CURRICULUM VITAE
DEMIAN NATAKHAN BEng MSc CEng MEI

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ACADEMIC TRAINING

2007	University of Ballarat	Certificate IV: Occupational Health and Safety (underway)
2000-2001	Loughborough University, UK	Master of Science: Renewable Energy Systems Technology (with distinction)
1996-2000	Lancaster University, UK	Bachelor of Engineering: Environmental Systems Technology (first class honors).

PROFESSIONAL QUALIFICATIONS

2005	Energy Institute (UK)	Member of Energy Institute (MEI)
2005	Engineering Council (UK)	Chartered Energy Engineer
2000	Institute of Mechanical Engineers (UK)	Graduate member

CAREER SUMMARY

Period	Organisation	Job Description
July 2007 - present	Enhar Australia	Founder of company, consultant to clients delivering renewable energy projects, technologies and energy conservation improvement
Jan 2008 – present	Swinburne TAFE	Teacher of wind energy subjects
Sept 2006 – June 2007	Enhar UK	Founder of company, sole trader
Apr – June 2006	Roaring40s, Tasmania	Contract Administrator, EPC construction of 75MW wind farm, due diligence for Project Finance application
Mar 2006	Australian Wind Energy Association, Melbourne	Consultant: Best Practice Guidelines for Wind Energy development in Australia
Oct-Dec 2005	Powercorp Pty Ltd, Darwin	Health and Safety officer for wind-diesel construction projects
Aug-Oct 2005	Powercorp Pty Ltd, Mt Millar	Environmental, Health& Safety officer for 70MW wind farm construction
May-June 2005	Garrad Hassan Pacific, Melbourne	Consultant, wind and energy analysis group
June 2003-Dec 2004	Entec UK Ltd, Edinburgh UK	Consultant, Energy Services division
Jan 2002- June 2003	Entec UK Ltd, Edinburgh UK	Assistant Consultant, Energy Services division
Oct 2000- Oct 2001	Power Technology Centre, EON, Nottingham UK	Part time research towards MSc dissertation, sponsored by EON
Oct 2001- Nov 2001	European Parliament, Brussels Belgium	'Stagier' with The European Forum for Sustainable Energy
1998 - 1999	Garrad Hassan and Partners, Bristol UK	Assistant Engineer, 'sandwich' year within undergraduate degree

PROJECT EXPERIENCE

Wind Energy – Project Development

As a consultant I have undertaken work on most development phases of wind farms. This has included hands-on work and project management of:

- Site-finding: from GIS to car based prospecting tours, negotiating with land owners - from small holdings to firms with large estates,
- Designing wind farm layouts for optimum technical and economic performance, including interfacing with land owners on site design issues,
- Designing wind farms to comply with environmental regulations regarding impact to flora and fauna, hydrology, archaeology, noise and visual amenity etc. Working with environmental specialists to achieve an environmentally 'defendable' wind farm size/shape.
- Wind monitoring and mean wind speed estimation including procurement and installation of equipment, data collection, monthly analysis and reporting.
- Management of wind mast installation including preparation of contracts, preparation of health and safety plan for the installation and operation of the mast, review of method statements and commissioning checklist.
- Wind farm energy yield calculations and due diligence including use of industry software RESoft Windfarm, GH Windfarmer , Risoe WAsP
- Managing preparation of Environmental Reports for wind farms. I am familiar with planning application procedures and technical discussions with planning authorities,
- Dealing with consultee objections including radar (military and civil) and microwave link operators
- Construction engineering feasibility studies for wind farms including design of road layouts and some aspects of electrical infrastructure. Consideration of the requirements of Construction Design and Management regulations, UK.

Wind Energy – Construction

I have worked on wind farm construction for principal contractors and for project owners:

- Project management for construction of site roads, hardstands, foundations, drainage, landscaping
- Contract administration for wind farm construction
- Technical due diligence for project financing of wind farm construction
- Environmental management of construction phase including native vegetation management (Australia) and watercourse protection measures (UK),
- Health and Safety administration for sites,

Wind Energy Project Examples:

Project outline	My Employer / working for client	My role and responsibilities
Development of company Quality Management System	Confidential client	I was responsible for developing processes for quality control for this major wind project owner. This included working with suppliers of major equipment to ensure quality standards were met in relation to construction of a 192MW wind farm project in Western Victoria, Australia.
Construction of 36 x V80 turbines in Scotland	Alfred McAlpine / Airtricity	Initially assisting the operations manager/acting project manager on documentation, my role grew to encompass drainage and environmental controls, statutory consultee liaison as well as supervision of labour and plant
Construction of Woolnorth III,	Roaring 40s	I monitored progress and expenditure and administered the project budget. I also collated all project technical

