

Welcome to Pakistan!

In recent years, Pakistan has achieved continued Gross Domestic Product ("GDP") growth and substantially reduced poverty. GDP growth was 5.2 percent in FY17-18 and is expected to continue accelerating in the coming years. Being the world's sixth most populous country with a population of over 210 million people, Pakistan offers tremendous business opportunities.

Pakistan's overarching socioeconomic objective is to raise the country's human development indicators. The main objective is to "place Pakistan in the league of Upper Middle-Income countries by 2025." In order to meet the Energy Challenge the Government of Pakistan will, (a) Shift away from rent seeking models to increase system efficiency, (b) Complete rural electrification through renewable and off-grid solutions, (c) Transition towards "power exchange", allowing more efficient technologies to get precedence in dispatch, (d) Continue to support the expansion and utilization of indigenous coal, primarily Thar Coal, (e) Revive oil & gas exploration and (f) Champion and expand net metering and solarisation of houses.



Foreign Direct Investment ("FDI") in Pakistan has seen an important increase following the China-Pakistan Economic Corridor ("CPEC") initiative. The \$54 billion CPEC initiative, a partnership between China Pakistan, encompasses a portfolio of infrastructure projects that are under construction or development in Pakistan. The objective of CPEC is to support Pakistan's infrastructure modernization and strengthening its economy by the construction transportation networks, numerous energy projects and special economic zones. A recent change in CPEC strategy to increase Local Value Addition to 30% in CPEC Projects will increase sustainability of GDP growth. Recently announced Investments by Arab countries for Pakistan's indigenous Oil & Gas resources will give substantial boost to its GDP and Vision 2025.



Pakistan is a rich country with huge renewable and conventional energy resources which it has now started to exploit. As per 2010 18th Amendment to the Constitution of Pakistan, the provinces are empowered to generate, transmit and distribute power within their territorial jurisdiction. However, the provinces are slowly picking up speed to effectively implement the constitutional amendment with regard to electricity. To meet the electricity demand increasing rapidly at about five percent per annum, the investments in transmission and distribution systems offer a great opportunity for local and foreign industry for years to come.





Despite increased fossil fuel fired generation in recent years, Pakistan remains as one of the least contributors to (Greenhouse Gas) emissions. Pakistan is still committed to reduce upto 20 percent of its 2030 projected GHG emissions. The main mitigation options are (i) increased transport efficiency through Electrical Vehicles, (ii) Energy Conservation, & (iii) Distributed grid connected solar, wind & hydroelectricity. The Government's new policies are laying increased emphasis on local development of engineering electrical & nonelectrical machinery, transportation industries etc. to meet Vision 2025 goals. This will also be reflected in IEEEP Fair 2019.

PAKISTAN - A LEADING EMERGING MARKET AND WORLD'S CORRIDOR OF INVESTMENTS

Due to its strategic location, Pakistan provides an ideal transit route to the markets of Iran, Central Asian Republics and the Middle East. Owing to the policies of the government to adopt a market friendly approach, Pakistan is now viewed as a leading emerging market. This has resulted in a strong interest of foreign investment and collaboration in various fields by Arab and European countries apart from China for which Pakistan is a natural strategic and economic ally. Pakistan offers very profitable investment opportunities to both local and foreign investors, and private investment is being encouraged in major sectors of the economy. Pakistan has a fairly large market with an availability of skilled and trained manpower at competitive rates.



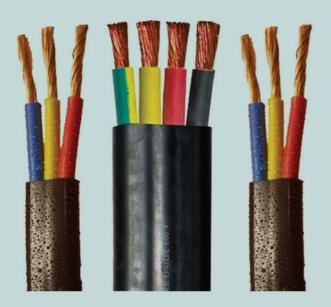
Pakistan's Energy Resources -Enormous Potential

Pakistan is a country gifted with all conventional and renewable energy sources, however, per capita primary energy consumption is just one-fifth of the world average. This situation is changing fast as National goals are becoming important. Pakistan has already started producing 660MW of electrical power in April 2019 using its Thar coal, which comes from one of the largest coal reserves in the world.



