GOVERNMENT OF PAKISTAN
MINISTRY OF ENERGY (POWER DIVISION)
ALTERNATIVE ENERGY DEVELOPMENT BOARD

B/3/5/Policy/IAA/21

1st December, 2021

Registrar
National Electric Power Regulatory Authority
Islamabad.

Subject: **Application for the Registration of Alternative Energy Development Board("AEDB") as Independent Auction Administrator ("IAA") for the Competitive Trading Bilateral Contract Market ("CTBCM")**

Pursuant to Section 25A of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "**NEPRA Act**"), any person providing electric power services is required to be registered with NEPRA, in the manner and subject to such conditions as may be prescribed.

2. In compliance of the aforesaid requirement under Section 25A of the NEPRA Act, the Alternative Energy Development Board ("**AEDB**") hereby submits its Application for Registration as the Independent Auctioning Agent ("**IAA**") for the Competitive Trading Bilateral Contract Market ("**CTBCM**").

3. A comprehensive Application identifying AEDB's expertise, experience, achievements and suitability for the role of IAA in the CTBCM is appended herewith for the Authority's consideration.

4. As may be noted in the attached application, AEDB as a "One-Window" facilitator created in 2003, on behalf of the Government of Pakistan (GOP), to promote, encourage, facilitate and safeguard private investments in the power sector, has rendered invaluable services to the sector over the years. AEDB's achievements and unprecedented industry experience make it a well-placed suitable fit to assume the role of IAA in the competitive electricity market of the future. It is pertinent to mention that AEDB is performing and has continued to perform functions akin to those required of the CTBCM IAA, such as the auctioning, preparation/execution of security package documents and issuance of guarantees on behalf of the GOP as per the relevant and applicable power generation policy. Accordingly, AEDB's wealth of experience cements its suitability for successfully assuming the IAA role. Further, AEDB has an impressive track record of successful procuring 2,024 MW ARE generation and aspires to maintain the same momentum with respect to its responsibilities as IAA in the CTBCM.

2nd Floor, OPF Building G-5/2 Islamabad. Tel: 051 9222360-3 Fax: 051 9222364

5. AEDB looks forward to a favorable consideration of the attached Application by the Authority and remains available for any further clarification/information, as and when required.

(Syed Aqeel Hussain Jafri)
Secretary AEDB

Application for Registration of Alternative Energy Development Board as Independent Auction Administrator

GOVERNMENT OF PAKISTAN
MINISTRY OF ENERGY (Power Division)

Contents

ACRONYMS

AEDB	Alternative Energy Development Board
ARE	Alternative and Renewable Energy
CEO	Chief Executive Officer
CPPA-G	Central Power Purchasing Agency Guarantee
CTBCM	Competitive Trading Bilateral Contract Market
CPEC	China Pakistan Economic Corridor
DISCO	Distribution Company
EPA	Energy Purchase Agreement
GENCO	Generation Company
GoP	Government of Pakistan
HR	Human Resource
IAA	Independent Auction Administrator
IGCEP	Indicative Generation Capacity Expansion Plan, prepared by NTDCL (Grid Company) under NEPRA's Grid Code
IA	Implementation Agreement
IPP	Independent Power Producer
JD	Job Description
LOI	Letter of Intent
LOS	Letter of Support
MIMG	Market Implementation Monitoring Group
NEPRA	National Electric Power Regulatory Authority
NTDCL	National Transmission and Dispatch Company Limited
PPA	Power Purchase Agreement
PPIB	Private Power & Infrastructure Board
WAPDA	Water and Power Development Authority

1. ORGANIZATION'S BACKGROUND AND PROFILE

1.1- PREAMBLE

The first major policy reforms in Pakistan's power market were envisaged in WAPDA's strategic plan approved by Council of Common Interest in 1992. The Plan envisioned a blue print of future wholesale market and a road map to implement those reforms was clearly set out. As a first step, WAPDA as single vertically integrated power market utility was unbundled into well knitted various independent manageable corporate entities such as DISCOs, GECOs, NTDC and KESC with active participation of private sector, and all such entities to be overseen by a robust power sector regulator. For number of reasons the reform process remained unsteady, yet some major breakthrough were made with promulgation of first private sector generation policies in 1994 and 1995 followed by 2002, 2006,2015 and 2019 generation policies. As the process and development of power generation projects and allied infrastructure through private sector cross-cut various stakeholders within and outside the Federal Government that needed robust coordination, PPIB as one-widow organization was established in 1994 to promote and facilitate such investments followed by establishment of power sector regulator NEPRA in 1997. Later, to facilitate and promote the development of Alternative & Renewable Energy ("ARE") projects through private sector investments, the Government established AEDB in 2003 as one-window facility. Despite the above major accomplishment and hiving off DISCOs from WAPDA, power purchasing from public and private sectors based on single-buyer model remained central, initially housed in NTDC and then later with CPPA-G.

Finally, in 2015 realizing that the reform process needs to be geared up to extricate the sector with malaises of inefficiency, lack of planning and competition and burgeoning circular debt in the power sector, Federal Government directed the CPPA-G to prepare a comprehensive CTBCM Plan for transition of the power market to a competitive trading bilateral contract market in consultation with stakeholders that will consist of regulatory, legal, technical, commercial and financial actions that will set the ground work for the transition to the wholesale power market by 2020.

Accordingly, CPPA-G initially prepared a high level/conceptual Multiple Buyers' Wholesale Electricity Market Model and submitted it to NEPRA which was approved on December 05, 2019. In the said determination NEPRA directed CPPA-G to submit a detailed design for CTBCM along with its implementation roadmap for its approval. CPPA-G, in pursuance of NEPRA's above decision submitted a comprehensive and detailed design for CTBCM along with its implementation roadmap on February 05, 2020, which has been approved by NEPRA on November 12, 2020 (the "**CTBCM Design**") and its commercial operation is targeted in the month of April in the 2nd Quarter of 2022.

The aforementioned transition of the power market to a competitive regime requires considerable changes to its current structure and the creations/registration of new entities and structures for its functioning. The CTBCM is a bilateral contract market with two key products i.e. Energy and Capacity to be traded in the Market along with energy and capacity balancing mechanism. CTBCM will ensure competition for and in the market whereby all the future contracts for the sale and purchase of electricity will be bilateral between the DISCOs and Generators. In contrast with the existing regime where CPPA-G as an agent of the DISCOs procures power on their behalf, in the CTBCM,

DISCOs, as last resort suppliers, will directly execute and administer bilateral contracts with the generators to meet their capacity obligations in the market.

In order to manage the transition from current single buyer's regime to a completely bilateral contract market where DISCOs will procure electricity directly, the CTBCM Design envisions an Independent Auction Administrator (the **"IAA"**) that will facilitate DISCOs in the procurement of generation capacity. The IAA will aggregate the demand from all DISCOs as provided in the procurement plan to be submitted to it and will procure power through competitive auctioning. However, the contracts will be signed by the DISCOs that require the energy and capacity to be procured in order to meet the needs of their consumers. As per approved design of the CTBCM, AEDB will perform the role of IAA to procure new power generation capacity for DISCOs through competitive auctions as per applicable Power Procurement Rules/Regulations.

AEDB as an IAA will observe the Procurement Planning for DISCOs based on new capacity addition requirement for the system as worked out in the IGCEP. Further, in case DISCO is not credit worthy to provide the credit cover, the IAA will provide support in arranging guarantees and it will also provide security cover against financially weak DISCOs. This application is premised on the fact that the IAA will not be responsible for the determination and monitoring of the DISCOs' capacity obligations, which is expected to fall on the System and Market Operator, and the IAA will only be entitled to liaison with the said entities as and when required.

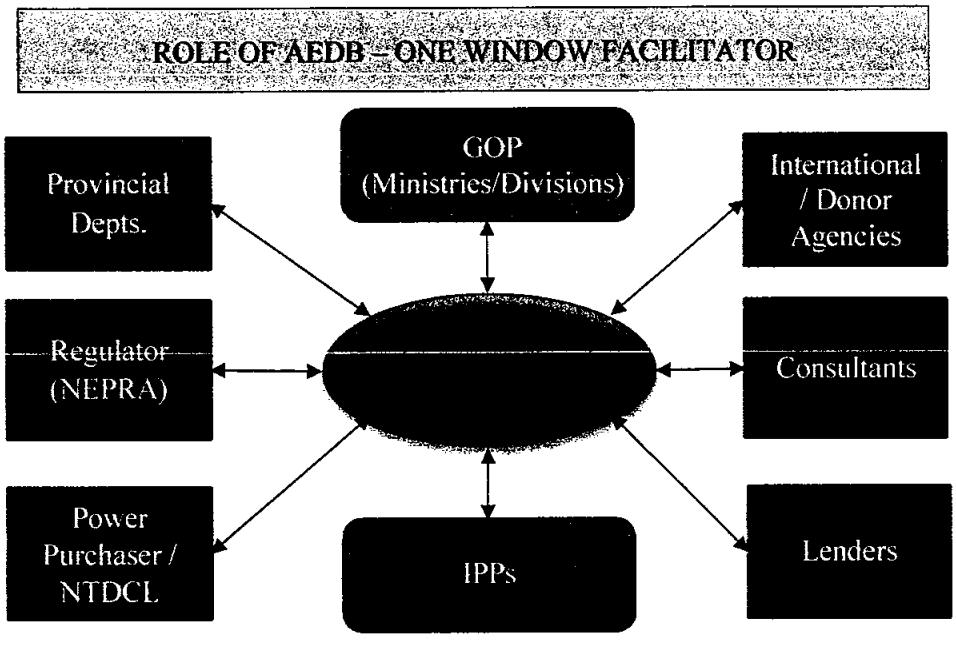
Pursuant to CTBCM Design and implementation road map, AEDB is required to submit a registration application with NEPRA for registration as the IAA in order to perform the role of the independent auction administrator in the CTBCM. Accordingly, through this Application, AEDB is placing a request before the Authority, for registration as the IAA and assumption of the corresponding role/functions contemplated under the CTBCM Design for the IAA. AEDB desirous of being registered as IAA partly has and is building the necessary experience, skill set, human resource, market reputation and credibility amongst national and international sponsors, lenders, multilateral institutions, government and private stakeholders to perform the said role of IAA in a diligent, efficient and effective manner in the future electricity market.

Therefore, in view of the above, the Applicant under Section 25A of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 is filing the instant Registration Application before NEPRA for registration as IAA for the CTBCM.

1.2- AEDB'S HISTORICAL BACKGROUND AND FUNCTIONS

The Alternative Energy Development Board (**"AEDB"** or the **"Applicant"**) was created in 2003 as a "One-Window Facilitator" on behalf of the Government of Pakistan (the **"GOP"**) to promote encourage, facilitate and safeguard the private investments in the ARE sector of Pakistan. Initially AEDB was established through an administrative order of Federal Government and placed under the Cabinet Division. Later in order to engender more operational and administrative independence, in 2010, AEDB was re-constituted as a statutory organization through Alternative Energy Development Board Act 2010 (Act XIV of 2010) (the **"AEDB Act"**) **(Annex-I)**. AEDB's mandate extends to all kind of alternative and renewable energy based power generation including wind, solar, micro-hydel, fuel cells, tidal, ocean, biogas, biomass resources etc.

AEDB's creation was motivated by the need to create a dedicated sector institution to cause the development of alternative and renewable energy (ARE) based projects. There has been long realization at policy level that developing power generation capacity is very capital intensive, that cannot be carved out from the annual budget of GOP. In the late eighties and then with the approval of WAPDA's strategic unbundling plan in 1992 by Council of Common Interest, the GOP made a principle decision to pave the way for reforms by transforming WAPDA, a vertically integrated utility, into a whole set of multiple corporate entities responsible for each separate segment such as generation, transmission and distribution. As a necessary consequence it was also planned that private sector investment shall be sought in power generation so that constant pressure on GOP's fiscal targets is lessened. Attracting investment of such a big magnitude required a team of highly qualified professionals who were trained in projects, finance and contract management /analysis, besides being courteous and imbued in corporate culture. Long and tedious experimentations by various governmental agencies on part time basis with HUBCO (the first private power generation project) and other prospective IPPs in the late 1980's convinced the GOP to create a dedicated easily accessible organization that could provide a suitable interface to private sector entrepreneurs, their consultants, lawyers. Initially, PPIB was created as a dedicated "one window facilitator" for attracting private investments in power sector. Later on, AEDB was created as a "one window facilitator" specifically for ARE based projects. The graphical depiction of AEDB's central role amongst various stakeholders as one window facilitator is shown below:

