

PROFILE

Full version

Technical and creative design ability based on over 25 years practical hands on experience and accumulated knowledge.

Extensive and wide ranging comprehension of renewable energy, low energy, warm, cool building principles and techniques.

Project management, consultancy, systems design - integration, maintenance and trouble shooting.

An early contributor to the 'green' movement, self motivated with design, admin, people, customer and financial skills, to formulate, direct and manage projects.



Particular interest in sustainable development of 'appropriate technologies' within developing countries.

Balancing the ultimate aims of eco-nomic and socially responsible 'Sustainable Development' Whilst remaining viable within the context of an unsustainable financial system.

2005 - 2010

- SOLAR CYLINDER Design supply solar hot water heating systems/cylinder www.solarcylinder.co.uk
- RENOWN DESIGN ARTIST Creative Engineering Design www.amberhiscott.com
- WELSH ASSEMBLY GOVERNMENT Independent Consultant.

 Evaluation solar thermal installations to Government buildings via contracted consulting engineers:

 DALKIA -Marc Meecham.
- SOLCINEMA Worlds smallest solar powered mobile micro cinema.
 System design & install of solar PV, super efficient Hi Tech lithium ion batteries, modified charge Controller, remote relay switching to minimise weight and volt drops. www.thesolcinema.org/
- WELSH ASSEMBLY GOVERNMENT Welsh flagship the National Art Gallery.
 http://www.1worldsolar.co.uk/installation/commercial-installation.html
 Project management (for thermal) Ref: Jon Walker 0117 942 6668
- NATIONAL ASSEMBLY for WALES Government assembly building (2)
 104 square metres, 600 tube collector system with 8800 Litre storage
 Project designed via international consulting engineers DALKIA -Marc Meecham.
 Collaboration including integration with Satchwell Building computer Management Systems
- TESCO Swansea 24hr new mega store. 50kw Solar PV system design with DTI grant funding Contract in 3 way partnership with Bavarian engineering consultants UT Engineers and Hungarian installation contractor. Ref: Mr Mike Ward Tesco Store Development 01992 632 222

The above represent a nominal selection of the larger and more prestigious high profile undertakings and do not include the countless domestic and smaller projects





Benign Energy Engineering Solutions make SOLARSENSE®

2000 - 2005

ENERGYTECH

Designed & manufactured control systems for wind/PV street lamps for UK market. Ref: Rob Speht - Now with Matt MacDonald USA

- PRYA Talgarth, Powys Consultants under the government 'energy efficiency partnership' and subsequently as approved contractors to United Utilities: HYDER / SWALEC CHP Combined Heat and Power; 200kw electric/ 2MW heat - Biomass Boiler District heating loop and hot water systems to Victorian hospital 200,000ft2 Project sum circa £900,000 Project phases/timeframes orchestrated to smooth cash flow by coinciding with Grant subsidies approved under Carbon Saving Trust, vat returns and corporation tax offsets under UK 'Enhanced Capital Allowance Scheme'
- BEDZED 2001-2 London Mayor Ken Livingstone's "Zero Energy Development" Development of novel solar design to high efficiency thermal storage cylinders. Association with Architects Ove Arup, Heating engineers www.Heatweb.com Ref Richard Hanson-Graville FIOP www.peabody.org.uk/media-centre/factsheets/bedzed.aspx www.buildingforafuture.co.uk/winter01/bedzed.pdf
- WELSH DESIGN AWARD £25k Grant awarded for the development of only UK manufactured CONSOL 'pump stations' and development of SOLUX® roof integrated collector systems. Lowest 'embodied energy' Class B roof integrated collector in world (at the time) See 'Roof Integration' http://www.veryefficientheating.co.uk/solar/newsys.htm
- RIVERSIDE Developments Millennium Project in partnership with Tarmac& Redland Roof Tiles Design Manufacture Install 17 SOLUX® - social housing systems Liverpool. Ref Mr Stuart Gee: http://www.riverside.org.uk/riverside/riversideg/files/Regenerations%20for%20generations%202006.pdf
- ARENA Government Agency Wales: Installation contractor for numerous (24) wind/solar projects. http://www.arenanetwork.org (now Groundwork/ green dragon)
- **ELWA -** Sustainability and Energy reduction consultant to South/West Wales Government agency. Numerous feasibility studies to SME's including wind to Companies House, Cardiff, Toyota Swansea, Swansea University, Montagne Jeunesse (organic cosmetics)
- CITY FARM Swansea System design, supply, installation. Waste wood burner/ Solar thermal/ Condensing Boiler, Thermal store, Underfloor heating.