CONVENTIONAL ENERGY RESOURCES

The energy mix for the next 20 years is quite evident from the chart from a recent study carried out by a renowned consultant funded by the World Bank and supported by the Ministry of Power including its agencies.

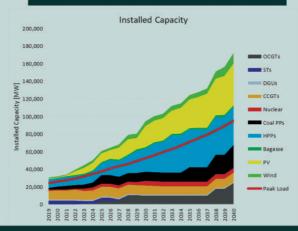


ALTERNATE ENERGY RESOURCES

Pakistan has great potential of alternate energy like wind, solar, micro-hydel, tidal, biomass and biogas. There is great potential for wind energy in Sindh estimated to be 60,000 MW in the Thatta Wind Corridor alone. Pakistan's average solar radiation is 5.5 kW/meter square is one of the World's best.

Energy from biomass is another important area where Pakistan can benefit by exploiting it in efficient manner. Urban areas of Pakistan generate over 55,000 tons of solid wastes daily. There are more than 6,000 surface indications of geo-thermal energy resources with an estimated potential of 800 MW. About 1000MW of tidal potential is also there to be exploited in the coastal regions.

SCENARIO: GOP DRAFT POLICY 2019



Role of IEEEP Fair in Promoting Local and Market Relevant Products

With a large population of over 210 million & a developing economy, Pakistan's energy needs are huge. The Country needs to exploit its existing energy resources for a sustained and comfortably affordable future. IEEEP Fair helps in creating an interface between solution providers & solution seekers by encouraging participation from a large section of decision makers to the Fair & meet companies engaged in providing professional goods and services. After a careful study of GoP future plans & international market trends, the Exhibitors are accordingly advised.

MAJOR MODERN TECHNOLOGIES AT | EEEP FAIR 2019

Electrical Vehicles

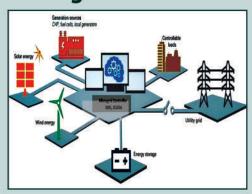
Pakistan is quite ready to induct Electrical Vehicles (EVs) which do not produce exhaust gases during operation. However, the electrical energy for charging the vehicle has to come from renewable sources, e.g. from wind & solar to make the EVs more effective in meeting targets of Paris Agreement.

The EVs can be very easily manufactured locally. Several foreign companies are ready to invest in local production of electric cars. Pakistani entrepreneurs in developed countries are also looking into relocating their manufacturing units in various economic zones being created for the purpose.

The Government also plans to go for locally manufactured electric buses suited to the local road infra-structure, as being done by many SAARC countries. Research is also going on at local universities to produce fast charging, long lasting batteries for EVs. The industry also says that local manufacturing of EVs is the only solution for a sustained development.



Micro-grids



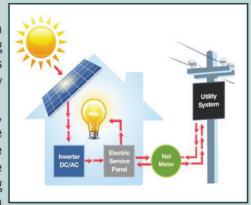
Micro-grids are gaining importance as the provincial governments in Pakistan turn their attention towards electrifying remote villages. Off-grid solar with storage and the micro-grids are bound to play a significant role as village electrification progresses.

Pakistan has also emerged as one of the largest off-grid solar-storage and micro-grids markets among the emerging economies. The most recent WB study indicates that 20GW of PV Solar can be integrated into the Grid Systems of Pakistan by 2025 at lowest possible Levelized Cost of Electricity (LCoE). The provincial governments have already started a number of solarisation programs where significant role of private sector is envisaged. Enabling environment for prequalified suppliers & developers has already been created.

Net Metering

To resolve generation shortfall and the transmission and distribution bottlenecks, which are the main contributor towards regular load shedding being faced time and again all over Pakistan, the Government of Pakistan is promoting investments in small scale distributed Renewable Energy generation, on the basis of the Net-Metering concept.

PV Solar efficiencies have increased and prices are quite affordable now, therefore, mutually beneficial financial models are quite possible and are being implemented. A number of success stories are already there. Over the next 3 years, integration of more than 1000MW are targeted, from small-scale (1 KW to 1 MW) Renewable Energy installations at the distribution level using net-metering. This will be done by private sector developers through prequalified contractors and suppliers.