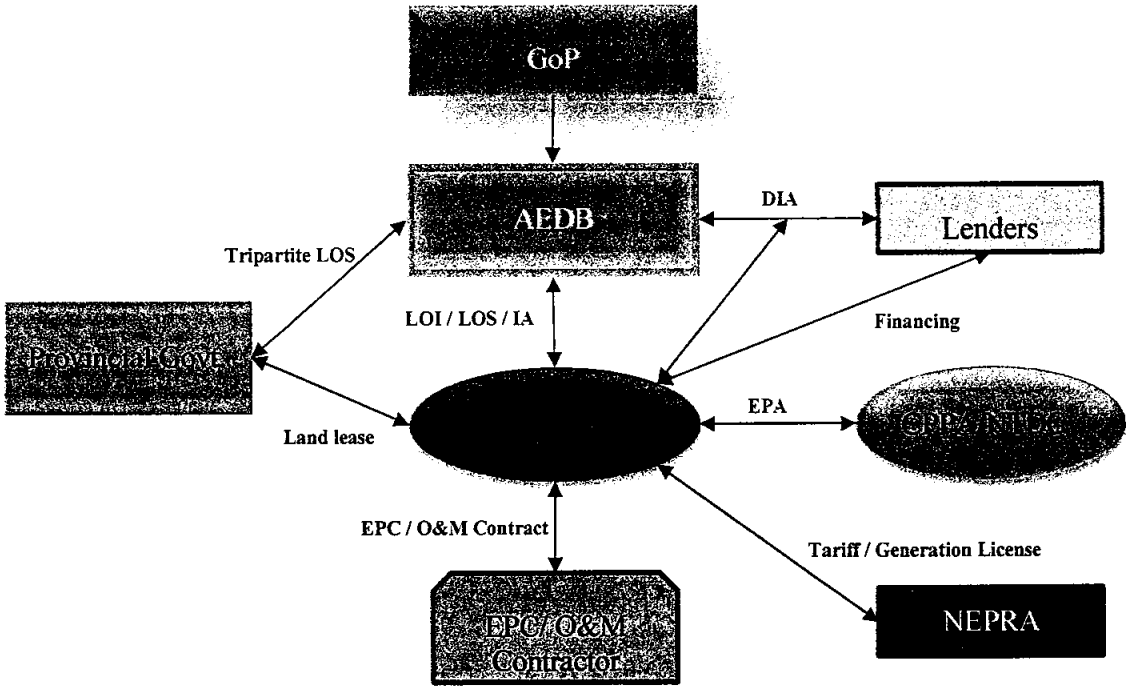


Notably, the AEDB Act in its preamble envisions the overarching objective of AEDB to implement GOP's policies in the field of ARE technologies. In line with such objectives, AEDB has been entrusted with following powers and functions under the AEDB Act:

- To develop national strategy, policies and plans for utilization of alternative and renewable energy resources to achieve the targets approved by the Federal Government in consultation with the Board;
- to act as a forum for evaluating, monitoring and certification of alternative or renewable energy projects and products;
- to act as a coordinating agency for commercial application of alternative or renewable technology; and
- to facilitate energy generation through alternative or renewable energy resources by:
  - acting as one window facility for establishing, promoting and facilitating .alternative or renewable energy projects based on wind, solar, micro-hyde!, fuel cells, tidal, ocean, biogas, biomass, etc;
  - setting up alternative and renewable energy projects on it's own or through joint venture or partnership with public or private entities in order to create awareness and motivation of the need to take such initiatives for the benefit of general public as well as by evaluating concepts and technologies from technical and financial perspective;
  - conducting feasibility studies and surveys to identify opportunities for power generation and other applications through alternative and renewable energy resources;
  - undertaking technical, financial and economic evaluation of the alternative or renewable energy proposals as well as providing assistance in filing of required licensing applications and tariff petitions to National Electric Power Regulatory Authority (NEPRA) established under the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997):
  - interacting and co-ordinating with national and international agencies for promotion and development of alternative energy;
  - assisting the development and implementation of plans with concerned authorities and provincial governments and special areas for off-grid electrification of rural areas; and
  - making legislative proposals to enforce use and installation of equipment utilizing renewable energy.

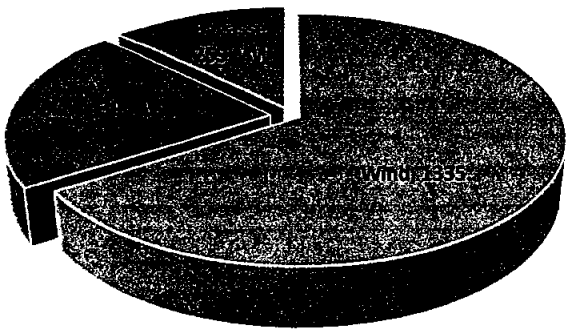
1.3- AEDB'S PORTFOLIO AND ACHIEVEMENTS

AEDB has made significant contributions towards the promotion and development of ARE technologies in the country by assisting in formulation and implementing ARE policies of Government and facilitating investors/IPPs in setting up power generation projects in various regions of the country. A typical IPP model is given below:



So far, the organization has successfully managed the completion and commissioning of forty (40) ARE based IPPs with a cumulative capacity of 2024 MW with investment of around US$ 4.9 billion. These Projects contribute to more than 5% of the countries' generating capacity.

AEDB's Commissioned Portfolio



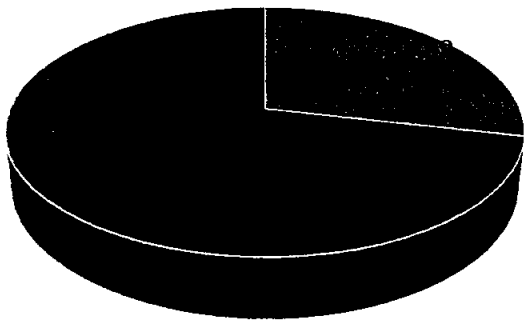
Currently AEDB is handling portfolio of Fourteen (14) ARE based IPPs with cumulative capacity of 760 MW. These projects are at different stages of construction. The technology-wise break-up of these generation Projects is as follows:

- 10 Wind IPPs of 510 MW
- 04 Solar IPPs of 250 MW

AEDB is also pursuing the development of pipeline ARE projects listed under Category-III of the decisions of Cabinet Committee on Energy ("**CCoE**") in case number CCE-12/04/2019(V), which have been upheld by the Counsel of Common Interests ("**CCI**") while approving the ARE Policy 2019. The RFP packages for carrying out competitive bidding of wind and solar projects listed under Category-III have already been prepared by AEDB and approved by NEPRA.

Amongst its array of achievements, AEDB has also been facilitating the development of ARE projects under the flagship CPEC Program. AEDB's current portfolio includes Seventeen (17) ARE based Power Projects under CPEC Regime of 1,398 MW. The break-up is given below:

AEDB's CPEC Portfolio



Furthermore, out of this AEDB's CPEC portfolio of 1,398 MW, Five (05) wind power projects of 298 MW and Four (04) solar power projects of 400 MW have already been commissioned. Whereas the balance quantum will be procured as per the decisions of the CCoE and CCI.

Apart from the large scale ARE based projects on IPP mode, AEDB is also promoting ARE based distributed generation, both on-grid and off-grid. AEDB has been promoting and facilitating the net installation of net-metering systems under the NERPA's regulations. In this regard, AEDB has been certifying the service providers / installers / vendors of such systems under AEDB (Certification) Regulations 2018 which have recently been revised in view of Government's vision of Ease of Doing Business. AEDB has also been facilitating and assisting other federal and provincial public sector organizations in deployment of ARE based solutions. AEDB's transition journey is an ongoing one and its team of professionals is continuously endeavoring to add to its pool of achievements over the years through pro-active approach, innovation, hard work and unwavering dedication. AEDB's accomplishments outlined herein are thus a glimpse of its abundant potential and ambitious plans to perform a key role as the IAA for the prospective CTBCM.

It is of significance to emphasize that AEDB has been promoting private sector participation in the Pakistani power sector in an efficient, fair and transparent manner in line with the Policies of the GOP, as well as the electricity demand/supply projections.

1.4- SUMMARY

In summation, AEDB has a significant achievements to its credit as detailed in this section. The said achievements and unprecedented industry experience have equipped AEDB with the necessary skills to undertake the role of IAA in the future competitive power market. Further, it has necessary in-house expertise for the development of a budget to ensure that adequate financial resources are available to provide services as IAA. Thus, AEDB is all geared up to assume the said role. Further, AEDB has an impressive track record of successful implementation of several power projects and aspires to maintain the same momentum with respect to its responsibilities as IAA in the CTBCM.

2. PERSONNEL PROFILE

This section consists of the particulars of the Chief Executive Officer, Senior Management and Senior Officers of AEDB holding certain key posts in the organization. It also provides some insight into the human resource capacity of the organization.

AEDB is an organization led and managed by qualified leadership with diverse experience in the industry in general and in the power sector in particular. The organization is headed by the Chief Executive Officer (Mr. Shah Jahan Mirza) under whose command the operations of the organizations are currently performed.

At present, AEDB has strength of 99 employees. There are Grades AES 7 to 11 in Professionals Cadre and Grades AES 1 to 6 in Support Staff Cadre. Collectively, these individuals provide strategic direction to the organization to ensure that it achieves its goals and objectives. The combination of experience and expertise of senior, middle and junior management has enabled AEDB to operate independently, since its establishment. The organization treats its all employees equally and

understands that its goals and objectives will only be achieved if the entire staff is geared towards achieving them.

The IAA function requires highly skilled, capable, motivated and experienced human resource to operate effectively. Although, the combination of core organizational pillars i.e. right people, efficient processes and technology makes an organization effective; perhaps the human resource dimension is most significant. The IAA function can be effectively integrated within the current AEDB structure since there are minimal overlaps with ongoing functions and the organization may leverage on its everlasting successful performance through project implementation and securing of necessary guarantees for these initiatives.

Since inception, AEDB has attracted high-quality professionals through a carefully designed recruitment process. The management is dedicated to ensure that the organization remains compliant and fulfills its current duties and obligations, while paving the path for the future competitive power market regime under the given policy direction and regulatory frameworks.

2.1- PARTICULARS OF ITS DIRECTORS AND CHAIRMAN

AEDB Board's composition is unique in its characteristics. The Chairman of the Board is appointed by the Federal Government, which at present has been bestowed upon Secretary Power Division. The Board comprises of five federal secretaries of Power, petroleum, finance, science & technology and planning, four Chief Secretaries of all provinces, six private members (appointed by the Prime Minister) and Chief Executive Officer of AEDB.

The AEDB's Board ensures that the organization adheres to the corporate governance best practices while being compliant with the policy, legal and regulatory requirements. The Board through its collective wisdom provides strategic direction to the organization to ensure that it achieves its goals and objectives. It aims to make AEDB a body corporate imbued with core values of good governance by setting standards at the Board level, practicing them and creating an environment to ensure that such values and practices permeate throughout the organization. AEDB's Board achieves this goal by way of constituting various committees to cater to its business needs and ensure that goals set by GOP are efficiently met. In this regard following committees have been created:

Finance Committee

This committee is mandated to oversee, monitor and conduct due diligence of all matters of financial nature of AEDB such as budget approval, matters involving financial liability or implication for GOP, audit of financial expenditures etc.

HR Committee

HR Committee is responsible to do following functions approved by the Board:

- Assist the Board in discharging its duty to oversee the establishment of appropriate Human Resource policies and strategies that are aligned with the organization's Values, Vision and Mission and provide the AEDB with the capability to achieve its short and long term objectives
- Be responsible for review and recommendations of the organizational structure and HR Policies of AEDB
- Review and recommend the compensation and benefits policies of AEDB
- Ensure that mechanism is in place to ensure that sufficiently competent and capable personnel are appointed and retained at the key management positions
- Review the Service Regulations of AEDB as and when required and submit to the Board of AEDB for approval
- Encourage a high performance culture and employee engagement that will drive organization success
- Shall recommend Voluntary Separation Plan of the PPIB as and when required
- Recommend perquisites and benefits policies for approval of the Board
- Evaluate and recommend human resource outsourcing policies and opportunities

Given AEDB forthcoming role as IAA, a few more committees are envisaged based on the expected needs of the organization, particularly in transitioning towards CTBCM. In this regard, a Procurement Committee of the Board is proposed to be constituted with following scope of mandate.

Procurement Committee

The committee will have a specific object for its establishment. Operations and members of the committee will be timely defined. The Procurement Committee will be mandated to ensure transparency and accountability in power procurement transactions and the management of power contracts. It will also support the procurement team in AEDB in the assessment of tender documents during the public consultation phase required, including potential legal issues related to auctions documentation after the consultation phase has been completed. If required, AEDB Board may form additional committees to perform any other essential function of IAA.

2.2- PARTICULAR OF THE SENIOR MANAGEMENT

AEDB's current team comprises of a number of competent, experienced and motivated employees. Its senior management/senior officers consist of a balanced mixed of professionals belonging to Professional Grade AES Scale 10 and 9 who have suitable professional experience in the engineering, finance, legal,project finance, and human resource domains. The list of officials of AEDB with their experience is attached at **Annex-II**.

2.3- AEDB'S CONSULTANTS' TEAM

To discharge its role as an effective IAA, AEDB would be enhancing its technical capacity by engaging consultants with vast international and or local experience in the areas of power procurement auctioning, energy and demand forecasting, human resources and IT systems design and implementation.

AEDB has already engaged international consultants with the support of World Bank that is working on developing strategy for procurement of ARE capacity through auctions based on best international practices. AEDB would also be engaging consultants with the support of GIZ and other donor agencies on matters related to AEDB's role as IAA.

