

Increased Attention to Hydrogen Technologies in Mexico

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The international movement to increase the efforts toward the implementation of hydrogen technologies and gain the promised benefits, has also reached Mexico. For many years the potential of hydrogen as a major component in the Mexican energy scene has been acknowledged by the academia in this country. Some research groups in Universities and National Labs have worked in related topics that range from electrocatalysis and other electrochemical areas to materials development and engineering for many years. Since its creation in 1999, the Hydrogen Mexican Society (Sociedad Mexicana del Hidrógeno - SMH) has promoted the potential benefits that the inclusion of hydrogen in the Mexican energy sector could represent. The SMH has organized 4 annual meetings mainly with a technical focus. Nevertheless, the SMH is also aware of the importance the different sectors of our society have in considering a change of the expected magnitude if hydrogen enters in the energy scene. The roles these sectors have to play relate to technical and educational, political, as well as investing while creating business opportunities. With this in mind, the SMH has also included on its agenda the organization of discussion meetings where academia, government and private sectors, as well as the public are brought together to exchange ideas and opinions as to whether or not Mexico should be looking into hydrogen as a component within its energy strategy. So far so good. Despite the fact that Mexico at present does not enjoy a reputation as technology developer, it is well recognized that opportunities of participation in the technology world by Mexican institutions are big, given the present technological status of hydrogen related technologies.

While many laboratories in the country keep working to contribute in the advancement of knowledge in the different hydrogen-related fields, the Mexican Secretariat of Energy (SENER) has paid attention to what organizations such as the SMH are talking about. Last November 2004 the Secretary of Energy received representatives from SMH, from the Electricity Federal Commission (state-owned electricity company) and from the National University to listen to an initiative of having a Hydrogen National Program in coordination with SENER and other institutions. SENER has taken lead in organizing with those institutions meetings to establish a national plan to take advantage of the potential benefits of hydrogen in Mexico. It is well known that developing countries represent large markets for new energy technologies for such countries have with the largest energy requirements growth. Also SENER has expressed its interest of having Mexico join the IPHE initiative. The National Science and Technology Council has recently expressed its interest in supporting the formation of academic groups and networks to promote R&D activities related to hydrogen and fuel cells. A hydrogen bus demonstration project is in progress in Mexico City that hopefully will increase awareness of hydrogen technologies among the public in the world's largest city.

While Mexico could play an important role especially as technology user to help solve problems like extended pollution in urban areas, it can also make better use of its resources, both fossil and renewable. Transport for example can be the first major Mexican beneficiary of hydrogen technologies, either fuel cells based or even with IC engines buses burning for example hydrogen. In any case Mexico wants to jump onto the hydrogen highway but it should do it promptly and its strategy will have to consider the experiences of other countries, and carefully define how it envisions the use of hydrogen, the potential barriers to achieve its goals and acknowledge the existing technical challenges.