentioned below;

(a) Newspaper advertising granting a limited time,

(b) Advertisement through the website of 'Central Procurement Technical Unit (CPTU) under implementation, monitoring and evolution division of the Ministry of Planning.

(c) Advertisement through their own website.

(d) Through communication with the concerned establishment by issuing a letter or sending e-mail or any other means.

(2) Notwithstanding anything contained in Sub-Section (1), for any purchase, investment plan or proposal, after obtaining consent of the responsible minister for Ministry of Power, Energy and Mineral Resources, the processing committee as referred in section 5, will nominate the same for the referred position upon communication and bargaining with the limited number of organizations or single organization and shall forwarding to the Cabinet Committee on Economic Affairs (CCEA) or Cabinet Committee on Government Purchase (CCGP) by following the process as mentioned in section 7.

7. Presentation of proposal to the Cabinet Committee on Economic Affairs (CCEA) or Cabinet Committee on Government Purchase (CCGP):- (1) By following the procedure, the related division shall present the proposal prepared by the processing committee under the section 5 to the Cabinet Committee on Economic Affairs (CCEA) or Cabinet Committee on Government Purchase (CCGP).

(2) When the proposal is approved by the Cabinet Committee on Economic Affairs (CCEA) or Cabinet Committee on Government Purchase (CCGP), the administrative ministry or department shall take necessary steps for the proper implementation of that proposal.

(3) If the Cabinet Committee on Economic Affairs (CCEA) or Cabinet Committee on Government Purchase (CCGP) returns the proposal with their recommendation, it shall have to be presented to the processing committee and by considering the recommendation of the Cabinet

Committee the processing committee shall take decision for re-submission to the Cabinet Committee for re-consideration and approval of the same.

8. Assistance for the works of the committee: - For the implementation of any project the committee may ask for assistance from any individual, government, Non government or autonomous body.

9. Abolishing the jurisdiction of court, etc: - No question can be raised to any court regarding the legality of any work done under or considered to be done under this Act, of any actions taken, direction or order given under this Act.

10. Preservation of works done in good faith: No civil or criminal or other proceedings can be brought to any court against any officer or staff for the work done or considered as done in good faith in accordance with any rule, general or special order of this Act.

11. Power to make rules: - For the purposes of this Act, the Government may, by notification in the official Gazette, make rules.

Provided that, until any rule is made, if necessary, the Government can make any provisions regarding the acceptance and execution of any project through general or special order, provided that the same is compliant with the provisions of this Act.

12. Power of Government in reducing complexity: - If any problem arises to implement a provision of this Act, due to vagueness of that provision, the Government, by a notification in the official gazette, can publish any direction on that provision, compliant with the other provisions of this Act, after having ascertained and explained it for clear understanding.

13. **Publication of Translated English Text**: After preparation of this Act, the Government shall publish a reliable Translated Authentic English Text of this Act, through notification in the official gazette, which will be called as the reliable 'Authentic English Text'.

Provided that in case of a conflict between the Bengali Text and English Text, the Bengali Text shall prevail.

14. **Preservation of works under this Act**: - Even after expiration of this Act, the works executed or actions taken for execution of works under this Act shall continue in such a manner as if the term of this Act has not expired.

Ashfaq Hamid

Secretary

Registered No. D.A.-1

Bangladesh Gazette

Additional Copy
Published by the Authority

Monday, February 02, 2015

Bangladesh Jatiya Sangshad

Dhaka, 02 February 2015/ 20 Magh, 1421

The following Act, passed by the Parliament, received the assent of the President on 02 February 2015 (20 Magh 1421) and is hereby published for the information of the general public:-

Act No. 03 of 2015

An act duly passed for the amendment of the Increase of Speedy Power & Energy Supply (Special Provision) Act, 2010

Hence it is more necessary to amend the Increase of Speedy Power and Energy Supply (Special Provision) Act, 2010 (Act No. 54 of 2010) to serve the following purposes,

It has been enacted as follows:-

1. **Short Title and Commencement-**
   I. This law will be regarded as the increase of Speedy Supply of Power and Energy (Special Provision) (Amendment) Act, 2015
   II. This law will be considered to be effective from 7th October 2014.

2. **The amendment of clause 1 of act No. 54 of 2010-** In sub clause (2) of clause 1 of Speedy Power and Energy Supply (Special Provision) Act 2010 (Act No. 54 Of 2010), the word "4 (Four) Years", number & bracket will be replaced by the word "8 (Eight) Years", bracket & number therein.