3. FUTURE ACTIONS AND STRATEGY FOR TRANSITION TOWARDS THE ROLE OF IAA

3.1- AEDB, ITS RESTRUCTURING AND PROGRESS

AEDB has gained tremendous momentum over the years and has attained several major milestones to become a proficient IAA of the future. Notably, it has carried out trainings of existing staff members in order to efficiently perform a future novel function. AEDB has a well thought out plan to build itself for future competitive market operations. It will undergo a profound adaptation to assume its forthcoming responsibilities, wherein the structure of the organization will be being fine-tuned to meet the current and emerging business requirements. The current organizational chart is placed at **Annex-III** for reference (section 4.3- outlines the location of the IAA division within the AEDB current structure). Moreover, AEDB is playing its well defined role through concerted efforts, coordination and significant contributions so that CTBCM is fully and effectively implemented as per its envisaged objectives. This together with AEDB's expertise and experience make it a suitable fit to become a proficient IAA in the future. Moreover, it is significant to mention that AEDB is presently pursuing a well thought out plan to build itself for the bilateral contract market and its prospective role thereunder. In summation, AEDB is all geared up to assume the role of IAA in due course.

3.2- STRATEGY FOR FUTURE PROCUREMENT

There have been a number of national strategies, draft regulations, concept papers, etc. around the definition and structuring of the future procurement process. Due to impressive generation capacity addition through ARETs over the last few years for which AEDB has played an instrumental role, Pakistan has achieved adequacy or (some argue) even surplus in terms of generation capacity. With this, the strategy for future power procurement shall also change. Now the procurement process shall be driven by the demand side than the supply side. The demand side shall call for offers of the quantity that it considers necessary for future procurement and the supply side shall act in response to that call. Generation costs need to be optimized through long-term least cost optimization plans. Except some strategic projects and nascent technologies, the competitive procurement shall be the only method to procure further generation. For this purpose, the policy framework has already been revised under the ARE Policy 2019.

4. POWER MARKET TRANSITION AND CHANGING DYNAMICS

4.1- THE POWER MARKET OF THE FUTURE

AEDB has not only witnessed massive reforms in Pakistan Power Sector but also actively contributed in various restructuring initiatives of Government of Pakistan and accordingly soon after the approval of conceptual design of CTBCM by NEPRA in December 2019, AEDB became part of the Joint Implementation Group (**JIG**) constituted by PPIB as per direction of MIMG. AEDB with the support of PPIB has been working on achieving the tasks assigned to AEDB under NEPRA's CTBCM

determination. The Group has been working in close collaboration with CPPA-G team assuring full organizational support in implementation of approved Market Model and subsequently updated Road Map. AEDB together with PPIB is actively working on the assigned tasks.

NEPRA under Section 25A of NEPRA Act is empowered to register an entity as the IAA so that it can perform the functions envisaged under the CTBCM Design and implementation roadmap for CTBCM. This together with AEDB's expertise and experience make it a suitable fit to become a proficient IAA in the future. Furthermore, it is significant to mention that AEDB is presently pursuing a well thought out plan to build itself for the bilateral contract market and its prospective role thereunder. In summation, AEDB is all geared up to assume the role of IAA in due course.

4.2- TRANSITION PLAN AND THE BUSINESS PLAN

Under the new competitive regime of the CTBCM, DISCOs, as last resort suppliers, will directly execute and administer bilateral contracts with the generators to meet their capacity obligations in the market. The role of the IAA is to essentially procure new power generation capacity for DISCOs through competitive auctions as per applicable Power Procurement Rules/Regulations. For the purposes of assuming this core function AEDB will be developing comprehensive Transition Plan and Business Plan. The Transition Plan and Business Plan will entail *inter alia* the vision, mission, core values, the corporate level objectives, scope, schedule and costs of various projects including the operational costs. Furthermore, apart from AEDB, all the market participants and the service providers will also have to include the actions identified under CTBCM Plan into their respective transition and business plans. The Transition Plan and Business Plan are expected to be comprehensive in nature covering all issues, tasks and responsibilities which are due to fall within AEDB's mandate as IAA.

4.3- FUNCTIONS TO BE ASSUMED BY THE IAA

Preparation of Annual Procurement Plan

These functions are still to be assigned to the AEDB, since the necessary institutional and regulatory decisions have not been taken yet. Therefore, what follows is our understanding of the functions that may be developed by the IAA:

- Liaison with the NTDC in establishing the additional capacity requirements for the system, based on IGCEP elaborated by NTDC.
- Obtain annual and monthly demand forecast of DISCOs and identify needs for new capacity procurement for each DISCO.
- Segregate total new capacity additions of the system into shares for different DISCOs and procuring the total gap.
- Involve with the DISCOs to estimate their Capacity Obligations according to NEPRA regulation.
- Calculation of the gap for each DISCO in consultation and consistency with demand forecast by each DISCOs and system long term load forecast provided by the Planner.
- Consolidate and aggregate capacity and energy demand gaps received from DISCOs based on determination of capacity obligation as per applicable mechanism (in liaison with MO).

- Preparation and finalization of procurement plan for DISCOs based on least cost generation plan parameters including size, technology, location etc.
- Prepare the overall Capacity Procurement Plan based on the calculated gaps.
- Obtain NEPRA approval for Procurement Plan.

Preparation of Standard Bidding Documents

- Prepare and obtain the regulatory approval of the market-based contracts/PPAs/EPAs templates for the centralized auctions for procurement of new contracts (new generation) for DISCOS (in their role as suppliers) and coordination as applicable with relevant agencies on procedures and system to exchange data and clear allocation of rights and responsibilities of each one.
- Draft the standard bidding documents and submit as necessary for NEPRA review on compliance with regulation for competitive tariffs.
- Obtain the required regulatory approvals or clearance for the plan and auction documents as outlined in the procurement regulations.

Administration of the Competitive Auctions

- Carry out centralized competitive auctions for procuring the energy and capacity for aggregated need of all DISCOs (in their role as Last Resort Suppliers).
- Launch the capacity procurement plan, according to pre-defined stages.
- Provide services to competitive suppliers, traders and BPCs for competitive procurement.
- Carry out pre-bid conferences, evaluation of technical and financial bids, preparation of bid evaluation report, submission of evaluation report to competent forum to obtain approval, and award of project to successful bidder for development.
- Liaise with DISCOs for assessment of their financial health and creditworthiness, and their ability to provide credit cover. Credit covers will be required both for bilateral transaction and participation in the centrally administered markets by Market Operator.

Preparation of Market Based Contracts and Regulatory Approvals

- Coordination and liaison with stakeholders, Ministry, NEPRA, CPPA-G, DISCOs, NTDC, Market Operator, System Operator and other market participants and service providers on issues related operation, gathering information and data to procure new capacity on competitive terms through auctions.
- Prepare and obtain the regulatory approval of the market-based contracts/PPAs/EPAs templates for the centralized auctions for procurement of new contracts (new generation) for DISCOs.
- Coordinate as applicable with relevant agencies on procedures and system to exchange data and clear allocation of rights and responsibilities of each entity.

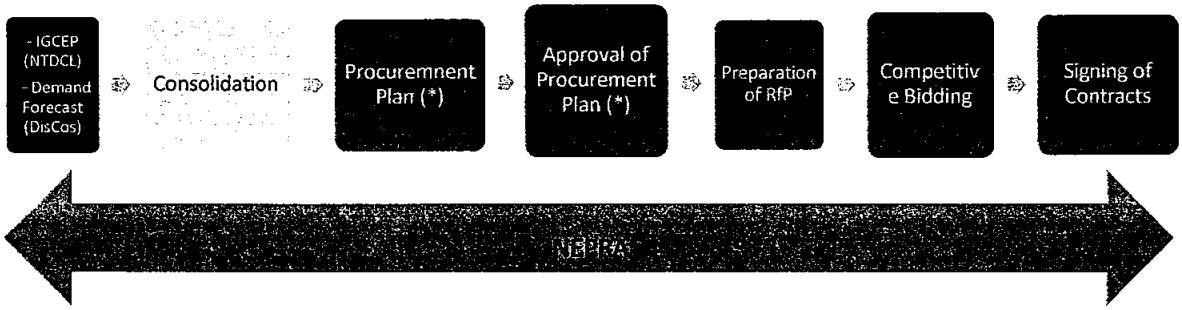
Post Auction support

- Facilitate the successful bidder in obtaining the licenses, permits, consents etc. in relation to development of the projects.
- Assist the DISCOs in the signing of the bilateral contract/commercial PPAs/EPAs with each generator that has been awarded in the auction.
- Assess the financial health of all DISCOs on regular basis to evaluate their credit rating.
- Assist financially weak DISCOs in arrangement of security covers.
- Manage the required processes to get the guarantees granted to the eligible DISCOs under the guarantees support scheme from the GOP to facilitate eligible DISCOs their participation in the CTCBM.
- Administer the GOP guarantee support for DISCOs.

Other functions

- Coordinate with various ministries, foreign missions, investors, international financial institutions and other agents on queries related to future market, power policies and investment opportunities in CTBCM.
- Comply with regulatory affairs arising due to changing market dynamics.
- Support in ongoing and future electricity market reform process.
- Assist on overall Pakistan power sector scenarios, new initiatives, energy strategies paper / policy notes etc.
- Handle proposals for bilateral / multilateral energy corporation with diff countries.
- Coordinate with Multilateral Development Institutes for seeking technical and financial assistance.
- Research on changing market trends, technologies, policy tools, financing options, procurement processes and auctioning techniques etc.
- Assist Chief Executive Officer for international conferences / events / seminars/workshops etc.

The IAA will take part across the whole process of contracting with different degree of involvement. The exhibit below outlines the stages of the procurement plan and IAA involvement from the definition of additional capacity requirements to the actual launching of the tenders and closure of the relevant contracts:



IGCEP: Indicative Generation Capacity Expansion Plan, currently prepared by NTDCL as transmission licensee. System Operator will develop this plan in the future, as prescribed by the NEPRA Act, as amended in 2018.
(*) Functions pending on institutional and regulatory decisions

As substantiated herein, AEDB has the key skill set necessary to assume the role of IAA in the CTBCM. AEDB is all geared up to assume the said role and has high hopes of seeing the CTBCM up and running at the earliest. In parallel, AEDB will continue its ongoing strategic and policy roles within the energy sector.

4.4- BENCHMARK: INTERNATIONAL REFERENCE CASES

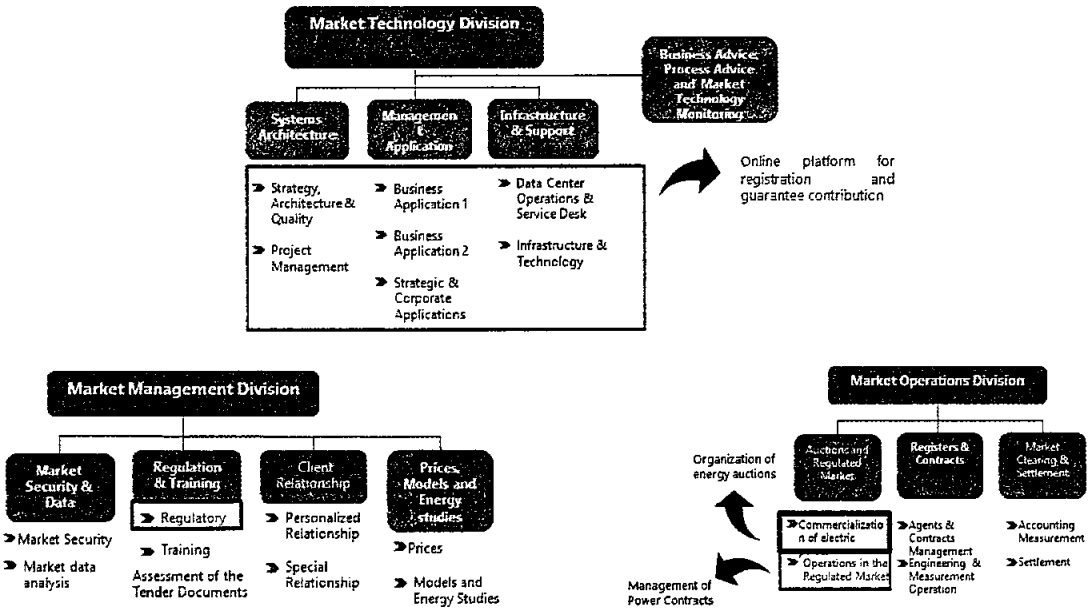
Within the ultimate goal of formulating the most efficient corporate structure for this new role, the MRC team advising PPIB has been assessing worldwide experiences whereby similar auctioning processes have been successfully implemented.

IAA as an independent auction agency aimed to promote competitive capacity procurement for regulated distribution companies has successful international precedents whose reference may facilitate the implementation of this entity in the Pakistani context. Some lessons used from the Brazilian case to share this draft application are depicted below.
The case of the Chamber of Electric Energy Commercialization (CCEE) in Brazil is a relevant reference.

