



**Power Planners International**

## Grid Interconnection Study of 49-50 MW Waste to Energy Power Plant by KREL

### **Power Planners International**

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## **1. PPI Profile and Relevant Experience**

**Power Planners International** is a limited company with SECP under Regd. No. 0096209 and registered with Pakistan Engineering Council under Registration No. Consult/1147. PPI is also registered in England and Wales (Regd. No.6363482); with Saudi Electricity Company (SEC) having a bidder ID of 0005010127, and Alternative Energy Development Board under registration No. 0038-2007. It is a renowned company in power sector in Pakistan, South Asia and Middle East in power system analysis and planning especially in the areas of grid interconnection studies of renewables such as wind, solar, small hydels etc.

It is a renowned company in power sector in South Asia and Middle-East in power system analysis and planning especially in the areas of grid integration studies of renewables such as wind, solar, small hydro etc. in Pakistan. PPI has contributed for the power sector of Pakistan through some critical projects including

- Study for Renewable Energy Integration into the Baluchistan power system
- Variable Renewable Energy Locational Study for Pakistan

Both sponsored by the World Bank.

### **1.1 Relevant Experience: Power Sector Planning & VRE Deployment/Grid Integration Studies**

#### **1.1.1 Experience of PPI with K-Electric for Transmission Planning**

1. Preparation of Long-Term Transmission Expansion Plan 2025- 2030 (nearing completion)
2. Grid Integration Study of Solar (PV) plants at Uthal, Bela and Vinder
3. Preparation of Long Term Electrical Network Expansion Plan (2016-2030)
4. Study & Evaluation of Transmission & Distribution (T&D) Losses of K-Electric.
5. Study of additional supply import of 500 MW Power from KNAUPP II/III at 500 kV Voltage Level from National Grid (NTDC) to K-Electric for the year 2023 and 2025.
6. Study of additional supply import of 500 MW Power from National Grid (NTDC) to K-Electric for the year 2021 and 2022 via existing interconnection point between NTDC and K-Electric

#### **1.1.2 Studies of VRE Deployment in Pakistan**

Performed Grid Integration Studies for following VRE projects in Pakistan. Performed following vital studies using PSS/E software and got approved from NTDC and respective DISCOs:

- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis.
- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance

#### **Grid Integration Studies of Solar Power Plants by PPI**

1. First 100 MW PV QA Solar Park, Cholistan, Bhawalpur, by Punjab Government
2. 9 x 100 MW PV Solar Power Projects at Quaid-e-Azam Solar Park by ZONERGY, Beijing Luxing Energy Tech Co., International Group Ltd., China
3. 3 x 50 MW Solar Power Park at Sukkur, Sindh, by Nizam Energy (Pvt) Limited
4. 200 MW NGPI Phoenix Solar Power Plant at Jamshoro/Thatta, Sindh, Pakistan
5. 6 \* 50 MWe Solar Power Parks, Pakistan by Urban Green Tech at Bahawalpur, Pakistan
6. 2 x 50 MW PV Solar Power Project Quetta, Baluchistan, by Enertech Quetta Solar (Pvt) Limited.
7. 100 MW Solar Power Project by Zorlu Solar, Cholistan, District Bahawalpur, Pakistan



## PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

8. 100 MW PV Siachin Solar Power Park, Mirpur Sakro, Thatta by Siachen Energy Limited
9. 100 MW PV Solar Power Project near Chishtian, Punjab by Solution de Energy (PVT) Ltd under MdeCC/SdeE, The Goldman Consortium, Pakistan
10. 100 MW Zhenfa Solar Power Project at Chaubara, Punjab by Zhenfa Pakistan New Energy Company (Pvt) Limited
11. 100 MW Storm Harbour Solar Power Project near Chishtian, Punjab
12. 50 MW PV Solar Power Project, Fateh Jang, Punjab, by ET Solar International Co. Ltd.
13. 50 MW Solar Power Plant Hasilpur at Hasilpur, Punjab, by Kinetic Punjab Solar Two (Pvt.) Ltd.
14. 50 MW Solar Power Project at Chakwal, Punjab, by Siddique Sons Energy Ltd.
15. 30 MW APL Solar PV Project at Noorsar, Bahawalnagar, Punjab, by Asia Petroleum Ltd.
16. 100 MW MCC Tongsin Resources Solar Park, Super Highway, Jamshoro, Sindh, Pakistan
17. 100 MW Solar Power Plant by Engineering Consultancy Services Punjab (Pvt.) Ltd. on blocks H&K of Quaid-e-Azam Solar Park, Bahawalpur
18. 100 MW CTG (China Three Gorges) Hybrid Power Plant, Jhimpir, Sindh, Pakistan
19. 2x20 MW Solar Power Plant by RE Solar Ltd. Karachi (Zephyr) near Dadu, Sindh.
20. 50 MW Solar Power Plant by Petrochemicals Engineering Consultants near Khairpur, District Sindh.
21. 50 MW Solar Power Plant by Liberty Solar Energy Limited at Gojra, Punjab
22. 30-40 MW Solar Power Plant by Fauji Fertilizer at Sindh, Pakistan

### **Grid Integration Studies of Wind Power Plants by PPI**

1. 2 x 250 MW Wind Power Plant by NBT Near Indus Super Highway, Hyderabad, Sindh
2. 250 MW Rojhan-I Wind Power Plant at Rojhan, Punjab, by Vestas Wind Technology (Private) Limited
3. 100 MW UEP Wind Power Project, Jhimpir, Distt. Thatta, Sindh by United Energy Pakistan Ltd. (UEPL) China
4. 50 MW Fauji Fertilizer Co. Ltd. Jhimpir, Distt. Thatta, Sindh by FFC, Rawalpindi, Pakistan
5. 56 MW Zorlu Jhimpir, Distt. Thatta, Sindh
6. 50 MW Each Fauji Wind Energy Ltd.-I & II at Gharo, Thatta, Sindh
7. 50 MW CWE (TGF) Power Ltd. Jhimpir, Distt. Thatta, Sindh
8. 50 MW Wind Power Plant Gul Ahmed Jhimpir, Distt. Thatta, Sindh
9. 50 MW Sachal Energy Jhimpir, Distt. Thatta, Sindh
10. 50 MW Finergy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
11. 50 MW Lucky Energy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
12. 50 MW Metro Power Company Ltd. at Jhimpir, Distt. Thatta, Sindh
13. 50 MW New Park Wind Energy, at Gharo, Thatta, Sindh
14. 50 MW Zeni at Gharo, Thatta, Sindh
15. 50 MW Zephyr at Gharo, Thatta, Sindh
16. 50 MW HAWA, Jhimpir, Distt. Thatta, Sindh
17. 50 MW Dewan (Burj) Energy Ltd. Jhimpir, Distt. Thatta, Sindh
18. 50 MW Sapphire Jhimpir, Distt. Thatta, Sindh



PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

19. 50 MW Unicol Limited Jhimpir, Distt. Thatta, Sindh
20. 50 MW Dawood Power (Pvt.) Ltd. at Gharo, Thatta, Sindh
21. 50 MW China SUNEC Energy Jhimpir, Distt. Thatta, Sindh
22. 50 MW Tenaga Generasi Ltd. Gharo, Thatta, Sindh
23. 50 MW Master Wind Power Jhimpir, Distt. Thatta, Sindh
24. 3x50 MW Tricon Boston Consulting Corporation Jhimpir, Distt. Thatta, Sindh
25. 3x10 MW WPP by Akhter, Tapal and Ismael Power
26. 100 MW Wind Farm Project For SZABIST, near Dhabeji, Sindh
27. 50 MW Indus Wind Power Project Jhimpir, Distt. Thatta, Sindh by Indus Wind Energy Limited, Karachi
28. 50 MW Iran-Pak Wind Power Plant at Jhimpir, Distt. Thatta, Sindh by Iran-Pak Power (Private) Limited, Karachi
29. 60 MW (2<sup>nd</sup> phase) Metro Wind Power (Pvt.) Ltd. Jhimpir, Distt. Thatta, Sindh
30. 50 MW (2<sup>nd</sup> phase) Wind Power Plant Gul Ahmed Jhimpir, Distt. Thatta, Sindh
31. 50 MW DHA City Wind Power Project at Karachi-Hyderabad Super Highway, Sindh by DHA City, Karachi
32. 100 MW Wind Power Plant at Jhimpir, Distt. Thatta, Sindh by Transatlantic Energy Ltd
33. 100 MW Wind Power Plant by Power China Northwest Engineering at Jhimpir, Sindh
34. 100 MW Wind Power Plant at Jamshoro, Sindh by NGPI Phoenix Energy
35. 100 MW Wind Power Plant at Jhimpir, Sindh by Harvey Energy (Pvt.) Ltd.
36. 100 MW Wind Power Plant at Jamshoro, Sindh by M/s Wikov Wind (Pvt.) Ltd.
37. 50 MW Norinco Intl. at Jhimpir, Distt. Thatta, Sindh
38. 50 MW Nasda Energy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
39. 50 MW Wind Power Plant at Jhimpir, Sindh by M/s Wind Eagle-I Limited
40. 50 MW Wind Power Plant at Jhimpir, Sindh by M/s Wind Eagle-II Limited
41. 50 MW TGF (2<sup>nd</sup> phase) at Jhimpir, Distt. Thatta, Sindh
42. 50 MW Lakeside Energy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
43. 50 MW Western Power Wind Project (Pvt.) Ltd at Jhimpir, Distt. Thatta, Sindh
44. 50 MW Noor Solar Energy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
45. 50 MW Osmani & Co (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
46. 50 MW Shafi Energy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
47. 50 MW Cacho Wind Energy (Pvt.) Ltd. at Jhimpir, Distt. Thatta, Sindh
48. 2x100 Wind Power Plant at Jhimpir, Distt. Thatta, Sindh by Wuwei Wind Power
49. 25 MW Moro Power Ltd. at Jhimpir, Distt. Thatta, Sindh
50. 50 MW Hartford Jhimpir, Distt. Thatta, Sindh
51. 50 MW Sino Well (Pvt.) Ltd. Jhimpir, Distt. Thatta, Sindh
52. 50 MW Lootah Energy Limited Jhimpir, Distt. Thatta, Sindh
53. 50 MW Master (2<sup>nd</sup> phase) Wind Energy (Pvt.) Ltd. Jhimpir, Distt. Thatta, Sindh

## **1.2 Electricity Sector Planning by PPI in Pakistan**

### **1.2.1 For NTDC**

1. Preparation of Transmission Expansion Plans for NTDC and DISCOs for National Power System Expansion Plan upto 2030, as sub-consultant of SNC Lavalin, Canada.
2. Preparation of Regional Transmission Grid Plan and Interlinking Arrangements of Power Systems for Supply of Power to Gawadar Area under CPEC Package of Developments in Balochistan
3. Interconnection Study of 26 Big Hydropower Projects of total capacity of about 36000 MW on river Indus and its Tributaries in Northern Areas including Basha, Bunji, Dasu, Thakot, Yulbo, Tungas etc. with main National Grid of Pakistan as JV Partner with PB-Power, UK.
4. Interconnection of Thar Coal fired thermal power plants (potential of 40,000 MW) with main National Grid of Pakistan as sub-consultant of SNC Lavalin, Canada.
5. Feasibility Study of import of 1000 MW from Iran as sub-consultant of NESPAK.
6. Harmonic Analysis and Measurement Studies for installation of SVCs at New-KLPT 220 kV, Lahore and Quetta Industrial 220 kV as a JV Partner with NESPAK and PSD, South Africa.
7. Design Review and Supervision of Installation of -50/+450 MVAR SVC by ABB at New KLPT 220/132 kV Grid Station at Lahore as a JV Partner with NESPAK and PSD, South Africa.
8. Analytical evaluation of Transmission and Transformation. (T&T) Losses of NTDCL system.
9. Technical Expert of PPI, Hassan Jafar Zaidi worked as domestic specialist in the team of BPI, UK, for Enhancement of 500 kV and 220 kV network of NTDC under funding of Asian Development Bank, ADB: TA-4665-PAK and ADB TA-2178-PAK.
10. Technical Expert of PPI, Hassan Jafar Zaidi worked as domestic specialist in the team of BPI, UK for Enhancement of 132 kV Distribution network of Pakistan under funding of Asian Development Bank, ADB: TA-4665-PAK.
11. Grid Interconnection Studies of 1100 MW Kohala Hydro Power Project.
12. Grid Interconnection Studies of 720 MW Karot Hydro Power Project.
13. Grid Interconnection Studies of 640 MW Mahl Hydro Power Project in AJ&K.
14. Grid Interconnection Studies of 300 MW Ashkot Hydro Power Project in Azad Jammu and Kashmir.
15. Grid Interconnection Studies of 300 MW Balakot, 188 MW Naran, 150 MW Patrind, 120 MW Taunsa, 102 MW Bata Kundi, 100 MW Gulpur, 136 MW Shogosin, 146 MW Shushghai-Zhendoli, 50 MW Gomat Nar and 84 MW New Bong Escape Hydro Electric Power Project.
16. 660 MW Coal Fired Power Plant of Nishat Power at Rahim Yar Khan.
17. Technical support service for 2\*330 MW coal fired Thermal Power Plant by Engro Power Gen Thar (Pvt.) Ltd. at Thar, Sindh, Pakistan.
18. 330 MW Coal Fired Power Plant (HUBCO) at Thar, Sindh, Pakistan.
19. 330 MW Coal Fired Power Plant (ThalNova) at Thar, Sindh, Pakistan.
20. 300 MW Coal Fired Thermal Power Plant (CIHC Pak Power Company Ltd.) at Gawadar, Baluchistan, Pakistan.
21. Technical support service for existing 217 MW Qadirpur Plant by Engro Power Gen Limited.
22. 100 MW Coal Fired Power Plant of Lafarge Cement Plant at Chakwal and study of availability of reliable power supply.

23. 84 MW Thermal Power Plant by Gulf Power at Eminabad, District Gujranwala, Punjab.

### **1.2.2 For DISCOs**

1. Evaluation of Transmission and Distribution (T&D) Losses for Hyderabad Electric Supply Company (**HESCO**) Sindh and Sukkur Electric Supply Company (**SEPCO**) Sindh, Quetta Electric Supply Co. (QESCO), Islamabad Electric Supply Co. (IESCO), Faisalabad Electric Supply Co. (FESCO), Peshawar Electric Supply Co. (PESCO), Tribal Electric Supply Co. (TESCO) and Evaluation of Distribution Losses of Lahore Electricity Supply Co. (LESCO).
2. Institutionalizing the Integrated Power Planning at Multan Electric Power Company (MEPCO) and Peshawar Electric Supply Company (PESCO) under Power Development Program (PDP) funded by USAID in 2013-14
3. GIS Mapping of all 11-KV Feeders, Updating already GIS Mapped 11KV Feeders, Mapping of 10% LT and Evaluation of Technical Losses of Distribution System of MEPCO through Arc-GIS and Synergee Software.
4. Evaluation of Transmission and Transformation (T&T) Losses of Lahore Electricity Supply Co. (LESCO), Gujranwala Electric Power Co. (GEPCO) and Multan Electric Power Company (MEPCO) Networks and proposing measures for their improvement.
5. Reactive Power Compensation Study of Peshawar Electricity Supply Company (PESCO).
6. Concept study of SCADA and Reactive Power Planning and Design Studies for LESCO.
7. Installation of AMR Meters in the transmission network of PESCO as subconsultant to AEAI/EPP funded by USAID.
8. Sub-consultancy services with M/s SMEC International for Asian Development Bank Funding (Tranche-IV) to perform load flow studies under Power Distribution Enhancement Projects for all Distribution Companies (DISCOs) of Pakistan.

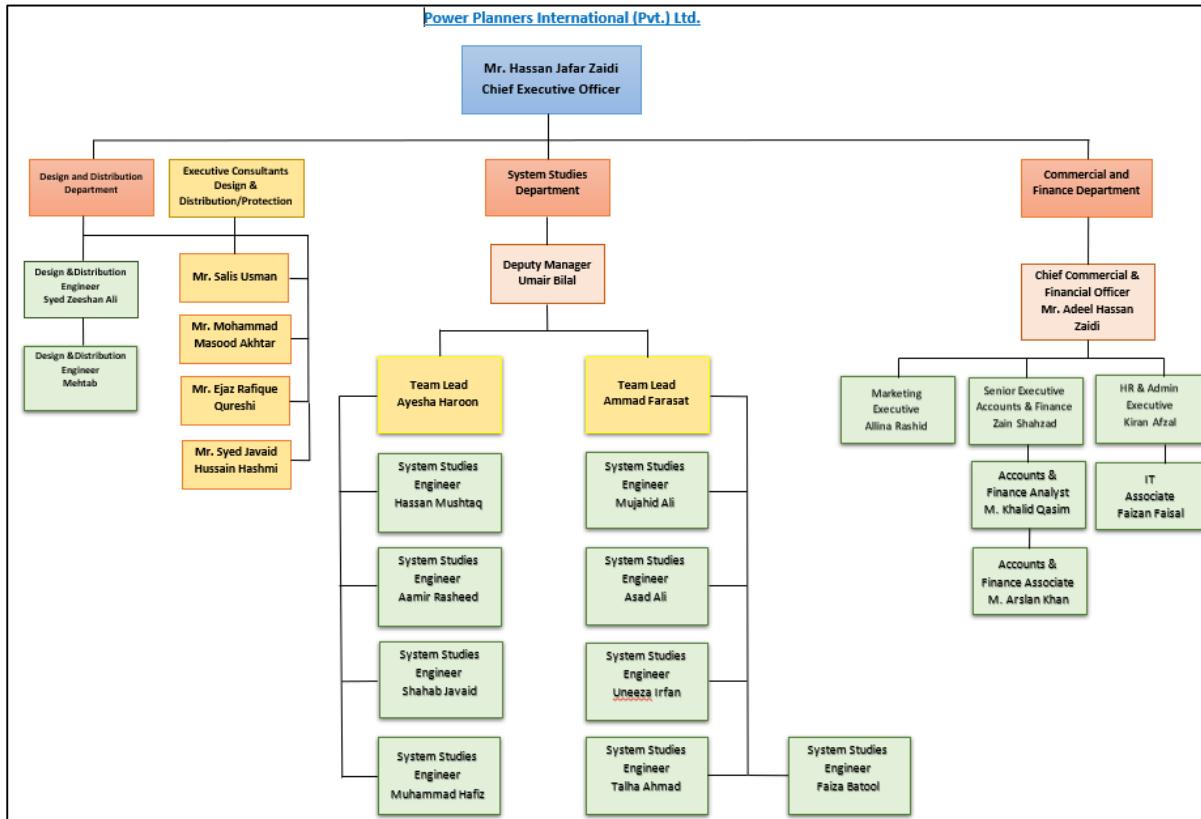
### **1.3 Role of PPI in Gulf Countries and South Asian Electricity Sector**

1. **GCC Interconnection Authority (GCCIA):** Providing consultancy services to GCCIA to conduct operational studies for the year 2021-22. This includes an important Task to study the impact of **Integration of Renewable Energy Resources** in Gulf Countries (Accelerated Fleet Change) interconnected system of Kuwait, Saudi Arabia, Bahrain, Qatar, UAE and Oman in terms of additional operating reserve requirements and other system stability issues.
2. **Saudi Arabia:** Studied and proposed SVCs for stability of Saudi National Grid; and capacity building of Saudi Utility (SEC) engineers on PSS/E software by conducting 4 training courses each from 2012 to 2015 in Jeddah and Dammam. Presently performing the impact of integration of **Renewable Energy Sources** on power transfer limits on transmission corridors between different regions of Saudi Arabia.
3. **Nepal:** Consultancy services to US donor agency, Millennium Challenge Corporation (MCC) on developing 400 kV network in Nepal (Ongoing).
4. **SAARC:** Study for Designing Management and Monitoring Framework for Regulatory Compliance by Power Transmission Utilities in the South Asian Countries and related workshop in Colombo, Sri Lanka in 2015; also, conducted training workshops for SAARC delegates (a) on 'Power System Studies for Synchronization of Multiple Systems' at Kabul, Afghanistan in 2014, (b) on "Application of on-grid Biogas Technologies" at Kabul, Afghanistan in 2016. Presently conducting a series of video workshops on Power System Analysis to be telecasted in SAARC countries under joint venture of Virtual University and SAARC.

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5. **Sri Lanka:** Study of Reactive Power Compensation and requirement of SVCs for grid stability of Ceylon Electricity Board.
6. **Afghanistan:** Consultancy to German donor GIZ for Energy Reliability in Afghanistan and how to improve it.

### PPI Organogram



## **2. PPI Experience**

### **Projects Specific to K-Electric**

1)

<b>Assignment Name:</b> Preparation of Long-Term Transmission Plan (2016-2030) for K-Electric (utility of Karachi)		<b>Country</b> Pakistan
<b>Location within Country</b> Karachi		<b>Professional Staff Provided by your Firm:</b> 4
<b>Name of Client:</b> K-Electric Limited		<b>No. of Staff:</b> 4
<b>Address:</b> 39-B, KE House, Sunset Boulevard, Phase-II, Karachi		<b>No of Staff Months:</b> 12
<b>Start Date: (month Year)</b> August 2015	<b>Completion Date: (month Year)</b> August 2016	<b>Approx. value of Services Provided by PPI (in Current Rs.):</b> (PKR. 19,002,250/-)
<b>Name of Associated Firm(s), if any:</b> Nil		<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> 12
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> <ul style="list-style-type: none"> <li>• Hassan Jafar Zaidi/ Principal System Study Engineer</li> <li>• Ameer Haider, System Study Engineer</li> <li>• Umair Bilal, System Study Engineer</li> <li>• Iqbal Bhatti, General Manager Design PPI</li> </ul>		
<b>Narrative Description of Project:</b> Development and Analysis of Long Term Transmission Scheme for K-Electric upto year 2030 including System Studies, Design/Specifications and Bidding documents. The expansion plan involved 132 kV and 220 kV lines and substations for entire K-Electric area for future		
<b>Description of Actual Services Provided by Your Firm:</b> <ul style="list-style-type: none"> <li>• Load forecast preparation (High, Normal and Low)</li> <li>• Data collection and Validation</li> <li>• Development of Long Term Transmission Scenarios for selected spot years of 2018-19,2019-20, 2021-22, 2022-23 and 2024-25 with extended year of 2030</li> <li>• Performed detailed load flow short circuit and stability studies for the prepared scenarios</li> <li>• Reactive Power management study.</li> <li>• Behavior of Network on disconnection of 650MW import from NPCC/NTDC</li> <li>• Preparation of Design Basic Memorandum for substations and T/L of 220kV and 132kV.</li> <li>• Design and specification study for selected spot years.</li> <li>• Preparation of sub-project proposals including cost estimates for all spot years.</li> </ul>		

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2)

<b>Assignment name:</b> Consultancy Services for Additional Supply Import from National Grid to NTDC	<b>Approx. value of the contract (in current US\$):</b> \$ 47,339
<b>Country:</b> Pakistan <b>Location within country:</b> Karachi	<b>Duration of assignment (Months):</b> 3 Months
<b>Name of Client:</b> K-Electric Limited	<b>Total No. of staff-months of the assignment:</b> 5
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Muhammad Bilal Mirza, Director, Project Implementation Department, +9221 3870 9132 (Ext: 7317)
<b>Start date:</b> March/2020 <b>Completion date:</b> June/2020	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 05
<b>Name of associated Consultants, if any:</b> N/A	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed (e.g. Project Director/Coordinator, Team Leader):</b> Hassan Jafar Zaidi/Team Leader Umair Bilal/Sr. System Studies Engineer Bilal Sajid/System Studies Engineer Ammad Farasat/System Studies Engineer
<b>Description of Project:</b> Consultancy Services for Additional Supply Import from National Grid to NTDC for the year 2023 and 2025.	
<b>Description of actual services provided by your staff within the assignment:</b> <ul style="list-style-type: none"> <li>• Data collection and Validation</li> <li>• Development of new interconnection points between NTDC and KE</li> <li>• Development of different study scenarios under two different dispatch modes of KE</li> <li>• Performed detailed load flow short circuit and stability studies for the prepared scenarios</li> <li>• Assessment of KE network strength to accommodate the additional power</li> </ul>	

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3)

<b>Assignment name:</b> Consultancy Services for the additional import from NTDC via NKI and Jamshoro to KE System.	<b>Approx. value of the contract (in current US\$):</b> \$ 19,480
<b>Country:</b> Pakistan <b>Location within country:</b> Karachi	<b>Duration of assignment (Months):</b> On going
<b>Name of Client:</b> K-Electric Limited	<b>Total No. of staff-months of the assignment:</b> 05
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Muhammad Bilal Mirza, Director, Project Implementation Department, +9221 3870 9132 (Ext: 7317)
<b>Start date:</b> 22-07-2020 <b>Completion date:</b> - Ongoing	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 05
<b>Name of associated Consultants, if any:</b>	Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed (e.g. Project Director/Coordinator, Team Leader): Hassan Jafar Zaidi/Team Leader Umair Bilal/Sr. System Studies Engineer Bilal Sajid/System Studies Engineer Ali Imran/System Studies Engineer
<b>Description of Project:</b> Consultancy Services for the additional import from NTDC via NKI and Jamshoro to KE System for the year 2021 and 2022.	
<b>Description of actual services provided by your staff within the assignment:</b>	<ul style="list-style-type: none"> <li>• Data collection and Validation</li> <li>• Network validation by matching the actual snap shot of the system on PSSE</li> <li>• Development of study scenarios</li> <li>• Performed detailed load flow short circuit and stability studies for the prepared scenarios</li> <li>• Recommendation of different Operational measures to accommodate the additional supply within KE network.</li> </ul>

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4)

<b>Assignment name:</b> Event Analysis of the Power Breakdown of KE Network	<b>Approx. value of the contract (in current US\$/PKR):</b> PKR: 30,00,000/-
<b>Country:</b> Pakistan <b>Location within country:</b> Karachi	<b>Duration of assignment (months):</b> 3
<b>Name of Client:</b> K-Electric Limited	<b>Total No. of staff-months of the assignment:</b> 4
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Faisal Mairaj, General Manager Network Control (LDC), K-Electric
<b>Start date (month/year):</b> July 2021 <b>Completion date (month/year):</b> September 2021	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 10
<b>Name of associated Consultants, if any:</b>	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed (e.g. Project Director/Coordinator, Team Leader):</b> 1- Hassan Jafar Zaidi/Team Leader 2- Umair Bilal/Sr. System Study Engineer 3- Samreen Fatima/System Study Engineer
<b>Description of Project:</b> Analysis of the event by simulating the real time network model and proposing the remedial measures to avoid such event in Future.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- Data collection and network model Setup 2- Simulated the actual event after matching the power flows on the lines and bus voltages. 3- Applied the actual event as per the recorded data and then proposed the measures in terms of cross trip scheme and under voltage load shedding relays	

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5)

<b>Assignment name:</b> Grid Interconnection Studies of 3x50 MW solar	<b>Approx. value of the contract (in current US\$):</b> PKR. 1,914,000/-
<b>Country:</b> Pakistan <b>Location within country:</b> Uthal, Bela, Vinder, Balochistan	<b>Duration of assignment (months):</b> 4
<b>Name of Client:</b> K-Electric Limited	<b>Total No. of staff-months of the assignment:</b> 4
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Fahad Najmi, Business Development Department, KE 0346-8223792
<b>Start date (month/year):</b> April/2021 <b>Completion date (month/year):</b> August/2021	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 4
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed (e.g. Project Director/Coordinator, Team Leader):</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Umair Bilal/Sr. System Study Engineer 3- Ammad Farasat/System Studies Engineer
<b>Description of Project:</b> Studied interconnection of 3 x 50 MW Solar Power Park to be installed at Uthal, Bela and Vinder with the network of KE. Developed of interconnection scheme and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2-Studied three different interconnection options for the solar power plants.	