TWO DAYS INTERNATIONAL CONFERENCES AND PRODUCT SEMINARS



Full day Academia and Industry Conferences have become a regular feature of the IEEEP Fair. While the Academia Conference on the 2nd day will present the most recent research at local Universities to resolve current technical issues, the Industry Conference on the 3rd day will focus on the technical aspects of the exhibited products in the IEEEP Fair 2019. Small individual product seminars will also be arranged for the interested exhibitors.



OUTREACH OF





- Special invitations to Ministries, Senior Government officials and Policy makers to share the requirements of upcoming projects by the Government. Strategic marketing and awareness program to attract potential visitors at the show.
- Visits of high profile Engineering Consultants and Technical Delegations for the evaluation and endorsement of new products.
- Pre-scheduled meeting opportunities for leading domestic distributors with Foreign Principals.
- Technical Conferences and Product Seminars involving Academia & Industry.

BENEFITS OF





- Development of new business prospects and strengthening the existing ones by interaction with key clients and business partners. Interaction with government officials, Policy makers association's representatives and stakeholders.
- Introduction of new products and demonstration of technology and equipment in front of influential organizations & eminent institutions.
- Integrating allied engineering in the field of Telecom, Computer and Biomedical technologies. Ideal platform to showcase and compare the performance of competitive suppliers.
- Direct personal access to the buyers and face-to-face meetings with industry professionals.













Pakistan Pavilion to induct Integrated Energy Model



To meet the objectives of indigenous, sustained, inclusive growth; energy, food, and water security; development of knowledge based economy and modernized infrastructure and strengthened regional connectivity, the IEEEP Fair 2019 will be introducing a "Pakistan Pavilion" to seek synergy in the above essential elements of the Country's economic activity.

EXHIBIT PROFILE





- Energy Conservation, Renewable and Alternative Energy Technology.
- Electrical Vehicles and Battery Energy Storage Systems.
- Micro-grids, Smart grids and distributed generation.
- · Industrial Automation, Instrumentation & Control Systems.
- Electrical Cables, Ducting Systems & Accessories.
- Information & Communication Technology Equipment.
- Energy & Net Metering, Meters, Testing & Measuring Instruments.
- · Monitoring & Inspection Equipment.
- UPS, Invertors and Power Supply Systems.
- · Clinical and Biomedical Engineering.
- Power Generation Equipment and Services.

VISITOR PROFILE





- · Engineering Consultants & Practitioners.
- Engineers & Technologists from Process Industries and Power Plants.
- · Power Industry OEMs and Utility Managers.
- · Facility Managers & General Contractors.
- Technical Delegates from Government Energy and Regulatory Departments.
- · Government Officials and Decision Makers.
- Manufacturers & Suppliers of the Industrial and Allied Equipment.
- · Engineering Universities' Faculties.







INTERNATIONAL REPRESENTATION





















This exhibition gave us a very good platform to negotiate and to realize more about this country. It's very interesting that the organizers had a very top-level conference where experts and professionals joint together to focus more on important issues. Indeed, a very good opportunity for everyone.

RENJING CAO Chief Scientist Mingyang Smart Energy, China

The IEEEP Fair 2018 was a very well-organized event. The stalls regarding electrical & electronics are very good. The institutes and universities have also participated and showed their inventions.

DR. SHAHNAZ PERVEEN CSO/Director Planning & Development PCSIR Labs Complex, Karachi

The exhibition is excellent. Stalls have been made elegantly. The products on display are of interests to the builders, consultants, and contractors.

YOUSUF HASSAN Yousuf Hassan Associates, Karachi We have been a part of this exhibition for last 5 years and It has been an excellent opportunity to interact with all stakeholders of the market under one roof. In my opinion, this is the best available platform in Pakistan. I thank the organizers for such a wonderful event.

AZEEM TALIB Regional Manager South (Power Division) Pak Electron Limited

A wonderful exhibition organized by IEEEP & Badar Expo Solutions. Well attended by visitors. Hats off to the Organizing teams!

> MUFASSAR ATAA MALIK President

A professionally organized event by Badar Expo & IEEEP.

ATHAR High Commission of Canada Excellent show with excellent arrangements.

KHALID PERVEZ KPA Consulting

ORGANIZER



IEEEP KARACHI CENTRE

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EVENT MANAGER



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