It should be noted that CCEE has no influence on the planning and operation of the system's physical dispatch; this is managed and operated by the National System Operator (ONS).
Overall, CCEE's functions are several, although the highlighted ones are the only relevant for the case of IAA:

- **Promotion of energy procurement auctions**
- Management of power trading in the regulated and free markets
- Conduction of market clearing and settlement for both regulated and free trading environments
- Disclose of market information and auction results
- Technology and systems to improve market operation
- Training for agents and institutions
- **Registering of the power contracts**
- Metering (generation and consumption)

The relevant functions for IAA within the CCEE are highlighted below:

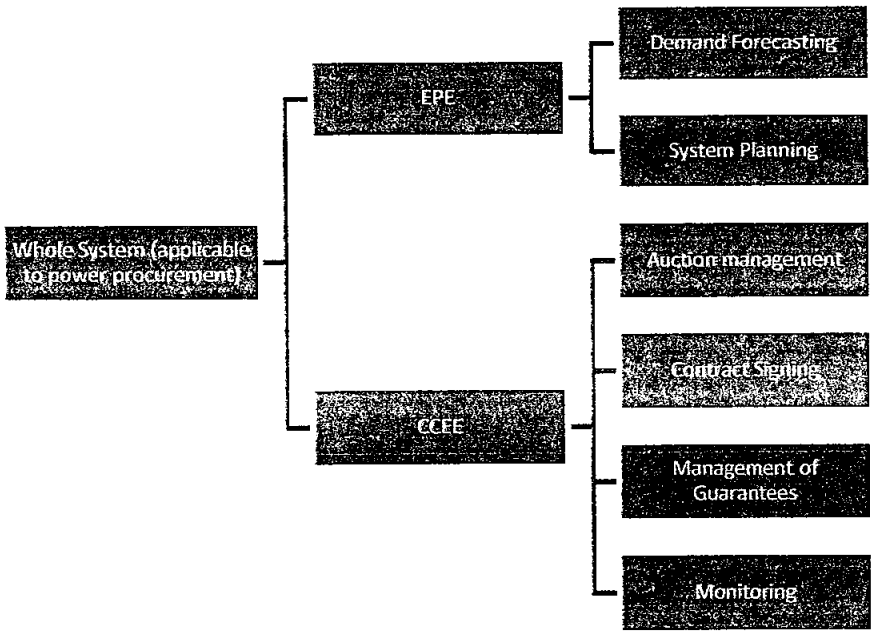


In the case of Brazil, planning and energy procurement plans are developed by a separate entity from CCEE, the Energy Planning Company (EPE). EPE has been created by the market reform and its objective is to support the Brazilian Ministry of Mines and Energy (MME) energy policies with technical studies and research on energy planning covering electricity, oil, natural gas and its derivatives and biofuels.
EPE has the following main responsibilities:

- Development of studies for the definition of the energy matrix, including the 10-year Energy Expansion Plan, which is a comprehensive report that signals, but does not determine, the prospects for future expansion of the entire energy sector from the Government's perspective over a ten-year horizon, indicating some strategies to be pursued and the targets to be met in the long term.
- Promotion of energy potential studies, including the feasibility studies of hydro basins.
- Obtain the prior environmental license and declaration of hydraulic availability required for the auctions of new (big) hydro power plants.
- Conduct technical studies for the (new) energy supply auctions, including the calculation of the physical guarantee of generation assets.

IAA will solely take part in the above-mentioned activities as an observer but in any case, is worth highlighting the components of the process in which the auction needs will be defined.

Despite not being 100% aligned with the role and responsibilities, AEDB will hold the adequate definition and structuring of the internal processes needed to comply with the specific roles outlined in the section above. The strengthening plan prepared and under implementation by the consultant will ensure the necessary capabilities and systems are built in-house and supplemented by external support where needed.



The final mapping of processes and definition of systems and tools required for these functions will take into consideration the findings from this and other relevant cases. AEDB will build the internal systems required to be prepared for the first auctions.

4.5- TRANSITION AN INCLUSIVE PROCESS

AEDB is facilitating the transition journey through an inclusive process that entails mainly the capacity building of its own staff, consultations and market coordination that entails handholding, coaching and then understanding and liaison with stakeholder entities specially dealing with certain important functions which will drive IAA's activities such as the determination of the capacity obligations by DISCOs.

Moreover, in the coming year AEDB in its IAA role will develop the sufficient technical and institutional mechanisms to ensure prompt and effective coordination with the relevant authorities including and without limitation the considerations on the grid code, commercial code and other legal instruments. Apart from strengthening its internal capabilities, AEDB will endeavor to secure international strategic partnerships with sister organizations ensuring top notch approach during the execution of its newly adopted responsibilities.

5. Additional human resource requirement and structure

For the current activities, AEDB organizes its structure in a rather horizontal manner covering the main typology of projects which it has been promoting in the recent years. AEDB's existing human capital having a versatile experience in the power sector. Nevertheless to cater to additional business and commercial requirements of the auctioning function, AEDB would require additional human resource in key core functions including Business Development, Commercial, Finance and Market Operations etc. In addition to this, support functions involving Accounts, Human Resource Management, IT will be required. Nevertheless, it is planned that AEDB will not hire additional professionals as it will cater its additional human resource needs through professionals being hired in PPIB to perform the role of IAA.

Accordingly, the organizational structure of AEDB is proposed to be based on the following Sections broadly divided into two categories:

Existing Sections

1. Power Projects
2. Energy Management
3. Admin and Finance

New Section

4. IAA
    - Planning and Procurement
    - Market Operations (including Environment Compliance and Economic Analysis)
    - Market Technology

All the existing sections along with new section will work in close coordination to perform the role of IAA in the future electricity market.

The new IAA section will also be headed by an officer at the level of Director General under Chief Executive Officer. It will comprise of three units i.e. Planning and Procurement, Market Operations and Market Technology.

At a higher level of detail, the **Planning and Procurement Section** will be in discharge following functions (as classified in Section 4.3):

- Support DISCOs in Capacity Obligation estimations
- Preparation of Procurement Plan
- Liaison and co-ordination with NEPRA and obtain approval of procurement plan

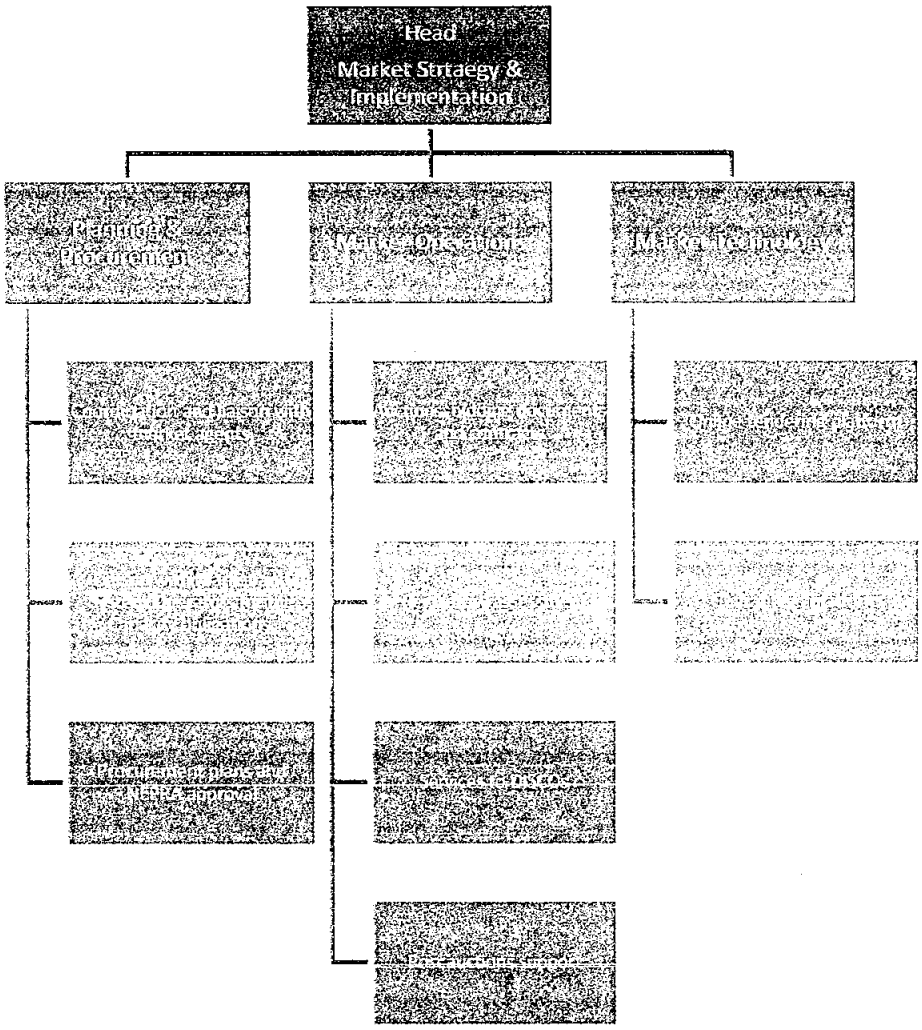
At a higher level of detail, the **Market Operation** is in charge of the following roles (as classified in Section 4.3):

- Regulatory Assessment and preparation of Standard Bidding Documents
- Administration of the Competitive Auctions
- Preparation of Market Based Contracts and Regulatory Approvals
- Post Auction support

At a higher level of detail, the **Market Technology** is in charge of the following roles (as classified in Section 4.3)

- Administer and develop an Online Tendering Platform
- Administer and develop a Guarantees Registering and Monitoring Platform

The following exhibit outlines the key departments specific to IAA and its key responsibilities[1]:



In addition to the above, in order to perform its IAA role, AEDB would require human resources in the fields of "Environment" and "Economics"; these skills are broadly required for the environmental assessment of the proposals, and economic evaluation of bids based on forecasted economic indicators etc. It is planned that AEDB will also cater these human resources through the professionals being hired by PPIB. The detailed organogram of AEDB depicting the existing and additional required human resources is placed at **Annex-IV**.

However, a detailed manpower needs assessment will be undertaken to determine the number of resources required in each department / core function for effective discharge of day-to-day duties / works.

[1] IAA shares corporate service departments (Business Development and Strategy, Legal and Regulatory, Finance and Accounts, IT and HR) with the current AEDB departments.

Based on the proposed structure for this agency and the benchmark analysis performed, the initial staff to kick-off the specific IAA section has been estimated to be 32 members, structured within the organization as depicted above. As mentioned above, it is planned that these human resource requirements will be catered through the human resources being hired by PPIB.

The specific staffing requirements and internal processes within the organization to perform the auctioning processes and monitoring of its performance will be thoroughly defined and substantiated in the coming months.

5.1- HR QUALIFICATIONS

According to the qualifications found along the international experience in these kinds of agencies, our initial thought was that at least half of the team should have a high technical qualification in subjects relating to engineering, industry, energy and economics, preferably with strong background on planning, regulation, new technologies. The MRC Consultant is in the process of evaluating international experience assessing the main skills that are deemed crucial to perform this evaluation. Based on this ongoing work, the following Staff Qualification Matrix is envisaged.

About 15% of the staff will be required for administrative purposes, 85% should be technical staff (professionals with high degree) for this division.

An illustrative snapshot of the proposed skills and experience is depicted below. Detailed positioning will be shaped depending upon the assessment of the workload foreseen in the coming years.

Position	Academic Background	Skills	Knowledge
Director General Staff 1	• High degree relating to engineering/economics. • Experience: Minimum 15 years.	• Leading, Management & Coordination. High reputation.	• Professional experience on power sector. Insight of sectoral policy issues and regulatory affairs, market development & reforms process, PPAs administration, project finance and tariff structuring of power generation. • Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
Planning & Procurement Director Staff 1	• Graduation degree relating to engineering/economics. • Experience: Minimum 12 years.	• Management and coordination of complex sectoral studies. • Institutional interrelation skills.	• Professional experience on power sector planning, market development & reforms process, project finance and tariff structuring of power generation.
• Coordination and liaison with market agents Staff 2	• Graduation degree relating to engineering/economics. • Experience: 5 years.	• Analytical, reporting and teamwork skills	• Professional experience on power sector planning and modelling
• Capacity Obligations Staff 2	• Graduation degree relating to engineering/economics. • Experience: 4 years.	• Analytical, reporting and teamwork skills	• Professional experience on power sector planning and modelling
• Procurement Plans and NEPRA approval Staff 2	• Graduation degree relating to engineering/economics. • Experience: 4 years. • Master Degree in Engineering / Energy / Economics / Finance	• Analytical, reporting and teamwork skills	• Professional experience on power sector planning and modelling
Research and Development			

Staff 1	• Experience 5 Years in R&D		
Market Operation			
• Director Staff 1	• Graduation degree relating to engineering/economics/accountancy • Experience: 12 years.	• Management and coordination of complex procurement processes. • Institutional interrelation skills.	• Professional experience on power sector regulation, market development & reforms process, procurement processes, PPAs administration and tariff structuring of power generation.
• Regulatory Assessment and Standard Bidding Documents Staff 2	• Graduation degree relating to engineering/economics/legal • Experience: More than 4 years.	• Analytical, reporting and teamwork skills	• Professional experience on procurement processes, PPAs administration and tariff structuring of power generation.
• Administration of Competitive Auctions Staff 4	• Graduation degree relating to engineering/economics/accountancy • Experience: More than 4 years.	• Analytical, reporting and teamwork skills	• Professional experience on procurement processes, PPAs administration and tariff structuring of power generation
• Market Contracts and Regulatory Approval Staff 2	• Graduation degree relating to engineering/economics/legal Experience: More than 4 years.	• Analytical, reporting and teamwork skills	• Professional experience on procurement processes, PPAs administration and tariff structuring of power generation
• Post Auction Support Staff 2	• Graduation degree relating to engineering/economics. • Experience: More than 4 years.	• Analytical, reporting and teamwork skills	• Professional experience on procurement processes, PPAs administration and tariff structuring of power generation
Market Technology			
• Director Staff 1	• Graduation degree relating to IT systems and commercial platforms. • Experience: 12 years.	• Management and coordination of team work on complex technology environments. • Institutional interrelation skills.	• Professional experience on procurement processes and commercial guarantees information management platforms.
• Online Tendering Platform Staff 4	• Graduation degree relating to IT systems • Experience: More than 4 years	• Analytical, development and teamwork skills	• Professional experience on information management platforms.