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**Projects Specific to Grid Interconnection Studies**

1)

<b>Assignment Name:</b> Grid-Interconnection Studies of 1100 MW Kohala Hydro Power Project and its 24 MW Ecological Power Project on Jhelum River, AJ&K		<b>Country:</b> AJ&K, Pakistan
<b>Location within Country</b> Jhelum River, AJ&K		<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> TGF through China Water Resources Beifang Investigation, Design and Research Co Ltd, China (BIDR)		<b>No. of Staff:</b> 2
<b>Address:</b> 60-Dongting Road, Hexi District, Tainjin city China		<b>No of Staff Months:</b> 16 Man Months
<b>Start Date: (month Year)</b> July 2016	<b>Completion Date: (month Year)</b> September 2017	<b>Approx. value of Services (in Pak Rs.):</b> PKR 7,000,000/-
<b>Name of Associated Firm(s), if any:</b> Nil		<b>No. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> <ul style="list-style-type: none"> <li>Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis</li> <li>Samreen Fatima, Senior System Study Engineer</li> </ul>		
<b>Narrative Description of Project:</b> Grid Interconnection Study to propose the most feasible scheme of interconnection of the said power plant with the nearest electrical facility of NTDC		
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>Grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis and integrated system study.</li> <li>This project involved two separate grid interconnection studies; one for the 1100 MW Main Kohala Hydropower project interconnected on 500 kV network and the 24 MW Ecological Power Project interconnected on the 132kV network of PESCO.</li> <li>Submission of results in the technical report and got vetted from NTDC.</li> </ul>		

**Consultants' Name: Power Planners International**



2)

<b>Assignment Name:</b> Grid-Interconnection Studies of 720 MW Karot Hydro Power Project at Jhelum River		<b>Country:</b> AJ&K, Pakistan
<b>Location within Country</b> Jhelum River near Karot Village		<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> Changjiang Survey, Planning Design and Research Co Ltd, China		<b>No. of Staff:</b> 2
<b>Address:</b> 1863-Jiefang Avenue Wuhan China		<b>No of Staff Months:</b> 8 Man Months
<b>Start Date: (month Year)</b> July 2014	<b>Completion Date: (month Year)</b> January 2016	<b>Approx. value of Services (in Pak Rs.):</b> PKR 3,200,000/-
<b>Name of Associated Firm(s), if any:</b> Nil		<b>No. of Months of Professional Staff provided by Associated Firm(s):</b>
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> <ul style="list-style-type: none"> <li>• Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis</li> <li>• Samreen Shirazi, Senior System Study Engineer</li> </ul>		
<b>Narrative Description of Project:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of NTDC		
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Development of the most feasible scheme of interconnection of the plant with the grid.</li> <li>• Detailed Technical analysis including load flow, short circuit and stability studies on the selected scheme</li> <li>• Submission of results in the form of technical report and got vetted from NTDC.</li> </ul>		

**Consultants' Name: Power Planners International**



3)

<b>Assignment Name:</b> Grid-Interconnection Studies of 700.7 MW Azad Pattan Hydro Power Project at Jhelum River.	<b>Country:</b> AJ&K, Pakistan
<b>Location within Country</b> AJ&K, Pakistan	<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> Azad Pattan Power (Pvt.) Limited	<b>No. of Staff:</b> 2
<b>Address:</b> EOBI House Sector G-10/4 10C Sambal Road F-10/3, Islamabad	<b>No of Staff Months:</b> 4
<b>Start Date: (month Year)</b> July 2017	<b>Completion Date: (month Year)</b> November 2017
	<b>Approx. value of Services (in Pak Rs.):</b> PKR 6,293,668/-
<b>Name of Associated Firm(s), if any:</b> Nil	<b>No. of Months of Professional Staff provided by Associated Firm(s):</b>
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b>	
<ul style="list-style-type: none"> <li>Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis</li> <li>Ameer Haider, Senior System Study Engineer</li> </ul>	
<b>Narrative Description of Project:</b> Interconnection Study for dispersal of power from the project to the nearest grid facility of NTDC.	
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>Data Collection</li> <li>Development of the most feasible scheme of interconnection of the plant with the NTDC grid on 500 kV network.</li> <li>Detailed Technical analysis including load flow, short circuit and stability studies on the selected scheme</li> <li>Submission of results in the technical report and got vetted from NTDC.</li> </ul>	

**Consultants' Name: Power Planners International**



4)

<b>Assignment Name:</b> Grid Interconnection study of 640 MW Mahl Hydro power Project.	<b>Country</b> Pakistan
<b>Location within Country</b> Near Kohala at river Jhelum	<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> M/S Mahl Power Company Pvt. Ltd	<b>No. of Staff:</b> 2
<b>Address:</b> L6 Serena Business Complex, Islamabad	<b>No of Staff Months:</b> 15
<b>Start Date (month Year):</b> September 2016	<b>Completion Date (month Year):</b> December 2017 <b>Project worth/Approx. value of Services Provided by PPI:</b> Rs. 5,800,000/PKR
<b>Name of Associated Firm(s), if any:</b> Nil	<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> 1. Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis 2. Miss Samreen Fatima /Senior System Study Engineer	
<b>Narrative Description of Project:</b> Grid Interconnection Study of 640 MW Mahl Hydropower Project, developed by Mahl Power Company Pvt. Ltd. (MPCL), located on River Jehlum in Azad Jammu and Kashmir.	
<b>Description of Actual Services Provided by Your Firm:</b> <ul style="list-style-type: none"> <li>• Considered different alternatives of interconnection schemes of connecting Mahl hydropower plant to the load centers through 500 kV, 765 KV HVAC and mix of HVAC and HVDC transmission lines, envisaging the load forecast, the generation additions and transmission expansions for the year 2026.</li> <li>• Identified the best feasible alternative scheme of evacuation of power to connect the proposed power plant with the load centers economically and technically.</li> <li>• Performed detailed load flow, short circuit and transient stability analyses for the selected interconnection scheme for spot years of 2026 and 2030.</li> <li>• Presented results with detailed analysis of the results in Report to NTDC.</li> </ul>	

**Consultants' Name: Power Planners International**



5)

<b>Assignment Name:</b> Grid-Interconnection Studies of 310 MW Balakot Hydropower Plant at Khyber Pakhtunkwan.		<b>Country:</b> Pakistan
<b>Location within Country:</b> Balakot,KPK		<b>Professional Staff Provided by Your Firm:</b> 2
<b>Name of Client:</b> Mirza Associates Engineering Services (Pvt) Ltd.		<b>No of Staff:</b> 2
<b>Address:</b> Balakot, Khyber Pakhtunkwan		No of Staff Months: 30
<b>Start Date (Month/Year):</b> 2013	<b>Completion (Month/Year):</b> 2018	<b>Date</b> <b>Approx. Value of Services (in Current USD/Rs.)</b> PKR. 1,050,000/-
<b>Name of Associated Firm (s), if any:</b> Nil		<b>No. of Months of Professional Staff</b> Provided by Associated Firm(s): Nil
<b>Name of Senior Staff</b> (Project Director/ coordinator, Team Leader) involved and functions performed: 1.Hassan Jafar Zaidi/ Principal System Study Engineer (Team Leader) 2. Umair Bilal/System Study Engineer		
<b>Narrative Description of Project:</b> Interconnection Study for dispersal of power from the project to the nearest grid facility of /NTDC		
<b>Description of Actual Services Provided</b> Studied interconnection of 660 MW Coal Fired Power Plant, performed grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis.		

**Consultants' Name: Power Planners International**



6)

<b>Assignment Name:</b> Grid-Interconnection Studies of 300 MW Ashkot Hydropower Plant by at Azad Jammu and Kashmir.	<b>Country:</b> Pakistan
<b>Location within Country:</b> Neelum River, AJK	<b>Professional Staff Provided by Your Firm:</b> 2
<b>Name of Client:</b> Ashkot Energy Private Limited	<b>No of Staff:</b> 2
<b>Address:</b> 15 Peshawar Block, Fortress Stadium Lahore	No of Staff Months: 30
<b>Start Date (Month/Year):</b> 2015	<b>Completion Date (Month/Year):</b> 2018
	<b>Approx. Value of Services (in Current USD/Rs.)</b> PKR. 2,552,000/-
<b>Name of Associated Firm(s), if any:</b> Nil	<b>No. of Months of Professional Staff Provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/ coordinator, Team Leader) involved and functions performed:</b> 1.Hassan Jafar Zaidi/ Principal System Study Engineer (Team Leader) 2.Samreen Fatima Sherazi/System Study Engineer	
<b>Narrative Description of Project:</b> Interconnection Study for dispersal of power from the project to the nearest grid facility of GEPSCO/NTDC	
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Development of the most feasible scheme of interconnection of the plant with the grid.</li> </ul>	

**Consultants' Name: Power Planners International**



7)

<b>Assignment Name:</b> Consultancy Services for 150 MW Inter- connection study for Patrind Hydro Power Project		<b>Country: AJ&amp;K, Pakistan</b>
<b>Location within Country</b> Jhelum River, AJ&K		<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> Star Hydro Power Limited		<b>No. of Staff:</b> 2
<b>Address:</b> 2 <sup>nd</sup> floor, Razia Sharif Plaza, 90-W, Jinnah Avenue, Blue Area, Islamabad		<b>No of Staff Months:</b> 6 Man Months
<b>Start Date:</b> <b>(month Year)</b>  June 2011	<b>Completion Date:</b> <b>(month Year)</b>  January 2012	<b>Approx. value of Services (in Pak Rs.):</b> PKR 1,000,000/-
<b>Name of Associated Firm(s), if any:</b> Nil		<b>No. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> <ul style="list-style-type: none"> <li>• Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis</li> <li>• Omair Khalid, Senior System Study Engineer</li> </ul>		
<b>Narrative Description of Project:</b> Load flow study and interconnection for dispersal of power from the project to the nearest grid-station of PESCO.		
<b>Description of Actual Services Provided</b> Grid impact studies were carried out using the analytical tools of load flow, short circuit and dynamic stability analysis and integrated system study.		

**Consultants' Name: Power Planners International**



8)

<b>Assignment Name:</b> Interconnection studies for 84 MW New Bong Escape Hydro Power Project, AJ&K	<b>Country:</b> Pakistan
<b>Location within Country</b> Jehlum River, Downstream of Mangla	<b>Professional Staff Provided by your Firm:</b> 1
<b>Name of Client:</b> Laraib Energy Limited, Islamabad	<b>No. of Staff:</b> 2
<b>Address:</b> 12-B/1, Markaz, G-8 Jinnah Avenue, Blue Area, Islamabad	<b>No of Staff Months:</b> 4 Man Months
<b>Start Date: (month Year)</b> December 2005	<b>Completion Date: (month Year)</b> March 2006
<b>Approx. value of Services (in Pak Rs.):</b> PKR 870,000/-	
<b>Name of Associated Firm(s), if any:</b> Nil	<b>No. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> • Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis	
<b>Narrative Description of Project:</b> Load flow study and interconnection for disposal of power from the project to the nearest grid-station	
<b>Description of Actual Services Provided</b> Grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis and integrated system study. Submission of results in the form of technical report and get vetted from NTDC	

**Consultants' Name: Power Planners International**



9)

<b>Assignment Name:</b> Feasibility Studies of Shogo-Sin & Shushgai – Zhendoli Hydro Power Projects in Chitral Valley	<b>Country</b> Pakistan
<b>Location within Country</b> Chitral Pakistan	<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> Private Power Infrastructure Board (PPIB)	<b>No. of Staff:</b> 4
<b>Address:</b> Islamabad, Pakistan	<b>No of Staff Months:</b> 15
<b>Start Date: (month Year)</b>  February 2009	<b>Completion Date: (month Year)</b>  April 2010
	<b>Approx. value of Services Provided (in Current AUD &amp; PKRs.):</b> Total AUD.1,620,567+PKR.171,442 ,980 Including PPI Services : PKR.3,442,518/-
<b>Name of Associated Firm(s), if any:</b> 1. SMEC International Australila & EGC Pvt Ltd. 2. Mirza Associates Engg.(Pvt.) Services	<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> 8
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b>  3. Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis 4. Asif Jameel/Senior System Study Engineer	
<b>Narrative Description of Project:</b>  Grid Interconnection Study of Shogo-Sin (132 MW) & Shushgai – Zhendoli (144 MW) Hydro Power Projects was carried out to connect these HPPS through an EHV line with Chakdara 220 kV grid station of NTDC	
<b>Description of Actual Services Provided by Your Firm:</b> <ul style="list-style-type: none"> <li>• Studied interconnection of SHOGO-SIN &amp; SHUSHAI – ZHERNDOLI Hydro Power Plant,</li> <li>• Performed grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis for proposed interconnection scheme</li> <li>• Evolved the best feasible alternative scheme of evacuation of power to connect the proposed hydropower plants with the load centers economically and technically through Chitral Valley.</li> <li>• Presented results with detailed analysis of the results in Report to NTDC.</li> </ul>	

**Consultants' Name: Power Planners International**



**10)**

<b>Assignment Name:</b> Grid Interconnection Study of 660 MW Coal Fired Thermal Power Plant near Rahim Yar Khan	<b>Country</b> Pakistan
<b>Location within Country</b> Rahim Yar Khan, Punjab	<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> Nishat Energy Limited	<b>No. of Staff:</b> 2
<b>Address:</b> 4 <sup>th</sup> Floor, PIA Tower, Egerton Road, Lahore	<b>No of Staff Months:</b>
<b>Start Date: (month Year)</b> June 2015	<b>Completion Date: (month Year)</b> Continued
	<b>Project worth/Approx. value of Services Provided by PPI :</b> Rs. 2,900,000/PKR
<b>Name of Associated Firm(s), if any:</b> Nil	<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b>  1. Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis 2. Samreen Fatima: Load flow, short circuit and dynamic stability analysis, Power quality Analysis.	
<b>Narrative Description of Project:</b> Load Flow Analysis, Short Circuit Analysis and Stability Analysis.	
<b>Description of Actual Services Provided by Your Firm:</b> Studied interconnection of 660 MW Coal Fired Power Plant, performed grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis.	

**Consultants' Name: Power Planners International**



11)

<b>Assignment Name:</b> Interconnection Study of 2x330 MW Power Plant by Engro PowerGen Thar (Pvt.) Ltd.				<b>Country</b> Pakistan
<b>Location within Country</b> Thar Sind				<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> Engro PowerGen Thar (Pvt.) Ltd.				<b>No. of Staff:</b> 2
<b>Address:</b> 4 <sup>th</sup> Floor, The Harbor Front Building, HC-3, Marine Drive, Block 4, Clifton, Karachi				<b>No of Staff Months:</b>
<b>Start Date:</b> (month Year)		<b>Completion Date:</b> (month Year)		<b>Project worth/Approx. value of Services Provided by PPI :</b> <b>Rs. 6,000,000/PKR</b>
Dec	2017	April	2017	
<b>Name of Associated Firm(s), if any:</b> Nil				<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b>  1. Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis 2. Ameer Haider Ali: Load flow, short circuit and dynamic stability analysis, Power quality Analysis.				
<b>Narrative Description of Project:</b> Load Flow Analysis, Short Circuit Analysis and Stability Analysis.				
<b>Description of Actual Services Provided by Your Firm:</b> Studied interconnection of 2x330 MW Power Plant				

**Consultants' Name: Power Planners International**



<b>Assignment Name:</b> Grid Interconnection Study of 330 MW Coal Fired Power Plant Thar, Sind by Thalnova Power Thar Pvt.Ltd	<b>Country</b> Pakistan
<b>Location within Country</b> Thar Sind	<b>Professional Staff Provided by your Firm:</b> 2
<b>Name of Client:</b> ThalNova Power Thar Pvt. Ltd	<b>No. of Staff:</b> 2
<b>Address:</b> Ground Floor, G&T Tower, #18 Beaumont Road, Civil Lines-10, Karachi	<b>No of Staff Months:</b> 9
<b>Start Date:</b> (month Year) May 2016	<b>Completion Date:</b> (month Year) Feb 2017
<b>Name of Associated Firm(s), if any:</b> Nil	<b>Project worth/Approx. value of Services Provided by PPI :</b> <b>Rs. 3480,000/PKR</b>
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b> <ol style="list-style-type: none"><li>1. Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis</li><li>2. Umair Bilal: Load flow, short circuit and dynamic stability analysis, Power quality Analysis.</li></ol>	<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Narrative Description of Project:</b> Load Flow Analysis, Short Circuit Analysis and Stability Analysis.	
<b>Description of Actual Services Provided by Your Firm:</b> Studied interconnection of 330 MW Coal Fired Power Plant, performed grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis.	

**Consultants' Name: Power Planners International**



13)

<b>Assignment Name:</b> Grid-Interconnection Studies of 330 MW Thar Energy Ltd. Coal Fired Power Plant at Thar Block-II.	<b>Country:</b> Pakistan
<b>Location within Country:</b> Lahore	<b>Professional Staff Provided by Your Firm:</b> 2
<b>Name of Client:</b> Thar Energy Limited.	<b>No of Staff:</b> 2
<b>Address:</b> 11 <sup>th</sup> Floor, Ocean Tower, Block 9, main Clifton Road, Karachi, Pakistan.	No of Staff Months: 8
<b>Start Date (Month/Year):</b> July/2016	<b>Completion Date (Month/Year):</b> Feb/2017
<b>Approx. Value of Services (in Current USD/Rs.)</b> PKR. 2,850,000/-	
<b>Name of Associated Firm(s), if any:</b> Nil	<b>No. of Months of Professional Staff Provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff</b> (Project Director/ coordinator, Team Leader) involved and functions performed: 1.Hassan Jafar Zaidi/ Principal System Study Engineer (Team Leader) 2.Umair Bilal/System Study Engineer	
<b>Narrative Description of Project:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of NTDC	
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Development of the most feasible scheme of interconnection of the plant with the grid.</li> <li>• Detailed Technical analysis including load flow, short circuit and stability studies on the selected scheme</li> <li>• Submission of results in the form of technical report and got vetted from NTDC.</li> </ul>	

**Consultants' Name: Power Planners International**



14)

<b>Assignment Name:</b> Technical Support services for existing 217 MW Qadirpur Power Plant by Engro Power Gen.	<b>Country:</b> Pakistan	
<b>Location within Country:</b> Qadirpur	<b>Professional Staff Provided by Your Firm:</b> 2	
<b>Name of Client:</b> Engro Power Gen Qadirpur	<b>No of Staff:</b> 2	
<b>Address:</b> Engro Power Gen Qadirpur	No of Staff Months: 30	
<b>Start Date (Month/Year):</b> May 2017	<b>Completion Date (Month/Year):</b> 2016	<b>Approx. Value of Services (in Current USD/Rs.)</b> PKR. 1,000,000/-
<b>Name of Associated Firm(s), if any:</b> Nil	<b>No. of Months of Professional Staff Provided by Associated Firm(s):</b> Nil	
<b>Name of Senior Staff</b> (Project Director/ coordinator, Team Leader) involved and functions performed: 1.Hassan Jafar Zaidi/ Principal System Study Engineer (Team Leader) 2. Umair Bilal/System Study Engineer		
<b>Narrative Description of Project:</b> Interconnection Study for dispersal of power from the project to the nearest grid facility of NTDC		
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Development of the most feasible scheme of interconnection of the plant with the grid.</li> <li>• Detailed Technical analysis including load flow, short circuit and stability studies on the selected scheme</li> <li>• Submission of results in the form of technical report and got vetted from NTDC.</li> </ul>		

**Consultants' Name: Power Planners International**



15)

<b>Assignment Name:</b> Consultancy Services for Study of Availability of Power Supply of 200 MW Steel Mill near Karachi	<b>Country</b> Pakistan
<b>Location within Country</b> Sind, Pakistan	<b>Professional Staff Provided by your Firm:</b> 1
<b>Name of Client:</b> Fauji Fertilizer Co. Ltd	<b>No. of Staff:</b> 4
<b>Address:</b>	<b>No of Staff Months:</b> 3
<b>Start Date: (month Year)</b> January 2010	<b>Completion Date:(month Year)</b> March 2010
	<b>Approx. value of Services (in Current US\$/Rs.):</b> Pak Rs. 350,000
<b>Name of Associated Firm(s), if any:</b> Nil	<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed;</b> 1. Hassan Jafar Zaidi: System Studies;	
<b>Narrative Description of Project:</b> Feasibility of Power Supply for FFC Steel Mill	
<b>Description of Actual Services Provided by Your Firm:</b> Provided Consultancy Services for Study of Availability/Feasibility of Power Supply of 200 MW Steel Mill near Karachi.	

