by Steve Kidd

uclear industry people often rest under the illusion that their business is the only one under attack by strong opponents, engendering a feeling of isolation and supreme defensiveness. Far from it — these days no industrial sector gets an easy ride with public opinion. Under the umbrella of corporate social responsibility (CSR), all industrial sectors must justify their activities in terms of their environmental and social impact. The presumption today is essentially "guilty until proved innocent". But are things really so bad and the efforts made to sway both national and international public opinion really worthwhile? The answers are probably no.

If we look at the United States, it is clear that the vastly improved public perception of nuclear power has its roots in the superb operating performance of the 104 plants in recent years. Producing large quantities of electricity cheaply, safely and with due regard for the environment is far more effective than any fancy communication strategies. It is only when things start to go wrong at the operational level that the public becomes interested. The incidents at two German plants and the earthquake in Japan in 2007 demonstrate the need for good management of public opinion and "crisis management".

Indeed until recently, the general public has shown little interest in energy matters. It's only when there's a looming crisis, such as a threat of the lights going out or huge price escalation and queues at the gasoline pumps, that people get highly upset and put pressure on industry and the politicians. The 1980s and 1990s were a relatively quiet period for energy, so most people today haven't many strong and well-developed opinions about particular fuels or national strategy. Yet it's probably the relationship between energy use and the environment which has begun to touch the general public's consciousness most deeply. Climate change and potential global warming have been a gift to the environmental movement, as they present a more credible apocalypse scenario. Most sensible people recognise that the other fears they have stirred up are largely groundless, as economic progress generally leads to a cleaner environment.

Putting nuclear power into this perspective, there are clearly concerns in the public mind about the weapons link, over proliferation coming from the civil side of the industry and a general fear about possible radiation releases from operations. We can put much of this down to an irrational evaluation of low risk but high consequence events, but this is something the industry has to live with. The number of people who have a hardened belief against nuclear and are difficult to sway are fortunately relatively few. That many people haven't had to think hard about energy matters for some time also suggests that opinion can easily be influenced one way or another.

Unfortunately we cannot rely on politicians to demonstrate much leadership in nuclear matters. We know from bitter experience that they prefer to "sit on the fence" when it comes to issues which can excite even a very small part of their electorate, as losing these committed votes could be crucial in a tight election. So they rely on focus groups and tend to be led by the public rather than vice versa, arguably the opposite of what they're supposed to do. Climate change, however, provides an ideal opportunity for nuclear to be seen in a new light by those who have some general, but not deep-seated, concerns about it. Presenting it as a green and friendly technology is going to take time, but the message that nuclear emits few greenhouse gases seems to be slowly getting across.

Many of the problems the industry has with public opinion can be blamed on the sins of the past. Arrogant spokespeople, talking down to their audience and not being open with important information is a legacy the industry has taken a long time to shake off. Society itself has now changed substantially and nuclear must fit in with this. The 1940s to the late 1960s were characterised by state provision, deference and a belief that the application of science could bring the greatest good to the greatest number. But from the 1970s onwards, self-reliance, distrust of science and assertion of individual rights irrespective of the common good have become prominent. Nuclear power doesn't sit easily with this, as it relies on a degree of state involvement (at the

very least in setting a framework for its operations in licensing, regulation and waste management) but is at last learning to exist within a climate of competitive power markets and private ownership.

The best examples of winning over people in today's world come from specific examples of planning new facilities, rather than attempts at general persuasion. In essence, public opinion is local and has to be handled in that way. The siting of the waste repository in Sweden and the 5th Finnish reactor serve to demonstrate that careful work with local people can bring huge dividends. The need for the new facility must first be shown convincingly, and then the public brought into the full process with the provision of clear information and opportunities for consultation. Local people must be respected as the experts in local matters and should ultimately have the final veto on the project. The companies concerned must be seen to be interested in more than profits and be seen to have the interests of the local area and the wider country at heart. Indeed, nuclear facilities offer well-paid and secure jobs for many years in the future and have widespread economic impacts beyond the immediate capital investment.

The provision of clear and accurate information about nuclear power has been identified as an important weapon in winning the public over. Whilst knowledge is clearly better than ignorance, this approach has some limitations and cannot be expected to achieve very much in the shorter term, particularly in the shorter term. An obvious observation is that some of the strongest critics of the industry are actually very well-informed. Indeed, the best website on uranium mining throughout the world is run by WISE, an anti-nuclear organisation. So there must be a lot more to it than the facts. Beliefs and values are arguably even more important than solid information.

If you've taken in an argument by emotional appeal (e.g. nuclear power is evil), you're unlikely be swayed by facts that counter that belief — indeed, the opposite may in fact be the case. It will take a lot of time and effort to overcome an anti-nuclear message entrenched in minds for many years. The messenger and the way the message is delivered are clearly also very important considerations, hence the search for credible third party advocates. Industries are seen as essentially self-interested by a cynical public — "they would say that, wouldn't they" — but prominent environmentalists such as James Lovelock and Patrick Moore are worth their weight in gold when they speak up in support of nuclear's importance. But it's still an uphill battle and some people will never be persuaded. Indeed, nuclear power embodies all that some groups hate about the modern world — the application of science, big government and large organisations globalising production. Their deep arrogance rather mirrors that of some misguided early nuclear pioneers — they feel they alone are saving the world for the rest of us.

Finally, it should be accepted that the use of language is also very important. We suffer today for some crucial errors of the past. If you ask anybody which words they associate most with "nuclear", they will inevitably say "bomb", "explosion" or "war" and not "power". Had nuclear power alternatively (and more correctly) been designated as "fission power", the difficulties over public approval would undoubtedly have been rather less. So it's wise to be take care in what you casually say, as people are receiving messages beyond what you immediately intend.

The other obvious example is carelessly calling everything coming out of the back of a reactor "waste". This ensured that there would have to be a quick solution found as liabilities should not be passed onto future generations. As an alternative, referring to "used fuel" would have highlighted its potential economic value, so the time period could potentially be much-expanded (under the guise of passing on an important asset, rather than liability, to future generations). Other nuclear terms such as "fast breeder" are less than ideal from the public perspective, conjuring up images of sinister Dr Strangelove scientists at work, whereas others, such as "pebble bed" seem more benign. It's not necessary to bring in highly-remunerated image consultants, but some thought of the impact of new terms on public opinion should ideally be taken.

In conclusion, experience has taught us that there are a number of ways in which we can contribute to the industry obtaining a more favourable public image. Yet the most important remains carrying on operating the existing nuclear power plants as well as possible and putting this simple message across. Beyond this, good locally-based communications work and detailed plans for crisis management are also essential.

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Views expressed are not necessarily those of WNA or its member companies. His recent book, entitled "Core Issues-Dissecting Nuclear Power Today," is published by Nuclear Engineering International. Website: www.neimagazine.com