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1990 - 2000

• THERMIE - Installation contractor to EU commission project 'THERMIE'

Funded to demonstrate savings on large scale Solar Hot Water installations (100 Houses across South Wales) Largest domestic solar installation in UK (at the time)

Ref: Mr Phil Roberts - Gwalia Housing Development Director.

Ref: British Government Research Establishment/ Energy Saving Trust

See www.est.org.uk/housingbuildings ref - GIR88 THERMIE

including Installation of monitoring equipment & data downloading for

www.itpower.co.uk/Services/Renewable+Energy+Expertise/Consulting/Monitoring

 OCEAN CENTRE Design study commissioned by Swansea Council & Millennium Commission Swansea flagship sustainability project to celebrate year 2000.
 Solar Hydro Heat Pump from Bio Digester, Thermal buffers and Hydrogen energy Storage

• CAT - Centre Alternative Energy - www.cat.org.uk

Early contributor to the Centre Alternative Technology CAT since 1987

Including design input to Atiec; Britain's greenest building 2005

http://www.cat.org.uk/gallery/showpic.tmpl?matches=1&db=..%2Fgallery%2Fprojects.db&sku=32610&item=00s%3A+The+Ateic+building&x=65&y=75 Donation & installation of display control system to the solar thermal exhibit. http://www.veryefficientheating.co.uk/projects/centre_alt.htm

 EMMAUS PROJECT – Design Manufacture Supply; Consol/ SOLUX® for Low energy social housing project Moss Side Manchester. See 2nd 4th pictures http://www.veryefficientheating.co.uk/solar/commercial.htm

• ECOARC - System designers and equipment suppliers to RIBA eco-architects.

(click pictures on website for links) http://www.ecoarc.co.uk/

Zero CO2 Heeley city farm Zero CO2 York Eco Centre

Zero CO2 Gibson Mill Zero CO2 David Johnsons eco house (TV Series)

Awards Numerous . http://www.ecoarc.co.uk/awards.html including:

Built it & Fine homes magazine

Daily Telegraph house of the year

Queens award for sustainable development

UN Best environmental project

Dept of Environment & BRE

European solar design award 'Energy 21'

Ref Peter Warm www.buildingforafuture.co.uk

• EUROPE - Tour Motorcycles tour of European solar companies with Chris Laughton

MD: **Solar Design Co** and co-currently the chair of the **Solar Trade Association** and UK National Standards Committee for Solar Heating at the National Standards Body, **BSI**. http://www.solardesign.co.uk/about.htm Ref MD Chris Laughton

SWANSEA ENVIRONMENT CENTER Founder member Swansea City Council and Prince Charles
sponsored environment centre 1989 Key design input to the *Eco Café* Turf roof/ solar chimney.
Designed, supplied, installed solar hot water/ solar PV/ Under Floor with BMS boiler control.
http://www.environmentcentre.org.uk/

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1985 - 1990

- **HOME Gower Peninsular, South Wales** Relocation to design and build own passive solar eco-home. Self built (Personally = All trades) from recycled materials 1987-88 Timber Frame, Thermal mass, Wind & solar powered with DC battery storage and low voltage lighting. Grey and rainwater recycling
- **GREENPEACE** and **SURVIVAL INTERNATIONAL** Set up Bristol group. Securing Land Rights for Tribal and Rainforest peoples.
- AECB Early contributor to The Association Environmentally Conscious Building (Bristol pre '89) http://www.architecture.com/go/Architecture/Reference/Links_1654.html
- RECLAMATOR Solar PV powered recycling machine as used to sort cans bottles etc at public events.
 www.veryefficientheating.co.uk/projects/laughton98.pdf 'homepower' USA publication 1998
- SOLAR SHOWERS Built and ran the first solar showers at public events such as Glastonbury, Green Gathering
- CARPENTRY Carpentry 'facilitator' at www.findhorn.org Spiritual/education/ eco village Scotland circa 1987. Including early evolution of timber frame building methodology (1988)
- BRASTAKS: Contract Upholsterers' Bristol. From start up from zero to £250k pa 1985-86 Contracts; Rolls Royce, BRI Hospital, British Aerospace, Courage Breweries, Night Clubs etc