**Consultants' Name: Power Planners International**



16)

<b>Assignment Name:</b> Grid interconnection Study of Fatima Sugar Mills Ltd. - PP 120 MW Thermal Power Plant at Muzaffargarh	<b>Country</b> Pakistan
<b>Location within Country</b> Pakistan; Near Muzaffargarh , Punjab	<b>Professional Staff Provided by your Firm:</b> 3
<b>Name of Client:</b> Fatima Sugar Mills Ltd	<b>No. of Staff:</b> 4
<b>Address:</b>	<b>No of Staff Months:</b> 4
<b>Start Date: (month Year)</b> October 2013	<b>Completion Date: (month Year)</b>  <b>Approx. value of Services (in Current US\$/Rs.):</b> Pak Rs. 900,000
<b>Name of Associated Firm(s), if any:</b> Nil	<b>NO. of Months of Professional Staff provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</b>	
1. Hassan Jafar Zaidi: System Studies; load flow, short circuit and dynamic stability analysis 2. Omair Khalid: System Studies; load flow, short circuit and dynamic stability analysis 3. Amber Munir : System Studies; load flow, short circuit and dynamic stability analysis	
<b>Narrative Description of Project:</b> Grid Interconnection Study.	
<b>Description of Actual Services Provided by Your Firm:</b> Grid interconnection of 120 MW Fatima Sugar Mills Ltd. Thermal Power Project, performed grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis.	

**Consultants' Name: Power Planners International**



17)

<b>Assignment Name:</b> Grid-Interconnection Studies of 110 MW Coal Fired Power Plant at Sunder Industrial Estate, Lahore.		<b>Country:</b> Pakistan
<b>Location within Country:</b> Lahore		<b>Professional Staff Provided by Your Firm:</b> 2
<b>Name of Client:</b> Mott Mac Donald Pakistan		<b>No of Staff:</b> 2
<b>Address:</b> 17-A/1, Zafar Road, Cantt, Lahore		No of Staff Months: 30
<b>Start Date (Month/Year):</b> 2014	<b>Completion Date (Month/Year):</b> 2015	<b>Approx. Value of Services (in Current USD/Rs.)</b> PKR. 2,000,000/-
<b>Name of Associated Firm (s), if any:</b> Nil		<b>No. of Months of Professional Staff Provided by Associated Firm(s):</b> Nil
<b>Name of Senior Staff</b> (Project Director/ coordinator, Team Leader) involved and functions performed: 1.Hassan Jafar Zaidi/ Principal System Study Engineer (Team Leader) 2.Umair Bilal/System Study Engineer		
<b>Narrative Description of Project:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of LESCO/NTDC		
<b>Description of Actual Services Provided</b> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Development of the most feasible scheme of interconnection of the plant with the grid.</li> <li>• Detailed Technical analysis including load flow, short circuit and stability studies on the selected scheme</li> <li>• Submission of results in the form of technical report and got vetted from NTDC.</li> </ul>		

**Consultants' Name: Power Planners International**



**18)**

<b>Assignment name:</b> Grid Integration Study for the connection of VRE in the Power System of Baluchistan.	<b>Approx. value of the contract (in current US\$):</b> US\$: 54,650
<b>Country:</b> Pakistan <b>Location within country:</b> Baluchistan	<b>Duration of assignment (months):</b> 4.5
<b>Name of Client:</b> International Finance Corporation (IFC) – World Bank Group	<b>Total No. of staff-months of the assignment:</b> 10
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Dr. Nick F. Frydas, Senior Energy Specialist, Infrastructure – ECA and MENA, IFC (World Bank Group)
<b>Start date (month/year):</b> May 2018 <b>Completion date (month/year):</b> ongoing	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 10
<b>Name of associated Consultants, if any:</b> Goran Vukojevic, General Manager – Serbia, WSP	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed (e.g. Project Director/Coordinator, Team Leader):</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Samreen Fatima Shirazi/System Study Engineer
<b>Description of Project:</b> This study aims to investigate the capacity of QESCO network (existing/planned) to integrate 500 MW or more of solar and wind power into the system from 2022-2026. It will also determine the necessary reinforcements required to integrate at least 500 MW of renewable energy into the system and the probable sites to install VRE plants in modules of 50 MW (or smaller).	
<b>Description of actual services provided by your staff within the assignment:</b> 1- Load flow Study to determine the probable sites of VRE installation and necessary required reinforcements 2- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 3- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

**Consultant Name: Power Planners International**



19)

<b>Assignment name:</b> Locational Study for VRE in Pakistan	<b>Approx. value of the contract (in current US\$):</b> US\$: 295,016
<b>Country:</b> Pakistan <b>Location within country:</b> Lahore	<b>Duration of assignment (months):</b> 15
<b>Name of Client:</b> World Bank Group	<b>Total No. of staff-months of the assignment:</b> 15
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Oliver James Knight, Senior Energy Specialist, Energy Sector Management Assistance Program (ESMAP), (World Bank Group)
<b>Start date (month/year):</b> October 2018 <b>Completion date (month/year):</b> ongoing	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 08
<b>Name of associated Consultants, if any:</b> 8.2 OBST & ZIEHMANN INTERNATIONAL GMBH	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed (e.g. Project Director/Coordinator, Team Leader):</b> 4- Hassan Jafar Zaidi/Team Leader 5- Umair Bilal/System Study Engineer
<b>Description of Project:</b> (i) Assessment of renewable energy zones across Pakistan using a multi-criteria analysis; (ii) Grid integration analysis for substations in the vicinity of identified locations for RE potential, and consideration of grid upgrades, additions, and possible energy storage options; (iii) Shortlisting and ranking of near-term and longer-term options consistent with meeting revised Government targets on renewable energy;	
<b>Description of actual services provided by your staff within the assignment:</b> 1-Selection of the sites where grid can absorb VRE with or without any reinforcement 2-Load flow Study to determine the probable sites of VRE installation and necessary required reinforcements 3- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 4- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

**Consultant Name: Power Planners International**



**20)**

<b>Assignment name:</b> 9 x 100 MW PV Solar Power Projects at QA Solar Park	<b>Approx. value of the contract (in current US\$):</b> US\$ 9 x 9,029/-
<b>Country:</b> Pakistan <b>Location within country:</b> Cholistan, near Bahawalpur	<b>Duration of assignment (months):</b> 6
<b>Name of Client:</b> Zonergy	<b>Total No. of staff-months of the assignment: 12</b>
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Zhang Tao, Technical General Manager E3, Yuan Chenxin Mansion, No.12 Yumin Road, Beijing, China, ZIP 100029
<b>Start date (month/year):</b> Oct/2014 <b>Completion date (month/year):</b> Apr/2015	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 12
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed):</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Omair Khalid/ System Study Engineer 3- Samreen Fatima Shirazi/System Study Engineer
<b>Description of Project:</b> Studied interconnection of 9 x 100 MW PV Solar Power Projects at Quaid-e-Azam Solar Park and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

**21)**

<b>Assignment name:</b> 6 x 50 MW Urban Green Tech Solar Power Park	<b>Approx. value of the contract (in current US\$):</b> US\$ 5000
<b>Country:</b> Pakistan <b>Location within country:</b> Bahawalpur, Punjab	<b>Duration of assignment (months):</b> 4
<b>Name of Client:</b> Urban Green Tech	<b>Total No. of staff-months of the assignment:</b> 4
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	
<b>Start date (month/year):</b> October 2015 <b>Completion date (month/year):</b> December 2016	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 4
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed):</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Haider Ali/System Study Engineer
<b>Description of Project:</b> Studied interconnection of 6 x 50 MW Solar Power Park Project, Bahawalpur and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

**Consultant Name: Power Planners International**



22)

<b>Assignment name:</b> 200 MW NGPI Phoenix Solar Power Plant	<b>Approx. value of the contract (in current US\$):</b> Pak Rs. 3,480,000
<b>Country:</b> Pakistan <b>Location within country:</b> Jamshor/ Thatta, Sindh	<b>Duration of assignment (months):</b> 4
<b>Name of Client:</b> NGPI Phoenix Solar Power	<b>Total No. of staff-months of the assignment:</b> 4
<b>Start date (month/year):</b> May 2017 <b>Completion date (month/year):</b> Ongoing	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 4
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed:</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Haider Ali/System Study Engineer
<b>Description of Project:</b> Studied interconnection of 200 MW NGPI Phoenix Solar Power Project, Jamshoro and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 2- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

23)

<b>Assignment name:</b> 3 x 50 MW Solar Power Park	<b>Approx. value of the contract (in current US\$):</b> US\$ 36,114/-
<b>Country:</b> Pakistan <b>Location within country:</b> Sukkur, Sindh	<b>Duration of assignment (months):</b> 6
<b>Name of Client:</b> Nizam Energy (Pvt) Limited	<b>Total No. of staff-months of the assignment:</b> 6
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Gohar Zaidi, CEO G-30/4 KDA Scheme No. 5 Block-8, Clifton Karachi Tel: (+92) (21) 35360583
<b>Start date (month/year):</b> July/2015 <b>Completion date (month/year):</b> April/2017	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 6
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed:</b> 4- Hassan Jafar Zaidi/Principal System Study Engineer 5- Haider Ali/System Study Engineer
<b>Description of Project:</b> Studied interconnection of 3 x 50 MW Nizam Energy Solar Power Park, Sukkur, Sindh and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

**Consultant Name: Power Planners International**



24)

<b>Assignment name:</b> 100 MW PV Quaid-e-Azam Solar Park	<b>Approx. value of the contract (in current US\$):</b> US\$ 47,000/-
<b>Country:</b> Pakistan <b>Location within country:</b> Cholistan, Bahawalpur	<b>Duration of assignment (months):</b> 5
<b>Name of Client:</b> TBEA Xi' an Electric Desing Co. Ltd	<b>Total No. of staff-months of the assignment:</b> 5
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	Mr. Jing Yi Tan, Engineering Director No.70, Fourth Shanglinyuan Road Hi-Tech Zone Xi' an 710119 PR China
<b>Start date (month/year):</b> August/2014 <b>Completion date (month/year):</b> January/2015	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 5
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed:</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Samreen Fatima Shirazi/System Study Engineer
<b>Description of Project:</b> Studied interconnection of 100 MW PV Quaid-e-Azam Solar Park and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

25)

<b>Assignment name:</b> 100 MW Solar Power Project by Zorlu Solar	<b>Approx. value of the contract (in current US\$):</b> Pak Rs. 4,060,000
<b>Country:</b> Pakistan <b>Location within country:</b> Cholistan,District Bahawalpur	<b>Duration of assignment (months):</b> 4
<b>Name of Client:</b> Zorlu Solar Pakistan (Pvt.) Limited	<b>Total No. of staff-months of the assignment:</b> 4
<b>Contact Person, Title/Designation, Tel. No./Address:</b>	
<b>Start date (month/year):</b> Feb/2017 <b>Completion date (month/year):</b> April/2017	<b>No. of professional staff-months provided by your consulting firm/organization or your sub consultants:</b> 4
<b>Name of associated Consultants, if any:</b> NIL	<b>Name of senior professional staff of your consulting firm/organization involved and designation and/or functions performed:</b> 1- Hassan Jafar Zaidi/Principal System Study Engineer 2- Haider Ali/System Study Engineer
<b>Description of Project:</b> Studied interconnection of 100 MW Zorlu Solar Power Project, Cholistan and performed grid impact studies using various analytical tools available in PSS/E.	
<b>Description of actual services provided by your staff within the assignment:</b> 1- System Studies; Load Flow, Short Circuit and Dynamic Stability Analysis. 2- Power Quality Analysis covering Flicker, Harmonics and Voltage Unbalance.	

**Consultant Name: Power Planners International**



### **3. Methodology and Work Plan for Performing the Assignment**

#### **1.0 Introduction**

PPI, a renowned company locally and regionally, shall perform all the system studies mentioned in the scope of work required for Grid Interconnection Study of 49 MW Waste to Energy Power Plant with KE network.

#### **2.0 Understanding of the Objectives**

PPI is clear about the general objectives of the requisite consultancy services about the consultancy services for Grid Interconnection Study of 49 MW Waste to Energy Power Plant. The study will be performed with the complete integrated network model of KE and NTDC. The analysis will be performed for peak and off-peak load system conditions, with 49 MW power plant for spot year of studies as agreed with client and KE.

#### **3.0 Understanding of Technical Requirements**

PPI fully comprehends the Technical Requirements described by KREL in its TOR which include the following:

1. To determine ownership and reliability of the grid in relation to Voltage and frequency fluctuation if the plant will be connected and power outlet will fluctuate
2. To develop schemes of interconnections and confirm that space at the terminal substations will be available.
3. Determine if the grid is capable to accommodate short-circuit-power of the plant
4. Determine if grid supply is sufficient for start-up power or if there is need for EM-start-up capacity.
5. Determine if island operation of the plant is a requirement.
6. Determine if there is spare power capacity necessary for grid fluctuations. or is this organized differently and how.
7. Identify reliability constraints
8. To determine the performance of interconnection scheme during steady state conditions of system through load-flow analysis, short circuit test and stability check.
9. Provide recommendations based on the outcomes of the grid interconnection study which might need to be incorporated in the terms of the projects' PPA and/or design.

#### **4.0 Approach & Methodology**

Following is the detailed approach and methodology for carrying out the detailed analysis:



#### **4.1 Kick-Off Meeting**

The kick-off meeting will be held with KREL, KE and the consultant's teams, immediately after the award of contract. The whole work plan will be discussed and the study assumptions and Spot years of study will be discussed and any modifications in the study scenarios will be finalized. The required data for the study would be communicated as well.

#### **4.2 Data Collection**

Data to develop base case models for the base year would be obtained from KE. The following data would be used:

- Latest Load forecast for base years for peak load of KE
- Existing and latest planned generation additions till base years
- Existing and planned transmission expansion data till base years for KE
- Sequence data of KE system
- Planning criteria as per NEPRA Grid Code
- Ratings of the breakers and other equipment at the target substations involved in the interconnection

Following data will be collected from the client:

- Gross and Net output of plant
- Details of units
- Details of GSUs
- Dynamic and sequence data of power plant

#### **4.3 Development of Interconnection Scheme**

After the collection of the required data, the scheme of interconnection of power plant with nearest KE grid stations would be developed. Detailed site visit shall be carried out along with KE team and different options may be checked and the most feasible interconnection option after consultation with KE will be finalized for further analysis. The voltage level of the interconnection shall be decided on the basis of the site visit.

#### **4.4 Development of Base Cases without Proposed Power Plant**

Base cases will be developed for the finalized spot year of study to perform steady state analysis (load flow) and short circuit analysis representing the sequence impedance data as well. All necessary check for validation of data shall be performed.

Base case load flow and short circuit analysis would be carried out to see if any constraints existed in the surrounding network before the Power Plant interconnection. The constraints to be checked prior to interconnection would be to see any congestion on the network in normal and contingency conditions; and if the fault levels at the substations in the vicinity are within the short circuit ratings of the installed equipment at these substations.

#### **4.5 Load Flow and Contingency Analysis**

Load flow studies would be carried out, using the renowned software PSS/E of PTI, for interconnection of power plant from the nearest Grid facility of KE. The quantity measured would be power flows in terms of MW and MVAR, the voltages at 132 and 220 kV, and the reactive power consumption / absorption in the converters and the network, the reactive power (MVAR) loss in the transformers and the active (MW) loss in the network. The system performance shall be analyzed in case of normal and N-1 contingency conditions (only N-1 is required by the Grid Code). In this context, the voltage profile of the system, the loading of distribution lines and substations of the network shall be calculated and examined in view of the prescribed criterion as mentioned in the Grid Code.

Plotted results of load flow simulations for normal conditions and contingencies will be presented in the PSS/E Single Line Diagrams, showing bus bar voltages in absolute (physical) and relative (per unit) values, voltage angles at bus bars relative to swing bus, loading of circuits in MW and MVAR referred to percent rated MVA loading, and the power statistics summarizing active and reactive power generation, loads and losses.

#### **4.6 Short Circuit Analysis**

Short circuit currents will be calculated for the network in near the technology zone. We use IEC 60909, for the analysis of maximum and minimum fault current calculation at all the nodes of Power Plant and the nearest 220/132 kV substation along with substations of neighboring area. The results will be presented in tabular form as well as in the single-line graphic form. The rating of the equipment already installed at substations would be compared with the fault currents thus calculated to confirm that these are within the rated limits.

The fault current calculations would be presented in the tabular / report format as well as single-line graphic form.

#### **4.7 Indication of System Constraint**

Based on the above-mentioned analysis any constraint in the network of KE will be identified and proper remedial measures shall be proposed to ensure the reliable power supply from the proposed power plants.

#### **4.8. Conclusions and Recommendations**

On the basis of above analyses, interconnection scheme for Power Plant shall be finalized. The feasible interconnection scheme would include determination of the voltage level, the number and rating of step-up transformers and the interconnecting transmission lines required for reliable dispersal of power from the Power Plant to KE grid. It shall also indicate the extension/reinforcement required at the nearby system network.

### **5. Work Plan**

After the kick-off meeting and getting the required data from KE, the Study will be completed within 12 weeks with following milestones:

**Table - 1**

<b>Sr. No.</b>	<b>Activity</b>	<b>Timeline after Data Collection</b>
1	Data Collection/Site Visit	01 Week after Data Collection
2	Development of Base Cases	02 weeks after Data Collection
3	Preliminary Report	03 weeks after Data Collection
4	Load Flow and Contingency Analysis	05 weeks after Data Collection
5	Short Circuit Analysis	06 weeks after Data Collection
6	Dynamic Stability Analysis	07 weeks after Data Collection
7	Draft Report Submission	08 weeks after Data Collection
8	Comments from KE	02 weeks after submission of Draft Report
9	Final Report Submission	03 weeks after final comments from KE

Work /Activity	Actual Work Time in Working Weeks from Start of Project											
	1	2	3	4	5	6	7	8	9	10	11	12
Collection of data/Site Visit	■											
Development of Base Cases		■										
Preliminary Report			■									
Load Flow & Contingency Analysis				■	■							
Short Circuit Analysis					■							
Dynamic Stability Study						■						
Draft Report Submission							■	■				
Comments from KE								■	■	■		
Final Report										■	■	■

## 6. Organization and Staffing

PPI has provided its best resources for this assignment.

**Table – 2**

Name of Staff	Designation for this Assignment	Person Weeks
Hassan Jafar Zaidi	Project Manager/Senior Grid Interconnection Studies Expert	2
Muhammad Umair Bilal	Power System Expert/ Grid Interconnection Studies Expert	4
Ayesha Haroon	Grid Interconnection Studies Expert	4
Ammad Farasat	Grid Interconnection Studies Expert	4

## 7. Deliverables

Following is the schedule of submission of deliverables:

**Table – 3**

Sr. No.	Deliverable	Weeks After Award
1	Kick-Off Meeting	Within 3 days after Award of Contract
2	Preliminary Report	Within 03 Weeks after data received from KE and KREL



PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

<b>Sr. No.</b>	<b>Deliverable</b>	<b>Weeks After Award</b>
3	Draft Report Submission	Within 08 weeks after data received from KE and KREL
4	Comments from KE; meetings and discussions on comments	Within 02 weeks after submission of Draft Report
5	Final Report Submission	Within 03 week after comments from KE and KREL



## **Annex 1: Resume/CVS of PPI Team**

### **Hassan Jafar Zaidi**

1. **Proposed Position:** Project Manager/Senior Grid Interconnection Studies Expert
2. **Name of Firm:** Power Planners International
3. **Name of Staff:** Hassan Jafar Zaidi
4. **Date of Birth:** 31-07-1949                                      **Nationality:** Pakistani
5. **Education**

**a) Academic:**

School, college and/or University Attended	Degree/certificate or other specialized education obtained	Date Obtained
University of Engineering and Technology, Lahore, Pakistan	Bachelor of Science in Electrical Engineering	1973
University of the Punjab	Bachelor of Science	1969

**b) Technical Papers/Presentations and Conferences:**

No.	Type	Topic	Location	Month/Year
1	Presentation	Pre-Requisites for Sustainable Energy Growth in Pakistan	IEEE Sustainable Energy Solutions for a Prosperous Pakistan, Lahore	<b>August 2018</b>
2	Presentation	Technical Challenges of System Planning & Operation in the Perspective of SAARC Energy Ring (Electricity)	SAARC Training Workshop Program "Simulated Power Trading Market System / Power Exchange" New Delhi, India	<b>December 2017</b>
3	Presentation	Technical Challenges of System Planning & Operation of Integrated Grid of SAARC Region	SAARC Training Workshop on System Operation and Settlement Mechanism, Cross Border Trade/Regional Power Market in South Asia" Dhaka, Bangladesh	<b>December 2017</b>
4	Presentation	Critical Importance and Role of Power Generation Planning in the Power System	SAARC Training Workshop on "Identification, Comparison and	<b>August 2017</b>



PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

No.	Type	Topic	Location	Month/Year
		Scenario Based Application of Power Demand/Load Forecasting Tools” Thimphu, Bhutan		
5	Presentation	Proposed Framework for setting up Bhutan Power Planning Component with respect to Load Forecast	SAARC Training Workshop on “Identification, Comparison and Scenario Based Application of Power Demand/Load Forecasting Tools” Thimphu, Bhutan	<b>August 2017</b>
6	Case Study	Grid Interconnection Studies of Bagasse Based Co-generation Power Plants in Pakistan	SAARC Workshop on Application of on-grid Biogas Technologies at Kabul	<b>May 2016</b>
7	Case Study	35 MW Waste to Energy Plant for Lahore Waste Management Company	SAARC Workshop on Application of on-grid Biogas Technologies at Kabul	<b>May 2016</b>
8	Policy Options	Wind Energy Integration into Grid System	WWEA Workshop held in Islamabad	<b>December 2016</b>
9	Paper	Technology Considerations for Cross Border Power Interconnections	SAARC Dissemination Workshop, at Lahore	<b>October 2015</b>
10	Workshop	Main Resource Person in a workshop on Designing Management & Monitoring Framework for Regulatory Compliance by Power Transmission Utilities in the SAARC Region	Colombo, Sri Lanka	<b>2015</b>
11	Published Paper	Impact of motorized load on Voltage Stability of National Grid of Pakistan and application of SVC Published in: Saudi Arabia Smart Grid 2014	Saudi Arabia	<b>2014</b>
12	Presentation	Induction of Solar Power into the National Grid	IEEEP, Lahore	<b>2014</b>
13	Lecture	Resolving Electricity Crisis in Pakistan: What Punjab can do.	The Centre for Public Policy and	<b>2013</b>



PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

No.	Type	Topic	Location	Month/Year
			Governance, FC University, Lahore	
14	Lecture	Institutional Bottlenecks and Management Issues in the Current Energy Crisis	The Centre for Public Policy and Governance, FC University, Lahore	<b>2011</b>
15	Lecture	Modern Trends in Power Systems	Islamabad and Lahore under the joint auspices of IEEEP and PPI	<b>2005</b>
16	Published Paper	Technical Feasibility of HVDC Links in Saudi Arabia Published in: The CIGRE publication, Group 14, 2000 Session Papers.(co-author: A.I. Khawaji)	CIGRE, Annual Session held in Paris,	<b>2000</b>
17	Paper	A Case Study of Interconnection Between Western and Central Regions of KSA. (co-author: A.I. Khawaji)	IIR, Institute for International Research, 6th Annual Middle East Power Generation Summit held in Dubai	<b>2000</b>
18	Paper	The Significance of Small Signal Stability in Power Systems.	CIGRE Arab, Annual Session held in Amman, Jordan	<b>1997</b>
19	Paper	Transmission Link Between Tajikistan and Pakistan, HVAC or HVDC (co-author: M.Aslam Khan)	Institute of Electrical Engineers (IEE) Pakistan	<b>1992</b>

**6. Membership in Professional Associations:**

- (i) Member PEC
- (ii) Member IEEEP
- (iii) Member IEP

**7. Other Trainings:**

- Advanced School in Power Systems Engineering, Westinghouse Electric Corporation, Pittsburgh, Pennsylvania, USA. It included one Three-Credit Graduate-Level Course (26.6 CEU) leading to M. Sc. by Pennsylvania State University, USA in 1986
- Relay School, Westinghouse Electric Corporation, Coral Spring, Florida, USA in 1986
- Introductory PSS/E Users' Course by PTI, USA arranged in Lahore, Pakistan in 1988.
- Courses arranged by ACRES International Ltd. Canada in Lahore from 1992-94 as part of CIDA funded National Power Plan Project for Pakistan



## PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

- (i) Power System Reliability (Generation and Transmission) Courses (by Dr. Billinton of NERC),
- (ii) Power System Stability Course (by Dr. Prabha Kundur of BC Hydro),
- (iii) AC and DC Power Flow Course, Power Systems Engineering (Reactive Power Balance) Course,
- (iv) HVDC/HVAC Hybrid Systems.
- Course on Power Electronics by Pakistan Foundation for Advancement of Engineering and Technology in 1993.
- Course on Introduction to PSS/E Steady State and Dynamics by PTI, UK in Jeddah Saudi Arabia in 1994.
- Course on Load Forecasting and Demand Side Management held at the Training Center of the Saudi Consolidated Electricity Company in Jeddah, Saudi Arabia in 1994.
- Course on PSCAD /EMTDC, a software for EM Transient studies for HVAC and HVDC conducted by Power System Dynamics of South Africa at the Training Center of the Saudi Electricity Company (SEC) in Jeddah, Saudi Arabia in 2004.
- Advanced course on Power System Stability conducted by Rodolfo Koessler of ABB-USA at SEC Head Offices, Dammam Saudi Arabia in 2006.
- Advance Course on PSS/E version 30.3, conducted by Dr. Sallehuddin Yusuf of Advanced Power Solutions of Malaysia at the Training Center of the Saudi Electricity Company (SEC) in Riyadh, Saudi Arabia in 2006.
- Advance course for PSS/E SVC Modeling conducted by F. S. Prabhu & Rodolfo Koessler of ABB-USA at SEC Head Offices, Jeddah Saudi Arabia in 2007.
- Advance course for PSCAD/EMTDC for EM Transient study focussed on SVC Modeling & Simulation conducted by Bjorn Thorvaldsson of ABB Sweden at SEC Head Offices, Jeddah Saudi Arabia in 2007.