• Guarantees Platform Staff 2	• Graduation degree relating to IT systems • Experience: More than 4 years	• Analytical, development and teamwork skills	Professional experience on information management platforms.
Environment			
J Director Staff 1	• Master degree relating to Environmental Science. • Experience: Minimum 8 years.	• Management and coordination of team work on complex environmental interventions • Institutional interrelation skills.	• Professional experience on procurement processes and Environmental aspects of project processing.
• CDM Staff 1	• Master degree relating to Environmental Science • Experience: More than 5 years	• Analytical, development and teamwork skills	Professional experience on procurement processes and Environmental aspects of project processing
• Compliance Staff 1	• Graduation degree relating to IT systems • Experience: More than 4 years	• Analytical, development and teamwork skills	Professional experience on procurement processes and Environmental aspects of project processing
Economist			
Director Staff 1	• Master degree relating to Economics. • Experience: Minimum 12 years.	• Management and coordination of team work on complex environmental interventions • Institutional interrelation skills.	• Professional experience on procurement processes and economic aspects of project processing.
• Economist Staff 1	• Master degree relating to Economics • Experience: More than 5 years	• Analytical, development and teamwork skills	Professional experience on procurement processes and economic aspects of project processing

[..]→ Stands for the number of staff holding the specified qualification.

5.2- OPERATIONAL PLAN AND BUDGET

AEDB's operational budget for financial year 2021-22 is Rs. 311.55 million and it is anticipated that the operational budget for financial year 2022-23 shall be Rs. 465.605 million. Currently, AEDB is working with limited regular strength of officers. In future, AEDB will be enhancing its manpower along with capacity building of the manpower while taking into consideration the ongoing process of merger of AEDB with PPIB.

AEDB's prime sources of revenues include AEDB's own receipts (Fee etc.), Endowment Fund and regular budget allocation made by the Federal Government. Moreover, AEDB is also in the process of formulating its Fee Regulations under which AEDB will prescribe various Fees and Charges that will add to the revenue of AEDB. If the need arises, AEDB would seek additional budget grant from the Government of Pakistan for meeting its additional expenses required for effectively performing its role as IAA. AEDB's Financial Statements for the last three years are attached for ready reference. (Annex-V).

The capital budget related to Auction Management System (AMS) and other infrastructure is expected to be around US$ 2-2.5 million. Further, the operational budget shall be increased by 15% annually for next five (05) years from year 2022-23 in its capacity as an IAA. The budget of the AEDB linked to the IAA functions that is calculated on a multi-annual basis includes operating costs (including wages and salaries and funds for associates and external consultancy), capital costs related to R&D activities, dissemination campaigns, potential development or support provided to demonstration projects, etc. The budget is likely to increase in the first year due to the expected increase in tasks assigned to it.

IAA specific budget will be transparently composed and will include (but not limited to) the following cost components:

- CAPEX investment in Auction Management System (AMS)
- Operation and maintenance expenditures of AMS
- Organization and execution of capacity/energy auctions
- Regulatory and administrative support
- Dissemination and assistance to market agents

It will be reviewed if there is a need for a separate AMS to be acquired by AEDB otherwise AEDB will utilize the AMS and related infrastructure acquired by PPIB and therefore this capex would not be required.

Budget funding will include the following recovery mechanisms:

- Fee for the purchase and operation of AMS to be received from DISCOs
- Market administration fee imposed on market transactions and other fees as prescribed by AEDB Board(see Section 7)

5.3- PERFORMANCE ASSESSMENT

Any good governance process should involve a review of performance against key performance indicators (KPIs). Section 6 outlines the guidelines to implement capacity building program for the IAA, however, the performance should be monitored on annual basis with a thorough analysis upon completion of the proposed 5-year operational plan.

In this sense, the success of IAA would be more widely recognized if a simple and transparent evaluation and monitoring scheme is developed for reporting on its activities. The format of such indicators to conduct periodic reviews efficiently is hard to define without references on the specific activities which will be actually implemented. IAA will endeavor to have sensible indicators to adequately monitor its activities in the coming years.

6. HIGH LEVEL HR STRENTHNING AND CAPACITY BUILDING PLAN

The skills and knowledge required to address the challenging tasks to be allocated to the IAA lead to the realization that establishing a capacity building program for the staff is a must. The tentative approach on how to implement the capacity building program is outlined below. Nonetheless, this structure and the accurate training program should be fine-tuned and updated once the new entity is launched and its performance thoroughly analyzed prior to the commencement of the auctions.
The plan foreseen for this aspect will be as follows.

6.1- TRAINING NEEDS ASSESSMENT

The overall goal of the Training Needs Assessment is to evaluate the baseline of capacity and to determine the capacity building activities that are needed for the sustainable implementation of the different activities expected to be developed by the IAA.

Since AEDB already performs a number of activities as outlined at the beginning of this application, the training needs will be targeted to building up the required skills and capabilities from the additional resources the AEDB will need to incorporate to assume this new role. The assessment will involve verge on international experiences and the final roles. Based on the outcomes of this assessment the program should be tailored to the different needs.

Key requirements	Challenges	Areas of support	Mechanism/ Initiatives

In general terms, capacity is evaluated according to an individual's or institution's collective knowledge and skills to undertake an initiative or to see it through to completion. In this process, and at this stage, the capacity should be measured also by the level of willingness among decision makers to engage and commit to the development of the IAA.

6.2- APPROPRIATE CAPACITY BUILDING AND TRAINING METHODS

Interactive training is based on the main principles of the theory of trainee learning and helps get the participants involved, making the training process more active. The proposed trainees digest the information in the most effective way when working on own problem solving, performing practical exercises or while training others.

Training is also more effective if its outcomes can be applied within the context of the work of the IAA or the everyday life of the training participants. Good trainers can give the participants an opportunity to understand the objective character of the difficulties they face in their work and to start developing ways together to overcome them.
In summary, the capacity building and training courses should focus on the mixed use of:

1. mini-lecture process;
2. group discussions;
3. case studies and study tours
4. tests, simulations, role plays;
5. Small group exercises.

6.3- EXPECTED RESULTS AND FOLLOW-UP

At the conclusion of the training, it is expected that all members of the IAA have a clear idea of their roles, duties and overall goal of the organization.

Following the activities and performance of these institutions, case studies (how is this been developing in other similar agency?) are considered to be the most important section of the capacity building since its analysis will provide valuable knowledge to agency members in the following issues: process organization, flow of activities, projects developed in other countries, etc. Furthermore, the analysis of other experiences will enable spreading messages more quickly and effectively.

AEDB staff can also learn about the latest technology developments and best practices in the use of new technologies (e.g. auction and guarantees platforms) by analysing case studies produced by colleagues from other organizations and creating a working network.

Additionally, the assessment of other experiences will give a hint on how these organizations have dealt with barriers during its development and performance of activities. In this respect, study tours to reference countries (Brazil, Colombia) may give relevant insight understanding of those issues in real cases.

The previous activities may favor entering into cooperation agreements with other agencies in other countries, which seems to be milestone in the process of consolidation of this new agency. Additionally, participate as member or observer in some international associations of power agencies is also important.

This initial capacity building process should be just the beginning of an ongoing process; with the aim of being up to date in these rapidly evolving markets for sustainable energy products and services, as well as with the continuing evolution of the policy and legislation, AEDB staff needs to participate in regular training, capacity building and networking activities.

7. AUCTION ADMINISTRATOR FEE

As noted earlier AEDB being a statutory body provides various services to market players and it requires significant financial resources to meet its expenses that include general establishment and administration expenses, repair and maintenance, insurance, depreciation, finance charges and other relevant costs and capital expenses. From its very inception, AEDB has been meeting its operational expenses through budgetary support from Federal Government and income from various investments and nominal fee during project processing. Towards that end, the AEDB Act fully empowers the Board to prescribe fee and charges against various services offered by the Board. AEDB is also in the process of formulating its Fee & Charges Rules that will prescribe different Fee and Charges for facilitation provided by AEDB. Though at present AEDB can meet its future expenditures including for its function as an IAA based on AEDB's own revenues and GoP budgetary support, however; as and when required AEDB may by rules prescribe:

(a) A one-time fee to meet operational and capital expenditures to be incurred on account of Auction Management System (though during initial years, paper-based auctioning will be preferred); and

(b) A permanent fee to be charged to DISCOs for services to be rendered as the IAA.

8. FURTHER INFORMATION/DATA/DOCUMENTS:

As the rules under Section 25A of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 for registration that would provide the manner and conditions for entities providing Electric Power Services including for Independent Auction Administrator (IAA) and NEPRA's regulations thereunder are yet to be approved/framed, at this stage the exact legal or other regulatory requirements for registration as IAA under CTBCM Design cannot be conceived or contemplated with precision. AEDB, therefore, expressly reserves its right to add, delete, modify and substitute any information/data/document or ground for registration at later stage in view of such rules and regulations.

9. SUBMISSION

In view of the foregoing, NEPRA is requested to register AEDB under Section of 25A of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 as an Independent Auction Administrator to perform all functions and exercise all powers that are ordained for Independent

Auction Administrator under approved CTBCM design and to do all things and take all actions that are incidental and ancillary to such functions and powers.

Alternative Energy Development Board

Through

(Syed Aqeel Hussain Jafri)
Secretary AEDB

Annex-I

REGISTERED No. M - 302 / L.-7646

The Gazette of Pakistan

EXTRAORDINARY
PUBLISHED BY AUTHORITY

ISLAMABAD, TUESDAY, MAY 25, 2010

PART I

Acts, Ordinances, President's Orders and Regulations

SENATE SECRETARIAT

Islamabad, the 25th May, 2010

No. F. 9 (18)/2010-Legis.—The following Act of Majlis-e-Shoora (Parliament) received the assent of the President on 21st May, 2010, is hereby published for general information:—

ACT NO. XIV OF 2010

An Act to provide for establishment of Alternative Energy Development Board

WHEREAS it is expedient to provide for establishment of Alternative Energy Development Board (AEDB) as an autonomous body for the purpose of implementation of various policies, programmes and projects in the field of Alternative or Renewable Energy Technologies;

AND WHEREAS the objective of the Alternative Energy Development Board is to assist and facilitates development and generation of Alternative or Renewable Energy in order to achieve sustainable economic growth with transfer of technology

Price : Rs. 10.50

[2485(2010)/Ex. Gaz.]

for development of an indigenous technological base through a diversified energy generation.

It is hereby enacted as follows:—

CHAPTER I
PRELIMINARY

1. **Short title, extent and commencement.**—(1) This Act may be called the Alternative Energy Development Board Act, 2010.

(2) It extends to the whole of Pakistan.

(3) It shall come into force at once.

2. **Definitions.**—In this Act unless there is anything repugnant in the subject or context,—

(a) "alternative or renewable energy" means energy that is produced by alternative or renewable resources as compared to the conventional or that are replenished naturally which do not deplete when consumed and are non-polluting and environment friendly;

(b) "Board" means Alternative Energy Development Board (AEDB), established under section 3;

(c) "Chairman" means the Chairman of the Board;

(d) "Chief Executive Officer (CEO)" means the Chief Executive Officer of the Board appointed under section 5;

(e) "Chief Secretary" means Chief Secretary of a Province;

(f) "Fund" means the Alternative Energy Fund (AEF) established under section 13;

(g) "Institute" means Institute of Alternative and Renewable Energy Technologies established under section 11;

(h) "Member" means Member of the Board;

(i) "organization" means an organization of alternative and renewable energy established under section 10;

(j) "prescribed" means prescribed by rules or regulations made under this Act;

(k) "President" means President of the Islamic Republic of Pakistan;

(l) "Prime Minister" means Prime Minister of the Islamic Republic of Pakistan;

(m) "Provincial Secretary" means a Secretary of a Provincial Government;

(n) "regulations" means the regulations made under this Act; and

(o) "rules" means the rules made under this Act.

CHAPTER II

ALTERNATIVE ENERGY DEVELOPMENT BOARD

3. **Establishment of the Board.**—(1) There shall be established an Alternative Energy Development Board for carrying out the purposes and objectives of this Act.

(2) The Board shall be a body corporate having perpetual succession and a common seal, with administrative and financial powers, subject to the provisions of this Act, to enter into agreements, contracts, acquire and hold property, both moveable and immoveable and to sue and be sued in its name.

(3) The head office of the Board shall be at Islamabad and the Board may set up sub-offices at such place or places as it may deem necessary.

(4) The Board shall consist of the Chairman and Members.

4. **Chairman of the Board.**—The Chairman of the Alternative Energy Development Board shall be appointed by the Federal Government on such terms and conditions as may be determined by the Federal Government.

