

The World Renewable Energy Congress Pioneers 2006

I have great pleasure in announcing the following names who will be honoured on Wednesday, 23 August at the Congress Banquet. The Pioneers of WREN are being honoured for their contribution to the world of renewable energy through their publications, teaching and promotion of renewable energy, and were chosen by the various Technical Committees.

Professor George Baird



Dr George Baird is a Professor of Building Science at the School of Architecture, Victoria University of Wellington, New Zealand where he specialises in building environmental science and engineering services. Following his engineering education at Glasgow University, he spent six years with the Building Services Research Unit there and completing his PhD. This was followed by a further six years as Lecturer in Building Science and Services at the Scott Sutherland School of Architecture, Aberdeen.

In 1975 he moved to the Victoria University of Wellington School of Architecture where he has been variously Director of Energy Research Group (1977-85), Dean of Faculty of Architecture (1986-89), Director of Centre for Building Performance Research (1990-93), Associate Dean Research (1993-96), Acting-Dean (1997-98). During this period has undertaken major research contracts for the NZ Energy Research and Development Committee, Ministry of Energy, Ministry of Works and Development, Department of Education, Energy Efficiency and Conservation Authority, and the Building Research Association of NZ

He has chaired Standards NZ Committees responsible for *NZS 4303: 1990 - Ventilation for Acceptable Air Quality* and for *NZS 4243: 1996 - Energy Efficiency - Large Buildings*, and was a member of Steering Committee for the Centre for Advanced Engineering's project on Energy Efficiency - a Guide to New and Emerging Technologies - published in 1996.

He is currently a Member of the Chartered Institution of Building Services Engineers (UK), a Fellow of the Institution of Professional Engineers (NZ) and of the Institute of Refrigerating Heating and Air Conditioning Engineers (NZ), and a Foundation Member of the Energy Management Association (NZ).

He was the recipient of a 1999 NZ Science and Technology Bronze Medal "For singular contribution to energy efficiency of New Zealand buildings and to building

performance research...”, the 2002 inaugural IPENZ Technical Award in the field of Energy Engineering, and a 2004 ‘Excellence in Research’ Award from Victoria University of Wellington.

Author or co-author of innumerable technical papers and case studies, his major book publications include: *Energy Performance of Buildings* (CRC Press, 1984), *Building Evaluation Techniques* (McGraw Hill, 1996), and *Architectural Expression of Environmental Control Systems* (Spon Press, 2001).

Professor Joe Clarke – University of Strathclyde



Joe Clarke is Professor of Energy Systems at the University of Strathclyde where he holds the post of Vice Dean (Research) within the Faculty of Engineering and directs the Energy Systems Research Unit (www.esru.strath.ac.uk), which is part of the University’s Institute for Energy and Environment.

His research addresses energy systems performance assessment, with the focus on the built environment and the related means of energy supply, both conventional and renewable. A feature of his research is the development and dissemination of simulation-based design tools that enable engineers, architects and planners to assess the energy, comfort, health and environment related impacts of energy systems at all scales – from a single wind turbine to an entire community with heterogeneous demands and supplies.

Further details on Professor Clarke’s activities may be viewed at www.esru.strath.ac.uk.

Professor Michael G Hutchins – Sonnergy Ltd.



Michael Hutchins was educated at Highbury GS, London, and the University of Nottingham and joined the Solar Energy Unit of University College Cardiff in 1977. He moved to Oxford in 1983 to teach physics and founded the Solar Energy Materials Research Laboratory. The Laboratory, now located at Sonnergy Ltd., is concerned with solar and thermal radiation conversion and control, manufacturing thin films and determining the optical properties of materials. Research

interests include smart materials and devices, transparent conductors, thermal signature control, selective solar absorbers, optical properties measurement techniques and tool development for window design and selection.

He is Previous Past Chair of the Solar Energy Society (UK-ISES) and currently is Head of the UK-ISES Secretariat. He is a member of the International Commission on Glass Technical Committee 10 “Optical properties of glass” and a member of the Editorial Board of “Solar Energy Materials and Solar Cells”. He served as Associate Editor for Solar Energy Journal and Editorial board Member of “Renewable Energy” and as Operating Agent for the International Energy Agency Solar Heating and Cooling Programme. He has taught in Oxford for 20 years and helped develop the MSc courses in Energy Efficient Buildings and Sustainable Energy Systems. He has worked extensively for the European Commission as evaluator for the JOULE, GROWTH Marie Curie and ENERGIE programmes.

He retired from Oxford Brookes University in 2004 and founded Sonnergy to provide optical properties measurement services to industry and is engaged in a range of research and consultancy projects addressing greater use of renewable energy and energy efficiency in buildings. In 2006 he coordinated the organisation of two major international conferences “REMIC-2” and “EuroSun 2006”. He continues to teach in the field of energy at Brookes and at London South Bank University where he holds the position of Visiting Professor.

Dr. Fred Morse



Dr. Fred Morse first became involved in renewable energy issues in the late 1960s when he served as Executive Director of the White House Assessment of Solar Energy as a National Energy Resource. Since then, Dr. Morse has become an international leader in promoting the development and use of renewable energy technologies. In his work at the US Department of Energy he played a significant role in defining and managing major solar energy R&D and commercialization programs. Dr. Morse is currently working with the California Municipal Utilities to aggregate their demand for solar thermal power (CSP) and with the Western Governors’ Association (WGA) to implement a 1000 MW CSP Initiative in the southwestern US. Dr. Morse is the Chairman of the CSP Division of the US Solar Energy Industries Association and co-chair of the WGA Solar Task Force.