**8. Countries of Work Experience:** Pakistan, Nepal, Saudi Arabia, Afghanistan, Sri Lanka.

### **9. Languages**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Urdu	Good	Good	Good

### **10. Employment Record**

#### **2007 - To date**

**Employer:** Power Planners International Pvt. Ltd.

**Position held:** Chief Executive Officer

#### **1994 – 2005**

**Employer:** Saudi Electricity Company (SEC), Saudi Arabia

**Position held:** Manager, EHV Planning and Studies/ Specialist EHV Studies

#### **1978-1994**

**Employer:** Water & Power Development Authority, WAPDA, Pakistan

**Position held:** Assistant Director/Deputy Director, Power System Studies



**1975-1978**

**Employer:** Pakistan Television Corporation, Pakistan

**Position held:** Production Engineer

<b>11. Detailed Tasks Assigned</b>	<b>12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned</b>
<ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Establish planning criteria</li> <li>• Supervision of the system Studies i.e. Load Flow, Short Circuit analysis</li> <li>• Identification and solutions of transmission system constraints</li> <li>• Reporting</li> </ul>	<p><b>12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned</b></p> <p>(i) <b>Name of assignment or project:</b> Preparation of Long-Term Transmission Plan (2016-2030) for K-Electric (utility of Karachi)  <b>Location:</b> Pakistan  <b>PE:</b> K-Electric Limited  <b>Main project features:</b> Development and Analysis of Long Term Transmission Scheme for K-Electric up to year 2030 including System Studies, Design/Specifications and Bidding documents  <b>Positions held:</b> Team Head  <b>Activities performed:</b> Supervised Load Forecast, System Studies, Reactive Power Management, Design and Specification study</p> <p>(ii) <b>Name of assignment or project:</b> Study for Additional Supply Import from National Grid to K-Electric  <b>Location:</b> Pakistan  <b>PA:</b> K-Electric Limited  <b>Main project features:</b> Analysis of KE network to assess the strength of KE network with additional supply import from NTDC  <b>Positions held:</b> Team Head  <b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the spot years of study</p> <p>(iii) <b>Name of assignment or project:</b> World Bank Project for Locational Study of Variable Renewable Energy in Pakistan.  <b>Year:</b> 2018-19  <b>Location:</b> Pakistan  <b>PA:</b> World Bank Group  <b>Main project features:</b> Grid Integration analysis including identification of substations that can accommodate solar/and or wind capacity without major upgrades, and those that would require major transmission/or substation upgrades to allow further investigation of VRE capacity;  <b>Positions held:</b> Team Lead  <b>Activities performed:</b> Supervised the power system studies analysis for all the identified locations for VRE in Pakistan using the analytical tools of Load flow, Short circuit analysis and dynamic stability analysis</p> <p>(iv) <b>Name of assignment or project:</b></p>



	<p>World Bank Study for Variable Renewable Energy integration into the Baluchistan Power System.</p> <p><b>Year:</b> 2018-19</p> <p><b>Location:</b> Pakistan</p> <p><b>PA:</b> World Bank Group/IFC</p> <p><b>Main project features:</b> The main objective of the study was to investigate the capacity of the Baluchistan Power System (a part of the Pakistan interconnected Power System), to accommodate/integrate at least 500 (or more) MW of Variable Renewable Generation (VRE), i.e. Solar PV and onshore Wind. It will also help to determine the capability of the existing and planned Power System to integrate new VRE capacities, connected in modules of 50 MW, in two "configurations" of deployment of VRE either entirely PV Solar, or 2/3 Solar and 1/3 wind</p> <p><b>Positions held:</b> Team Lead</p> <p><b>Activities performed:</b> Supervision of the whole project including technical guidance to the team, coordination with NTDC, AEDB and QESCO, presentations in the stakeholders' workshops etc.</p>
(v)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of Multiple Solar Power Projects from 2013 to 2019.</p> <p><b>Location:</b> Pakistan</p> <p><b>Multiple PEs:</b> Zonergy (Pvt.) Limited, Urban Green Tech, Nizam Energy (Pvt.) Limited, TBEA Xi'an Electric Desing Co. Ltd, Zorlu Solar Pakistan (Pvt.) Limited, Siachen Energy Limited, Solution de Energy (PVT) Ltd, Zhenfa Pakistan New Energy Company (Pvt.) Limited, Storm Harbour Solar, Engineering Consultancy Services Punjab (Pvt.) Ltd., Renewable Resources (Pvt.) Ltd, Eneritech Quetta Solar (Pvt.) Limited, ET Solar International Co. Ltd., Kinetic Punjab Solar Two (Pvt.) Ltd., Siddique Sons Energy, Liberty Solar Energy Limited, RE Solar (Pvt.) Ltd., Asia Petroleum (Pvt.) Ltd.</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Solar Power Projects.</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Solar Power Projects.</p>
(vi)	<p><b>Name of assignment or project:</b> Integrated Interconnection Study of 26 Big Hydropower Projects on River Indus and its tributaries with the main National Grid of Pakistan. As JV Partner with PB Power UK.</p> <p><b>Location:</b> Pakistan</p>

	<p><b>Client:</b> NTDC, Pakistan</p> <p><b>Main project features:</b> Develop most feasible integrated scheme of interconnection of 26 big hydropower projects including Basha (4500 MW), Bunji (7000 MW), Dasu (5400 MW), Thakot (3000 MW), Yulbo (3000 MW), Tungas (2800 MW), Kohala (1124 MW), Karot (720 MW) etc. This involved HVAC of 500 kV, 765 kV with the support of installations of SVCs and Series Compensating devices.</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options.</p>
(vii)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of 1124 MW Kohala Hydropower Project, Azad Jammu &amp; Kashmir</p> <p><b>Year:</b> 2016 to 2017</p> <p><b>Location:</b> Pakistan</p> <p><b>PE:</b> TGF through China Water Resources Beifang Investigation</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options.</p>
(viii)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of 700.7 MW Azad Pattan Hydropower Project, Azad Jammu &amp; Kashmir</p> <p><b>Year:</b> 2016 to 2017</p> <p><b>Location:</b> Pakistan</p> <p><b>PE:</b> Azad Pattan Power (Pvt.) Limited,</p> <p><b>Main project features:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of NTDC</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options.</p>
(ix)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of 450 MW Authmuqam Hydro Power Plant, Azad Jammu &amp; Kashmir</p> <p><b>Year:</b> 2018 to 2019</p> <p><b>Location:</b> Pakistan</p> <p><b>PE:</b> Pakistan Energy Services (Pvt.) Ltd.</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options.</p>
(x)	<b>Name of assignment or project:</b>

	<p>Integrated Study of 470 MW Lower Spat Gah Hydropower Plant, at KPK.</p> <p><b>Location:</b> Pakistan  <b>PE:</b> AFRY, Thailand.</p> <p><b>Main project features:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of NTDC</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options.</p>
(xi)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of Multiple big and small Hydropower Projects from 2012 to 2019.</p> <p><b>Location:</b> River Jhelum, Khyber Pakhtunkhwa, Pakistan</p> <p><b>Multiple PEs:</b> Star Hydropower Ltd., Laraib Energy Ltd., Integrated Consulting Services, Habib Rafiq Ltd., Mirza Associates Engineering Services (Pvt.) Ltd., China Three Gorges South Asian Investment Limited, Mech &amp; Elec Design Changjaing (CSPDR) China, Mira Power Limited, Saani Power Pvt. Ltd.,</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects.</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options of the proposed Hydropower Projects.</p>
(xii)	<p><b>Name of assignment or project:</b> Grid Impact Studies of 55 MW Thermal Power Plant at Mazar-e-Sharif</p> <p><b>Location:</b> Mazar-e-Sharif, Afghanistan</p> <p><b>PE:</b> Ghazanfar Group</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of 55 MW Mazar-e-sharif thermal power plant.</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options</p>
(xiii)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of Multiple Thermal Power Projects from 2012 to 2019.</p> <p><b>Location:</b> Pakistan</p> <p><b>Multiple PEs:</b> Nishat Power Limited, Thal Nova Power Thar Pvt. Ltd., That Energy (HUBCO), Chiniot Power Limited, Etihad Power Generation Ltd, Sadiqabad (JDW) Sugar Mills, Ghotki (JDW) Sugar Mills, Mehran Sugar Mills, Faran Sugar Mills, Mirpurkhas Sugar Mills, Digri Sugar Mills MMP Pakistan Pvt. Ltd.</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Thermal Power Projects.</p>

	<p><b>Positions held:</b> Team Head <b>Activities performed:</b> Supervised load flow, short circuit and stability studies of all the interconnection options of the proposed Thermal Power Projects.</p> <p><b>(xiv) Name of assignment or project:</b> Feasibility Study on Interconnection of ECO Countries Power Systems <b>Location:</b> Lahore, Pakistan <b>PE:</b> NESPAK, Pakistan and ECO Tehran, Iran <b>Main project features:</b> Study of technically and economically feasible interconnection scheme(s) of Power Systems of Pakistan, Iran, Turkey, Afghanistan, Kirghizia, Tajikistan, Uzbekistan, Turkmenistan, Kazakhstan and Azerbaijan involving HVAC (400kV, 500kV and/or 765 kV) and HVDC (<math>\pm 500</math> kV or else) for surplus exchange of power between these countries <b>Positions held:</b> Team Head/Power System Studies Expert <b>Activities performed:</b> Supervised Modeling and Simulations of Steady State and Transient Performance of ECO Countries. Identification of Technically Feasible Interconnection Options and of required facilities (such as transmission lines, substations, reactive compensation, series compensation, telecom, SCADA etc.</p>
	<p><b>(xv) Name of assignment or project:</b> Feasibility Study of HVDC/HVAC Transmission Line Interconnection for Import of 1000 MW Power from Iran to Pakistan <b>Location:</b> Pakistan <b>PE:</b> NTDC, Pakistan <b>Main project features:</b> To study the feasibility of HVDC/HVAC transmission line interconnection for the import of 1000 MW power from Iran to Pakistan. <b>Positions held:</b> Team Head <b>Activities performed:</b> Supervised grid impact studies using the analytical tools of load flow, short circuit and dynamic stability analysis</p>
	<p><b>(xvi) Name of assignment or project:</b> Consultancy services to US donor agency, Millennium Challenge Corporation (MCC) on developing 400 kV network in Nepal and its interlinking with India <b>Location:</b> Nepal <b>PE:</b> Millennium Challenge Corporation (MCC) <b>Main project features:</b> Consultancy services for supervision of the 400 kV transmission network in Nepal and its interlinking with 400 kV network of India <b>Positions held:</b> Team Head</p>

	<p><b>Activities performed:</b> Supervised of the System Studies analysis, Basic Design of the Transmission line and substation</p> <p><b>(xvii) Name of assignment or project:</b> Interlinking of Gawadar – Makran with National Grid and Preparation of Long Term Electrical Network Expansion Plan</p> <p><b>Location:</b> Pakistan</p> <p><b>PE:</b> QESCO</p> <p><b>Main project features:</b> Consultancy services for Preparation of Regional Transmission Grid Plan and Interlinking Arrangements of Power Systems for Supply of Power to Gawadar Area under CPEC Package of Development.</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Performed load flow, short circuit and stability studies for the preparation of regional transmission grid plan and interlinking arrangements of power systems for supply of power to Gawadar area under CPEC Package of Development. It included studies for cross-border intertie of 220 kV with Iran.</p> <p><b>(xviii) Name of assignment or project:</b></p> <p>Study and Evaluation of Transmission and Distribution Losses of NTDC and all Distribution Companies of Pakistan</p> <p><b>Location:</b> Pakistan</p> <p><b>Multiple PEs:</b> NTDC, PESCO, IESCO, GEPCO, FESCO, LESCO, MEPCO, SEPCO, HESCO, QESCO and TESCO</p> <p><b>Main project features:</b> Evaluation of T &amp; D Losses of NTDC and DISCOs network by carrying out Load Flow Studies for Peak &amp; Off-Peak load conditions of Various Months</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised the analysis for the evaluation of Transmission and Distribution Losses for NTDC and all the Distribution Companies</p> <p><b>(xix) Name of assignment or project:</b></p> <p>Grid Interconnection Studies of Multiple Wind Power Projects from 2007 to 2019.</p> <p><b>Location:</b> Jhimpir/Gharo, Sindh, Pakistan</p> <p><b>Multiple PEs:</b> Iran Pak Power (Pvt.) Limited, Osmani &amp; Co (Pvt) Ltd., Burj Wind Energy (Private) Limited, Hartford Alternative Energy, Gul Ahmed Wind Power Limited, Western Power Wind Project (Pvt.) Ltd, Master Wind Energy Limited, Foundation Wind Energy I and II, Fauji Fertilizer Company Ltd., Zorlu Energy Pakisytan Limited, Siemens Pakistan Limited, AEDB Islamabad, HydroChina Dawood Power (Pvt.) Limited, Sapphire Wind Company Limited, Lucky Energy (Pvt.), Limited, China Three Gorges, Sachal Energy Development Ltd., Zephyr Power Ltd., NBT Wind Power Pakistan Ltd., Unicol Ltd., Master Green</p>
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PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

	<p>Energy Ltd., Metro Wind Power Pvt. Ltd., ACT 2 Wind, Power China Northwest Engg., Din Energy Pvt. Ltd., Nasda Energy Pvt. Ltd., Indus Energy Pvt. Ltd., Noor Energy Ltd., Zulaikha Energy Pvt. Ltd., Lakeside Energy Pvt. Ltd., Norinco Intl. Thatta Power Pvt. Ltd., Sinowell Pvt. Ltd., Shafi Energy Pvt. Ltd., Renewable Resources Pvt. Ltd.</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Wind Power Projects.</p> <p><b>Positions held:</b> Team Head</p> <p><b>Activities performed:</b> Supervised load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Wind Power Projects.</p>
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**13. Certification:**

I, the undersigned, certify that to the best of my knowledge and belief that

- (i) this CV correctly describes me, my qualifications, and my experience;
- (ii) I am not employed by the Executing /Implementing Agency;
- (iii) In the absence of medical incapacity, I will undertake this assignment for the duration and in terms of the inputs specified for me in the Personnel Schedule in Form TECH-7 provided team mobilization takes place within the validity of this proposal or any agreed extension thereof;
- (iv) I am committed to undertake the assignment within the validity of Proposal;
- (v) I am not part of the team who wrote the terms of reference for this consulting services assignment;

I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

*Hassan Jafar*

[Signature of expert or authorized representative of the firm]

Date: 18/08/2021

Day/Month/Year

Full Name of authorized representative: Hassan Jafar Zaidi



**Muhammad Umair Bilal**

**1. Proposed position:** **Power System /Grid Interconnection Study Expert**

**2. Name of Firm:** **Power Planners International**

**3. Name of Staff:** **Muhammad Umair Bilal**

**4. Date of Birth:** **22-12-1990**      **Nationality:** **Pakistani**

**5. Education**

School, college and/or University Attended	Degree/certificate or other specialized education obtained	Date Obtained
University of Engineering and Technology, Lahore, Pakistan	Bachelor of Science in Electrical Engineering	2013

**6. Professional Certification or Membership in Professional Associations:**

- (i) Member PEC (Elect. 39325)
- (ii) Member IEEEP

**7. Other Relevant Training:**

- One month internship in Kot Addu Power Comany (KAPCO) (2011)
- One month internship in National Transmission and Despatch Company Limited (NTDCL) (2012)
- Power System Stability and Control by Dr. Prabha Kundur – 4 Day Workshop (December 2016), Kuala Lumpur, Malaysia

**8. Countries of Work Experience:** Pakistan

**9. Languages**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Urdu	Good	Good	Good

**10. Employment Record**

**2014 – to date**

**Employer:** Power Planners International (Pvt.) Ltd.

**Position Held:** Deputy Manager System Studies



11. Detailed Tasks Assigned	Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned
<ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Development of Interconnection Scheme</li> <li>• Perform the system Studies i.e. Load Flow, Short Circuit analysis studies using PSS/E software</li> <li>• Reporting</li> </ul>	<p><b>(i) Name of assignment or project:</b> Preparation of Long-Term Transmission Plan (2016-2030) for K-Electric (utility of Karachi)  <b>Location:</b> Pakistan  <b>PE:</b> K-Electric Limited  <b>Main project features:</b> Development and Analysis of Long Term Transmission Scheme for K-Electric up to year 2030 including System Studies, Design/Specifications and Bidding documents  <b>Positions held:</b> Power System Studies Engineer  <b>Activities performed:</b> Performed Load Forecast, System Studies, Reactive Power Management, Design and Specification study</p> <p><b>(ii) Name of assignment or project:</b> Study for Additional Supply Import from National Grid to K-Electric  <b>Location:</b> Pakistan  <b>PA:</b> K-Electric Limited  <b>Main project features:</b> Analysis of KE network to assess the strength of KE network with additional supply import from NTDC  <b>Positions held:</b> Power System Studies Engineer  <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the spot years of study</p> <p><b>(iii) Name of assignment or project:</b> World Bank Project for Locational Study of Variable Renewable Energy in Pakistan.  <b>Year:</b> 2018-19  <b>Location:</b> Pakistan  <b>PA:</b> World Bank Group  <b>Main project features:</b> Grid Integration analysis including identification of substations that can accommodate solar/and or wind capacity without major upgrades, and those that would require major transmission/or substation upgrades to allow further investigation of VRE capacity;  <b>Positions held:</b> Power System Studies Engineer  <b>Activities performed:</b> Performed the power system studies analysis for all the identified locations for VRE in Pakistan using the analytical tools of Load flow, Short circuit analysis and dynamic stability analysis</p> <p><b>(iv) Name of assignment or project:</b> Grid Impact Studies of DASU and its Downstream Hydro Power projects  <b>Year:</b> 2017  <b>Location:</b> Pakistan  <b>PE:</b> World Bank Group/NTDC</p>

	<p><b>Main project features:</b> Grid Impact assessment of Dasu and its downstream hydro power project and development of most feasible interconnection scheme for evacuation of about 12,861 MW power</p> <p><b>Positions held:</b> Power System Analyst</p> <p><b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the developed scheme of interconnection for 765 kV, 500 kV and HVDC</p> <p>(v) <b>Name of assignment or project:</b> Grid Interconnection Studies of 700.7 MW Azad Pattan Hydropower Project, Azad Jammu &amp; Kashmir  <b>Year:</b> 2016 to 2017  <b>Location:</b> Pakistan  <b>PE:</b> Azad Pattan Power (Pvt.) Limited,  <b>Main project features:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of NTDC  <b>Positions held:</b> Power System Studies Engineer  <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options.</p> <p>(vi) <b>Name of assignment or project:</b> Grid Interconnection Study of 470 MW Lower Spat Gah Hydropower Plant, at KPK.  <b>Location:</b> Pakistan  <b>PE:</b> AFRY, Thailand.  <b>Main project features:</b> Interconnection Study for disposal of power from the project to the nearest grid facility of NTDC  <b>Positions held:</b> Senior System Study Expert  <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options.</p> <p>(vii) <b>Name of assignment or project:</b> Grid Interconnection Studies of 450 MW Authmuqam Hydro Power Plant, Azad Jammu &amp; Kashmir  <b>Year:</b> 2018 to 2019  <b>Location:</b> Pakistan  <b>PE:</b> Pakistan Energy Services (Pvt.) Ltd.  <b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects  <b>Positions held:</b> Senior System Study Expert  <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options.</p> <p>(viii) <b>Name of assignment or project:</b> Grid Interconnection Studies of 300 MW Balakot Hydro Power Plant, KPK  <b>Year:</b> 2018 to Ongoing  <b>Location:</b> Pakistan  <b>PE:</b> Aqualogus</p>
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	<p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects  <b>Positions held:</b> Senior System Study Expert  <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options.</p> <p>(ix) <b>Name of assignment or project:</b> Grid Interconnection Studies of 10.2 MW Jabori Hydro Power Plant, KPK  <b>Year:</b> 2018 to Ongoing  <b>Location:</b> Pakistan  <b>PE:</b> Tried  <b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects  <b>Positions held:</b> Senior System Study Expert  <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options.</p> <p>(x) <b>Name of assignment or project:</b> Grid Interconnection Studies of small Hydropower Projects from 2014 to 2019.  <b>Location:</b> Pakistan  <b>Multiple PE:</b> Engro Powergen Limited, Packages Power (Pvt.) Limited, Naushera Energy (Pvt.) Limited, Jabori Hydro Power Project, Nara Hydro Power (Pvt.) Limited  <b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects.  <b>Positions held:</b> Power System Studies Engineer  <b>Activities performed:</b> Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Hydropower Projects.</p> <p>(xi) <b>Name of assignment or project:</b> Grid Interconnection Studies of Multiple Wind Power Projects from 2014 to 2019.  <b>Location:</b> Jhimpur, Sindh, Pakistan  <b>Multiple PA:</b> Metro, Nasda Green, Unicol Limited, Shafi Energy (Pvt.) Limited, Norinco International Thatta (Pvt.) Limited, Trans-Atlantic Wind Power Project, Tricon Boston Consulting Corporation, Zephyr Wind Power Plant, Vestas Wind Power Plant etc.  <b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Wind Power Projects.  <b>Positions held:</b> Power System Studies Engineer  <b>Activities performed:</b> Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Wind Power Projects.</p> <p>(xii) <b>Name of assignment or project:</b> Grid Interconnection Studies of Multiple Solar Projects from 2014 to 2019.  <b>Location:</b> Pakistan</p>
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	<p><b>Multiple PA:</b> Zonergy (Pvt.) Limited, Zorlu Solar Pakistan (Pvt.) Limited, Renewable Resources (Pvt.) Ltd, ET Solar International Co. Ltd., Kinetic Punjab Solar Two (Pvt.) Ltd., Siddique Sons Energy, Liberty Solar Energy Limited, RE Solar (Pvt.) Ltd., Asia Petroleum (Pvt.) Ltd., Zhenfa Solar etc.</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed solar Projects.</p> <p><b>Positions held:</b> Power System Studies Engineer</p> <p><b>Activities performed:</b> Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Solar Projects.</p>
(xiii)	<p><b>Name of assignment or project:</b> Grid Interconnection Studies of Multiple Thermal Power Projects from 2014 to 2019.</p> <p><b>Location:</b> Pakistan</p> <p><b>Multiple Clients:</b> Thar Energy Limited, Thal Nova, Mazar-e-Sharif IPP, Bayat Gas, RYK Energy Limited, Hamza Sugar Mills Limited, Kashmir Power (Pvt.) Limited, Mehran Sugar Mills Limited, Hunza Power (Pvt.) Limited</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Thermal Power Projects.</p> <p><b>Positions held:</b> Power System Studies Engineer</p> <p><b>Activities performed:</b> Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Thermal Power Projects.</p>
(xiv)	<p><b>Name of assignment or project:</b> Study and Evaluation of Transmission and Distribution Losses of NTDC and all Distribution Companies of Pakistan</p> <p><b>Location:</b> Pakistan</p> <p><b>Multiple Clients:</b> NTDC, PESCO, IESCO, FESCO, MEPCO, SEPCO, HESCO, QESCO and TESCO</p> <p><b>Main project features:</b> Evaluation of T &amp; D Losses of NTDC and DISCOs network by carrying out Load Flow Studies for Peak &amp; Off-Peak load conditions of Various Months</p> <p><b>Positions held:</b> Power System Studies Engineer</p> <p><b>Activities performed:</b> Supervised the analysis for the evaluation of Transmission and Distribution Losses for NTDC and all the Distribution Companies</p>
(xv)	<p><b>Name of assignment or project:</b> Gawadar – Makran Long Term Electrical Network Expansion Plan</p> <p><b>Location:</b> Balochistan, Pakistan</p> <p><b>Client:</b> Quetta Electric Supply Company (QESCO)</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of Gwadar Area</p> <p><b>Positions held:</b> Power System Studies Engineer</p>