Md. Ashraful Maqbul

Senior Secretary

<Appendix 12>

PRIVATE SECTOR POWER GENERATION POLICY OF BANGLADESH

MINISTRY OF ENERGY AND MINERAL RESOURCES
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

OCTOBER 1996

REVISED NOVEMBER 2004

DHAKA

CONTENTS

1.0 INTRODUCTION

1.1 Bangladesh needs to achieve and sustain an annual economic growth rate of at least 6/7 percent to alleviate poverty and realize desirable socio-economic and human development. To achieve the growth target of GDP, it is absolutely essential that the minimum electricity growth rate is maintained at a factor of 1.5 of GDP growth. The provision of adequate and reliable supply of electricity at a reasonable cost is a pre-requisite to attain this goal. Besides, Bangladesh is still at a very low level of electrification, with only 15 percent of its population (about 120 million) having access to electricity and per capita generation is only 95 Kwh per annum. Hence, there is a great need to expand the electrification programme. The government of Bangladesh (GOB) recognizes that the pace of power development has to be accelerated in order to achieve overall economic development targets of the country and avoid looming power shortages. Power is the prime mover. Any big push of the economy would need accelerated power development.

1.2 Presently, three state-owned utilities under the Ministry of Energy and Mineral Resources are responsible for electricity development in the country. These are:

i) Bangladesh Power Development Board (BPDB), responsible for generation and transmission of power in the country and distribution in urban areas except the area under Greater Dhaka;

ii) Dhaka Electric Supply Authority (DESA), responsible for distribution of electricity in the greater Dhaka area including the metropolitan city of Dhaka; and

iii) Rural Electrification Board (REB), responsible for distribution of electricity in rural areas.

1.3 In comparison to the 11666 GWh electricity generated annually at present, the Power System Master Plan (PSMP) projects a requirement of 16500 GWh in 2000 and 24160 GWh in the year 2005. This implies an increase in peak demand from the present 2200 MW to 3150 MW by 2000 and 4600 MW by 2005 for which capacity addition of about 3350 MW will be required by 2005. Hence on average, additional 300 MW of generation capacity has to be added every year. The total investment between now and 2005, required to achieve such capacity enhancement, is Taka 176 billion or US$ 4.4 billion. The corresponding investment requirement for expansion & reinforcement of transmission and distribution system would be about US$ 2.2 billion for the same period, bringing the grand total to US$ 6.6 billion.

1.4 The likelihood of securing such a substantial volume of investment for power generation alone through the public sector is remote. Besides, competing demands on government resources and declining levels of external assistance from multilateral/bilateral donor agencies further

constrain the potential for public investment in the power sector. Recognizing these trends, GOB amended its industrial policy to enable private investment in the power sector. GOB also adopted the recommendations contained in the report on Power Sector Reforms, prepared by a high level Inter-Ministerial Working Group, for restructuring the power sector and promoting private sector participation in the generation of electricity in order to attain higher economic efficiency. The Government is strongly committed to attract private investment for installing new power generation capacity on a build-own-operate (BOO) basis.

2.0 GOB POLICY AND THE POWER CELL

In order to translate this explicit policy commitment into actual investment projects, GOB created and set up a Power Cell under the Ministry of Energy & Mineral Resources (MEMR) in 1995. The Power Cell has a mandate to lead private power development, recommend power sector reforms & restructuring, conduct study on tariffs and formulation of a regulatory framework for the power sector. The Power Cell shall facilitate all stages of promotion, development, implementation, commissioning and operations of private power generation projects and suitably address the concerns of project sponsors. It will also assist project sponsors to secure necessary consents and permits from GOB where such consents and permits would be needed.

3.0 MODALITY FOR IMPLEMENTATION OF PRIVATE POWER PROJECTS

3.1 One Window Operation :

The designated institution to facilitate the development of private sector power projects shall be the Power Cell, MEMR. The Power Cell shall articulate and promote the private power policy of GOB and shall solicit and evaluate proposals, negotiate and process award of contracts, and finalize various agreements related to these projects. The Power Cell would also represent GOB interest in private power projects.

3.2 Solicitation of Proposals :

Independent Power Producers' (IPP) projects will be implemented on Build-own-operate (BOO) basis. International solicitation for specific projects will be processed by the Power Cell. The pre-qualification of the bidders will be made through advertisements in the national and international press. The evaluation criteria for pre-qualification will be given along with the pre-qualification documents to be issued to the intending bidders. The RFP (Request For Proposal) documents will be issued only to pre-qualified bidders.

After final evaluation of commercial bids from pre-qualified sponsors they will be ranked as per criteria set in the RFP. The first ranked bidder will be given a stipulated period to: (a) submit a performance guarantee and (b) reach financial closure. Failure to perform in either case will result in

forfeiture of the guarantee, if any, and an invitation to the second ranked bidder, under similar conditions. The RFP may include provision for time extension for financial closure, subject to an increase in the performance guarantee amount. In the event of a sponsor chosen on the basis of an unsolicited proposal, similar provisions on performance guarantees and specified time period for financial closure will apply.