Professor Robert E. Critoph



Bob Critoph is a professor in the Division of Civil and Mechanical Engineering of the University of Warwick. His first degree was in Aeronautical Engineering, from Southampton University but he went on to do a PhD in energy analysis also at Southampton. As a result of this work he was awarded the Institute of Energy Bone-Wheeler Medal.

He then worked in the Open University Energy Research Group as a Research Fellow, responsible for the design, construction and testing of a gas engine driven heat pump. From 1979 he has been at Warwick lecturing in Thermodynamics, Heat Transfer and Solar Energy.

His research is in adsorption refrigeration and heat pump systems, with uses ranging from solar refrigeration and air conditioning to gas-fired heat pumps. At present, his research team consists of two post-doctoral RA's and two PhD students and he has five active research projects worth £1.2.

He has been a member of WREN since 1990 and is a member of the Energy Institute and ISES.

Dr. Faiq Billal



Dr. Fairq Billal is Director of Science of the Islamic Educational, Scientific and Cultural Organization (ISESCO). He did his Ph.D in Biosphere Sciences from King's College, the University of London, UK. He received distinction in Master of Philosophy in Environmental Sciences in 1984 from Quaid-e-Azam University, Islamabad, which was awarded by His Excellency, General Zia-ul-Haq, the Late President of the Islamic Republic of Pakistan.

He also served as Scientific Adviser to the Ministry of Science and Technology, Government of Pakistan where he remained involved in initiation, processing, negotiation, signing and implementation of bilateral cooperative protocols on science and technology, with various countries of the South and the North and also supervised scientific activities of various UN agencies and other international organizations like, UNESCO, UNDP, UNEP, ESCWA, UNISDR, WHO, EEC, ECO, IEPF, COMSTECH, WREN etc.

Till now, Dr. Billal has supervised and implemented more than 500 Project and programmes in renewable energy, science and environment. He has authored various technical research papers, reviews and reports and presented papers on various important topics during many important international and regional meetings.

Dr. Ulrich Schmidtchen



Born 1956 in Berlin (Federal Republic of Germany)
Study of Physics at the Free University of Berlin (graduation in 1980, Ph. D. in 1986) with special focus on cryogenics and superfluid flow of Helium II, particularly under zero gravity.

Since 1986 member of the Federal Institute for Materials Research and Testing (BAM) in Berlin, Chemical Safety Engineering department. Work in the field of safe handling of pressurized gases and the equipment of pressure vessels. Since the early 90s work increasingly focused on safety of hydrogen applications, especially in the context of projects for using hydrogen as energy vector (fuel for cars etc.). Participation in numerous projects and other activities in this context.

Co-founder of the German Hydrogen and Fuel Cell Association (DWV) in 1996, since then member of the board. Editor-in-chief of the DWV website as well as of the DWV members' magazine *DWV-Mitteilungen* and the public newsletter *Wasserstoff-Spiegel*, of which an English version is available on the DWV website under the title *Hydrogen Mirror*.

Co-founder of the European Hydrogen Association (EHA) in 2000, member of the board.

Architect Cettina Gallo



She won “The Sun and the habitat” national award with the design of a passive solar school in Italy in 1980. Since 1983 she has been with ENEA (Italian National Agency for New Technology, Energy and the Environment), where she is involved with propagating the concept of bioclimatic architecture through publications, seminars, audiovisuals, building design etc. She co-ordinated the Exhibition of Bioclimatic Architecture with IN/ARCH (National Institute of Architecture) and with the collaboration of Bruno Zevi,

which was shown in 20 different countries around the world (Italy, USA, Israel, South America, Europe, India, Pakistan, China, Korea etc).and was initiator and director of “ECOENEA”, international magazine on sustainable architecture (diffusion 43.000 copies per issue).

In charge of the National Centre of Bioclimatic Architecture at ENEA (the National Agency of Energy and Environment), she was Chairman of the Committee on the Building Sector of the National Conference Energy and Environment (1998). She is Professor of the International Academy of Architecture and Professor of “Environmental Thinking” at the School of Architecture of University of Camerino (Italy) and of “Sustainable Urban Design” at the University of Venice.

She is a member of the UNESCO European Network on Renewable Energy Sources (EURONETRES) on the teaching of Renewable Energy in Universities, where she coordinates the Sub-Group on Solar Passive Architecture.

Dr. Barbara Farhar



Dr. Barbara Farhar has been directing research on technology/ society interactions and the diffusion of innovations for more than 25 years. A Ph.D. from the University of Colorado in sociology, she has gained national and international recognition for her work in energy. She is a Senior Policy Analyst and Senior Social Scientist with the National Renewable Energy Laboratory, Golden, Colorado, and Adjunct Graduate Faculty at the University of Colorado. She is the national expert on public perceptions and preferences on renewable energy in the U.S., particularly as it links with environmental policy. With more than 200 peer-reviewed publications, Dr. Farhar has published articles in *Science*, the *Annual Review of Energy and the Environment*, and *Public Opinion Quarterly*.

Dr. Farhar is currently finishing a landmark study of market acceptance of low-energy homes built by a large-production builder in San Diego, California. She has also investigated geothermal energy policy issues, assessed markets for renewable energy and energy-efficiency technologies, and managed research on perceptions and preferences on energy and the environment. She has also directed evaluation research and policy analysis for home energy rating systems and energy efficiency financing.

Dr. Farhar has also pursued professional interests in the relationship between gender and energy. She has participated in several international workshops on gender and energy issues in Senegal, the U.S., Italy, The Netherlands, and the United Kingdom. She has organized and participated in symposia on women and sustainable development and has published in this area. She has also served as a member of the

Advisory Board of ENERGIA, the international network on gender and energy. She has organized sessions and presented at the American Association for the Advancement of Science, the American Sociological Association, and numerous other professional conferences. She has testified before congressional committees. She is Phi Beta Kappa.