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	<p><b>Activities performed:</b> Performed load flow, short circuit and stability studies for the preparation of regional transmission grid plan and interlinking arrangements of power systems for supply of power to Gawadar area under CPEC Package of Development. It included studies for cross-border intertie of 220 kV with Iran.</p>
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**13. Certification:**

I, the undersigned, certify that to the best of my knowledge and belief that

- (i) this CV correctly describes me, my qualifications, and my experience;
- (ii) I am not employed by the Executing /Implementing Agency;
- (iii) I am committed to undertake the assignment within the validity of Proposal;
- (iv) I am not part of the team who wrote the terms of reference for this consulting services assignment;

I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



[Signature of expert or authorized representative of the firm]

Date: 18/08/2021

Day/Month/Year

Full Name of authorized representative: Hassan Jafar Zaidi



**Ayesha Haroon**

- 1. Proposed Position:** VRE Grid Integration Expert
- 2. Employer:** Power Planners International Pvt. Limited.
- 3. Name of Staff:** Ayesha Haroon
- 4. Date of Birth:** 19-09-1992                                  **Nationality:** Pakistani
- 5. Education**

School, college and/or University Attended	Degree/certificate or other specialized education obtained	Date Obtained
University of Central Punjab, Lahore, Pakistan	Masters of Science in Electrical Engineering	2017
University of Engineering and Technology, Lahore, Pakistan.	Bachelors of Science in Electrical Engineering	2013

**6. Professional Certification or Membership in Professional Associations:**

- (i) Member PEC
- (ii) Member IEEEP

**7. Other Relevant Training:**

- One month internship in National Transmission and Despatch Company Limited (NTDCL) (2012)

**8. Countries of Work Experience:** Pakistan, Kingdom of Saudi Arabia

**9. Languages**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Urdu	Good	Good	Good

**10. Employment Record**

**2013 – 2016**

**Employer:** University of Central Punjab  
**Position Held:** Research Associate/Lab Engineer

**2016 – 2020**

**Employer:** Power Planners International (Pvt.) Ltd.  
**Position held:** Senior System Study Engineer



**2020-2021**

**Employer:** Dar Engineering (Pvt.) Limited

**Position held:** System Study Engineer

**May2022-To date**

**Employer:** Power Planners International (Pvt.) Ltd.

**Position held:** Team Lead System Study Engineer

<b>11. Detailed Tasks Assigned</b>	<b>12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned</b>
<ul style="list-style-type: none"><li>• Data Collection</li><li>• Perform the power system Studies i.e. Load Flow, Short Circuit analysis, Transient Stability studies</li></ul>	<p><b>(i) Name of assignment or project:</b> World Bank Project for Locational Study of Variable Renewable Energy in Pakistan. <b>Year:</b> 2018-19 <b>Location:</b> Pakistan <b>PA:</b> World Bank Group <b>Main project features:</b> Grid Integration analysis including identification of substations that can accommodate solar/and or wind capacity without major upgrades, and those that would require major transmission/or substation upgrades to allow further investigation of VRE capacity; <b>Positions held:</b> Power System Studies Engineer <b>Activities performed:</b> Performed the power system studies analysis for all the identified locations for VRE in Pakistan using the analytical tools of Load flow, short circuit analysis and dynamic stability analysis</p> <p><b>(ii) Name of assignment or project:</b> Grid Integration Study for the connection of VRE in the Power System of Baluchistan <b>Location:</b> Baluchistan, Pakistan <b>Client:</b> World Bank Group <b>Main project features:</b> Develop most feasible scheme for grid integration of the connection of VRE in the Power System of Baluchistan <b>Positions held:</b> Power System Studies Engineer <b>Activities performed:</b> Performed the power system studies analysis for all the identified locations for VRE in Baluchistan using the analytical tools of Load flow, short circuit analysis and dynamic stability analysis</p>



	<p><b>(iii) Name of assignment or project:</b> Grid Integration Studies of 38.36 MW Steam Turbine Generator at Fadhili Gas-Fired Combined Heat and Power (CHP) Plant.</p>
	<p><b>Client:</b> Saudi Aramco <b>Position:</b> System Study Engineer <b>Activities performed:</b> Load Flow, Contingency Studies, Short Circuit, Exciter and Governor Parameters Validation, Dynamic and Transient Stability Analysis, Transmission Line Auto Reclose Study as per SEC/NGSA grid code.</p>
	<p><b>(iv) Name of assignment or project:</b> Grid Integration Studies of 26 MW Uthmaniya Steam Turbine Generator.</p>
	<p><b>Client:</b> Saudi Aramco <b>Position:</b> System Study Engineer <b>Activities performed:</b> Load Flow, Contingency Studies, Short Circuit, Exciter and Governor Parameters Validation, Dynamic and Transient Stability Analysis, Transmission Line Auto Reclose Study as per SEC/NGSA grid code.</p>
	<p><b>(v) Name of assignment or project:</b> Grid Interconnection Studies of Multiple big and small Thermal power Projects from 2016 to 2019 <b>Location:</b> Pakistan <b>Multiple Clients:</b> 20 MW Hatim, 74 MW Etihad Power Generation Ltd., 45 MW JDW Sugar Mills Unit-II, 45 MW JDW Sugar Mills Unit-III, 20 MW Al-Moiz-II <b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Thermal power Projects <b>Positions held:</b> Power System Studies Engineer <b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options of the proposed Thermal power Projects</p>
	<p><b>(vi) Name of assignment or project:</b> Grid Interconnection Studies of Multiple big and small Hydropower Projects from 2016 to 2019 <b>Location:</b> Pakistan <b>Multiple Clients:</b> Mahl Hydro Power, Shigokas Hydro Power, Daral Khwar Hydro Power Project, Gulpur Hydro Power Project, Saani Power (Pvt.) Limited (Harigehl-Majeedgala), SJS (Pvt.) Limited (Jagran-III), 300 MW Ashkot Hydro Power Project, Dachhor Miran, Jabribedar, Blue Star, Kathai-III.</p>

	<p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Hydropower Projects</p> <p><b>Positions held:</b> Power System Studies Engineer</p> <p><b>Activities performed:</b> Performed load flow, short circuit and stability studies of all the interconnection options of the proposed Hydropower Projects</p> <p><b>(vii) Name of assignment or project:</b> Grid Interconnection Studies of Multiple Wind Power Projects from 2016 to 2019</p> <p><b>Location:</b> Jhimpir, Sindh, Pakistan</p> <p><b>Multiple Clients:</b> Iran Pak Wind Power (Pvt.) Limited, Burj Wind Energy (Pvt.) Limited, DHA City Karachi</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed Wind Power Projects</p> <p><b>Positions held:</b> Power System Studies Engineer</p> <p><b>Activities performed:</b> Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Wind Power Projects</p> <p><b>(viii) Name of assignment or project:</b> Grid Interconnection Studies of Multiple Solar Projects from 2016 to 2019</p> <p><b>Location:</b> Pakistan</p> <p><b>Multiple PA:</b> Zhenfa Energy Group Co. Limited, Siachen Energy Limited, Nizam Energy (Private) Limited, Solution De Energy, Storm Harbour</p> <p><b>Main project features:</b> Develop most feasible scheme of grid integration of the proposed solar Projects</p> <p><b>Positions held:</b> Power System Studies Engineer</p> <p><b>Activities performed:</b> Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Solar Projects</p> <p><b>(ix) Name of assignment or project:</b> Study and Evaluation of Transmission and Transformation Losses of Multan Electric Power Company</p> <p><b>Location:</b> Pakistan</p> <p><b>Client:</b> Multan Electric Power Company</p> <p><b>Main project features:</b> Evaluation of T &amp; T Losses of MEPSCO network by carrying out Load Flow Studies for Peak &amp; Off-Peak load conditions of Various Months</p> <p><b>Positions held:</b> Power System Studies Engineer</p>
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	<p><b>Activities performed:</b> Performed the analysis for the evaluation of Transmission Losses for MEPCO</p> <p>(x) Berri Development- Expand Water Injection System <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Aramco <b>Main project features:</b> Insulation Co-ordination studies <b>Activities performed:</b> Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p> <p>(xi) <b>Name of assignment or project:</b> Marjan Offshore GOPS-4 Development <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Aramco <b>Main project features:</b> Insulation Co-ordination studies <b>Activities performed:</b> Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p> <p>(xii) <b>Name of assignment or project:</b> Installation of reactors for Qaisummah-Rafah 380 kV interconnection <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Electric Company <b>Main project features:</b> Insulation Co-ordination studies <b>Activities performed:</b> Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p> <p>(xiii) <b>Name of assignment or project:</b> Expansion of Nariya North 380/115/13.8kV BSP <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Electric Company <b>Main project features:</b> Insulation Co-ordination studies <b>Activities performed:</b> Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p> <p>(xiv) <b>Name of assignment or project:</b> Expansion of Rafha 380 kV BSP <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Electric Company <b>Main project features:</b> Insulation Co-ordination studies</p>
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	<p>Activities performed: Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p> <p><b>(xv) Name of assignment or project:</b> Expansion of Madian 380 kV BSP <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Electric Company <b>Main project features:</b> Insulation Co-ordination studies <b>Activities performed:</b> Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p> <p><b>(xvi) Name of assignment or project:</b> Expansion of Yanbu 380 kV BSP <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Electric Company <b>Main project features:</b> Insulation Co-ordination studies <b>Activities performed:</b> Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferro resonance Studies.</p> <p><b>(xvii) Name of assignment or project:</b> Expansion of Umluj 380 kV BSP <b>Position:</b> System Study Engineer <b>Client:</b> Saudi Electric Company <b>Main project features:</b> Insulation Co-ordination studies Activities performed: Temporary Overvoltage Study, Switching Overvoltage Study, Transient Recovery Voltage Study, and Ferroresonance Studies.</p>
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**13.** I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience; I understand that any wilful misstatement or misrepresentation herein may lead to my disqualification or removal from the selected team undertaking the assignment.

*Hassan Jafar*

[Signature of staff member or authorized representative of the staff]

Date: 05/08/2022

Day/Month/Year



### Ammad Farasat

- |  |                                |
|--|--------------------------------|
| <b>1. Name of Staff:</b>                   | Ammad Farasat                  |
| <b>2. Name of Consultancy:</b>             | Power Planners International   |
| <b>3. Years with Consultant:</b>           | 6                              |
| <b>4. Current Position</b>                 | Team Lead Power System Studies |
| <b>5. Nationality:</b>                     | Pakistani                      |
| <b>6. Membership of professional Body:</b> | Member IEEE-Pak                |
| <b>7. General Experience</b>               |                                |

6 Years of experience in Power System Analysis and Transmission Planning

Hands-on experience of working as power systems planning engineer for both long term and short term power planning involving different projects including integrated interconnection studies, VRE integration into the system, transmission loss evaluations, grid impact studies of thermal, wind, solar and hydel power projects.

Transmission & Transformation loss evaluation of multiple DISCOs and NTDC

From	To	Name of Organization	Job title and Activities Undertaken
2016	Present	Power Planners International Pvt. Ltd. (PPI)	<p><b>Team Lead Power System Studies</b></p> <ul style="list-style-type: none"> <li>1. Various grid interconnection studies, of all types of generation plants e.g. hydro, thermal, wind, solar bagasse etc., including load forecast, load flow, short circuit analysis and stability studies</li> <li>2. T&amp;T loss evaluation of multiple DISCOs,</li> <li>3. Long and short term transmission planning and load forecast projects of utilities.</li> <li>4. Operational Studies including GCCIA</li> </ul>

### **8. Education**

#### **a) Academic**

School, college and/or University Attended	Degree/certificate or other specialized education obtained	Date Obtained
Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Swabi, Pakistan	Bachelors of Science in Electrical Engineering	2015

#### **b) Other Relevant Training:**

- One week training of ETAP software by Prescon Pvt. Ltd. at PPI (2020)
- Six weeks internship in Kot Addu Power Company (KAPCO) (2014)
- Power System Stability and Control by Dr. Prabha Kundur – 4 Day Workshop (July 2018), Putrajaya, Malaysia

#### **c) Professional Certification or Membership in Professional Associations:**



i. Member IEEEP

## 9. Roles and Duties

**Role in the Assignment:** Sr. System Studies Engineer

**Task Assigned:** Carrying out Power System Studies

## 10. Previous Experience

### 1. Name of assignment or project:

Grid Interconnection Studies for 50 MW Solar Power Projects at Windar, Uthal and Bela

**Location:** Pakistan

**Client:** K-Electric Limited

**Main project features:** Interconnection Study for disposal of power from the project to the nearest grid facility of KE

**Positions held:** System Studies Engineer

**Activities performed:** Performed Load flow, short circuit and stability studies of all the interconnection options.

### 2. Name of assignment or project:

Preparation of Long-Term Transmission Plan (2016-2030) for K-Electric (utility of Karachi)

**Location:** Pakistan

**Client:** K-Electric Limited

**Main project features:** Development and Analysis of Long Term Transmission Scheme for K-Electric up to year 2030 including System Studies, Design/Specifications and Bidding documents

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit stability and reactive power compensation studies of all the spot years of study.

### 3. Name of assignment or project:

Gawadar – Makran Long Term Electrical Network Expansion Plan and Interlinking with National Grid under CPEC

**Location:** Balochistan, Pakistan

**Client:** Quetta Electric Supply Company (QESCO)

**Main project features:** Develop most feasible scheme of grid integration of Gwadar Area

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit stability and reactive power compensation studies for the preparation of regional transmission grid plan and interlinking arrangements of power systems for supply of power to Gwadar area under CPEC Package of Development. It included studies for cross-border intertie of 220 kV with Iran.

### 4. Name of assignment or project:

Study for additional Supply Import from NTDC to K-Electric

**Location:** Pakistan

**Client:** K-Electric

**Main project features:** Detailed analysis for determining the strength of KE transmission network for additional Supply Import from NTDC to K-Electric

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit, and stability studies of all the proposed scenarios under different operating conditions.

### 5. Name of assignment or project:



## PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

Grid Integration Study for the connection of VRE in the Power System of Baluchistan

**Location:** Pakistan

**Client:** World Bank Group

**Main project features:** Develop most feasible scheme for grid integration of the connection of VRE in the Power System of Baluchistan

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed the power system studies analysis for all the identified locations for VRE in Baluchistan using the analytical tools of Load flow, Short circuit analysis and dynamic stability analysis.

### **6. Name of assignment or project:**

World Bank Project for Locational Study of Variable Renewable Energy in Pakistan.

**Year:** 2018-19

**Location:** Pakistan

**PA:** World Bank Group

**Main project features:** Grid Integration analysis including identification of substations that can accommodate solar/and or wind capacity without major upgrades, and those that would require major transmission/or substation upgrades to allow further investigation of VRE capacity

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed the power system studies analysis for all the identified locations for VRE in Pakistan using the analytical tools of Load flow, Short circuit analysis and dynamic stability analysis.

### **7. Name of assignment or project:**

Operational Studies for GCC Interconnection for the year 2021-22

**Location:** Pakistan

**PA:** GCC Interconnection Authority (GCCIA)

**Main project features:** Operational studies for the 400 kV back bone interconnection between six GCC countries including evaluation of Power Transfer Capacities, Dynamic Analysis, Small Signal Stability Analysis, Reactive Power Compensation and Impact of Renewables

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed Steady State Analysis and Power Transfer

Evaluation

### **8. Name of assignment or project:**

Study and Evaluation of Transmission and Distribution Losses of MEPCO

**Location:** Pakistan

**Multiple Clients:** MEPCO

**Main project features:** Evaluation of T & D Losses MECPO network by carrying out Load Flow Studies for Peak & Off-Peak load conditions of Various Months

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed the analysis for the evaluation of Transmission and Distribution Losses for MEPCO

### **9. Name of assignment or project:**

Grid Interconnection Studies 1124 MW Kohala Hydro Power Project

**Location:** Pakistan

**PA:** China Three Gorges Pvt. Ltd.

**Main project features:** Develop most feasible scheme of grid integration of the proposed Hydropower Project.

**Positions held:** Power System Studies Engineer



**Activities performed:** Performed load flow, short circuit, and stability studies of all the interconnection options of the proposed Hydropower Project.

**10. Name of assignment or project:**

Grid Interconnection Studies 640 MW Mahal Hydro Power Project

**Location:** Pakistan

**PA:** China Three Gorges Pvt. Ltd.

**Main project features:** Develop most feasible scheme of grid integration of the proposed Hydropower Project.

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit, and stability studies of all the interconnection options of the proposed Hydropower Project.

**11. Name of assignment or project:**

Grid Interconnection Studies of Multiple big and small Hydropower Projects from 2016 to 2021.

**Location:** Pakistan

**Multiple Clients:** Artistic Milliners Pvt. Ltd., Star Hydropower Ltd., Laraib Energy Ltd., Integrated Consulting Services, China Three Gorges South Asian Investment Limited, Mira Power Limited, Saani Power Pvt. Ltd.

**Main project features:** Develop most feasible scheme of grid integration of the proposed Hydropower Project.

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit, and stability studies of all the interconnection options of the proposed Hydropower Projects.

**12. Name of assignment or project:**

Grid Interconnection Studies of Multiple Wind Power Projects from 2016 to 2020

**Location:** Jhimpir, Sindh, Pakistan

**Multiple PA:** Iran Pak Power (Pvt.) Limited, Osmani & Co (Pvt) Ltd., Burj Wind Energy (Private) Limited, Hartford Alternative Energy, Gul Ahmed Wind Power Limited etc.

**Main project features:** Develop most feasible scheme of grid integration of the proposed Wind Power Projects.

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Wind Power Projects.

**13. Name of assignment or project:**

Grid Interconnection Studies of Multiple Solar Projects from 2016 to 2019.

**Location:** Pakistan

**Multiple PA:** Solution de Energy (PVT) Ltd, Zhenfa Pakistan New Energy Company (Pvt.) Limited, Storm Harbour Solar, Renewable Resources (Pvt.) Ltd, Asia Petroleum (Pvt.) Ltd, Nizam Energy (Private) Limited etc.

**Main project features:** Develop most feasible scheme of grid integration of the proposed solar Projects.

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Solar Projects.

**14. Name of assignment or project:**

Grid Interconnection Studies of Multiple Thermal Power Projects from 2016 to 2019.

**Location:** Pakistan

**Multiple Clients:** Thar Energy Limited, Thal Nova, Nishat Power Limited, Chiniot Power Limited, Etihad Power Generation Ltd, Sadiqabad (JDW) Sugar Mills, Ghotki (JDW) Sugar Mills, Bahawalpur Sugar Mills Ltd., Ittefaq Sugar Mills Limited etc.



PPI's Proposal for Grid Interconnection Study of 50 MW WTE Power Plant

**Main project features:** Develop most feasible scheme of grid integration of the proposed Thermal Power Projects.

**Positions held:** Power System Studies Engineer

**Activities performed:** Performed load flow, short circuit, power quality and stability studies of all the interconnection options of the proposed Thermal Power Projects.

**11. Certification**

I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describes myself, my qualifications, and my experience.



Date: 11/08/2022

---

*[Signature of staff member or authorized representative of the staff]*

Full Name of Staff Member: Ammad Farasat

*Day/Month/Year*



**Annexure 2 – Minimum Administrative Requirements**

Regarding this RFP, I the undersigned with authority on behalf of **Power Planners International (Pvt.) Ltd.**

Name: Syed Adeel Hassan Zaidi

Position: Chief Commercial Officer

Company: Power Planners International (Pvt.) Ltd.

declare that the Proposal complies with the requirements, provided in the table below:

No.	Requirement	Initials
1	Bidder is not in a state of bankruptcy, insolvency, or receivership	Adeel
2	Bidder is not subject to the suspension of its business activities	Adeel
3	Bidder is not subject to any pending criminal lawsuits	Adeel
4	Bidder is not listed on any debarment list published by multilateral financial institutions	Adeel
5	Bidder has no conflicts of interest in undertaking this assignment	Adeel
6	Bidder agrees to sign a Non-Disclosure Agreement with the SPV	Adeel

Although the requirements will apply to all subcontractors as well, the Consultant will be liable for its application.

This Statement has been made truthfully.

*Adeel Hassan*

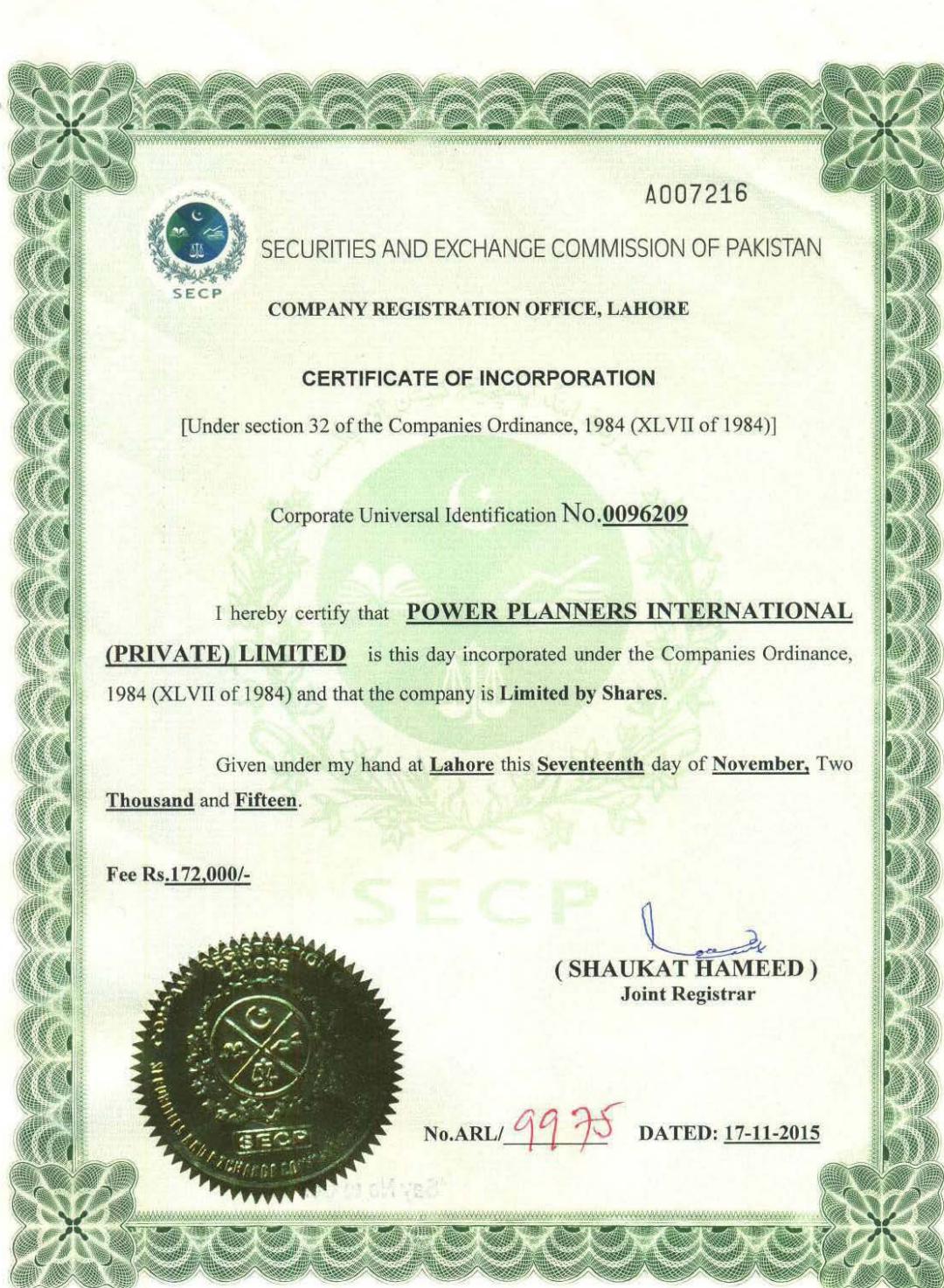
\_\_\_\_\_  
Signature

Syed Adeel Hassan Zaidi

18-08-2022



**Annex 3: Other Relevant Documents**



# PAKISTAN ENGINEERING COUNCIL



Registration No: **CONSULT/1147**

Date of Registration: **29-07-2005**

Serial No **14244**  
PEC-4A

## CERTIFICATE OF REGISTRATION OF PAKISTANI CONSULTING ENGINEER (UNDER PAKISTAN ENGINEERING COUNCIL ACT 1976)

This is to certify that M/s **POWER PLANNERS INTERNATIONAL (PVT) LTD** Address **95-H2, WAPDA TOWN, LAHORE** have been registered as Consulting Engineers at Serial No **CONSULT/1147** of the Register of Pakistan Engineering Council with following particulars:-

Type of Ownership (021,022,023,024) **(PRIVATE LIMITED COMPANY)**

Field of Specialization

(Project-profile Code Nos.) **1201,1207, [1208,1210,1219,1220(For Feasibility Study Only)].  
(SIX ONLY)  
(FOR ELECT ENGG WORKS ONLY)**

Date of Issue:  
**06/12/2021**



Note:

1. This Certificate of Registration shall expire on **30th June 2024** and will be renewed on payment of the required fee before 31st July, 2024.
2. Description of project profile codes is shown on reverse.

