Editorial

Seeing through the blind spot

We all have a blind spot. It represents that part of the eye where the optic nerve meets the retina. Any light falling on that part will not be 'seen' by the brain because there are no photoreceptors at that point.[1] Not only do we all have a real blind spot, but most of us also suffer from the metaphorical variety. We fail to understand certain things, we just don't 'see' something – even though it's there. Unfortunately, when it comes to the subject of high-efficiency cogeneration and decentralized energy (DE), the blind spot is not uncommon. Just two recent examples indicate the problem.

In July 2004, the eminent Electric Power Research Institute (EPRI) in the US released a new report, *Distributed Energy Resources: Current Landscape and Roadmap for the Future*. It is a worthwhile analysis that reviews the prospects for DE, and comes forward with some constructive and innovative ideas that can only reinforce the future development of DE.

The analysis aims, among other things, to compare the costs of different DE generation technologies with a central generation alternative (a 500 MWe CCGT plant), and concludes that 'the fact remains that the total capital equipment costs for DE are expensive'. Its analysis gives costs in US cents/kWh based on capital, financing, fuel and maintenance. In other words, the analysis looks at *generated* rather than *delivered* energy, and it is not surprising therefore that the winner is the central plant, with all 35 DE technologies trailing. EPRI, like scores of other institutions that have undertaken such analyses, has not included the network costs. They should have; after all, the network is not free. If it had included network costs, several of the DE alternatives would certainly overtake the central plant. For this otherwise good analysis and for many other organizations, the cost of the network is a blind spot.

The World Business Council for Sustainable Development has undertaken an analysis of energy sector trends and issues in its *Facts and Trends to 2050: Energy & Climate Change*. This is full of clear information on social and environmental challenges that lie ahead, and the options for solutions to meet those challenges. It lists the key options as follows:

- a further shift to natural gas through CCGT plants
- nuclear energy
- renewables
- bio-products
- carbon capture and storage
- advanced vehicle technologies
- end-use energy efficiency measures.

Here, the blind spot that is not seen is the option for increasing efficiency in the generation of electricity, heating and cooling through cogeneration. It is not mentioned once, anywhere. Again, this is an omission that one sees constantly in energy strategy reviews which focus on nuclear power, CCGT (without heat recovery), renewable energy and end-use efficiency. This is not to say that these other options are not legitimate, but that the review omits a highly important potential solution.

These are just two examples from recent publications that, bar the blind spots, are pretty good reports. There are other examples appearing all the time. The onus, therefore, is on our industry to get our message across even more intensively. But let's do it properly – without any blind spots.

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1. For an interesting demonstration of how to find your own blind spot, go to: http://serendip.brynmawr.edu/bb/blindspot1.html