

## SOLAR 2013 – SCIENTIFIC & RESEARCH SESSION

### THURSDAY 23RD MAY

09:30 **1. HISTORY OVERVIEW – GARRY BAVERSTOCK AM WITH DAVID MILLS**  
Garry Baverstock AM, prominent solar architect/scientist along with world-recognized solar energy scientist, David Mills, gives an overview of how the Solar Energy Society, first as ANZSES and more recently Australian Solar Council has played a vital role in global renewable energy development. The presenters, both researchers and entrepreneurs, describe the history, the people, the places, and the events in half a century of committed development that converted the environmental and energy supply concerns of a few enthusiasts into multi-billion dollar low emissions industries. It has been a brilliant half-century of effort, but the job is far from finished. Greater brilliance than ever is needed during the next critical half century to ensure the survival of our habitat, our fellow travellers in the plant and animal kingdoms, and our uniquely human culture. The next half-century is likely to be the most exciting period for solar energy technology and industry in history!

10:00 **2. SOLAR PROGRESS – BILL PARKER WITH STEVE SZOKOLAY**  
By far the most successful solar energy journal over the last three decades, Solar Progress has kept everyone with a technical and business interest in the development and applications of solar energy completely up to date. Founded by prolific author and academic Dr Steve Szokolay, the magazine has undergone many transitions to suit the times. The longest serving editor, Dr Bill Parker has established the journal as a very readable and well-presented document. Bill will describe the journey, the landmark, and news breaking stories over the years and indicate how the emphasis has changed to suit the emergence of solar energy as a serious contender for the supply of energy in the 21st Century and the use of solar energy in all its forms as a possible saviour of the planet's natural environment.

MORNING BREAK 10:30 - 11:00AM

11:00 **3. SOLAR ARCHITECTURE – GARRY BAVERSTOCK WITH DEO PRASAD**  
Solar Architecture, a late 1960s term for buildings designed early by solar scientist/architects and engineers, has now termed sustainable architecture. From the 1970s Australian pioneering architects helped transformed the idea to mainstream thinking. Award winning WA architect Garry Baverstock and NSW academic Prof Deo Prasad will take the audience on a historical journey showing how concepts developed from solar design objectives to the master planning of urban settings and land subdivisions. The application of emerging solar technologies will show that the solar architecture journey still continues and will be most relevant for the 21st century.

11:30 **4. SOLAR ENERGY EFFICIENT BUILDING TECHNOLOGIES – WASIM SAMAN**  
One of the main drivers of architectural form is the technology adopted in the design of the building. Wasim Saman, the lead mechanical engineering researcher at UNiSA will follow the application of solar and low energy technologies of the past and how new advances in air conditioning and water heating. These new emerging systems set to spark a new era in building design.

12:00 **5. SOLAR WATER HEATING – GRAHAM MORRISON**  
Australia was a leading nation in the development of solar water heating. The past CSIRO chief, Roger Morse was instrumental in the 1950s in stimulating Australia innovators to commercialize the thermosiphon solar water heater. The now famous closed couple system followed with great success. Graham Morrison, Australia's foremost scientific expert will describe the successes of the past and how the setting of industry standards has helped this process and will drive a new wave of innovation in the future.

LUNCH BREAK 12:30PM - 1:30PM



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CONFERENCE & EXPO

Presented by AUPVSEE & Australian Solar Council

## 6. PV – RICHARD CORKISH

1:30 Martin Green from UNSW is a globally recognized pioneer on photovoltaic and his colleague Richard Corkish has been there through most of this groundbreaking journey. In the early days the costs and efficiency of PV cells was not in contention economically for the supply of energy in a viable manner. However, research and development carried out Australia assisted the industry globally, and through mass production in Germany and China, the cost is now at a viable level to contest oil and coal as a way of supplying electrical energy to domestic. Richard will trace the progress of this journey and predict the likely advances that will be made in the coming decades.

## 7. SOLAR THERMAL ELECTRIC – DAVID MILLS

2:00 ANZSES meetings heralded many smaller solar thermal electricity experiments from the 1970's onward that led to the development of pre-commercial dish and commercial CLFR installations and test fields of tower systems. Australia pioneered many elements of solar water heating systems since the 1950s, and Australia was the leading exporter of solar hot water systems for decades. David Mills will update the audience on latest advances and where the industry is now heading.

## 8. WIND POWER – MARK DIESENDORF

2:30 Wind is an indirect result of solar energy and for many years has been the most viable form of renewable energy. Mark Diesendorf for many years was a voice in the wilderness in getting the government to support the applications of wind power. The solar energy society became a venue for much of these efforts of presenting the latest research to support his case. The audience will be taken on a journey of the past to the present day and the likely future for wind power in Australia.

AFTERNOON BREAK 3:00 - 3:30PM

## 9. INDUSTRY CHALLENGES – MURIEL WATT

3:30 Since the early 1980s the solar industry, with all its diverse applications, has made very slow progress. The process of taking research ideas, developing technologies, and instituting industry standards and government regulations is a complex one. Muriel Watt is one prominent person, who throughout her career has taken great interest and professional involvement in the entire process. Apart from covering the past achievements of the industry as a whole and the role of PV, her presentation will be a straight forward expose on what challenges the industry faces in Australia and her recommendations about the best way forward.

## 10. FUTURE VISION FOR ASC CONFERENCES – STEVE BLUME

4:00 The solar industry has undergone many phases of development from the early days. In a way the first 50 years was a platform for the 21st century. As Einstein said, "one cannot apply the same thinking that got one into the problem in the first place". The same thinking is applicable to solar energy especially as the 21st century will require a new emerging clean energy economy. The way that the Australian Solar Council goes about its business has been transforming to meet these modern times. More needs to be done, but the principles of stimulating innovation; research and industry development remains similar. Steve Blume will explain why the Australian Solar Council needs to emerge more into the premier industry advocate, as well as keep a healthy dialogue with solar experts, academics and professionals to ensure that proven innovations reach the market place.

CLOSE 4:30PM