Registrar  
Pakistan Engineering Council,  
Islamabad.

## Taxpayer Profile Inquiry

Printed On: 8/18/2022 2:03:11 PM

**Registration No** 7150903  
**Reference No** 7150903-7  
**Registered for Sales Tax** No  
**Name** POWER PLANNERS INTERNATIONAL (PVT.) LIMITED  
**Category** Small Company  
**PP/REG/INC No.** 0096209  
**Email** has\*\*\*\*pow\*\*\*lannersint.com  
**Cell** 00923\*\*420\*\*18  
**Address** House No. 95, Block H/2, WAPDA Town, Lahore, Lahore Iqbal Town  
**Registered On** 23-DEC-2015  
**Tax Office** CTO LAHORE  
**Registration Status** Income Tax: Active

Sr.	Business/ Branch Name	Business/ Branch Address	Principal Activity
1	POWER PLANNERS INTERNATIONAL (Pvt.) LTD		711000-Professional, scientific and technical activities/Architectural and engineering activities and related technical consultancy/Architectural and engineering activities and related technical consultancy



## Taxpayer Online Verification

Date : 18-08-2022

Time : 14:05:23

**SNTN**

Name

**7150903-7**

## Category

COMPANY

POWER PLANNERS INTERNATIONAL (PVT.) LIMITED

## Business Name

Sr.	Business Name
1.	POWER PLANNERS INTERNATIONAL (PVT.) LIMITED

## CNIC/Reg No.

0096209

## City

LAHORE

## Service Category

SERVICES PROVIDED BY TECHNICAL, SCIENTIFIC AND ENGINEERING CONSULTANTS ,9815.5000

## Date of Registration with SRB

26/01/2022

## Operational Status at SRB

Active

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## **Limited Use License Agreement**

This is a legal agreement between Power Planners International and Siemens Power Transmission & Distribution, Inc., Power Technologies International (hereinafter referred to as "Siemens PTI") licensing use of the computer software, documentation and services listed in Attachment 1 (hereinafter referred to as "Programs"), on a Computer System of the type listed in Attachment 2. You assume full responsibility for the selection of the Programs and Computer System(s) to achieve your intended results and for installation, use and results obtained from the Program.

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- B. The Programs may be installed on more than one computer and a reasonable number of copies for emergency and back-up purposes may be made. Program use is limited to the number of hardware locks purchased.
- C. The Programs may be used for the sole purpose of engineering computations relating to electric power generating and delivery systems.

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- B. The structure and content of the Programs are valuable properties and trade secrets and copyrights of Siemens PTI. You and your employees are required to protect the confidentiality of the Programs. The Programs may not be disassembled, decompiled, reverse engineered or otherwise translated for any purpose. All intellectual property rights in the Programs are owned by Siemens PTI and are protected by United States copyright laws.
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This license does not grant you any right, license or interest in any improvements, modifications, enhancements, or updates to the Programs. Any Program updates received shall be subject to the terms of this license.

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Siemens PTI warrants, as the sole warranty, for a period of one year after your receipt of the Programs, that the Programs will satisfactorily and effectively perform the functions ascribed to them by Siemens PTI's bulletins, technical descriptions and manuals on a Computer System of the type specified by Siemens PTI. Siemens PTI agrees to make such corrections in the Programs as may be necessary to rectify any failure to comply with this warranty provided such failure to comply is brought to Siemens PTI's attention in writing during the warranty period. For warranty support please contact [pti-psse-support.ptd@siemens.com](mailto:pti-psse-support.ptd@siemens.com) or 1 (518) 395-5075. This warranty will in no case extend to the operating system software or other aspects of equipment or services supplied by the computer manufacturer or to installation of the Programs on any equipment other than that of the type specified by Siemens PTI.

The warranty stated above is in lieu of all other warranties, express or implied, including without limitation all implied warranties of merchantability or fitness for a particular purpose. Except as stated in the above warranty, Siemens PTI shall not be liable under any theory, including, without limitation, contract, negligence, or misrepresentation, for any defect in, or breach of, any obligation relating to the quality of the Programs.

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Siemens PTI will indemnify, defend, and hold you harmless from any liability or cost from claims that the Programs infringe any patent, copyright or trade secret. In the event of such an infringement, Siemens PTI as a sole remedy and at its discretion, will either procure your right to continue using the infringing materials, provide replacement materials or remove the Programs and refund the full amount paid.

### **Remedy for Unauthorized Use**

The use by unauthorized persons, or transfer of the Programs, may diminish substantially the value of the Programs to Siemens PTI. If you breach any of your obligations with respect to limited use or confidentiality of the Programs, Siemens PTI shall be entitled to equitable relief to protect its interest, including but not limited to injunctive relief as well as money damages.

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### **Term**

This is a perpetual license. The Proprietary Rights and Obligations, Limitation of Liability and Remedy for Unauthorized Use provisions of this License shall survive indefinitely whether or not the Programs have been used by you.

### **Termination of Software License Agreement**

By Siemens PTI. Notwithstanding Term Clause, Siemens PTI may terminate the Software License Agreement with the Client: (a) immediately, upon the Client's use, copying, or modification of the Software, or transfer of possession of any copy of the Software to any third party, other than as expressly defined under this Agreement or otherwise authorized in writing by Siemens PTI; or (b) upon thirty (30) days prior written notice for (i) non-payment by the Client of any payment required to be made by the Client under this Agreement, or (ii) any other breach of the Client's obligations under this Agreement.

By Client. Notwithstanding Term Clause, the Client may terminate the Agreement upon thirty (30) days prior written notice to Siemens PTI of any breach of Siemens PTI's obligations under the terms of the Agreement, unless prior to the expiration of such 30-day period Siemens PTI has cured such a breach or has instituted actions to cure such a breach and is actively pursuing corrective action.

**Obligations Upon Termination.** In the event of termination by Siemens PTI or Client, the Client will immediately (i) remove all Software in its entirety from all of the Client's computers, (ii) ensure that no copies or residual information of Siemens PTI (including without limitation the Software) remains installed on the Client's computers, (iii) return all copies of the Software, Media, and Documentation, and all other Siemens PTI information, to Siemens PTI, and (iv) continue to comply The Proprietary Rights and Obligations, Limitation of Liability and Remedy for Unauthorized Use provisions of the Software License Agreement. Siemens PTI will have the right to have a representative present during Software removal and the right of inspection to confirm compliance.

### **Taxes**

Any applicable duties or sales, county, use, excise, value-added or similar taxes will be added to the price and invoiced separately (unless an acceptable exemption certificate is furnished).

#### **Export Reservation Clause**

Purchaser acknowledges that Siemens Power Transmission & Distribution, Inc is required to comply with applicable export laws and regulations relating to the sale, exportation, transfer, assignment, disposal and usage of the provided Software / Services under the Contract, including any export license requirements. Purchaser agrees that such Software / Services shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with such applicable export laws and regulations. It shall be a condition of the continuing performance by Siemens Power Transmission & Distribution, Inc. of its obligations hereunder that compliance with such export laws and regulations be maintained at all times. **PURCHASER AGREES TO INDEMNIFY AND HOLD SIEMENS POWER TRANSMISSION & DISTRIBUTION, INC HARMLESS FROM ANY AND ALL COSTS, LIABILITIES, PENALTIES, SANCTIONS AND FINES RELATED TO NON-COMPLIANCE WITH APPLICABLE EXPORT LAWS AND REGULATIONS.**

#### **Precedence**

The terms of this License Agreement take precedence over terms and conditions of any purchase orders or other documents received by Siemens PTI in regard to these programs. This License Agreement may only be added to or modified in writing signed by both parties.

#### **US Government Restricted Rights**

The Programs and Documentation are provided with restricted rights. Use, duplication or disclosure is regulated by the US Government and is subject to restrictions as set forth in subdivision (b) (3) (ii) of the Rights in Technical Data and Computer Software Clause at 252.227-7013. Contractor/Manufacturer is Siemens Power Transmission & Distribution, Inc., Power Technologies International, P.O. Box 1058, 1482 Erie Boulevard, Schenectady, New York, 12305, USA.

Agreed:

SIEMENS POWER TRANSMISSION & DISTRIBUTION, INC., POWER PLANNERS INTERNATIONAL  
POWER TECHNOLOGIES INTERNATIONAL

Signature

Name:

Michael J. Edmonds

Title:

Vice President and General Manager

Date:

10/2/07

Signature Hassan Jafar

Name: HASSAN JAFAR ZAIDI

Title: Chief Executive and Sole Proprietor

Date: August 07, 2007

Attachment 1

Programs and Program Options Delivered

<u>Program</u>	<u>Program Options</u>
PSSTME	Power Flow, including Graphics and Digitizing, Network Equivalent Construction, and Load Flow Enhancement Unbalanced Fault Analysis Dynamic Simulation Control Section

Code Delivery:	Executable only
----------------	-----------------

**Attachment 2**  
**Computer System Specification**

Current recommended PC system requirements can be located on our website  
([www.usa.siemens.com/PTI](http://www.usa.siemens.com/PTI)) under the Software, PSS<sup>TM</sup>E, User Support area.

**Attachment 3**

**Identification of Single Site  
or Location for Software Use**

Power Planners International  
66/H-2, WAPDA Town  
Lahore, PAKISTAN



*Aslam Malik & Co.*  
Chartered Accountants

**AUDITED FINANCIAL STATEMENTS  
OF  
M/S POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED  
FOR THE YEAR ENDED JUNE 30, 2019**

**Lahore:**

Suite # 19, First Floor, Central Plaza, New Garden Town, Lahore. Phone: 042-35858693-4 Fax: 35856019  
Web: [www.aslammalik.com](http://www.aslammalik.com) Email: [info@aslammalik](mailto:info@aslammalik)

**Islamabad:**

House # 726, Street 34, Margalla Town, Off Muree Road, Islamabad. Phone: 051-2374282, 2374283 Fax: 051-2374281

**Karachi:**

1001-1003, 10 Floor, Chapal Plaza, Hasrat Mohani Road, Off I.I. Chundrigar Road, Karachi. Phone: 021-32425911-2  
Fax: 021-32432134

### **AUDITORS' REPORT TO THE MEMBERS**

We have audited the annexed Balance Sheet of **M/S POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED**, as at June 30, 2019 and the related Profit and Loss Account, Statement of Comprehensive Income, Cash Flow Statement and Statement of Changes in Equity together with the Notes forming part thereof, for the year then ended and we state that we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purpose of our audit.

It is the responsibility of the company's management to establish and maintain a system of internal control, and prepare and present the above said statements in conformity with the approved accounting standards and the requirements of the Companies Act, 2017. Our responsibility is to express an opinion on these statements based on our audit.

We conducted our audit in accordance with the auditing standards as applicable in Pakistan. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the above said statements, are free of any material misstatement. An audit includes examining, on test basis, evidence supporting the amount and disclosures in the above said statements. An audit also includes assessing the accounting policies and significant estimates made by management, as well as, evaluating the overall presentation of the above said statement. We believe that our audit provides a reasonable basis for our opinion and, after due verification, we report that:

- a) In our opinion, proper books of accounts have been kept by the company as required by the Companies Act, 2017.
- b) In our opinion;
  - i. the balance sheet and the profit and loss account together with the notes thereon have been drawn up in conformity with Companies Act, 2017 and are in agreement with the books of accounts and are further in accordance with the accounting policies consistently applied;
  - ii. the expenditure incurred during the year was for the purpose of company's business; and
  - iii. the business conducted, investments made and the expenditure incurred during the year were in accordance with the objects of the company;

#### **Other Offices at:**

**Islamabad:** House # 726, Street 34, Margalla Town, off Murree Road, Islamabad.  
Phone : +92-51-2374282-3 Fax: +92-51-2374281

**Karachi:** 1001-1003 10th Floor, Chapal Plaza, Hasrat Mohani Road, Off I.I Chundrigar Road, Karachi  
Tel: + 92-21-32425911-2. Fax: +92-21-32432134

- c) in our opinion and to the best of our information and according to the explanations given to us, the Balance Sheet, Profit & Loss Account, Statement of Comprehensive Income, Cash Flow Statement and Statement of Changes in Equity together with the Notes forming part thereof conform with approved accounting standards as applicable in Pakistan, and give the information required by the Companies Act, 2017, the manner so required and respectively give a true and fair view of the state of the company's affairs as at June 30, 2019 and of the Profit, its cash flow and changes in equity for the year then ended; and
- d) in our opinion no Zakat was deductible at source under the Zakat and Ushr Ordinance, 1980.

Place: Lahore  
Date: October 08, 2019



A handwritten signature in black ink, appearing to read "Aslam Malik".

(Aslam Malik & Co.)  
Chartered Accountants  
Mohammad Aslam Malik

# POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,

Head Office: 95/H-2, WAPDA Town, Lahore.

## BALANCE SHEET AS AT 30 JUNE, 2019

CAPITAL & LIABILITIES	NOTE	2019 RUPEES	2018 RUPEES	PROPERTY & ASSETS	NOTE	2019 RUPEES	2018 RUPEES
<b>AUTHORISED CAPITAL</b>							
500,000 Ordinary Shares of Rs. 10/- each		<u>50,000,000</u>	<u>50,000,000</u>	Fixed Assets	6	21,800,376	22,997,161
				Plot No. 488, Bahria Orchard, Bahria Town, Raiwind Road, Lahore.		13,604,000	13,604,000
<b>ISSUED, SUBSCRIBED &amp; PAID-UP CAPITAL</b>							
10,000 Ordinary Shares of Rs. 100 each Unappropriated Profit/(Loss)	3	<u>1,000,000</u> <u>11,535,228</u>	<u>1,000,000</u> <u>56,155,072</u>	<b>CURRENT ASSETS</b>	7	75,168	150,336
		<u>12,535,228</u>	<u>57,155,072</u>	Advance Income Tax	8	<u>3,435,805</u>	<u>7,153,995</u>
Directors' Loan	4	<u>73,781,227</u> <u>86,316,455</u>	<u>34,577,152</u> <u>91,732,224</u>	Securities	9	<u>5,232,000</u>	<u>6,500,000</u>
				Trade Debtors	10	<u>30,191,434</u>	<u>46,460,708</u>
				Advances & Pre-payments	11	<u>543,250</u>	<u>544,875</u>
				Cash & Cash equivalents	12	<u>21,737,756</u>	<u>7,440,733</u>
<b>CURRENT LIABILITIES</b>							
Accrued and other liabilities	5.1	<u>9,203,900</u>	<u>5,600,000</u>				
Withholding Tax Payable	5.2	<u>39,546</u>	<u>125,504</u>				
Sales Tax payable	5.3	<u>160,000</u>	<u>491,175</u>				
Sundry Creditors	5.4	<u>500,000</u>	<u>500,000</u>				
Project Cost Payable	5.5	<u>9,903,446</u> -	<u>6,716,679</u>				
Provision for Taxation		<u>399,888</u>	<u>6,402,905</u>				
		<u><u>96,619,789</u></u>	<u><u>104,851,808</u></u>				
						<u><u>96,619,789</u></u>	<u><u>104,851,808</u></u>



Hassan Irfan  
Chief Executive

Hamid  
Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,**  
**Head Office: 95/H-2, WAPDA Town, Lahore.**

**PROFIT AND LOSS ACCOUNT**  
(for the year ended 30.06.2019)

PARTICULARS	NOTE	2019 RUPEES	2018 RUPEES
Gross Receipts	13	21,256,599	83,321,329
<u>Less:</u> General & Administrative Exp.	14	65,476,555	54,295,230
Net Profit/(Loss) for the year		(44,219,956)	29,026,099
Other Income/Loss	15	- (44,219,956)	- 29,026,099
Income Tax/Turn-over Tax		(399,888)	(6,402,905)
Profit after taxation		(44,619,844)	22,623,194
Unappropriated Profit Brought Forward		56,155,072	33,531,878
Unappropriated Profit Carried Forward carried to Balance Sheet		<b>11,535,228</b>	<b>56,155,072</b>

The annexed notes form an integral part of these financial statements.

*Hassan Jafar*

Chief Executive



*Muztahid*

Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2019**

**1 NATURE AND OPERATION OF THE COMPANY**

M/s POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED, "The Company" has been incorporated as a Private Limited Company on December 17, 2015 under the Companies Ordinance, 1984. The Company is engaged in providing consultancy services to the electrical power sector in Pakistan and abroad. The registered office of the company is situated at 95/H-2, WAPDA Town, Lahore.

The Company has maintained the following Offices:

Sr. #	Office	Address
1	Head Office	95/H-2, WAPDA Town, Lahore.
2	Office	66/H-2, WAPDA Town, Lahore.

It is a "small company" within the meanings of Section 2(59A) of the Income Tax Ordinance, 2001, as it was registered under the Companies Ordinance, 1984 after the 1st day of July, 2005, and it —

- (i) had paid-up capital at Rs. 1,000,000 as on 30.06.2019, which is not exceeding the prescribed limit of Rs. 50,000,000;
- (ii) had the following employees:-

Sr. #	Office	No. of Empl.
1	Directors	2
2	Office Staff	86

during the financial year 2018-2019, which do not exceed the prescribed number of 250 employees;

- (iii) had the turn-over of Rs. 21,339,239 during the financial year 2018-19, which does not exceed Rs. 250,000,000; and
- (iv) has not been formed by the splitting up or the reconstitution of a company already in existence.

**2 SIGNIFICANT ACCOUNTING POLICIES**

**2.1 Statement of Compliance**

These financial statements have been prepared in accordance with the requirements of the Companies Ordinance, 1984 ("the Ordinance") and directives issued by the Securities and Exchange Commission of Pakistan, and Accounting and Financial Reporting Framework for Small-Sized entities. In case requirements differ, the requirements of the Companies Ordinance, 1984 or the requirements of the directives issued by the Securities and Exchange Commission of Pakistan take precedence.

**2.2 Accounting Convention**

These Financial Statements have been prepared under historical cost convention.

**2.3 Fixed Assets**

Fixed assets are stated at cost less accumulated depreciation. Depreciation on fixed assets is provided applying reducing balance method at the rates given in Note 6.

Depreciation has been charged in accordance with section 22 of the Income Tax Ordinance, 2001.

Major repairs and renewals have been capitalized, whereas minor repairs and maintenances have been charged to the cost of sales and administrative expenses, as warranted by the facts.

## **2.4 Revenue Recognition**

Revenue from sales is recognized on despatch of ice blocks and on performance of storage services.

## **2.5 Cash & Cash Equivalents**

Cash & Cash Equivalents are carried in the balance sheet at cost.

For the purpose of cash flow statement, cash & cash equivalents comprise of cheques in hand, cash and bank balances.

## **2.6 Taxation**

The charge for current taxation is based on taxable income for the year determined in accordance with Income Tax Ordinance, 2001 and prevailing tax rates after taking into account applicable tax credits and rebates, if any and taxes paid under the final tax regime.

### **Current**

The charge for current taxation is based on taxable income at the current tax rates after taking into account applicable tax credits and rebates, if any.

### **Deferred**

Deffered tax is accounted for using the balance sheet liability method in respect of all temporary diffirences arising from diffirences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax basis used in computation of the taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences and deffered tax assets, as required by IAS 12(Income Taxes) are recognized.

## **2.7 Critical Accounting Estimates & Judgements**

The preparation of financial statements in conformity with approved accounting standards requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the company's accountng policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are as follows:

- a) Assumptions and estimates used in determining the residual values and useful lives of property, plant and equipment.
- b) Assumptions and estimates used in calculating the provision for impairment for tradedebts

## **2.8 Impairment of Assets**

The Management assesses at each balance sheet date whether there is any indication that an asset is impaired. if any such indication exists, the management estimates the recoverable amount of the asset. If the recoverable amount of the asset is less than its carring amount, the carring amount of the asset is reduced to its recoverable amount by charging the impairment loss against income for the year.

## **2.9 Provisions**

Provisions are recognized when the company has a past, legal or constructive obligation as a result of part events and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and reliable estimate of the obligationcan be made' on the amount of obligation.