3.3 Financing Arrangements :

(a) BOO projects may involve limited recourse financing and the funds for the projects will be raised without any direct sovereign guarantee of repayment. Instead, the investors and lenders to the project sponsor(s) must look to the revenues earned by the sale of electricity for their returns on equity and debt servicing.

(b) Minimum requirement for equity investment will be 20 percent.

(c) The Government of Bangladesh may establish a Private Sector Infrastructure Development Fund (PSIDF), with the assistance of the World Bank and or other aid agencies, which may provide part of the capital cost of the project as subordinated debt. The debt would be available on market based interest rates and carry extended maturity periods.

(d) To facilitate the creation and encouragement of a corporate debt securities market essential for raising local financing for power development projects, the following provisions will be allowed:

i) Permission to power generating companies to issue Corporate Bonds both bearer and registered with the consent of the Securities and Exchange Commission (SEC).

ii) Permission to issue shares at discounted prices upto the limit of 10% of the face value to enable venture capitalists to be provided higher rates of return proportionate to the risks.

iii) Permission to foreign banks to underwrite the issue of shares and bonds by the private power companies with the recognition by SEC of such underwriting.

iv) Tax facilities for private sector instruments as available to Non-Banking Financial Institutions.

v) Modification of Prudential Regulations to allow 80:20 debt equity ratio, if necessary.

3.4 Security Package :

(a) Model Implementation Agreement (IA), Power Purchase Agreement (PPA) and Fuel Supply Agreement (FSA) will be prepared for private power projects to eliminate the need for protracted negotiations between GOB and Sponsors.

(b) The Power Purchase Agreement (if executed by Government Agencies) will be guaranteed by the GOB for performance obligations of the concerned utilities.

(c) In case the fuel is to be supplied by a public sector organisation, the performance of the fuel supplier will be guaranteed by the GOB under the terms of Fuel Supply Agreement.

(d) For private power projects the Government will provide:

i) Standard protection against specific *force majeure* risk.

ii) Protection against changes in certain taxes and duties.

3.5 Allocation of Project/Plant Site and Provision of Fuel :

The plant sites will be selected by GOB in consultation with the investor/project sponsor. Fuel for such projects will be determined by GOB keeping in view preference for indigenous resources like Natural Gas, Coal and any other fossil fuels. However, in case of any limitations, if and when deemed necessary, GOB may also allow other fossil fuels including imported fuels. A fuel supply agreement in that event will be entered into by the project sponsors and fuel supplier. Investors may also be asked to bid for projects based on hydro or other renewable and/or non-conventional sources of energy, such as the sun, wind, biomass etc. For such projects, IA & PPA would be different, for obvious reasons.

4.0 TARIFF FOR BULK PURCHASE OF POWER AT BUSBAR

4.1 The power produced by the IPP shall be purchased (as per Power Purchase Agreement) by BPDB/DESA/REB or any other transmission or distribution company which may be established in future, or any large consumer. The Power Cell as the GOB agent will indicate which organisation will be the power purchaser at the time of issuance of RFP.

The tariff structure would consist of two parts:

(a) Capacity Payment: This will cover debt service, return on equity, fixed operation and maintenance cost, insurance and other fixed costs. The capacity payment would be further divided into an escalating non-escalating portions. The capacity payment will be made in Bangladesh currency (Taka), but denominated in both dollars (to repay foreign loans and fixed costs) and local currency (to repay local loans and investment and local fixed costs). The capacity payment will be linked to a certain level of availability of the power plant which will be made known to the bidders at the time of issuance of RFP.

(b) Energy Payment: This will cover the variable costs of operation and maintenance, including fuel and be paid in Taka. The payment

would be further divided into fuel component which would be a pass-through and a non-fuel component which escalates. The energy payment will be denominated in local currency to the extent to which the variable costs are in local currency.

4.2 In the solicited bids, the bidders shall offer bulk power tariff based on the capacity payment and energy payment and also provide the equivalent levelized tariff over the contract period in US cents/Kwh (to be paid in Taka), based on discount rate, tariff profile restriction and plant factor to be specified during the solicitation of bids. The evaluation will be based on the criteria to be provided in the RFP.

4.2.1 In case of Small Power Plant (SPP) upto 30 MW Installed capacity promoted by the local entrepreneur, the bidders will be allowed to provide the equivalent levelized tariff over the contract period in taka/ Kwh. The evaluation will be based on the criteria to be provided in the Request For Proposal (RFP).

