Editorial

This new IET journal could not be more timely with interest in renewable power generation at an all time high. In recent weeks the European Union has announced a significant increase in planned renewable energy capacity driven by agreed and binding commitments to CO_2 emissions reduction, and other major economic areas including China and India have recently announced similarly ambitious plans. In North America, the need for sustainable and clean energy is also being increasingly recognised.

I was approached by the IET late in 2006 to plan this exciting new journal, so you will appreciate that we have moved very quickly to publish this first issue. I'm extremely grateful to all the authors and referees that have helped in this, and also I'd like to record my appreciation to the IET team: Stuart Govan; Lee Baldwin and Charlotte Hammond, for their support and for cajoling me as necessary.

Of course there are many excellent journals out there covering renewable energy, in the main focussed on specific technologies; good examples are Wind Energy, Progress in Photovoltaics, and Solar Cells and Materials, and Solar Energy has been in print now for over 30 years. However, we felt there was a real need for a high quality, genuinely international journal, that covered the issues that arise when renewable energy generation sources are used, and almost invariably this means that they are connected to electricity systems. As the proportion of electricity generated from renewable sources increases, so the challenges of providing a sustainable, safe, reliable and cost effective power system operation become apparent. Considerable current research is aimed at these, in the main, technical challenges – much of this is unashamedly multi-disciplinary. I hope that *IET Renewable Power Generation* (*IET RPG*) can capture the best of this research and disseminate it to the increasingly numerous and active community of engineers and scientists both researching the problems and implementing the new knowledge and understanding in a commercial context.

I see *IET RPG* as something that I hope will be valued by the renewable energy community and electricity supply industry together, and provide an important bridge between these two communities. All those involved have a role to play in ensuring the quality of this journal, and through this its success and influence on an increasingly important sector of the economy and one key to a sustainable and environmentally sound future.

I am very pleased to report that the IET, in agreement with the European Wind Energy Association (EWEA), will publish, subject to peer review, the best expanded papers from their series of conferences that are directly within the scope of *IET RPG*. It is hoped that other renewable energy associations will agree to similar arrangements as we move forward.

Papers for this inaugural issue have been carefully selected to reflect the core values of the journal, and give a feel for its intended coverage. Of course this can only be partial and I hope to see a wide diversity of challenging research and development published in *IET RPG* in the years to come. I confidently expect the journal to grow in size and reputation alongside the sector it seeks to represent.

I'm confident that way we have organised the journal, together with the first-class peer review and rapid times-to-decision that we offer, will encourage many you to submit your work to *IET RPG*. Of course I welcome any suggestions or comments that will help to improve this new forum for your research.

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David Infield was born in Paris in 1954 but was brought up and educated in the UK. He has a joint honors BA degree from Lancaster University in Mathematics and Physics (mathematics being regarded with some justification as an art) and a PhD in Mathematical Physics from the University of Kent at Canterbury, UK. Following his PhD he joined the Building Services Research and Information Association (BSRIA), located in Bracknell, UK, to work on solar thermal systems. Then, from 1981 to 1993 he was with the Energy Research Unit at Rutherford Appleton Laboratory, Oxfordshire, where he managed UK Universities' Wind Test Site. In 1993 he moved to the Department of Electronic and Electrical Engineering at Loughborough University to found CREST (Centre for Renewable Energy Systems Technology). He also holds the position of Professor of Renewable Energy Systems within the department. For over five years he was Programme Director for CREST's MSc programme in Renewable Energy Systems Technology (see www.crestuk.org) and co-manages the European Masters programme in Renewable Energy run with the Brussels based EUREC Agency. He now has over 20 years research experience in renewable energy technology and his current research, which is focused on the electrical integration of wind and photovoltaic generators, is funded by the EU, the UK's DTI and EPSRC, and by industry. He also has a specific interest in building integrated photovoltaics (BIPV) and the more speculative area of building integrated wind. He has published many influential papers on renewable energy; represents the UK on a number of international committees, and regularly referees for the leading journals. He is a leading member of the UK Energy Research Centre that advises on UK energy research policy and is also a co-director of the UK's EPSRC's Supergen Programme on Highly Distributed Generation.