				<b>2019 RUPEES</b>	<b>2018 RUPEES</b>
	<b>Share-holder</b>	<b>No. of Shares 2019</b>	<b>No. of Shares 2018</b>	<b>Face Value</b>	<b>Issue Value</b>
		<b>2019</b>	<b>2018</b>		
<b>3</b>	<b>ISSUED, SUBSCRIBED &amp; PAID-UP CAPITAL</b>				
	Syed Hassan Jafar Zaidi	5,000	5,000	100	500,000
	Syed Saeed Jafar Zaidi	5,000	5,000	100	500,000
		<b><u>10,000</u></b>	<b><u>10,000</u></b>		<b><u>1,000,000</u></b>
					<b><u>1,000,000</u></b>
	Out of the above share-holders, Mr. Syed Hassan Jafar Zaidi is the Chief Executive. Other member of the Board of Directors is, namely, Mr. Syed Saeed Jafar Zaidi.				
<b>4</b>	<b>DIRECTORS' LOAN</b>				
	Syed Hassan Jafar Zaidi			73,781,227	34,577,152
				<b><u>73,781,227</u></b>	<b><u>34,577,152</u></b>
<b>5</b>	<b>CURRENT LIABILITIES</b>			<b>2019</b>	<b>2018</b>
	<b>5.1</b>	<b><u>Accrued and other Liabilities:</u></b>			
		Directors' Salaries Payable	8,000,000	5,600,000	
		Rent Payable	1,200,000		
		E.O.B.I. Contribution	<b><u>3,900</u></b>	<b><u>-</u></b>	9,203,900
					5,600,000
	<b>5.2</b>	<b><u>Withholding Tax Payable:</u></b>			
		Directors' and Staff Salaries	39,240	125,504	
		Office Rent	<b><u>306</u></b>	<b><u>-</u></b>	39,546
					125,504
	<b>5.3</b>	<b><u>Sales Tax payable</u></b>			
		Sales Tax Payable	160,000	491,175	
			<b><u>160,000</u></b>	<b><u>491,175</u></b>	
					<b><u>160,000</u></b>
					<b><u>491,175</u></b>
				<b><u>9,403,446</u></b>	<b><u>6,216,679</u></b>
	<b>5.4</b>	<b><u>Sundry Creditors / Payables:</u></b>			
		Sundry Creditors		500,000	500,000
			<b><u>500,000</u></b>	<b><u>500,000</u></b>	<b><u>500,000</u></b>
<b>6</b>	<b>FIXED ASSETS:</b>				
	Details of Fixed Assets is given as per schedule attached herewith.			<b><u>21,800,376</u></b>	<b><u>22,997,161</u></b>

	<b>2019</b> <b>RUPEES</b>	<b>2018</b> <b>RUPEES</b>
--	------------------------------	------------------------------

7	<b>PRELIMINARY EXPENSES:</b>	
	Expenses incurred in connection with incorporation of the Company at Rs. 375,840 were capitalised, and amortized @ 20% on straight-line basis in accordance with Section 25 of the Income Tax Ordinance, 2001.	75,168      150,336
		<b><u>75,168</u></b> <b><u>150,336</u></b>
8	<b>ADVANCE INCOME TAX</b>	
(i)	Bal. b/d	748,200      -
(ii)	u/s 153(1)(b)	2,613,716      6,917,411
(iii)	u/s 231-A	23,890      39,903
(v)	u/s 234-A	12,000      12,000
(vi)	u/s 236	37,999      66,483
(vi)	u/s 236-D	-      18,198
(vii)	u/s 236-K	-      100,000
		<b><u>3,435,805</u></b> <b><u>7,153,995</u></b>
9	<b>SECURITIES / BANK GUARANTEES</b>	
	MEPCO	3,250,000      6,500,000
	STDC (K4)	1,392,000      -
	GEPCO	500,000      -
	Security paid to Landlord, Multan	90,000      -
		<b><u>5,232,000</u></b> <b><u>6,500,000</u></b>
10	<b>TRADE DEBTORS</b>	
	Local Receivables	27,650,006      43,252,005
	Off-shore Receivables	2,541,428      3,208,703
		<b><u>30,191,434</u></b> <b><u>46,460,708</u></b>
11	<b>ADVANCES &amp; PRE-PAYMENTS</b>	
	Advances to staff	43,250      44,875
	Advances to PESC	500,000      500,000
		<b><u>543,250</u></b> <b><u>544,875</u></b>
12	<b>CASH AND BANK BALANCES</b>	
	Cash-in-hand	6,370,728      2,853,475
	<b>Cash-at-Bank</b>	
	Bank Alfalah Limited, Gulberg Br., Lahore. A/c No. 0028-1005069519	15,367,028      4,587,258
		<b><u>21,737,756</u></b> <b><u>7,440,733</u></b>

	2019 RUPEES	2018 RUPEES
<b>13 GROSS RECEIPTS</b>		
Gross Local Receipts	16,377,294	73,478,425
Gross Foreign Receipts	4,879,305	9,842,904
	<b><u>21,256,599</u></b>	<b><u>83,321,329</u></b>
<b>14 GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>		
Directors' Salaries	5,400,000	5,400,000
Staff Salaries	44,643,796	30,084,328
Rent	1,455,000	1,563,000
Electricity	762,390	566,583
Fuel for Generator	51,500	234,470
Phone	342,157	501,884
Internet Charges	518,065	414,776
Gas	19,180	8,390
Water	99,621	168,672
Computer Expenses	300,620	965,400
Stationary & Printing	462,887	220,645
Advertisement	317,002	565,000
Training Exp.	-	260,000
Repairs & Maintenance	538,635	478,870
Travelling & Lodging etc.	1,974,725	2,280,809
Motor Vehicle Running Exp.	1,226,504	1,426,104
Newspapers & Periodicals	7,660	14,256
Photo-copies	98,012	17,576
Expired Healthcare Insurance	66,846	775,340
Entertainment	844,991	1,094,611
Fees & Subscription	209,475	93,240
Legal Charges	672,000	624,000
Bank Charges	1,753	164,414
EOBI	234,000	405,564
Medical Aid & Compensations	410,081	-
Donations	50,000	1,215,000
Ornamental Plants	12,410	13,645
Postage	143,775	206,356
Amortisation of Preliminary Exp.	75,168	75,168
Loss on sale of Car	-	8,000
Depreciation	4,471,462	4,397,006
Misc. Exp.	66,840	52,123
	<b><u>65,476,555</u></b>	<b><u>54,295,230</u></b>

Hassan Jafar

Chief Executive



Kiran Mehta  
Director

	2019 RUPEES	2018 RUPEES
<b>15 GAIN/LOSS ON SALE OF MOTOR VEHICLES</b>		(8,000)

Gain arose on sale of Motor Vehicles as under:-

**2018**

Motor Vehicle			Cost	W.D.V	Sale Price	Net Gain/ (Loss)	Mode
Make	Model	Reg No.	Rs.	Rs.	Rs.	Rs.	
Suzuki Every	2017	LEB-17-6612	980,000	833,000	825,000	(8,000)	Negotiation
			<b>980,000</b>	<b>833,000</b>	<b>825,000</b>	<b>(8,000)</b>	

**16 GENERAL**

Figures have been rounded off to the nearest of Rupee.

Hassan Jafar

Chief Executive



Muzamil

Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,**

**6 FIXED ASSETS SCHEDULE  
AS ON 30.06.2019**

<b>PARTICULARS</b>	<b>COST</b>		<b>RATE %</b>	<b>AS ON 01.07.18</b>	<b>AS ON 30.06.19</b>	<b>ADJUSTMENT</b>	<b>DEPRECIATION FOR THE YEAR</b>	<b>AS ON 30.06.19</b>	<b>W.D.V AS ON 30.06.19</b>
	<b>AS ON 01.07.18</b>	<b>ADDITION/ (DELETION)</b>							
Office Building	11,669,405	-	10%	1,166,941	-	-	1,050,246	2,217,187	9,452,218
Electrical items & fittings	1,538,978	145,950	15%	1,684,928	428,456	-	188,471	616,927	1,068,001
Furniture & Fixtures	2,127,716	37,300	15%	2,165,016	612,361	-	232,898	845,259	1,319,757
Computer & Peripherals	11,134,250	2,972,427	30%	14,106,677	7,067,947	-	2,111,619	9,179,566	4,927,111
Generators	520,000	119,000	15%	639,000	200,655	-	65,752	266,407	372,593
<b>Motor Vehicles</b>									
Car — Honda Civic — LE-10-2232	1,190,000	-	15%	1,190,000	459,191	-	109,621	568,812	621,188
Car — Suzuki Swift — LEF-15-2836	1,126,250	-	15%	1,126,250	434,592	-	103,749	538,341	587,909
Car — Honda Vezel — LED-17-208	3,860,000	-	15%	3,860,000	1,071,150	-	418,328	1,489,478	2,370,522
Car — Toyota Aqua — LED-17-2010	1,680,000	-	15%	1,680,000	466,200	-	182,070	648,270	1,031,730
Motor Cycle — Honda CD-70 — LEW-18A-3641	68,300	-	15%	68,300	10,245	-	8,708	18,953	49,347
<b>2019</b>	<b>34,914,899</b>	<b>3,274,677</b>	<b>38,189,576</b>	<b>11,917,738</b>	<b>-</b>	<b>4,471,462</b>	<b>16,389,200</b>	<b>21,800,376</b>	
<b>2018</b>	<b>22,294,136</b>	<b>12,620,763</b>	<b>34,914,899</b>	<b>7,667,732</b>	<b>(147,000)</b>	<b>4,397,006</b>	<b>11,917,738</b>	<b>22,997,161</b>	

*Member Firm of*  
 **UK200Group**  
Independent quality assured professionals



*Aslam Malik & Co.*  
Chartered Accountants

**AUDITED FINANCIAL STATEMENTS  
OF  
POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED  
FOR THE YEAR ENDED JUNE 30, 2020**

**Lahore:**

Suite # 19, First Floor, Central Plaza, New Garden Town, Lahore. Phone: 042-35858693-4 Fax: 35856019  
Web: [www.aslammalik.com](http://www.aslammalik.com) Email: [info@aslammalik](mailto:info@aslammalik)

**Islamabad:**

House # 726, Street 34, Margalla Town, Off Muree Road, Islamabad. Phone: 051-2374282, 2374283.  
Fax: 051-2374281

**Karachi:**

1001-1003 Chapal Plaza, Hasrat Mohani Road off I. I. Chundrigar Road, Karachi. Phone: 021-32425911-12  
Fax: 021-32432134

**Quetta:**

1<sup>st</sup> Floor, Haji Fateh Khan Center, Adalat Road, Quetta. Phone: +92-81-2823837

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS

### Opinion

We have audited the annexed financial statements of **POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED** (the Company), which comprise the Statement of Financial Position as at **June 30, 2020**, and Statement of Profit and Loss, Statement of Changes in Equity, Statement of Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information, and we state that we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purpose of our audit.

In our opinion and to the best of our information and according to the explanations given to us, Statement of Financial Position as at **June, 30, 2020**, Statement of Profit & Loss, Statement of Changes in Equity, Statement of Cash Flows together with the notes forming part thereof conform to the accounting and reporting standards as applicable in Pakistan and give the information required by the Companies Act, 2017 (XIX of 2017), in the manner so required and respectively give a true and fair view of the state of the Company's affairs as at June 30, 2020 and of the profit, the changes in equity and its cash flows for the year then ended.

### Basis of Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) as applicable in Pakistan. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* as adopted by the Institute of Chartered Accountants of Pakistan (the Code) and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Other Offices at:

**Islamabad:** House # 726, Street 34, Margalla Town, off Murree Road, Islamabad.  
Phone : +92-51-2374282-3 Fax: +92-51-2374281

**Karachi:** 1001-1003 10th Floor, Chapal Plaza, Hasrat Mohani Road, Off I.I Chundrigar Road, Karachi  
Tel: + 92-21-32425911-2. Fax: +92-21-32432134

**Responsibilities of Management and Board of Directors for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the accounting and reporting standards as applicable in Pakistan and the requirements of Companies Act, 2017 (XIX of 2017) and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material mis-statement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Board of directors are responsible for overseeing the Company's financial reporting process.

**Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs as applicable in Pakistan will always detect a material misstatement when it exists. Mis-statements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, as applicable in Pakistan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material mis-statement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, mis-representations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate,

to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the board of directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

#### Report on Other Legal and Regulatory Requirements

Based on our audit, we further report that in our opinion:

- Proper books of account have been kept by the Company as required by the Companies Act, 2017 (XIX of 2017);
- the statement of financial position, the statement of profit or loss, the statement of other comprehensive income, the statement of changes in equity and the statement of cash flows together with the notes thereon have been drawn up in conformity with the Companies Act, 2017 (XIX of 2017) and are in agreement with the books of account and returns;
- investments made, expenditure incurred and guarantees extended during the year were for the purpose of the Company's business; and
- No zakat is deductible at source under the Zakat and Ushr Ordinance, 1980 (XVIII of 1980).

The engagement partner on the audit resulting in this independent auditor's report is **Mohammad Aslam Malik**.

Aslam Malik & Co.  
(Chartered Accountants)



Place: Lahore

Date: October 09, 2020

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
STATEMENT OF FINANCIAL POSITION**

**AS AT JUNE 30, 2020**

CAPITAL & LIABILITIES	NOTE	2020 RUPEES	2019 RUPEES	PROPERTY & ASSETS	NOTE	2020 RUPEES	2019 RUPEES
<b>AUTHORISED CAPITAL</b>							
500,000 Ordinary Shares of Rs. 100/- each		<u>50,000,000</u>	<u>50,000,000</u>	FIXED ASSETS			
				Fixed Assets	7	19,498,141	21,800,376
				Plot No. 488, Bahria Orchard, Bahria Town, Raiwind Road, Lahore.		13,604,000	13,604,000
<b>ISSUED, SUBSCRIBED &amp; PAID-UP CAPITAL</b>							
10,000 Ordinary Shares of Rs. 100 each	4	<u>1,000,000</u>	<u>1,000,000</u>	Preliminary Exp.	8	-	75,168
Unappropriated Profit/(Loss)		<u>16,824,180</u>	<u>5,532,211</u>	CURRENT ASSETS			
		<u>17,824,180</u>	<u>6,532,211</u>	Advance Income Tax	9	<u>5,288,829</u>	<u>3,435,805</u>
Directors' Loan	5	<u>68,485,831</u>	<u>73,781,227</u>	Securities	10	5,948,600	5,232,000
		<u>86,310,011</u>	<u>80,313,438</u>	Trade Debtors	11	34,739,634	30,191,434
				Advances & Pre-payments	12	525,200	543,250
<b>CURRENT LIABILITIES</b>							
Accrued and other liabilities	6.1	<u>10,423,400</u>	<u>9,203,900</u>	Cash & Cash equivalents	13	<u>21,047,856</u>	<u>21,737,756</u>
Withholding Tax Payable	6.2	97,788	39,546				
Sales Tax payable	6.3	1,008,248	160,000				
Sundry Creditors	6.4	500,000	500,000				
		<u>12,029,436</u>	<u>9,903,446</u>				
Provision for Taxation		2,312,813	6,402,905				
		<u>100,652,260</u>	<u>96,619,789</u>				
						<u>100,652,260</u>	<u>96,619,789</u>

*Hussain Tufar*  
Director



*Hussain Tufar*  
Chief Executive

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
STATEMENT OF PROFIT OR LOSS  
FOR THE YEAR ENDED JUNE 30, 2020**

PARTICULARS	NOTE	2020 RUPEES	2019 RUPEES
Gross Receipts	14	72,528,796	21,256,599
<i>Less:</i> General & Administrative Exp.	15	59,465,069	65,476,555
Net Profit/(Loss) for the year		13,063,727	(44,219,956)
Other Income/Loss			
Gain on sale of Motor Vehicle	16	531,659	-
Profit on debt		9,396	-
		541,055	-
Profit/(Loss) before taxation		13,604,782	(44,219,956)
Income Tax/Turn-over Tax / ACT		(2,312,813)	(6,402,905)
Profit/(Loss) after taxation		11,291,969	(50,622,861)
Unappropriated Profit/(Loss) Brought Forward		5,532,211	56,155,072
Unappropriated Profit/(Loss) carried to the Balance Sheet		<b>16,824,180</b>	<b>5,532,211</b>

The annexed notes form an integral part of these financial statements.

Hassan Jafar  
Chief Executive



hassan  
Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2020**

**1 NATURE AND OPERATION OF THE COMPANY**

M/s POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED, "The Company" was incorporated as a Private Limited Company under the Companies Act, 2017 on December 17, 2015. The Company is engaged in providing consultancy services to the electrical power sector in Pakistan and abroad. The registered office of the company is situated at 95/H-2, WAPDA Town, Lahore. The company meets the criteria of "Small Sized Company" as per Section 2(59A) of the Income Tax Ordinance, 2001.

The Company has maintained the following Offices:

Sr. #	Office	Address
1	Head Office	95/H-2, WAPDA Town, Lahore.
2	Office	66/H-2, WAPDA Town, Lahore.

**2 STATEMENT OF COMPLIANCE**

These financial statements have been prepared in accordance with accounting and reporting standards as applicable in Pakistan. The accounting and reporting standards applicable in Pakistan comprise of :

International financial reporting standards for small and medium sized entities (IFRS for SMEs) issued by the International Accounting Standard Board (IASB) as notified under the Companies Act, 2017; and provisions of and directives issued under the Companies Act, 2017.

Where provisions of and directives issued under the Companies Act, 2017 differ from the IFRS for SMEs, the provisions of and directives issued under the Companies Act, 2017 have been followed.

**3 Use of estimates and judgments**

The preparation of financial statements in conformity with approved accounting standards, as applicable in Pakistan, requires management to make judgments, estimates and assumptions that affect the application of policies and the reported amounts of assets, liabilities, income and expenses.

The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from the estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Judgments made by the management in the application of approved accounting standards, as applicable in Pakistan, that have a significant effect on the financial statements and estimates with significant risk of material judgments in the next financial year are set forth below:

**Income taxes**

In making the estimates for income taxes currently payable by the Company, the management looks at the current income tax law and the decisions of appellate authorities on certain matters in the past.

**Staff retirement benefits**

Certain actuarial assumptions have been adopted as disclosed in these financial statements for valuation of present value of defined benefit obligations and fair value of plan assets. Any changes in these assumptions in future years might affect the current and re-measurement gains and losses in those years.

**Trade debts and other receivables**

The Company's management reviews its trade debtors on a continuous basis to identify receivables where collection of an amount is no longer probable. These estimates are based on historical experience and are subject to changes in conditions at the time of actual recovery.

**Property, plant and equipment**

The Company reviews the rates of depreciation, useful lives, residual values and values of assets for possible impairment on an annual basis. Any change in the estimates in future years might affect the carrying amounts of the respective items of property, plant and equipment with a corresponding effect on the depreciation charge and impairment.

**3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES****3.1 Property, plant and equipment and depreciation**

These are stated at cost less accumulated depreciation thereon except freehold land which are stated at cost.

Currently, depreciation is charged to income applying reducing balance method at the rates given in Note 9 to write off the cost of operating fixed assets including the related exchange differences and borrowing cost over their expected useful life. Depreciation on additions is charged from the date when the asset is available for use and on deletions up to the date when the asset is deleted.

Maintenance and repairs are charged to statement of profit or loss as and when incurred. Major renewals and improvements are capitalized and the assets so replaced, if any, are written off. Gains and losses on disposal of assets, if any are included in the profit and loss amount currently.

**3.2 Intangible Assets**

Intangible Assets are stated at cost less accumulated amortization and identified impairment loss, if any. Amortization is charged on straightline method using the rates given in "Fixed Assets Schedule" to profit and loss account from the month in which the assets is available for use, while for disposals amortization is charged up to the month of disposal.

Subsequent expenditure on intangible assets is capitalized only when it increases the future economic benefits embodied in the specific assets to which it relates. All other expenditures are charged to income as and when incurred.

**3.3 Revenue Recognition**

Revenue is recognised on receipt of monthly Fees, etc. from the students.

**3.4 Financial instruments**

These comprise financial assets and financial liabilities. Significant financial assets include cash and bank balances. Significant financial liabilities include dividend and other payables.

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument and assets and liabilities are stated at fair value. The Company de-recognizes the financial assets and liabilities when it ceases to be a party to such contractual provisions of the instruments.

Any gain or loss on de-recognition of the financial assets and financial liabilities is taken to profit and loss account in which it arises. The particular measuring methods adopted are disclosed in the individual policy statement with each item.

**3.5 Trade and Other Receivables**

A receivable represents the Company's right to an amount of consideration that is unconditional. Trade receivables are carried at original invoices amount less expected credit loss based on a review of all outstanding amounts at the year end. Bad debts are written off when identified.

**3.6 Trade Creditors**

Liabilities for trade and other amounts payable are carried at cost which is the fair value of the consideration to be paid in future for goods and services.

**3.7 Cash and cash equivalents**

Cash and cash equivalents are carried in the balance sheet at cost. For the purpose of cash flow statement, cash and cash equivalents consist of cash-in-hand and balances with banks and highly liquid short-term investments that are readily convertible to known amounts of cash and which are subject to insignificant risk of change in value.

**3.8 Provisions**

A provision is recognized when the Company has a present legal or constructive obligation as a result of past event and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation of which reliable estimate can be made.

**3.9 Taxation**

The charge for current taxation is based on taxable income for the year determined in accordance with Income Tax Ordinance, 2001 and prevailing tax rates after taking into account applicable tax credits and rebates, if any and taxes paid under the final tax regime.

**4.0 Related party transactions**

All transactions involving related parties arising in the normal course of business are conducted at arm's length at normal commercial rates on the same terms and conditions as third party transactions using valuation modes, as admissible, except in extremely rare circumstances where, subject to the approval of the Board of Director, it is in the interest of the Company to do so.

**4.1 Borrowing cost**

Borrowing cost on long term finances which are specifically obtained for the acquisition of qualifying assets (plant & machinery) are capitalized up to the date of commencement of commercial production on the respective assets. All other borrowing costs are charged to Profit and Loss Account in the period in which these are incurred.

**4.2 Presentation currency**

The financial statements are presented in Pak Rupees, which is the Company's functional and presentation currency.

	<b>2020</b> <b>RUPEES</b>	<b>2019</b> <b>RUPEES</b>
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**4 ISSUED, SUBSCRIBED & PAID-UP CAPITAL**

<b>Share-holder</b>	<b>No. of Shares 2020</b>	<b>No. of Shares 2019</b>	<b>Face Value</b>	<b>Issue Value</b>	
				<b>2020</b>	<b>2019</b>
Syed Hassan Jafar Zaidi	5,000	5,000	100	500,000	500,000
Syed Saeed Jafar Zaidi	5,000	5,000	100	500,000	500,000
	<b><u>10,000</u></b>	<b><u>10,000</u></b>		<b><u>1,000,000</u></b>	<b><u>1,000,000</u></b>

Out of the above share-holders, Mr. Syed Hassan Jafar Zaidi is the Chief Executive. Other member of the Board of Directors is, namely, Mr. Syed Saeed Jafar Zaidi.

**5 DIRECTORS' LOAN**

Syed Hassan Jafar Zaidi	68,485,831	73,781,227
	<b><u>68,485,831</u></b>	<b><u>73,781,227</u></b>

**6 CURRENT LIABILITIES**

<b>2020</b>	<b>2019</b>
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**6.1 Accrued and other Liabilities:**

Director's Salaries Payable	10,400,000	8,000,000
Rent Payable	-	1,200,000
E.O.B.I. Contribution	<u>23,400</u>	<u>3,900</u>

10,423,400      9,203,900

**6.2 Withholding Tax Payable:**

u/s 149	95,815	39,240
u/s 153(1)(b)	1,973	-
u/s 155	<u>-</u>	<u>306</u>

97,788      39,546

**6.3 Sales Tax payable**

Sales Tax Payable	1,008,248	160,000
	<u>1,008,248</u>	<u>160,000</u>
	<b><u>11,529,436</u></b>	<b><u>9,403,446</u></b>

**6.4 Sundry Creditors / Payables:**

Sundry Creditors	500,000	500,000
	<b><u>500,000</u></b>	<b><u>500,000</u></b>

**7 FIXED ASSETS:**

Details of Fixed Assets is given as per schedule attached herewith. **19,498,141**      **21,800,376**

		<b>2020</b> <b>RUPEES</b>	<b>2019</b> <b>RUPEES</b>
<b>8</b>	<b>PRELIMINARY EXPENSES:</b>		
	Expenses incurred in connection with incorporation of the Company at Rs. 375,840 were capitalised, and amortized @ 20% on straight-line basis in accordance with Section 25 of the Income Tax Ordinance, 2001.	-	75,168
		<b>75,168</b>	<b>75,168</b>
<b>9</b>	<b>ADVANCE INCOME TAX</b>		
(i)	Bal. b/d	3,035,917	748,200
(ii)	u/s 153(1)(b)	2,185,786	2,613,716
(iii)	u/s 231-A	-	23,890
(v)	u/s 234-A	10,250	12,000
(vi)	u/s 236	56,876	37,999
		<b>5,288,829</b>	<b>3,435,805</b>
<b>10</b>	<b>SECURITIES / BANK GUARANTEES</b>		
	MEPCO	3,250,000	3,250,000
	STDC (K4)	1,392,000	1,392,000
	GEPCO	-	500,000
	Security paid to Landlord, Multan	-	90,000
	Defence Housing Authority, Peshawar	1,213,800	-
	IESCO	92,800	-
		<b>5,948,600</b>	<b>5,232,000</b>
<b>11</b>	<b>TRADE DEBTORS</b>		
	Local Receivables	34,739,634	27,650,006
	Off-shore Receivables	-	2,541,428
		<b>34,739,634</b>	<b>30,191,434</b>
<b>12</b>	<b>ADVANCES &amp; PRE-PAYMENTS</b>		
	Advances to staff	25,200	43,250
	Advances to PESC	500,000	500,000
		<b>525,200</b>	<b>543,250</b>
<b>13</b>	<b>CASH AND BANK BALANCES</b>		
	Cash-in-hand	1,872,124	6,370,728
	<b>Cash-at-Bank</b>		
(i)	Bank Alfalah Limited, Gulberg Br., Lahore. A/c No. 0028-1005069519	19,156,745	15,367,028
(ii)	Bank Alfalah Limited, Gulberg Br., Lahore. A/c No. 0028-1006974836	18,987	-
		<b>21,047,856</b>	<b>21,737,756</b>

**14 GROSS RECEIPTS**

	<b>2020 RUPEES</b>	<b>2019 RUPEES</b>
Gross Local Receipts	46,743,794	16,377,294
Gross Foreign Receipts	25,785,002	4,879,305
	<b><u>72,528,796</u></b>	<b><u>21,256,599</u></b>

**15 GENERAL & ADMINISTRATIVE EXPENSES:**

Directors' Salaries	5,400,000	5,400,000
Staff Salaries	38,733,691	44,643,796
Rent	1,200,000	1,455,000
Electricity	888,908	762,390
Fuel for Generator	9,000	51,500
Phone	471,446	342,157
Internet Charges	428,861	518,065
Gas	21,430	19,180
Water	87,686	99,621
Computer Expenses	758,150	300,620
Stationary & Printing	145,900	462,887
Advertisement	183,246	317,002
Repairs & Maintenance	879,867	538,635
Travelling & Lodging etc.	2,377,918	1,974,725
Motor Vehicle Running Exp.	974,571	1,226,504
Newspapers & Periodicals	7,110	7,660
Photo-copies	14,655	98,012
Expired Healthcare Insurance	-	66,846
Entertainment	929,556	844,991
Fees & Subscription	90,100	209,475
Legal Charges	648,000	672,000
Bank Charges	79,184	1,753
EOBI	234,000	234,000
Medical Aid & Compensations	486,033	410,081
Donations	225,000	50,000
Ornamental Plants	13,800	12,410
Postage	158,521	143,775
Amortisation of Preliminary Exp.	75,168	75,168
Depreciation	3,754,326	4,471,462
Misc. Exp.	188,942	66,840
	<b><u>59,465,069</u></b>	<b><u>65,476,555</u></b>

Hassan Tafar

Chief Executive



Neeraj

Director

	2020 <u>RUPEES</u>	2019 <u>RUPEES</u>
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**16 GAIN/LOSS ON SALE OF MOTOR VEHICLES** 531,659

Gain arose on sale of Motor Vehicles as under:-

**2020**

Motor Vehicle			Cost	W.D.V	Sale Price	Net Gain/ (Loss)	Mode
Make	Model	Reg No.	Rs.	Rs.	Rs.	Rs.	
Suzuki Swift	2017	LEF-15-2836	1,126,250	538,341	1,070,000	531,659	Negotiation
			<b>1,126,250</b>	<b>538,341</b>	<b>1,070,000</b>	<b>531,659</b>	

**17 GENERAL**

Figures have been rounded off to the nearest of Rupee.

