

Fuelling the future

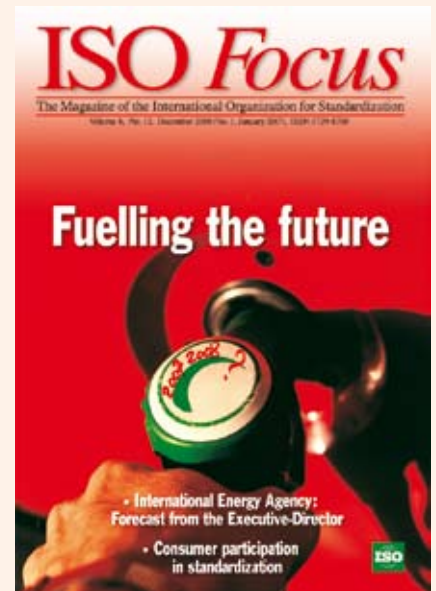
(December 2006/
January 2007)

“Fuelling the future” takes a standardization perspective on both alternative energies like wind and solar power and more traditional energies such as coal, oil, natural gas and grid electricity. The articles making up this December 2006/January 2007 *ISO Focus* issue examine

energy sources as varied as nuclear energy, biofuels, cogeneration, and the potential of hydrogen.

Vital for the measurement of energy systems, standards are also crucial to achieving emissions reductions through energy conservation. This feature illustrates how International Standards can help achieve energy efficiency in a global economy.

The Executive Director of the International Energy Agency, **Claude Mandil**, shares his insights on the development of international carbon markets and how ISO standards for environmental management systems facilitate reporting for companies seeking to understand their carbon “footprint”, as well as reporting for legal obligations.



Claude Mandil

Mr. Mandil is currently serving a four-year term as **Executive Director of the International Energy Agency (IEA)**, based in Paris.

This post is a culmination of his commitment to international cooperation in energy affairs, in parallel with his career as a distinguished French civil servant.

While serving as Director General for Energy and Raw Materials at the Ministry of Industry, Post and Telecommunications 1990-1998, Mr. Mandil was instrumental in arranging for France to become a member of the IEA in 1991 and served as the IEA Governing Board Chairman from 1997 to 1998. During this time he also represented France at the Nuclear Safety Working Group of the G7, 1991-1998.

Before joining the IEA in 2003, Mr. Mandil was Chairman and CEO of the Institut Français du Pétrole and, previous to that, Managing Director of Gaz de France. Earlier posts have included Director General of Bureau of Mines and Geology (BGRM) 1988-1990; CEO of the Institute for Industrial Development (IDI) 1983-1988; and Technical Advisor in the French Prime Minister's cabinet, 1981-1982.

Mr. Mandil is a graduate of France's Ecole Polytechnique and Ecole des Mines.



© IEA

“In the case of energy-using products, it is vital that common measurement and performance standards exist so that the relative energy efficiency of a product can be made visible in the market place.”

ISO Focus: *What are the goals and mission of the International Energy Agency (IEA)? How have these changed since the Agency's creation during the 1973-1974 oil crisis?*

Claude Mandil: The initial mission of the IEA was to manage, on behalf of its Organisation for Economic Cooperation and Development (OECD) member countries, the strategic stocks of oil and to release them in a coordinated manner in case of supply disruption. It is still our core mission.

Last year the IEA released stocks after the hurricanes devastated the south of the US. Our scope has broadened since 1974 and we now act as a think tank and advisor to our member countries, and increasingly to non-member countries as well, to help their governments in designing more efficient, secure and environmentally friendly energy policies.

ISO Focus: *A sustainable future for energy policies means decreasing our dependence on oil and lowering/reducing greenhouse gas emissions and, in order to achieve this, the IEA undertakes activities related to energy technology innovation. Can you explain this?*

Claude Mandil: In the long term, the IEA finds that energy technology breakthroughs will be necessary to ensure sustainable development. We have recently published an assessment of technology research and development analysing which technologies should be obtained to meet the challenges the world faces (Energy Technology Perspectives, IEA, July 2006). Progress is expected mainly in lower cost renewables, advanced nuclear and carbon capture and sequestration.

ISO Focus: *What is the role of standards in the successful dissemination of innovation and good environmental practices?*

Guest View

Claude Mandil : Standards have a key role to play in the dissemination of good environmental practice not least in the energy sector. They fulfil multiple functions in that they ensure that matters, such as energy, which impact the environment, are measured in a common and comparable way, but in addition they provide a blueprint for companies to follow regarding the items that need to be considered when addressing the environmental impacts of their activities.

For example, in the case of energy-using products, it is vital that common measurement and performance standards exist so that the relative energy efficiency of a product can be made visible in the market place. This not only enables consumers to see if a product is more efficient than a competitor and hence to factor this into their acquisition decision, but also allows manufacturers to differentiate their products.

Standards are thus a vector that adds value into the market in a beneficial way for producers and consumers. The existence of standards addressing energy management in industrial processes is another area of great importance because it not only allows industry to measure and manage their energy use, but also provides a framework in which to consider the topic.