Tasmania		documentation for submission to a 3rd party due diligence review as required by a lender bank.
Construction of 35 x 2MW Enercon wind farm, Mt Millar, SA	Powercorp / Tarong	As environmental officer, I monitored site works for impact on flora/fauna especially native vegetation. Managed re-vegetation contractors and offset project. Assisted project manager with OHS routine.
Design and development of a 40-50MW wind farm in central Scotland	Entec / United Utilities Green Energy, UK	I undertook layout design and feasibility work including design to minimize risks from existing site infrastructure (power and gas), and minimization of impacts to hydrology and noise at neighboring properties. I managed the preparation of an engineering construction feasibility study for the site.
Site design and Environmental Report for wind cluster schemes up to 5MW	Entec / NPower Renewables (formerly National Wind Power)	I managed the specialist studies and compilation of Environmental Report for wind clusters of 2 – 3 turbines, site design iteration and consultation with landowners and stakeholders. I controlled the farm layout design to minimize environmental impacts while maintaining energy yield.
Due diligence review of wind resource and potential energy yield for an Australian site	Garrad Hassan / Conergy Pty	I reviewed wind monitoring equipment and wind data quality, calculated comparative long term correlations, wind flow modeling accounting for forestry, energy yield and uncertainty bounds. The site is in New South Wales, 30MW.

Health & Safety Management

I have completed the taught component of the Certificate IV in OHS at VIOSH, the University of Ballarat. I am currently completing a number of workplace assignments over the next 6-12 months in order to complete the assessment.

I have formulated OH&S plans for construction sites and workplaces. I have good working knowledge of OH&S Regulations for construction sites as well as for the domestic building industry.

Training Courses I have attended	Trainer	Duration
CCNSG Safety Passport, Edinburgh Sept 2006	EDETA	2 days
Conditions of Contract – construction industry: Comparative review of types of contract and determination of disputes	Entec – external trainer	2 days
Certificate IV in OHS	VIOSH, University of Ballarat	12 months

Wave and Tidal Stream Energy

As a technical advisor to the UK Carbon Trust's 'Marine Energy Challenge' in 2004, I co-managed Carbon Trust contracts with engineering firms Atkins, Halcrow, Arup, Black and Veach and Det Norsk Veritas (DNV). These work packages were designed to establish viability of a range of wave and tidal stream device concepts, to engineer cost reduction into the promising concepts and to 'fast-track' the technology towards commercialization.

In respect of engineering design of marine energy systems, I have an understanding of:

- resource characteristics of wave and tidal stream energy
- device types and alternative power take off technology for wave and tidal systems
- lifecycle cost expectations for current marine energy technology

In terms of wave farm developments, I have relevant experience from the wind industry.

Wave and Tidal Stream Project Examples:

Project outline	Client/contractor	My role and responsibilities
Development of guidelines on application of offshore engineering standards for wave energy devices	Carbon Trust/DNV	Technical scrutiny of draft guidelines against needs of wave energy industry, facilitation of industry consultation exercise, management of contractor as required to achieve aims of brief.

		Arrangement of international risk assessment workshop for WaveDragon overtopping wave energy device, as part of design development and documentation
Tidal stream energy – resource and technology investigation	Carbon Trust / Black and Veach	Technical assessment of B&V reports aiming to discern whether the available resource justifies a UK manufacturing base in the tidal stream energy sector.

Renewable Energy in the Built Environment

I have experience in solar thermal, biomass heating, solar PV and heat pumps.
Details available on request.

RESEARCH PAPERS AND PRESENTATIONS

Forum	Paper
Efficient Development of Offshore Wind Farms, Workshop 2002, RISOE laboratory, Denmark	"Effect of tidal influence on offshore wind resource characteristics" presentation.
Wind Engineering Journal 2003	"Effect of tidal influence on offshore wind resource characteristics", Khan D, Infield D, technical paper.

PERSONAL DEVELOPMENT AND LEADERSHIP TRAINING

2004	Landmark Forum, UK
2005	Landmark Advanced course, New Zealand

From these personal development courses have gained improved confidence, communication and leadership abilities.