*Hassan Jafar*

**Chief Executive**



*Murtaza*

**Director**

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,**

**7 FIXED ASSETS SCHEDULE  
AS ON 30.06.2020**

<b>PARTICULARS</b>	<b>COST</b>			<b>DEPRECIATION</b>			<b>W.D.V AS ON 30.06.20</b>
	<b>AS ON 01.07.19</b>	<b>Addition/ (Deletion)</b>	<b>AS ON 30.06.20</b>	<b>RATE %</b>	<b>AS ON 01.07.19</b>	<b>Adjust- ment</b>	
Office Building	11,669,405	-	11,669,405	10%	2,217,187	-	945,222
Electrical items & fittings	1,684,928	-	1,684,928	15%	616,927	-	160,200
Furniture & Fixtures	2,165,016	-	2,165,016	15%	845,259	-	197,964
Computer & Peripherals	14,106,677	-	14,106,677	30%	9,179,566	-	1,478,133
Generators	639,000	-	639,000	15%	266,407	-	55,889
<b>Motor Vehicles</b>							
Car — Honda Civic — LE-10-2232	1,190,000	-	1,190,000	15%	568,812	-	93,178
Car — Suzuki Swift — LEF-15-2836	1,126,250	(1,126,250)	-	15%	538,341	(538,341)	661,990
Car — Honda Vezel — LED-17-208	3,860,000	-	3,860,000	15%	1,489,478	-	-
Car — Honda Aqua — LED-17-2010	1,680,000	-	1,680,000	15%	648,270	-	154,760
Car — Toyota Corolla — ELA-16-9528	-	2,040,000	2,040,000	15%	-	-	306,000
Motor Cycle — Honda CD-70 — LEW-18A-3641	68,300	-	68,300	15%	18,953	-	7,402
<b>2020</b>	<b>38,189,576</b>	<b>913,750</b>	<b>39,103,326</b>		<b>16,389,200</b>	<b>(538,341)</b>	<b>3,754,326</b>
<b>2019</b>	<b>34,914,899</b>	<b>3,274,677</b>	<b>38,189,576</b>		<b>11,917,738</b>	<b>-</b>	<b>4,471,462</b>
							<b>16,389,200</b>
							<b>21,800,376</b>
							<b>19,498,141</b>



*Aslam Malik & Co.*  
Chartered Accountants

AUDITED FINANCIAL STATEMENTS  
OF  
POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED  
FOR THE YEAR ENDED JUNE 30, 2021

**Lahore:**

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**Quetta:**

1<sup>st</sup> Floor, Haji Fateh Khan Center, Adalat Road, Quetta. Phone: +92-81-2823837

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS

### Opinion

We have audited the annexed financial statements of **POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED** (the Company), which comprise the Statement of Financial Position as at **June 30, 2021**, and Statement of Profit and Loss, Statement of Changes in Equity, Statement of Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information, and we state that we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purpose of our audit.

In our opinion and to the best of our information and according to the explanations given to us, Statement of Financial Position as at **June, 30, 2021**, Statement of Profit & Loss, Statement of Changes in Equity, Statement of Cash Flows together with the notes forming part thereof conform to the accounting and reporting standards as applicable in Pakistan and give the information required by the Companies Act, 2017 (XIX of 2017), in the manner so required and respectively give a true and fair view of the state of the Company's affairs as at June 30, 2021 and of the profit, the changes in equity and its cash flows for the year then ended.

### Basis of Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) as applicable in Pakistan. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* as adopted by the Institute of Chartered Accountants of Pakistan (the Code) and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Other Offices at:

**Islamabad:** House # 726, Street 34, Margalla Town, off Murree Road, Islamabad.  
Phone : +92-51-2374282-3 Fax: +92-51-2374281

**Karachi:** 1001-1003 10th Floor, Chapal Plaza, Hasrat Mohani Road, Off I.I Chundrigar Road, Karachi  
Tel: + 92-21-32425911-2. Fax: +92-21-32432134

**Responsibilities of Management and Board of Directors for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the accounting and reporting standards as applicable in Pakistan and the requirements of Companies Act, 2017 (XIX of 2017) and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material mis-statement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Board of directors are responsible for overseeing the Company's financial reporting process.

**Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs as applicable in Pakistan will always detect a material misstatement when it exists. Mis-statements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, as applicable in Pakistan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material mis-statement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, mis-representations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate,

to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the board of directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

#### Report on Other Legal and Regulatory Requirements

Based on our audit, we further report that in our opinion:

- Proper books of account have been kept by the Company as required by the Companies Act, 2017 (XIX of 2017);
- the statement of financial position, the statement of profit or loss, the statement of other comprehensive income, the statement of changes in equity and the statement of cash flows together with the notes thereon have been drawn up in conformity with the Companies Act, 2017 (XIX of 2017) and are in agreement with the books of account and returns;
- investments made, expenditure incurred and guarantees extended during the year were for the purpose of the Company's business; and
- No zakat is deductible at source under the Zakat and Ushr Ordinance, 1980 (XVIII of 1980).

The engagement partner on the audit resulting in this independent auditor's report is **Mohammad Aslam Malik**.



Aslam Malik & Co.  
(Chartered Accountants)



Place: Lahore

Date: October 05, 2021

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
STATEMENT OF FINANCIAL POSITION**

**AS AT JUNE 30, 2021**

CAPITAL & LIABILITIES	NOTE	2021 RUPEES	2020 RUPEES	PROPERTY & ASSETS	NOTE	2021 RUPEES	2020 RUPEES
<b>AUTHORISED CAPITAL</b>				<b>FIXED ASSETS</b>			
500,000 Ordinary Shares of Rs. 100/- each		<u>50,000,000</u>	<u>50,000,000</u>	Fixed Assets	8	23,672,790	19,498,141
<b>ISSUED, SUBSCRIBED &amp; PAID-UP CAPITAL</b>				Plot No. 488, Bahria Orchard, Bahria Town, Raiwind Road, Lahore.		13,604,000	13,604,000
10,000 Ordinary Shares of Rs. 100 each	5	1,000,000	1,000,000				
Unappropriated Profit/(Loss)		11,857,575	16,824,180				
		12,857,575	17,824,180				
Directors' Loan	6	60,755,331	68,485,831				
		73,612,906	86,310,011				
<b>CURRENT LIABILITIES</b>				<b>CURRENT ASSETS</b>			
Accrued and other liabilities	7.1	20,278,374	10,423,400	Advance Income Tax	9	5,644,749	5,288,829
Withholding Tax Payable	7.2	101,904	97,788	Securities	10	128,829	5,948,600
Sales Tax payable	7.3	410,184	1,008,248	Trade Debtors	11	28,562,639	34,739,634
Sundry Creditors	7.4	-	500,000	Advances & Pre-payments	12	1,703,926	525,200
		20,790,462	12,029,436	Cash & Cash equivalents	13	21,754,353	21,047,856
Provision for Taxation		667,918	2,312,813			57,794,496	67,550,119
		<u>95,071,286</u>	<u>100,652,260</u>			<u>95,071,286</u>	<u>100,652,260</u>

*Hassan Jafar*

Chief Executive



*M. S. Nadeem*

Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
STATEMENT OF PROFIT OR LOSS  
FOR THE YEAR ENDED JUNE 30, 2021**

PARTICULARS	NOTE	2021 RUPEES	2020 RUPEES
Gross Receipts	14	44,527,877	72,528,796
<u>Less:</u> General & Administrative Exp.	15	49,879,394	59,465,069
Net Profit/(Loss) for the year		(5,351,517)	13,063,727
Other Income/Loss			
Gain on sale of Motor Vehicle	16	888,010	531,659
Profit on debt		164,820	9,396
		1,052,830	541,055
Profit/(Loss) before taxation		(4,298,687)	13,604,782
Income Tax/Turn-over Tax / ACT		(667,918)	(2,312,813)
Profit/(Loss) after taxation		(4,966,605)	11,291,969
Unappropriated Profit/(Loss) Brought Forward		16,824,180	5,532,211
Unappropriated Profit/(Loss) carried to the Balance Sheet		<b>11,857,575</b>	<b>16,824,180</b>

The annexed notes form an integral part of these financial statements.

Hassan Jafar

Chief Executive



  
Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,  
NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2021**

**1 NATURE AND OPERATION OF THE COMPANY**

M/s POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED, "The Company" was incorporated as a Private Limited Company under the Companies Act, 2017 on December 17, 2015. The Company is engaged in providing consultancy services to the electrical power sector in Pakistan and abroad. The registered office of the company is situated at 95/H-2, WAPDA Town, Lahore. The company meets the criteria of "Small Sized Company" as per Section 2(59A) of the Income Tax Ordinance, 2001.

The Company has maintained the following Offices:

Sr. #	Office	Address
1	Head Office	95/H-2, WAPDA Town, Lahore.
2	Office	66/H-2, WAPDA Town, Lahore.

**2 STATEMENT OF COMPLIANCE**

These financial statements have been prepared in accordance with accounting and reporting standards as applicable in Pakistan. The accounting and reporting standards applicable in Pakistan comprise of :

International financial reporting standards for small and medium sized entities (IFRS for SMEs) issued by the International Accounting Standard Board (IASB) as notified under the Companies Act, 2017; and provisions of and directives issued under the Companies Act, 2017.

Where provisions of and directives issued under the Companies Act, 2017 differ from the IFRS for SMEs, the provisions of and directives issued under the Companies Act, 2017 have been followed.

**3 Use of estimates and judgments**

The preparation of financial statements in conformity with approved accounting standards, as applicable in Pakistan, requires management to make judgments, estimates and assumptions that affect the application of policies and the reported amounts of assets, liabilities, income and expenses.

The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from the estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Judgments made by the management in the application of approved accounting standards, as applicable in Pakistan, that have a significant effect on the financial statements and estimates with significant risk of material judgments in the next financial year are set forth below:

**Income taxes**

In making the estimates for income taxes currently payable by the Company, the management looks at the current income tax law and the decisions of appellate authorities on certain matters in the past.

**Staff retirement benefits**

Certain actuarial assumptions have been adopted as disclosed in these financial statements for valuation of present value of defined benefit obligations and fair value of plan assets. Any changes in these assumptions in future years might affect the current and re-measurement gains and losses in those years.

#### **Trade debts and other receivables**

The Company's management reviews its trade debtors on a continuous basis to identify receivables where collection of an amount is no longer probable. These estimates are based on historical experience and are subject to changes in conditions at the time of actual recovery.

#### **Property, plant and equipment**

The Company reviews the rates of depreciation, useful lives, residual values and values of assets for possible impairment on an annual basis. Any change in the estimates in future years might affect the carrying amounts of the respective items of property, plant and equipment with a corresponding effect on the depreciation charge and impairment.

### **3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

#### **3.1 Property, plant and equipment and depreciation**

These are stated at cost less accumulated depreciation thereon except freehold land which are stated at cost.

Currently, depreciation is charged to income applying reducing balance method at the rates given in Note 7 to write off the cost of operating fixed assets including the related exchange differences and borrowing cost over their expected useful life. Depreciation on additions is charged from the date when the asset is available for use and on deletions up to the date when the asset is deleted.

Maintenance and repairs are charged to statement of profit or loss as and when incurred. Major renewals and improvements are capitalized and the assets so replaced, if any, are written off. Gains and losses on disposal of assets, if any are included in the profit and loss amount currently.

#### **3.2 Intangible Assets**

Intangible Assets are stated at cost less accumulated amortization and identified impairment loss, if any. Amortization is charged on straightline method using the rates given in "Fixed Assets Schedule" to profit and loss account from the month in which the assets is available for use, while for disposals amortization is charged up to the month of disposal.

Subsequent expenditure on intangible assets is capitalized only when it increases the future economic benefits embodied in the specific assets to which it relates. All other expenditures are charged to income as and when incurred.

#### **3.3 Revenue Recognition**

Revenue is recognised on receipt of monthly Fees, etc. from the students.

#### **3.4 Financial instruments**

These comprise financial assets and financial liabilities. Significant financial assets include cash and bank balances. Significant financial liabilities include dividend and other payables.

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument and assets and liabilities are stated at fair value. The Company de-recognizes the financial assets and liabilities when it ceases to be a party to such contractual provisions of the instruments.

Any gain or loss on de-recognition of the financial assets and financial liabilities is taken to profit and loss account in which it arises. The particular measuring methods adopted are disclosed in the individual policy statement with each item.

#### **3.5 Trade and Other Receivables**

A receivable represents the Company's right to an amount of consideration that is unconditional. Trade receivables are carried at original invoices amount less expected credit loss based on a review of all outstanding amounts at the year end. Bad debts are written off when identified.

#### **3.6 Trade Creditors**

Liabilities for trade and other amounts payable are carried at cost which is the fair value of the consideration to be paid in future for goods and services.

**3.7 Cash and cash equivalents**

Cash and cash equivalents are carried in the balance sheet at cost. For the purpose of cash flow statement, cash and cash equivalents consist of cash-in-hand and balances with banks and highly liquid short-term investments that are readily convertible to known amounts of cash and which are subject to insignificant risk of change in value.

**3.8 Provisions**

A provision is recognized when the Company has a present legal or constructive obligation as a result of past event and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation of which reliable estimate can be made.

**3.9 Taxation**

The charge for current taxation is based on taxable income for the year determined in accordance with Income Tax Ordinance, 2001 and prevailing tax rates after taking into account applicable tax credits and rebates, if any and taxes paid under the final tax regime.

**4.0 Related party transactions**

All transactions involving related parties arising in the normal course of business are conducted at arm's length at normal commercial rates on the same terms and conditions as third party transactions using valuation modes, as admissible, except in extremely rare circumstances where, subject to the approval of the Board of Director, it is in the interest of the Company to do so.

**4.1 Borrowing cost**

Borrowing cost on long term finances which are specifically obtained for the acquisition of qualifying assets (plant & machinery) are capitalized up to the date of commencement of commercial production on the respective assets. All other borrowing costs are charged to Profit and Loss Account in the period in which these are incurred.

**4.2 Presentation currency**

The financial statements are presented in Pak Rupees, which is the Company's functional and presentation currency.

	<b>2021</b> <b>RUPEES</b>	<b>2020</b> <b>RUPEES</b>
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**5 ISSUED, SUBSCRIBED & PAID-UP CAPITAL**

<b>Share-holder</b>	<b>No. of Shares 2021</b>	<b>No. of Shares 2020</b>	<b>Face Value</b>	<b>Issue Value</b>	
				<b>2021</b>	<b>2020</b>
Syed Hassan Jafar Zaidi	5,000	5,000	100	500,000	500,000
Syed Saeed Jafar Zaidi	5,000	5,000	100	500,000	500,000
	<b>10,000</b>	<b>10,000</b>		<b>1,000,000</b>	<b>1,000,000</b>

Out of the above share-holders, Mr. Syed Hassan Jafar Zaidi is the Chief Executive. Other member of the Board of Directors is, namely, Mr. Syed Saeed Jafar Zaidi.

**6 DIRECTORS' LOAN**

Syed Hassan Jafar Zaidi		60,755,331	68,485,831
		<b>60,755,331</b>	<b>68,485,831</b>

**7 CURRENT LIABILITIES**

	<b>2021</b>	<b>2020</b>
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**7.1 Accrued and other Liabilities:**

Director's Salaries Payable	5,300,000	10,400,000		
E.O.B.I. Contribution	23,400	23,400		
Haseeb Printers	54,974			
Advance received against sale of Plot No. 488, Bahria Orchard, Bahria Town, Raiwind Road, Lahore.	14,900,000	-		
			20,278,374	10,423,400

**7.2 Withholding Tax Payable:**

u/s 149	94,004	95,815		
u/s 153(1)(b)	400	1,973		
u/s 155	7,500	-		
			101,904	97,788

**7.3 Sales Tax payable**

Sales Tax Payable	410,184	1,008,248		
			410,184	1,008,248
			<b>20,790,462</b>	<b>11,529,436</b>

**7.4 Sundry Creditors / Payables:**

Sundry Creditors		-	500,000
		<b>-</b>	<b>500,000</b>

**8 FIXED ASSETS:**

Details of Fixed Assets is given as per schedule attached herewith. **23,672,790** **19,498,141**

		2021 RUPEES	2020 RUPEES
<b>9</b>	<b>ADVANCE INCOME TAX</b>		
(i)	Bal. b/d	2,976,956	3,035,917
(ii)	u/s 7-B	24,723	-
(iii)	u/s 153(1)(b)	2,588,512	2,185,786
(iv)	u/s 234-A	11,250	10,250
(v)	u/s 236	43,308	56,876
		<u>5,644,749</u>	<u>5,288,829</u>
<b>10</b>	<b>SECURITIES / BANK GUARANTEES</b>		
MEPCO		-	3,250,000
STDC (K4)		-	1,392,000
PEDO		22,943	-
GEPCO		80,250	-
Defence Housing Authority, Peshawar		-	1,213,800
IESCO		-	92,800
Special Technology Zones Authority		25,636	-
		<u>128,829</u>	<u>5,948,600</u>
<b>11</b>	<b>TRADE DEBTORS</b>		
Local Receivables		28,562,639	34,739,634
		<u>28,562,639</u>	<u>34,739,634</u>
<b>12</b>	<b>ADVANCES &amp; PRE-PAYMENTS</b>		
Advances to staff		145,500	25,200
Advances to PESC		1,558,426	500,000
		<u>1,703,926</u>	<u>525,200</u>
<b>13</b>	<b>CASH AND BANK BALANCES</b>		
Cash-in-hand		98,946	1,872,124
<b><u>Cheque-in-transit</u></b>			
Cheque-in-transit against sale of Plot No. 488, Bahria Orchard, Bahria Town, Raiwind Road, Lahore.		13,900,000	-
<b><u>Cash-at-Bank</u></b>			
(i) Bank Alfalah Limited, Gulberg Br., Lahore. A/c No. 0028-1005069519		7,248,512	19,156,745
(ii) Bank Alfalah Limited, Gulberg Br., Lahore. A/c No. 0028-1006974836		506,895	18,987
		<u>21,754,353</u>	<u>21,047,856</u>

	2021 RUPEES	2020 RUPEES
<b>14 GROSS RECEIPTS</b>		
Gross Local Receipts	37,067,983	46,743,794
Gross Foreign Receipts	7,459,894	25,785,002
	<b><u>44,527,877</u></b>	<b><u>72,528,796</u></b>
<b>15 GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>		
Directors' Salaries	5,400,000	5,400,000
Staff Salaries	28,785,674	38,733,691
Rent	1,200,000	1,200,000
Electricity	835,792	888,908
Fuel for Generator	27,000	9,000
Phone	362,020	471,446
Internet Charges	182,615	428,861
Gas	16,810	21,430
Water	82,452	87,686
Training Expenses	429,270	-
Computer Expenses	135,900	758,150
Stationary & Printing	632,276	145,900
Advertisement	188,520	183,246
Repairs & Maintenance	763,440	879,867
Travelling & Lodging etc.	219,856	2,377,918
Motor Vehicle Running Exp.	828,074	974,571
Newspapers & Periodicals	4,610	7,110
Photo-copies	9,347	14,655
Entertainment	824,163	929,556
Fees & Subscription	109,603	90,100
Legal Charges	660,000	648,000
Bank Charges	51,517	79,184
EOBI	280,800	234,000
Medical Aid & Compensations	1,280,615	486,033
Donations	10,000	225,000
Ornamental Plants	11,200	13,800
Postage	129,330	158,521
Amortisation of Preliminary Exp.	-	75,168
Depreciation	6,155,290	3,754,326
Misc. Exp.	263,220	188,942
	<b><u>49,879,394</u></b>	<b><u>59,465,069</u></b>

Hassan Jafar

Chief Executive



  
Director

	<b>2021</b> <b>RUPEES</b>	<b>2020</b> <b>RUPEES</b>
<b>16 GAIN/LOSS ON SALE OF MOTOR VEHICLES</b>	888,010	531,659

Gain arose on sale of Motor Vehicles as under:-

**2021**

Motor Vehicle			Cost	W.D.V	Sale Price	Net Gain/ (Loss)	Mode
Make	Model	Reg No.	Rs.	Rs.	Rs.	Rs.	
Honda Civic	2010	LE-10-2232	1,190,000	661,990	1,550,000	888,010	Negotiation
			<b>1,190,000</b>	<b>661,990</b>	<b>1,550,000</b>	<b>888,010</b>	

**2020**

Motor Vehicle			Cost	W.D.V	Sale Price	Net Gain/ (Loss)	Mode
Make	Model	Reg No.	Rs.	Rs.	Rs.	Rs.	
Suzuki Swift	2017	LEF-15-2836	1,126,250	538,341	1,070,000	531,659	Negotiation
			<b>1,126,250</b>	<b>538,341</b>	<b>1,070,000</b>	<b>531,659</b>	

## **17 GENERAL**

Figures have been rounded off to the nearest of Rupee.

*Hassan Jafar*

Chief Executive



*Neelam*

Director

**POWER PLANNERS INTERNATIONAL (Pvt.) LIMITED,**

**7 FIXED ASSETS SCHEDULE  
AS ON 30.06.2021**

<b>PARTICULARS</b>	<b>COST</b>				<b>DEPRECIATION</b>				<b>W.D.V AS ON 30.06.2021</b>
	<b>AS ON 01.07.2020</b>	<b>Addition/ (Deletion)</b>	<b>AS ON 30.06.2021</b>	<b>RATE %</b>	<b>AS ON 01.07.2020</b>	<b>Adjust- ment</b>	<b>FOR THE YEAR</b>	<b>AS ON 30.06.2021</b>	
Office Building	11,669,405	-	11,669,405	10%	3,162,409	-	850,700	4,013,109	7,656,296
Electrical items & fittings	1,684,928	217,689	1,902,617	15%	777,127	-	168,824	945,951	956,666
Furniture & Fixtures	2,165,016	46,390	2,211,406	15%	1,043,223	-	175,227	1,218,450	992,956
Computer & Peripherals	14,106,677	10,593,870	24,700,547	30%	10,657,699	-	4,212,854	14,870,553	9,829,994
Generators	639,000	-	639,000	15%	322,296	-	47,506	369,802	269,198
<u>Motor Vehicles</u>									
Car — Honda Civic — LE-10-2232	1,190,000	(1,190,000)	-	15%	661,990	(661,990)	-	-	-
Car — Honda Vezel — LED-17-208	3,860,000	-	3,860,000	15%	1,845,056	-	302,242	2,147,298	1,712,702
Car — Toyota Aqua — LED-17-2010	1,680,000	-	1,680,000	15%	803,030	-	131,545	934,575	745,425
Car — Toyota Corolla — LEA-16-9528	2,040,000	-	2,040,000	15%	306,000	-	260,100	566,100	1,473,900
Motor Cycle — Honda CD-70 — LEW-18A-3641	68,300	-	68,300	15%	26,355	-	6,292	32,647	35,653
<b>2021</b>	<b>39,103,326</b>	<b>9,667,949</b>	<b>48,771,275</b>		<b>19,605,185</b>	<b>(661,990)</b>	<b>6,155,290</b>	<b>25,098,485</b>	<b>23,672,790</b>
<b>2020</b>	<b>38,189,576</b>	<b>913,750</b>	<b>39,103,326</b>		<b>16,389,200</b>	<b>(538,341)</b>	<b>3,754,326</b>	<b>19,605,185</b>	<b>19,498,141</b>