© IEA

ISO Focus: *The IEA has been mandated by its member countries to provide analytical work on the energy dimension of climate change and the implications of the United Nations Framework Convention on Climate Change (UNFCCC), and its Kyoto Protocol, on the energy sector. How do you expect the new ISO 14064 and ISO 14065 standards to contribute to the development of emission trading, and how do you foresee this market developing? How do you see developing countries benefiting?*

Claude Mandil : With the rapid development of the European Union (EU) emissions trading scheme and the impetus that it gave to the international carbon market, all stakeholders needed a common reference for the inventory of greenhouse gases, emitters and observers alike.

Several billions of euros have changed hands on carbon markets in 2006, and more is expected in the future, in spite of the ups and downs of the price of EU CO₂ allowances.

Whether inventories are used on a voluntary basis by companies seeking to understand their carbon “footprint”, or to comply with new and upcoming greenhouse gas legislation, the ISO 14064 and ISO 14065 standards provide both some confidence and, I suppose, some economies of scale in the reporting activity, while facilitating review with a common format.

The international carbon market is developing rapidly, and a number of state-level initiatives may lead to new carbon markets outside the perimeter of the Kyoto Protocol (namely in the United States and Australia).

The issue of whether and how all such initiatives can be linked together, including with the Kyoto trading mechanisms, to establish a broader international carbon market is gaining attention. An international standard for measuring and reporting greenhouse gases (GHG) is naturally a useful step towards this goal.

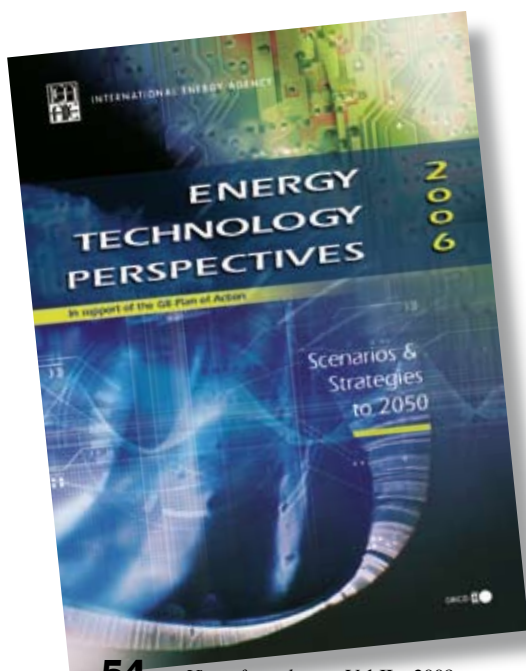


© IEA



© IEA

For now, developing countries are only engaged in the carbon market via the so-called Clean Development Mechanism, which seeks to encourage greenhouse gas reduction projects via the payment of certified emission reductions. An accurate and easily verifiable inventory of greenhouse gases related to such projects is an essential component. It is our understanding that the ISO 14064 and ISO 14065 standards will support such activities.



ISO Focus: In addition to the ISO 14000 family of standards for environmental management systems (EMS), ISO develops a broad portfolio of International Standards for the protection of the environment, from renewable energies to increasing energy efficiency. Can you explain how these environmental standards could bring added value to governments and businesses and what your expectations are of ISO?

Claude Mandil: In being the best known and most internationally recognised, ISO and IEC standards are natural instruments for business and government to use to articulate common technical and performance issues including those touching energy and environmental performance.

In essence they allow both government and business to be looking at the same issues in the same way and to apply a common methodological and accounting framework to address these themes. This is very valuable because it advances the discussion between government and the private sector from what we are measuring

and talking about to how best to marry our overlapping concerns.

As ISO has such a key role to play, I trust that it will continue to develop and manage its existing standards portfolio to ensure that all pertinent areas requiring international energy and environmental standards are covered and that existing standards strike an appropriate balance between public policy and commercial needs.

As standards are increasingly being used in key policy instruments addressing energy and the environment, it is essential that government should invest suitable resources in ensuring their quality, relevance and integrity. I therefore hope that an ever wider group of countries will participate in the development and maintenance of ISO and IEC standards that efforts are

“ISO and IEC standards are natural instruments for business and government to use to articulate common technical and performance issues.”

made to ensure they continue to correctly reflect the parameters they are intended to and that full use is made of their power to align societal and commercial goals.

ISO Focus: You said on your return from the G8 Summit in St. Petersburg that “the IEA welcomes the G8 focus on energy security and is honoured to support this global effort”. What, in your opinion, are the challenges faced by IEA member and non-member countries – such as China, India and Russia – in achieving energy security; and what key actions need to be taken to address this issue? Is there a role for ISO?

Claude Mandil: Energy security can be achieved through a mixture of policies: investment, diversity, energy efficiency improvements, data transparency, without forgetting a safety net such as the IEA emergency system. More investment is a key requirement. ISO can play a useful role in helping bring the investment costs down through better standardization. ■