5. **Terms and conditions of office of the Chief Executive Officer (CEO).**—(1)The Chief Executive Officer shall be appointed by the Federal Government and the terms and conditions of the Chief Executive Officer, his remuneration and privileges shall be such as may be determined by the Federal Government.

(2) The Chief Executive Officer shall be an eminent engineering professional of known integrity, competence and expertise in handling Alternative Energy development projects.

(3) The Chief Executive Officer may resign from his office by giving one month notice, by writing under his own hand, addressed to the Federal Government. The age of Chief Executive Officer shall not be more than sixty five years.

(4) The Chief Executive Officer will be answerable to the Board for all administrative, financial and technical matters of the Board. The Board may delegate such administrative and financial powers to the Chief Executive Officer for carrying out day to day affairs of the Board.

6. **Members of the Board.**—(1) The composition of the Board shall be as follows:—

(a) Chairman;

(b) Secretary, Finance Division or his nominee not below the rank of Additional Secretary or equivalent;

(c) Secretary, Ministry of Water and Power or his nominee not below the rank of Additional Secretary or equivalent;

(d) Secretary, Planning and Development Division or his nominee not below the rank of Additional Secretary or equivalent;

(e) Secretary, Ministry of Petroleum and Natural Resources or his nominee not below the rank of Additional Secretary or equivalent;

(f) Secretary, Ministry of Science and Technology or his nominee not below the rank of Additional Secretary or equivalent;

(g) Secretary, Ministry of Environment or his nominee not below the rank of Additional Secretary or equivalent;

(h) Six Members from private sector, of whom at least three shall be experts on alternative energy, as full-time Members to be appointed by the Prime Minister on the recommendations of the Board;

(i) Chief Secretaries of the governments of Balochistan, Khyber Pakhtunkhwa, Punjab and Sindh or their nominees, not below the rank of Provincial Secretary; and

(j) The Chief Executive Officer of the AEDB.

(2) The Secretary of the Board shall be appointed by the Federal Government on the recommendations of the Board.

(3) The Federal Government may increase or decrease the number of Members of the Board from time to time as it may consider appropriate.

(4) The Federal Government may prescribe the qualifications and mode of appointment of Members from private sector in such manner as it may consider appropriate.

(5) The business of the Board shall be conducted as prescribed.

(6) One-half of the total membership of the Board shall constitute the quorum and in case of equality of votes the Chairman shall have the casting vote.

(7) In the absence of the Chairman, a Member designated by the Chairman shall preside over the Board meeting.

7. **Terms and conditions of office of Members.**—(1) A Member, other than an *ex officio* Member, shall be appointed by the Federal Government for a period of three years, extendable for another term of three years.

(2) A Member, other than *ex officio* Member, may at any time resign from his office by giving one month's notice, in writing under his own hand, addressed to the Federal Government.

(3) The Federal Government may remove any Member, other than *ex officio* Member, on grounds of misconduct and physical incapacitation.

8. **Functions of the Board.** —The functions of the Board shall be following, namely:—

(a) to develop national strategy, policies and plans for utilization of alternative and renewable energy resources to achieve the targets approved by the Federal Government in consultation with the Board;

(b) to act as a forum for evaluating, monitoring and certification of alternative or renewable energy projects and products;

(c) to act as a coordinating agency for commercial application of alternative or renewable technology; and

(d) to facilitate energy generation through alternative or renewable energy resources by,—

(i) acting as one window facility for establishing, promoting and facilitating alternative or renewable energy projects based on wind, solar, micro-hydel, fuel cells, tidal, ocean, biogas, biomass, etc;

(ii) setting up alternative and renewable energy projects on it's own or through joint venture or partnership with public or private entities in order to create awareness and motivation of the need to take such initiatives for the benefit of general public as well as by evaluating concepts and technologies from technical and financial perspective;

(iii) conducting feasibility studies and surveys to identify opportunities for power generation and other applications through alternative and renewable energy resources;

(iv) undertaking technical, financial and economic evaluation of the alternative or renewable energy proposals as well as providing assistance in filing of required licensing applications and tariff petitions to National Electric Power Regulatory Authority (NEPRA) established under the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997);

(v) interacting and co-ordinating with national and international agencies for promotion and development of alternative energy;

(vi) assisting the development and implementation of plans with concerned authorities and provincial governments and special areas for off-grid electrification of rural areas; and

(vii) making legislative proposals to enforce use and installation of equipment utilizing renewable energy.

9. **Committees of Board.**—(1) The Board may, for carrying out its functions, constitute such committees, from time to time, as may be considered appropriate by the Board.

(2) The committees shall conduct their business in such manner as may be prescribed by the Board.

10. **Organization of the Board.**—(1) The Board may, for carrying out its functions for promotion of alternative and renewable energy, development of alternative and renewable energy technologies, certification of alternative and renewable energy products and projects and project management may establish one or more organizations as it may consider necessary.

(2) The organization established under sub-section (1) shall be subject to control and supervision of the Board and shall function within the framework of this Act.

(3) An organization established under sub-section (1) shall perform such business as may be prescribed by regulations by the Board for the purpose.

11. **Institute of Alternative and Renewable Energy Technologies.**—(1) The Board may, for carrying out its functions of commercial application of alternative or renewable energy and corresponding human resource development in the area of alternative and renewable energy, establish an Institute of Renewable Energy Technologies.

(2) The Institute shall conduct the business in such manner as may be prescribed by regulations by the Board.

12. **Appointment of officers and staff of the Board.**—(1) The Board may appoint such officers, experts, advisors, consultants and members of staff as it may consider necessary for the efficient performance of its functions on such terms and conditions as may be prescribed.

(2) The officers, members of the staff, advisors, consultants and experts and other persons appointed by the Board shall not be civil servants within the meaning of the Civil Servants Act, 1973 (LXXI of 1973).

(3) The Chairman and non-official Members of the Board, officers, advisors, consultants, employees and staff of the Board when acting or purporting to act under any of the provisions of this Act, or rules and regulations, shall be deemed to be public servants within the meaning of section 21 of Pakistan Penal Code (Act XLV of 1860).

CHAPTER III

FUND, ACCOUNTS AND AUDIT

13. **Alternative Energy Fund.**—(1) There shall be established a non-lapsable fund vesting in the Board to be known as the "Alternative Energy Fund" for the purpose of meeting expenses in connection with the functions and operations of the Board, Institute, Projects and Organizations under this Act, including payment of salaries and other remuneration payable to the CEO, Members, members of its staff, experts, consultants, advisors and other officers and employees of the Board, Institute and the Organizations.

(2) The fund shall consist of,—

(a) funds provided by the Federal Government for payment of salaries, establishing infrastructure and running the day to day business of the Board;

(b) loans or grants by the Federal Government or any Provincial Government or local authority;

(c) other loans or funds obtained by the Board;

(d) foreign aid, grants and loans negotiated and raised, or otherwise obtained by the Board, directly or through the Economic Affairs Division;

(e) charges for services or for the provision of any information or report automated or otherwise to any government, private or any other person or entity;

(f) fees and commissions collected by the Board as prescribed from time to time;

(g) income from the sale of moveable or immoveable property;

(h) funds from floating bonds, shares, debentures, commercial papers, or other securities issued by the Board or through any other means;

(i) all other sums received or earned by the Board; and

(j) income from investments; receipts.

(3) The Alternative Energy Fund shall be kept in one or more accounts maintained by the Board, in local or foreign currency in any commercial bank in Pakistan and shall be operated in accordance with the directions of the Board.

(4) The Federal Government shall fund all administrative, operational and any other expenses:

Provided that the responsibility of the Federal Government to exclusively fund the operations and functions of the Board shall cease at such appropriate time when in the opinion of the Federal Government the Board shall have become capable of funding its functions and operations envisaged under this Act to be funded by the Board;

14. **Accounts and audit.**—(1) The Board, Institute and Organizations, shall prepare their own budget in respect of each financial year, in accordance with the prescribed procedure and shall maintain complete and accurate books of accounts of their actual expenses, and receipts including that of the Alternative Energy Fund.

(2) The accounts of the Board, Institute and Organizations, shall be audited by a reputable firm of Chartered Accountants, who are, within the meaning of the

Chartered Accountants Ordinance, 1961 (X of 1961), appointed by the Board in consultation with the Auditor-General of Pakistan, from a panel of chartered accountants proposed by the Board on such terms and conditions as the Board may determine.

(3) The Auditors appointed under sub-section (2) shall be provided access to the books, accounts and other documents as may be considered necessary by them for audit of the accounts.

(4) The Auditor-General may conduct each year external audit of the Board as per Auditor General's (Functions, Powers and Terms and Conditions of Service) Ordinance, 2001 (XXIII of 2001).

CHAPTER IV
MISCELLANEOUS

15. **Delegation of powers.**—(1) The Board may delegate all or any of its powers and functions to the Chief Executive Officer (CEO) subject to such conditions and limitations, as it may prescribe.

(2) The Board may delegate all or any of its powers and functions under this Act to any Member or Officer of the Board, subject to such conditions and limitations, as may be prescribed.

16. **Issuance of policy directives.**—The Federal Government may, as and when it considers necessary, issue policy directives to the Board in respect of its activities and the compliance of such directives shall be binding on the Board.

17. **Annual report.**—On conclusion of each financial year, the Chief Executive Officer shall submit an annual report to the Federal Government in respect of all activities of the Board including the status of its existing programmes, projects and future plans formulated in furtherance of its aims and objectives and the Federal Government shall cause a copy of the report to be presented in the Committees of the National Assembly and Senate and to be laid before the Parliament.

18. **Power to make rules.**—The Federal Government may, on the recommendations of the Board, make rules to carry out the purposes of this Act.

19. **Power to make regulations.**—(1) The Board, may make regulations, not inconsistent with this Act and the rules, to carry out the purposes of this Act.

(2) Without prejudice to the generality of the forgoing provisions, the regulations may provide for.—

(a) disciplinary proceedings and award of punishments;

(b) terms and conditions alongwith remuneration and privileges, etc. appointments of officers, staff members, experts, advisors and consultants etc;

(c) prescription of different scales and grades etc. for the remuneration and privileges of officers, staff members, experts, advisors and consultants of the Board;

(d) procedure for appointment of members of different committees and laying down regulations for the conduct of their business; and

(e) all or any of the matters which by this Act are to be or may be prescribed by the regulations.

20. **Authorities to aid the Board.**—All executive authorities in the Federation and in the Provinces shall render such assistance to the Board as may be necessary for the execution of its programmes and projects being carried out under this Act.

21. **Indemnity of the Board.**—No suit, prosecution or other legal proceeding shall lie against the Board, the Chairman, the Chief Executive Officer (CEO), the Members, professionals, officers, advisors, consultants, and other persons and employees of the Board, in respect of anything done or intended to be done in good faith under this Act.

22. **Removal of difficulties.**—If any difficulty arises in giving effect to any of the provisions of this Act, the President may make such order, not inconsistent with the provisions of this Act, as may appear to be necessary for removing the difficulty.

23. **Dissolution of Board.**—Upon the commencement of this Act, the Alternative Energy Development Board established *vide* Notification No. F. 1/7/2003-Admn II, dated 12th May 2003, hereinafter referred to as the former Board, shall stand dissolved and upon such dissolution.—

(a) all assets, rights, powers, authorities and privileges and property, moveable and immoveable, cash and bank balance, reserve funds, investments and all other interests and rights in, or arising out of such property and all debts, liabilities and obligations of whatever kind of the former Board subsisting immediately before its dissolution shall stand transferred to and vest in the Board;

(b) all officers and other employees of the former Board shall, notwithstanding anything contained in any law or in any agreement, deed, document or other instrument, stand transferred to the Board and shall be deemed to have been appointed or engaged by the Board in accordance with the terms and conditions of service applicable to them; and no officer or other employee whose services are so transferred shall be entitled to any compensation because of such transfer;

(c) all debts and obligations incurred or contracts entered into or rights acquired and all matters and things engaged to be done by, with or for the former Board before its dissolution shall be deemed to have been incurred, entered into, acquired or engaged to be done by, with or for the Board; and

(d) all suits and other legal proceedings instituted by or against the former Board before its dissolution shall be deemed to be suits and proceedings by or against the Board and may be proceeded or otherwise dealt with accordingly.

24. **Exemption from taxes.**—Notwithstanding anything contained in the Income Tax Ordinance, 2001 (XLIX of 2001), or any other law for the time being in force relating to income tax, the Board shall not be liable to pay any such tax on its income, investment, capital profit, wealth, gifts or gains.

RAJA MUHAMMAD AMIN,
Secretary.

PRINTED BY THE MANAGER, PRINTING CORPORATION OF PAKISTAN PRESS, ISLAMABAD.
PUBLISHED BY THE DEPUTY CONTROLLER, STATIONERY AND FORMS, UNIVERSITY ROAD, KARACHI.

