

<b>WP1 Public Acceptance, Responsible David Majoe</b>		Month 1 to 5
Costs	David Majoe (£5K), Steffen Lehmann (£5K), Focus Group Expenses (£2K)	
Aim	To determine important architectural design guidelines.	
Approach	3 focus group sessions will be held where the public and architects will be introduced to the concept and different architectural design proposals. Using their feedback, designs will be modified and the focus groups sessions repeated a further 2 times securing strong public influence in the final guide.	
Task 1.1	Focus Group Creation and Architecture Early Concept Design	Deliverable 1
Task 1.2	Artistic Design of Architectural Mock Ups	Deliverable 1
Task 1.3	Focus Group Sessions	Deliverable 1
Task 1.4	Design Guideline Analysis	Deliverable 1

<b>WP2 Mechanical Design and Modelling, Responsible Aston Brand</b>		Month 1 to 4
Costs	Rafic Ajaj (£5K), Aston Brand (£3K), David Majoe CAD (£2K), 3D printing (£3K)	
Aim	To determine optimal aerofoil, mechanical linkages and energy conversion	
Approach	Airflow simulations for different CAD modelled aerofoils will be simulated and 3D printed real world tested. Wind conversion mathematically modelled and used to estimate maximum possible energy conversion efficiency	
Task 2.1	Aerofoils simulation and 3D fabrication test	Deliverable 2
Task 2.2	Mechanical linkage design, development and test	Deliverable 2
Task 2.3	Wind energy optimal efficiency modelling	Deliverable 3

<b>WP3 Energy Harvesting and Monitoring, Responsible Han Yuan</b>		Month 1 to 4
Costs	Dennis Majoe (£4K), Han Yuan (£6K), Dunne Roberts Ltd and Soumac Assembly Servc Ltd(£2K)	
Aim	To develop energy harvester, power conversion and efficiency monitoring	
Approach	Variable capacitive energy harvesting implemented on a large bench prototype similar to the full scale trial. Electronics designed for power conversion. Special monitor developed to allow remote constant monitoring of generator status and local weather conditions	
Task 3.1	Tribo-electric enhanced variable capacitive energy harvester development	Deliverable 2
Task 3.2	System dynamics and weather monitoring system	Deliverable 3
Task 3.3	Energy storage and conversion electronics	Deliverable 2

<b>WP4 Full Scale Generator Fabrication, Responsible Dennis Majoe</b>		Month 3 to 5
Costs	SeaSub Ltd (£6K), Penta Precision Eng Ltd. (£3K), Dennis Majoe and Han Yuan (£12K)	
Aim	To create two full scale test generator (primary inputs Deliverable 1 and 2)	
Approach	Carbon fibre aerofoils will be cast by Seasub Ltd according D2 design. Fuselage and aerofoil linkage fabricated according to D1 and D2. Large capacitive plates and final electronics assembled and fitted according D2.	
Task 4.1	Aerofoil fabrication	Deliverable 4
Task 4.2	Fuselage fabrication	Deliverable 4
Task 4.3	Energy Harvesting Plates and Electronics Fabrication	Deliverable 4

<b>WP5 Wind Trials and Overall Evaluation, Responsible Dennis Majoe</b>		Month 4 to 6
Costs	Installation in Wales and Southampton (£4K), Dennis Majoe (£2K)	
Aim	To test two generators, analyse and evaluate results (primary input Deliverable 4, 1, 3)	
Approach	Install one generator in Cwmafan, Wales (farm site), install one in Southampton (office site facing South Downs). Gather data remotely using System monitor. Analyse results relative to energy modelling of WP2 to determine cause of any shortfalls. Evaluate overall project based on likely public acceptance, and generator manufacturing costs and power conversion efficiency.	
Task 5.1	Installations in England and Wales	Deliverable 5
Task 5.2	Data Gathering and analysis	Deliverable 5
Task 5.3	Evaluate overall performance and public acceptance	Deliverable 6

