Qualifications

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**Summary**

Over five (5) years as Lead in engineering design work (electrical) from over eleven (11) years experience in energy projects (downstream) as well as engineering consultants and investors. Experienced in Project Management for parallel projects

The nature of the engineering work comprise of preparation of requisition specification, perform calculation and reports, reviewing drawings, liaison with authorities and vendors, procurement assistance such as preparation of technical bid evaluation package, and vendor data review.

**Education**

Master of Electrical (Electrical Energy and Power Systems)

**Software / Other Skills**

Microsoft Office, SKM PTW and MS Project

**Statutory Body / Organizations / Certification**

Board of Engineers Malaysia – Professional Engineer (PE15376)

Last Position – FYF Engineering Sdn. Bhd. (family business)

Project Manager (May 2, 2013 - Jul 31, 2014)

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| **Project Title** | : | Business Development |
| **Client** | : | Koperasi PETRONAS, Malaysia and FYF Group |
| **Project Brief** | : | Liason with Malaysian authorities, Engineering, Procurement, Supply, Testing, and Commissioning of residential solar photovoltaic systems for PETRONAS staff in Peninsular Malaysia and Sabah. |
| **Duration** | : | Feb 1, 2014 – Jul 31, 2014 |

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| ***Duties & Responsibilities***   * Developed the company business from a solar PV consultancy and successfully transformed it to an integrated small scale solar independent power producer (IPP) and EPC contractor in Peninsular Malaysia. * Produce Calculation Report to determine the solar photovoltaic (PV) kit for residential. The calculation was done using Malaysian Standards 1837. * Delivered solar photovoltaic training for PETRONAS training institute in solar PV stand-alone and grid-connected system for Iraqi engineer.   + Review MV system drawings (e.g. one line diagram, general arrangement, protection diagram) against project specification and Basis of Design for 1MW rooftop project in Pahang, Malaysia |
| **Project Title** | : | Design, supply, Install, Test and Commission of solar panel at TNB Headquarters (150kW@Bangsar) and TNB Corporate Tower (20kW@Brickfields), Kuala Lumpur, Malaysia | |
| **Client** | : | Seconded to Malaysian Solar Resources Sdn Bhd | |
| **Project Brief** | : | Led the commercial discussions and the overall engineering required by the client, execution, Project Management, testing and commissioning of the 170kW project. | |
| **Duration** | : | Sept 1, 2013 – Jan 31, 2014 | |
| ***Duties & Responsibilities***  Seconded to Malaysian Solar Resources Sdn Bhd as the Project Manager of the Project.   * Designed the overall electrical single line diagrams (SLDs) to comply with the contract requirement. * Prepared weekly progress reports for TNB Vice President usage * Budgeting and monitor the overall project expenditure * Engaged with all workers at site from all subcontractors for ensuring HSE compliances * Led the variation order discussion with Owner | | | |
| **Project Title** | : | Design, Supply, Install, Test and Commission of 450kW solar PV panel systems at a paper factory in Prai, Penang, Malaysia | |
| **Client** | : | Seconded to Malaysian Solar Resources Sdn Bhd | |
| **Project Brief** | : | Manage the overall engineering required by financial institution, execution, Project Management, testing and commissioning of the 170kW project. | |
| **Duration** | : | September 2012 – October 2012 | |

***Duties & Responsibilities***

* + Prepared the Master Project Execution Plan (PEP). This report discusses the power generation and distribution scheme, requirement and detailed project execution of the project
  + Produce Civil & Structure and Electrical Design Report. This report is to determine the size of major electrical equipments to be installed on the project consist of overhead LV cables, LV cables, switchboards, inverters and earthing and the major civil works for the mounting structure and painting

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| **Project Title** | : | 2.5MW EPC ground mounted solar farm in the state of Perak, Malaysia |
| **Client** | : | Bagan Datoh Solar Farm Sdn. Bhd. |
| **Project Brief** | : | Technical Consultancy Services for the Board of Director |
| **Duration** | : | May 1, 2013 – December 31, 2014 |

***Duties & Responsibilities***

* + Convinced and assured the bank/financial institution that the plant is in order and the expected optimum output is achieved and attainable.
  + Negotiated the termination of the non-performed DC contractor and monitor the re-works of the new DC contractor.
* Checked and recommended the best construction methods/materials to ensure its compliance to Malaysian authorities and power utility company (TNB)
* Looked into the testing and commissioning of all companents at site

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| **Project Title** | : | 12kW grid-connected solar PV turnkey for a RM2 million bungalow in Damansara, Kuala Lumpur, Malaysia |
| **Client** | : | Revision Solar Sdn Bhd |
| **Project Brief** | : | To complete installation, testing and commissioning of 48 pieces solar PV panels and its associated equipments within 7 days during monsoon season. |
| **Duration** | : | December 2014 |

***Duties & Responsibilities***

* + Perform site visit to check and verify the planned modifications for approval of the owner.
  + Produce Site Visit Checklist and Site Visit Report before and after the visit.
  + Prepare and updating the procurement list.
  + Produce Design Calculation Report to submit to the authority for Testing and Commissioning report
  + Executed the project in safely and timely manner.