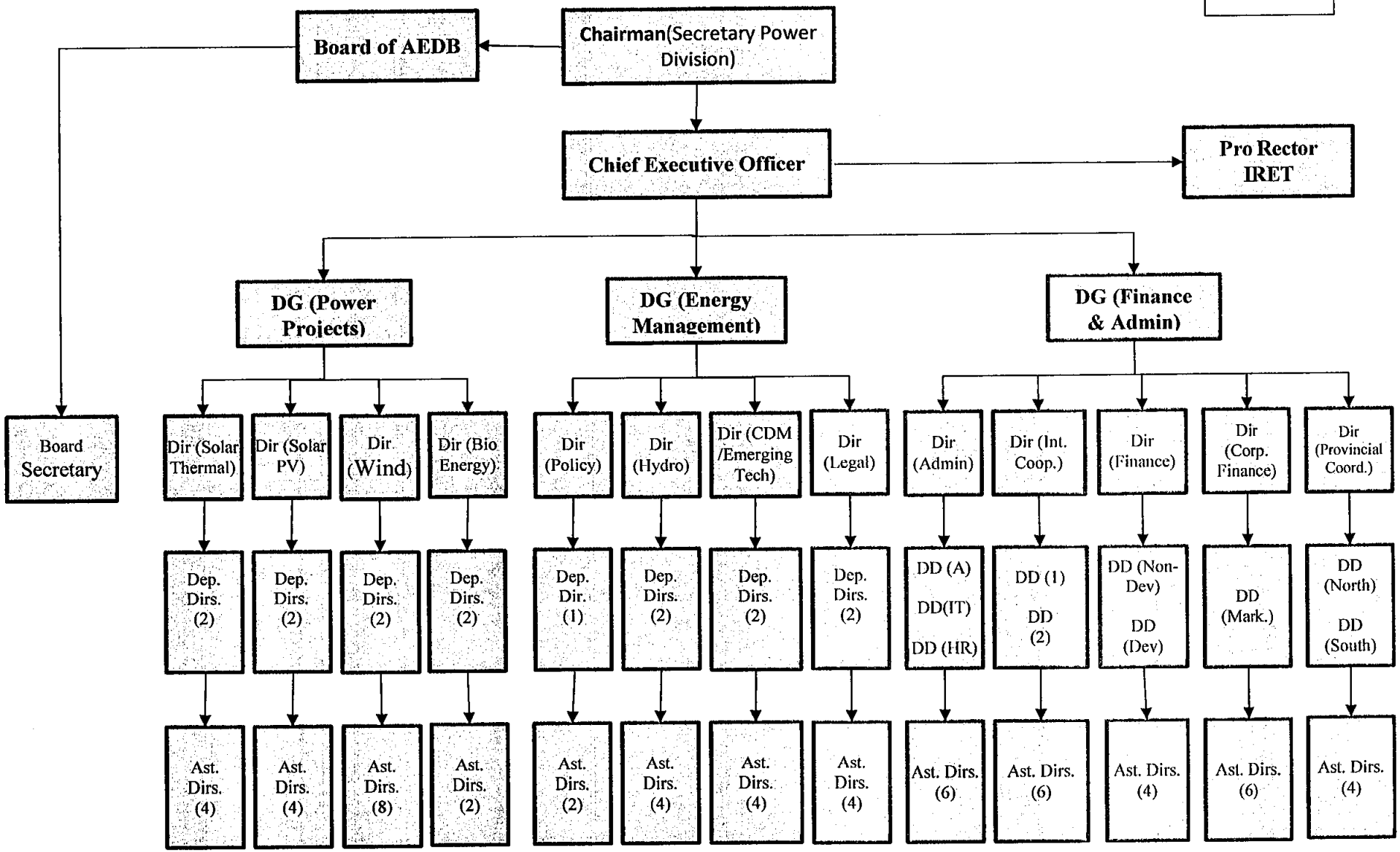
Annex-II

List of AEDB Executives

S#	Name	Designation	Section	Scale	Qualification	Experience		
						Other (Exp. Before joining AEDB)	AEDB	Total
1	Mr. Imtiaz Ali Shah	Director	On Deputation with Government of Sindh	AES-9	BE (Electrical) MS (Telecom)	14 Years	08 years, 09 months	22 years, 04 months
2	Mr. Jahangir Khan	Director Finance	Finance Section	AES-9	MBA (Finance), MS Project Management	05 years, 10 months	15 years, 05 months	21 years, 03 months
3	Mr. Sheeraz Anwar Khan	Director Wind	Wind & Solar Thermal Section	AES-9	BE, Mechanical MS Engineering Management	--	16 years, 06 months	16 year 06 months
4	Syed Aqeel Hussain Jafri	Director Policy	Policy & Secretary AEDB	AES-9	BE, Mechanical	03 months	16 years, 06 months	16 years, 9 months
5	Mr. Naeem Memon	Director Solar PV	Solar Section	AES-9	BE Civil MS (Wind Energy)	04 years, 04 months	14 years, 09 months	19 year 02 months
6	Mr. Sulman Ishaque Malik	Deputy Director	Bio- Energy Section & Administration	AES-8	BE, (Mechanical)	09 months	16 years	16 years, 10 months

7	Mr. Nadeem Sabir Virk	Deputy Director	Currently attach with Ministry as DS (Admin)	AES-8	B.A	15 year 02 month	17 years, 01 month	32 years, 03 months
8	Mr. Muhammad Asghar	Deputy Director	Admin & Legal Affairs	AES-8	MBA, Management & MKT), LLB.	01 year, 09 months	15 years, 06 months	17 years, 03 months
9	Mr. Khalil Khetran	Deputy Director	Waste to Energy Section & PV Off-Grid	AES-8	BE (Electrical)	05 years, 11 months	14 years	19 years, 11 months
10	Mr. Muhammad Bilal	Deputy Director	South &IT	AES-8	MBA (Project Management)	--	14 year 10 months	14 years, 10 months
11	Ms. Zahra Syed	Deputy Director	Human Resource	AES-8	MS in International Studies-Development Cooperation, MA English.	--	1 5year 06 months	16 years, 01 months
12	Mr. Shafqain Shah	Assistant Director (Admin)	Admin	AES-7	MBA (Management)	5 year 06 months	09 years, 04 months	14 year 10 months
13	Mr. Muhammad Yaseen	Assistant Director	Solar Thermal & Wind Section	AES-7	MB, Mechanical	01 year 07 months	15 years, 04 months	16 years 11 months
14	Mr. Muhammad Asad Saleem	Assistant Director	Currently attach with Ministry	AES-7	MBA, (IT)	02 year 03 months	14 years, 04 months	16 year 07 months

Annex-III


Board of AEDB
Chairman(Secretary Power Division)
Chief Executive Officer
Pro Rector IRET
Board Secretary
DG (Power Projects)
DG (Energy Management)
DG (Finance & Admin)
Dir (Solar Thermal)
Dir (Solar PV)
Dir (Wind)
Dir (Bio Energy)
Dir (Policy)
Dir (Hydro)
Dir (CDM /Emerging Tech)
Dir (Legal)
Dir (Admin)
Dir (Int. Coop.)
Dir (Finance)
Dir (Corp. Finance)
Dir (Provincial Coord.)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dir. (1)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dirs. (2)
DD (A)
DD(IT)
DD (HR)
DD (1)
DD (2)
DD (Non-Dev)
DD (Dev)
DD (Mark.)
DD (North)
DD (South)
Ast. Dirs. (4)
Ast. Dirs. (4)
Ast. Dirs. (8)
Ast. Dirs. (2)
Ast. Dirs. (2)
Ast. Dirs. (4)
Ast. Dirs. (4)
Ast. Dirs. (4)
Ast. Dirs. (6)
Ast. Dirs. (6)
Ast. Dirs. (4)
Ast. Dirs. (6)
Ast. Dirs. (4)

