# **MEETING MINUTES – Design Project B Team 12**

| **Date of Meeting:** <28/03/2017> | **Location:** Arts Room 5 **Chair:** Xiaobin LIN |
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| **Minutes Prepared By:** | Jie Zhang |
| 1. Purpose of Meeting | |
| Group meeting to go through the desgin review with Marcus and discuss about issues involved with current project design. | |

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| 2. Attendance at Meeting | | | |
| Name | Department / Division | E-mail |
| Jessica Armstrong |  | [21149475@student.uwa.edu.au](mailto:21149475@student.uwa.edu.au) |
| Steven Bardzovski |  | [21121998@student.uwa.edu.au](mailto:21121998@student.uwa.edu.au) |
| Xiaobin Lin |  | [21566849@student.uwa.edu.au](mailto:21566849@student.uwa.edu.au) |
| Mark Mazzoni |  | [105511491@student.uwa.edu.au](mailto:105511491@student.uwa.edu.au) |
| Shaochen Wang |  | [21663809@student.uwa.edu.au](mailto:21663809@student.uwa.edu.au) |
| Jie Zhang |  | [21231118@student.uwa.edu.au](mailto:21231118@student.uwa.edu.au) |
| Marcus Pham |  | [marcus.pham@uwa.edu.au](mailto:marcus.pham@uwa.edu.au) |

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| 3. Meeting Agenda |
| 3.1. Project objectives (What are the objectives and are they understood?) |
| 3.2. Design inputs (Does the proposed design address each requirement? What are the design inputs? Have all inputs been identified? Have implicit requirements as well as explicit requirements been identified? Have national and international codes, standards and legislation been identified? Have any conflicts between codes, standards and project requirements been identified? Do any o fthe conflicts, particularly safety, need to be resolved?) |
| 3.3. Safety (Are there safety consideration requirements for the design process or which may need too be considered for users of the end product? This may include safety during acceptance testing, during construction or for users of the poduct.) |
| 3.4.Human factors engineering (Are there any factors that relate to how the end product is to be used that need to be consdered?) |
| 3.5. Reliability (Does any aspect of the design have the potential to impact the reliability of the end product?) |
| 3.6. Maintainability (Does any aspect of the design have the potential to impact the maintainability of the end product?) |
| 3.7. Environmental effects (Does any aspect of the design have the potential to impact the environment in a positive or negative way? Can plan or product decisions be made that can reduce the environmental impact of the product during construction, operation, or end of life?) |
| 3.8. Project life cycle (Is the proposed life of the end product reasonable? How is it considered in the design? Are all stages of the life cycle being considered – material selection and sourcing, construction, operation, disassembly, disposal)? |
| 3.9. Costs (Are there any aspects of the design that are likely to impact the cost of the design?) |
| 3.10. Legal approval (Are there any aspects of the design that require legal or regulatory approval prior to their inclusion in the project? Are there any aspects of the design that have the potential to pose a risk to the design or the company?) |
| 3.11. Action items (What are the key action items that need to be addressed in the design and/or design report? How are the actions to be verified as complete or closed out?) |
| 3.12 Other considerations (Are there any other considerations for the design team?) |

| 4. Meeting Notes, Decisions, Issues |
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| * For the base case, the design of fundation should be included due to cost estimation. * Create block diagram for the base case, estmate total power transmitted by the cables. * For solar power panel, the size of cable should be determined. * Normally, the power and voltage for PV is 70kW and 500V, respectively. * Step down and step up equipemnt may be included in the design, according to the current. * For a better design, the team should consider cost, efficiency, and maintainability. * Using decision matrix to dtermine the battery used in the hybird system. * The number of battery used in the design is around 1000. * The battery bank should be well protected during charging and discharging process, watch out the overcharge situation. * Cooling system need to be used for the battery bank due to high temperature in Newman. * For generator, the transportation of diesel should be cinsidered. * For wind power system, the team have to consider that how much power could user get fron wind system. * For pumps used in the borefileds, the start current, size of breaker, and soft starter need to be considered. * For cost estimation, the long time regulation cost, cabling connection cost and maintaintence cost have to be considered. * Breakers and isolation switches may be included in the design in order to protect the system |

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| 5. Action Items | | | |
| *Action* | *Assigned to* | *Due Date* | *Status* |
| Simulation | Steven | Friday 05/05/2017 | Started |
| Battery management system | Steven | Friday 05/05/2017 | Started |
| PV management | Steven | Friday 05/05/2017 | Started |
| Battery revist | Steven | Friday 05/05/2017 | Started |
| Legislation | Jess | Friday 05/05/2017 | Started |
| Start up (soft starter) | Jess | Friday 05/05/2017 | Started |
| Calculation internal transmission | Jess | Friday 05/05/2017 | Started |
| Telemetry system | Mark | Friday 05/05/2017 | Started |
| Weather research | Mark | Friday 05/05/2017 | Started |
| Cost | Mark | Friday 05/05/2017 | Started |
| Power Factor of components | Jie | Friday 05/05/2017 | Started |
| Calculation external transmission | Jie | Friday 05/05/2017 | Started |
| Power line structure | Jie | Friday 05/05/2017 | Started |
| Failure rate/maintaintence cost | Xiaobin | Friday 05/05/2017 | Started |
| Wind analysis | Xiaobin | Friday 05/05/2017 | Started |
| Inverter/converter/regulator | Shaochen | Friday 05/05/2017 | Started |
| Types of CBs and isolation switches | Shaochen | Friday 05/05/2017 | Started |

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| 6. Next Meeting | | | | | | |
| *Date:* | | *Friday 02/05/2017* | *Time:* | *2pm* | *Location:* | *Barry J Marshall Room MM2* |
| *Agenda:* | Go through everyone’s action items listed above | | | | | |