Previous Experience

PETRONAS Technology and Engineering Division

Electrical Engineer (July 2009 – Apr 2013)

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| **Project Title** | : | 10.02MW EPC ground mounted solar farm in the state of Pahang, Malaysia |
| **Client** | : | Petronas Power Sdn.Bhd. (PPSB) |
| **Project Brief** | : | To install 4 blocks of solar photovoltaic generator in accordance to the Power Purchase Agreement with TNB. |
| **Duration** | : | Jan 2012 – April 30, 2013 |

***Duties & Responsibilities***

* + Developed Specification and Datasheet for solar cables and solar inverters system which is never a part of Petronas Technical Standard (PTS)
  + Assist to resolve grid-connection issues with the National Grid Operator (TNB) as this is the first large scale solar power plant in Malaysia.
* Appointed as the Technical Authority to manage the overall Engineering execution in accordance to Petronas Technical Standard (PTS) and regulations, standards and codes of practices issued by international bodies (e.g. IEC, IEE, IEEE, and IP)

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| **Project Title** | : | 690kW and 150kW EPC solar rooftops in Kuala Lumpur/Selangor, Malaysia |
| **Client** | : | Suria KLCC Sdn Bhd and Petronas Dagangan Berhad (PDB) |
| **Project Brief** | : | To install 2 solar PV systems namely “songket motives” roof mounted solar PV systems on Suria KLCC shopping mall rooftop and Building Integrated PV (BIPV) solar PV system on PETRONAS 1st Green petrol station building in Selangor, Malaysia |
| **Duration** | : | Jan 2010 – Dec 2012 |

***Duties & Responsibilities***

* + Assist Project Manager in developing the overall project cost.
  + Liaise with the CEOs of the 2 companies to sanction the project from the Board of Directors.
  + Developed Specification and Datasheet for all equipments in accordance to Petronas Technical Standard (PTS) and regulations, standards and codes of practices issued by international bodies (e.g. IEC, IEE, IEEE, and IP).
  + Review all drawings (e.g. one line diagram, general arrangement) against project specification and calculation report
  + Led the Project Execution at site as the Project Engineer

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| **Project Title** | : | Solar Business Development for PETRONAS |
| **Client** | : | Technology and Engineering (T&E) Vice President office |
| **Project Brief** | : | To identify the business model and create business structure to integrate a solar business into current oil and gas businesses. |
| **Duration** | : | July – December 2009 |

***Duties & Responsibilities***

* The “value proposition” to PETRONAS has been identified and defined for each of the Solar Options assessed
  + Developed a rolling plan for the selected Solar Initiatives by identified specific needs (Capex, People, Partners) and developed business plans for each option

PETRONAS Gas Berhad

Electrical Engineer (Aug 2003 – July 2009)

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| **Project Title** | : | Kerteh Compressor Staition unfired Boiler EPC Project |
| **Client** | : | Gas Processing Plant Complex A, Kerteh |
| **Project Brief** | : | Detailed Engineering stage for a new unfired boiler to utilize exhaust from existing gas turbine compressors. |
| **Duration** | : | Jan – July 2009 |

***Duties & Responsibilities***

* Led the Electrical team to prepare all Deliverables List and Schedule for client approval.
* Prepared electricaldetailed design for client review for installation and construction

a) Single Line Diagram for MV/LV power

b) Lighting and Receptacle Wiring Reticulation

c) Motor control Centre

d) Transformer

e) Cable route and cable ladder Installation Details

* Prepare Bulk Material Specification (i.e. switchgear, transformer, cables, cable glands, lighting fixtures, socket outlets, cable ladders / trays and accessories).
* Review consultant's deliverables (e.g. Load List, Cable Sizing Report, Equipment's Specification and Datasheet, etc.) against project requirement and site condition.
* Liaise with manufacturers/vendors for the development of design the unfired boiler in accordance with contract requirement.
  + Involved in weekly progress meeting with client and Project Management Team (PMT).
  + Performed site survey at the existing plant to identify any obstruction to the new equipments to be installed.

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| **Project Title** | : | Conceptual and Front End Engineering Design (FEED) for Kimanis Power Plant Project |
| **Client** | : | Kimanis Power Sdn.Bhd. (KPSB) |
| **Project Brief** | : | To install three new blocks of combined cycle gas fired power plant facilities. |
| **Duration** | : | July – December 2009 |

***Duties & Responsibilities***

* + Led the Electrical team in preparing cost comparison table between various Gas Turbine Generators for power generation study.
  + Produced Design Concept Report for the overall facilities.
  + Developed Specification and Datasheets in accordance to Petronas Technical Standard (PTS) and regulations, standards and codes of practices issued by international bodies (e.g. IEC, IEE, IEEE, and IP).
  + Led the Engineering Review for Electrical (ELSOR)

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| **Title** | : | Operation and Maintenance Engineer |
| **Client** | : | Centralised Utility Facilities (CUF) Gebang, Kuantan, Pahang |
| **Title Brief** | : | Started as Junior Engineer until promoted to Senior Engineer in maintaining all the electrical equipment assets including become the Focal Person in Power Management System (PMS). |
| **Duration** | : | Aug 2003 – June 2009 |

***Duties & Responsibilities***

* Led the Electrical team to prepare all maintenance parts, procurments processes and turnaround.
* Led and finalized Reliability Centred Maintenance (RCM) Program for the following equipments

1. Gas Turbine Generators (3 unit 36MW)
2. Heat Recovery Steam Generator (4 unit of 52 tonne per hour)
3. All heating and ventilation systems
4. Motor Control Centre
5. Switchgears and transformers (132kV/33kV/11kV/415V)
6. Motors
7. Lighting, security and CCTV
8. Power generation and distribution system to clients including 40MW daily to the National Grid

* Assessed and appraised 5 Electrical Competent Person on monthly basis (i.e. trainings, leaves, authorities licenses requirement and HSE).

*References*

Mr. Md. Shah Mahmood

Head (RGT & Solar Projects)

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