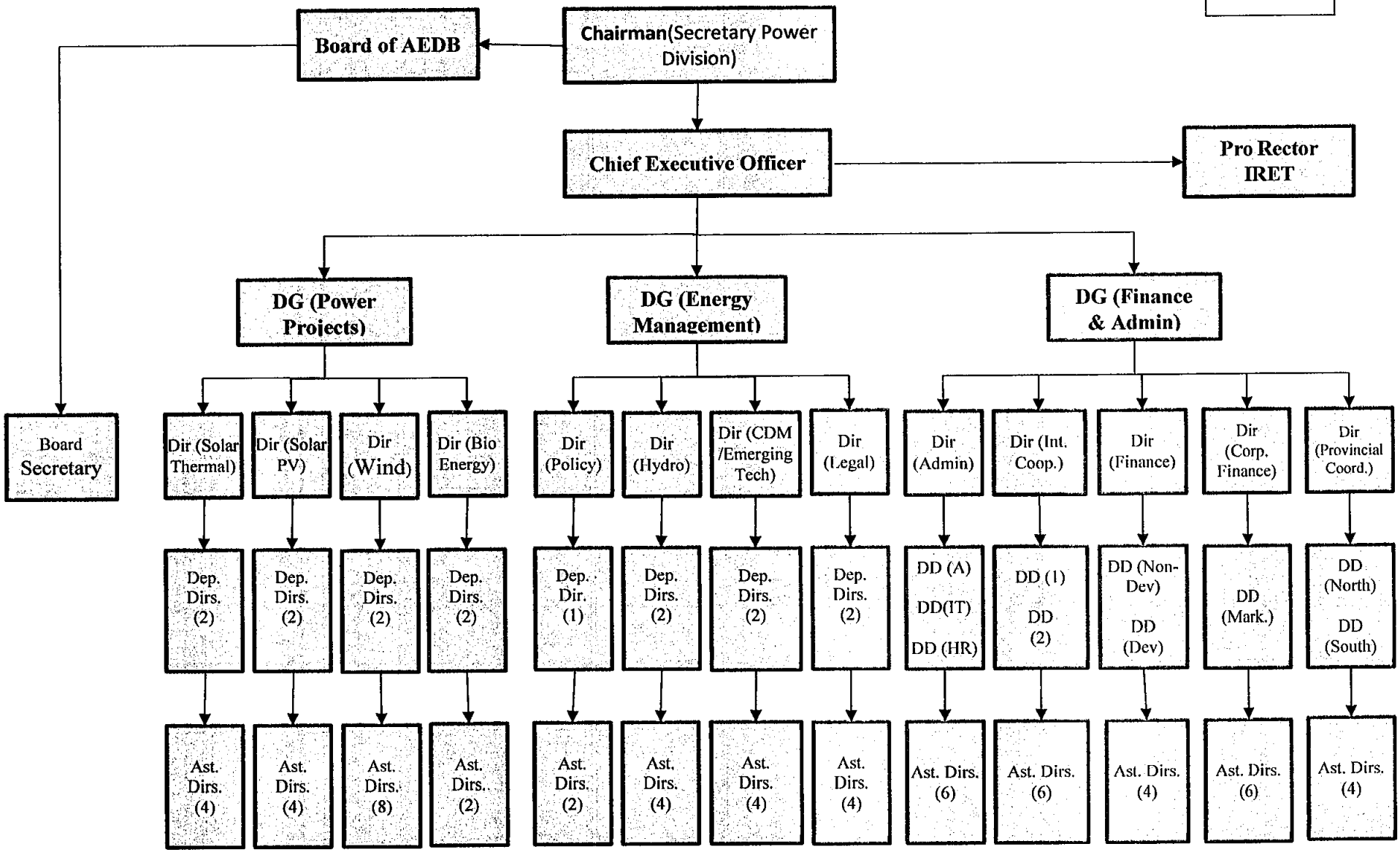
Annex-II

List of AEDB Executives

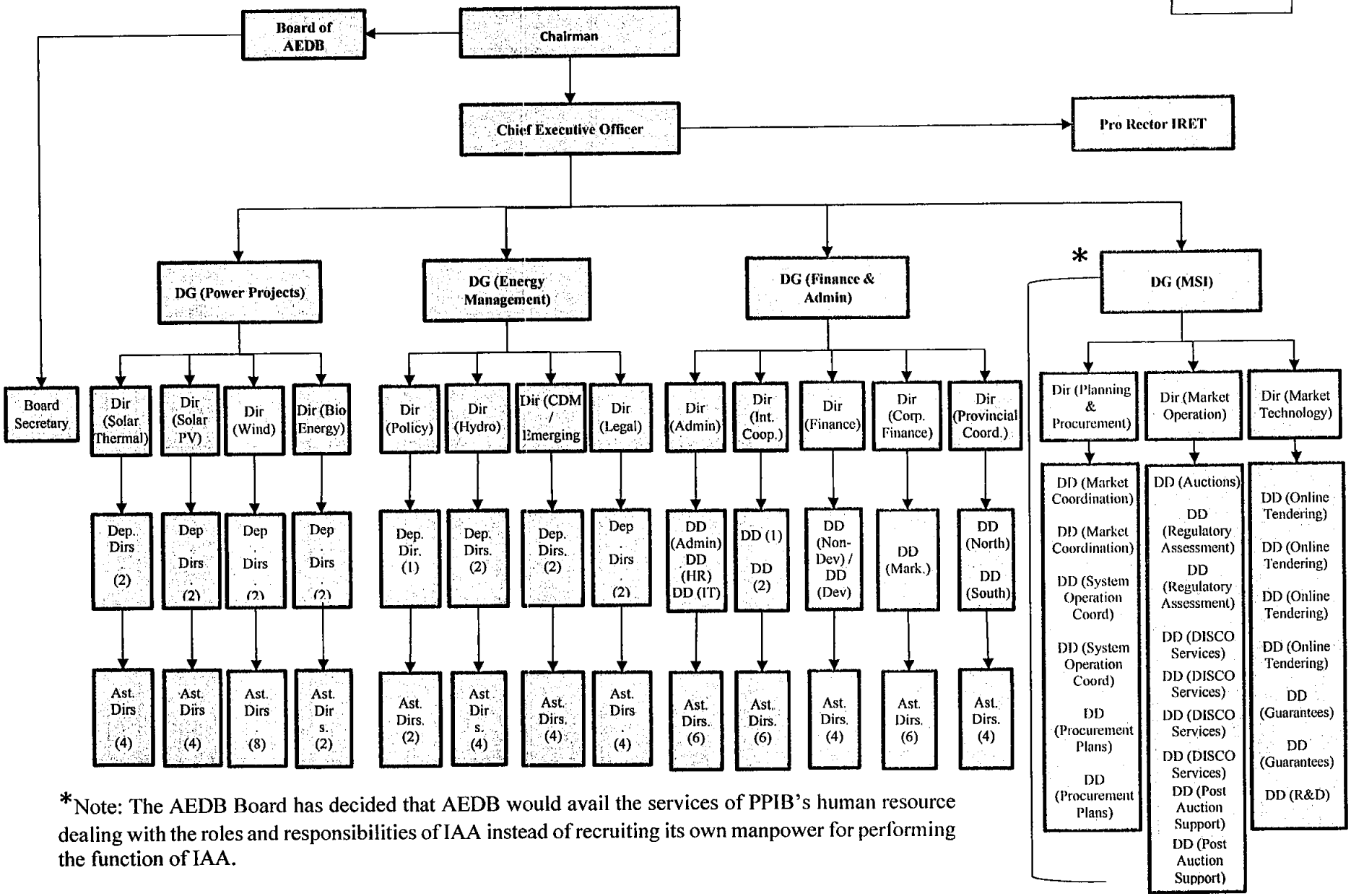
S#	Name	Designation	Section	Scale	Qualification	Experience		
						Other (Exp. Before joining AEDB)	AEDB	Total
1	Mr. Imtiaz Ali Shah	Director	On Deputation with Government of Sindh	AES-9	BE (Electrical) MS (Telecom)	14 Years	08 years, 09 months	22 years, 04 months
2	Mr. Jahangir Khan	Director Finance	Finance Section	AES-9	MBA (Finance), MS Project Management	05 years, 10 months	15 years, 05 months	21 years, 03 months
3	Mr. Sheeraz Anwar Khan	Director Wind	Wind & Solar Thermal Section	AES-9	BE, Mechanical MS Engineering Management	--	16 years, 06 months	16 year 06 months
4	Syed Aqeel Hussain Jafri	Director Policy	Policy & Secretary AEDB	AES-9	BE, Mechanical	03 months	16 years, 06 months	16 years, 9 months
5	Mr. Naeem Memon	Director Solar PV	Solar Section	AES-9	BE Civil MS (Wind Energy)	04 years, 04 months	14 years, 09 months	19 year 02 months
6	Mr. Sulman Ishaque Malik	Deputy Director	Bio- Energy Section & Administration	AES-8	BE, (Mechanical)	09 months	16 years	16 years, 10 months

7	Mr. Nadeem Sabir Virk	Deputy Director	Currently attach with Ministry as DS (Admin)	AES-8	B.A	15 year 02 month	17 years, 01 month	32 years, 03 months
8	Mr. Muhammad Asghar	Deputy Director	Admin & Legal Affairs	AES-8	MBA, Management & MKT), LLB.	01 year, 09 months	15 years, 06 months	17 years, 03 months
9	Mr. Khalil Khetran	Deputy Director	Waste to Energy Section & PV Off-Grid	AES-8	BE (Electrical)	05 years, 11 months	14 years	19 years, 11 months
10	Mr. Muhammad Bilal	Deputy Director	South &IT	AES-8	MBA (Project Management)	--	14 year 10 months	14 years, 10 months
11	Ms. Zahra Syed	Deputy Director	Human Resource	AES-8	MS in International Studies-Development Cooperation, MA English.	--	1 5year 06 months	16 years, 01 months
12	Mr. Shafqain Shah	Assistant Director (Admin)	Admin	AES-7	MBA (Management)	5 year 06 months	09 years, 04 months	14 year 10 months
13	Mr. Muhammad Yaseen	Assistant Director	Solar Thermal & Wind Section	AES-7	MB, Mechanical	01 year 07 months	15 years, 04 months	16 years 11 months
14	Mr. Muhammad Asad Saleem	Assistant Director	Currently attach with Ministry	AES-7	MBA, (IT)	02 year 03 months	14 years, 04 months	16 year 07 months

Annex-III


Board of AEDB
Chairman(Secretary Power Division)
Chief Executive Officer
Pro Rector IRET
Board Secretary
DG (Power Projects)
DG (Energy Management)
DG (Finance & Admin)
Dir (Solar Thermal)
Dir (Solar PV)
Dir (Wind)
Dir (Bio Energy)
Dir (Policy)
Dir (Hydro)
Dir (CDM /Emerging Tech)
Dir (Legal)
Dir (Admin)
Dir (Int. Coop.)
Dir (Finance)
Dir (Corp. Finance)
Dir (Provincial Coord.)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dir. (1)
Dep. Dirs. (2)
Dep. Dirs. (2)
Dep. Dirs. (2)
DD (A)
DD(IT)
DD (HR)
DD (1)
DD (2)
DD (Non-Dev)
DD (Dev)
DD (Mark.)
DD (North)
DD (South)
Ast. Dirs. (4)
Ast. Dirs. (4)
Ast. Dirs. (8)
Ast. Dirs. (2)
Ast. Dirs. (2)
Ast. Dirs. (4)
Ast. Dirs. (4)
Ast. Dirs. (4)
Ast. Dirs. (6)
Ast. Dirs. (6)
Ast. Dirs. (4)
Ast. Dirs. (6)
Ast. Dirs. (4)

Annex-IV



*Note: The AEDB Board has decided that AEDB would avail the services of PPIB's human resource dealing with the roles and responsibilities of IAA instead of recruiting its own manpower for performing the function of IAA.

Annex-V

Alternative Energy Development Board
Ministry of Energy (Power Division), Islamabad

FINANCIAL STATEMENT 2020-21

Head	Major/Minor Heads	Approved Budget 2020-21	Expenditure 2020-21
1	2	3	3
A01	Employees Related Expenses	189,991,124	167,283,176
-	Pay	116,707,723	106,127,981
A-1101	Basic Pay (Officers, AES-7 and above)	*64,374,375*	*53,968,500*
A-1151	Baisc Pay (Staff, AES-1 to 6)	*52,333,347*	*52,159,481*
	Regular & Other Allowances	73,283,401	61,155,195
A-1202	HRA	*28,209,312*	*24,593,855*
A-1203	Conveyance Allowance	*3,746,817*	*3,364,718*
A-1216	Qualification Allowance	*201,894*	-
A-1217	Medical Allowance	*8,973,325*	*7,895,377*
A-1238	Addl Charge Allowance	*216,000*	*216,291*
A-1240	Utility Allowance	*8,235,204*	*7,662,767*
A-1271	Overtime Allowance (Drivers)	*99,100*	-
A-1273	Honorarium	*8,015,470*	*7,633,251*
A-1274	Medical Charges	*10,000,000*	*6,948,848*
A-1277	Contingent Paid Staff	*5,586,280*	*2,840,088*
A03	Operating Expenses	57,169,264	39,614,979
	Communication	1,882,514	1,787,268
	Utilities	13,363	-
	Occupancy cost	26,624,480	23,748,000
	Motor Vehicles	-	149,488
	Travel & Transportation	16,189,909	2,648,814
	General	10,986,516	9,870,349
A04	Employees Retirement Benefits	20,946,521	18,095,442
A06	Transfers	50,000	-
A09	Expenditure on Acquiring of Physical Assets	106,548	14,070
A13	Repair and Maintenance	1,736,542	1,133,320
Total Budget		**270,000,000**	**226,140,987**
A-06202	**Contribution to International Agencies (Foreign Exchange) (IRENA)**	**USD 21,500**	

Sources of AEDB Reciepts (2020-21)		
Sr. No	Nature of Reciepts	Amount
i.	Government Allocation	66,993,000
ii.	Profit on Endowment Grant	44,008,182
iii.	Encashement of Bank / Performance Guarantees	8,024,000
iv.	Fees (Processing/Certification)	55,477,500
v	Land Lease Amount	46,654,000
vi.	Profit Received from Banks	6,861,014
vii.	Other Reciepts (Sale of Assets etc)	17,411,346
Total		**245,429,042**

Alternative Energy Development Board
Ministry of Energy (Power Division), Islamabad

FINANCIAL STATEMENT 2019-20

Head	Major/Minor Heads	Approved Budget 2019-20	Expenditure 2019-20
1	2		3
A01	**Employees Related Expenses**	**222,838,747**	**141,862,316**
	Pay	**137,637,841**	**83,803,400**
A-1101	Basic Pay (Officers, AES-7 and above)	*74,949,182*	*45,025,016*
A-1151	Baisc Pay (Staff, AES-1 to 6)	*62,688,659*	*38,778,384*
	Regular & Other Allowances	**85,200,906**	**58,058,916**
A-1202	HRA	*33,454,008*	*24,124,264*
A-1203	Conveyance Allowance	*4,332,368*	*2,711,985*
A-1216	Qualification Allowance	-	*128,150*
A-1217	Medical Allowance	*11,151,228*	*7,877,792*
A-1238	Addl Charge Allowance	*1,558,500*	*207,725*
A-1240	Utility Allowance	*6,073,781*	*6,620,554*
A-1271	Overtime Allowance (Drivers)	*605,000*	*38,600*
A-1273	Honorarium	*12,439,741*	*6,271,496*
A-1274	Medical Charges	*10,000,000*	*5,231,590*
A-1277	Contingent Paid Staff	*5,586,280*	*4,846,760*
A02	**Project Pre-investment Analysis**	-	-
A-2201	Feasibility Studies		-
A-2202	Research and Surveys'		-
A-2203	Establishment of IRET		-
A03	**Operating Expenses**	**63,877,122**	**36,274,128**
A-3101	Bank Fees	*847*	-
A-3102	Legal Fees	*8,073,975*	*665,000*
	Communication	1,890,000	1,475,016
	Utilities	105,000	2,863
	Occupancy cost	23,384,030	23,625,846
	Travel & Transportation	15,120,000	4,282,909
	General	15,302,500	6,222,494
A04	Employees Retirement Benefits	**71,082,004**	**13,838,351**
A06	Transfers	**500,000**	-
A08	Loans and Advances	-	-
A09	Expenditure on Acquiring of Physical Assets	**770,000**	**29,548**
A13	Repair and Maintenance	**2,832,500**	**1,453,292**
Total Budget		**361,900,373**	**193,457,635**

Sources of AEDB Reciepts (2019-20)

Sr. No	Nature of Reciepts	Amount
i.	Government Allocation	64,480,000
ii.	Profit on Endowment Grant	6,788,154
iv.	Fees (Processing/Certification)	58,932,221
v	Land Lease Amount	46,654,000
vi.	Profit Received from Banks	2,917,454
Total		**179,771,829**

Alternative Energy Development Board

Ministry of Energy (Power Division), Islamabad

FINANCIAL STATEMENT 2018-19

Head	Major/Minor Heads	Approved Budget 2018-19	Expenditure 2018-19
1	2		3
A01	Employees Related Expenses	204,709,644	168,331,141
-	Pay	110,214,074	95,054,241
A-1101	Basic Pay (Officers, AES-7 and above)	*66,034,320*	*53,395,553*
A-1151	Baisc Pay (Staff, AES-1 to 6)	*44,179,754*	*41,658,688*
	Regular & Other Allowances	94,495,570	73,276,900
A-1202	HRA	*38,906,267*	*29,786,031*
A-1203	Conveyance Allowance	*4,382,485*	*3,595,525*
A-1216	Qualification Allowance	*175,560*	*83,500*
A-1217	Medical Allowance	*12,968,639*	*9,938,422*
A-1238	Addl Charge Allowance	*1,355,218*	*1,310,421*
A-1240	Utility Allowance	*8,000,929*	*8,758,866*
A-1271	Overtime Allowance (Drivers)	*550,000*	*567,700*
A-1273	Honorarium	*8,078,036*	*10,978,547*
A-1274	Medical Charges	*15,000,000*	*3,641,128*
A-1277	Contingent Paid Staff	*5,078,436*	*4,616,760*
A03	**Operating Expenses**	62,808,270	35,556,610
	Occupancy cost	21,168,000	19,074,000
-	Travel & Transportation	17,400,000	7,136,756
-	General	14,650,000	3,659,574
A04	Employees Retirement Benefits	37,488,320	13,614,004
A06	Transfers	2,000,000	1,000,281
A09	Expenditure on Acquiring of Physical Assets	700,000	134,925
A13	Repair and Maintenance	2,575,000	1,012,450
Total Budget		**310,281,234**	**219,649,411**

Sources of AEDB Reciepts (2018-19)		
Sr. No	**Nature of Reciepts**	**Amount**
i.	Government Allocation	62,000,000
ii	Encashment of BG/PG	9,675,000
iii	Fees (Processing/Certification)	74,586,056
iv	Land Lease Amount	46,654,000
v.	Profit Received from Banks	930,208
Total		**193,845,264**