4.3 The sponsors of private power project will provide year wise tariff profile over the contract period in a manner that will match their annual debt service requirements.

4.4 A mechanism shall be provided for the adjustments of certain tariff components to variations in Taka/ Dollar exchange rate, fuel price and inflation rates. In determining this adjustment/indexation, the issue of efficiency gains would be taken into consideration.

4.5 **Interconnection of IPP to Transmission System :**

The power will be purchased from the IPP at a specified voltage at the outgoing terminal (interconnection point) of the sub-station of the power plant. The transmission line for interconnection with the national grid will be provided by the appropriate agency. The costs of interconnecting facilities upto outgoing terminals of the private power projects (including step up auto transformers, circuit breakers and associated switchgear) will be borne by the private power producers.

5.0 FISCAL INCENTIVES

5.1 The private power companies shall be exempt from corporate income tax for a period of 15 years.

5.2 The companies will be allowed to import plant and equipment and spare parts up to a maximum of ten percent (10%) of the original value of total plant and equipment within a period of twelve (12) years of Commercial Operation without payment of customs duties, VAT (Value Added Tax) and any other surcharges as well as import permit fee except for indigenously produced equipment manufactured according to international standards.

5.3 Repatriation of equity along with dividends will be allowed freely.

5.4 Exemption from income tax in Bangladesh for foreign lenders to such companies.

5.5 The foreign investors will be free to enter into joint ventures but this is optional and not mandatory.

5.6 The companies will be exempted from the requirements of obtaining insurance/reinsurance only from the National Insurance Company, namely Sadharan Bima Corporation (SBC).

Private power companies will be allowed to buy insurance of their choice as per requirements of the lenders and the utilities.

5.7 The Instruments and Deeds required to be registered under local regulations will be exempted from stamp duty payments.

5.8 Power generation has been declared as an industry and the companies are eligible for all other concessions which are available to industrial projects.

5.9 The private parties may raise local and foreign finance in accordance with regulations applicable to industrial projects as defined by the Board of Investment (BOI).

5.10 Local engineering and manufacturing companies shall be encouraged to provide indigenously manufactured equipment of international standard to private power plants.

6.0 OTHER FACILITIES AND INCENTIVES FOR FOREIGN INVESTORS

The following facilities and incentives would be provided to private power producers:

6.1 Tax exemption on royalties, technical know-how and technical assistance fees, and facilities for their repatriation.

6.2 Tax exemption on interest on foreign loans.

6.3 Tax exemption on capital gains from transfer of shares by the investing company.

6.4 Avoidance of double taxation in case of foreign investors on the basis of bilateral agreements.

6.5 Exemption of income tax for upto three years for the expatriate personnel employed under the approved industry.

6.6 Remittance of upto 50% of salary of the foreigners employed in Bangladesh and facilities for repatriation of their savings and retirement benefits at the time of their return.

6.7 No restrictions on issuance of work permits to project related foreign nationals and employees.

6.8 Facilities for repatriation of invested capital, profits and dividends.

6.9 Provision of transfer of shares held by foreign shareholders to local shareholders/ investors.

6.10 TAKA, the national currency, would be convertible for international payments in current account.

6.11 Re-investment of remittable dividend to be treated as new foreign investment.

6.12 Foreign owned companies duly registered in Bangladesh will be on the same footing as locally owned companies with regard to borrowing facilities.

7.0 ISSUE OF SEPARATE STATUTORY REGULATORY ORDER (SRO)

A separate SRO will be issued for private sector power plants so that the incentives and concessions given under various regulations and directives are consolidated and placed together in one document.

8.0 RIGHT OF INTERPRETATION

In case of any ambiguity with regard to interpretation of any provision of this policy document, the GOB interpretation shall be final.

GLOSSARY OF ABBREVIATIONS/ ACRONYMS/ TERMS

BPDB	-	Bangladesh Power Development Board.
BOI	-	Board of Investment.
BOO	-	Build-Own-Operate.
DESA	-	Dhaka Electric Supply Authority.
FSA	-	Fuel Supply Agreement.
GDP	-	Gross Domestic Product.
GOB	-	Government of Bangladesh.
IA	-	Implementation Agreement.
IPP	-	Independent Power Producer.
MEMR	-	Ministry of Energy & Mineral Resources.
PPA	-	Power Purchase Agreement.
PSIDF	-	Private Sector Infrastructure Development Fund.
PSMP	-	Power System Master Plan.
REB	-	Rural Electrification Board.
RFP	-	Request for Proposal.
SBC	-	Sadharan Bima Corporation (A public sector general insurance company).
SPP	-	Small Power Plant.
SRO	-	Statutory Regulatory Order.
VAT	-	Value Added Tax.