

WATER-ENERGY FORUM

'Brought to You by Chamber of Eco Commerce'



To contribute to the Water-Energy challenge, the **Chamber of Eco Commerce will host a series of Water-Energy Forums** that will bring together new technology experts, leaders, and learners. These forums will bring face-to-face innovators, investors, and business and policy leaders, to discover alternatives to the conventional solutions, discuss new partner projects, and exchange success stories of the water-energy nexus.

Water-Energy Nexus

The competition between water and energy needs represents a critical business, security, and environmental issue, but has not yet received the attention that it merits.

Energy production consumes significant amounts of water; providing water, in turn, consumes energy. In a world where water scarcity is a major and growing challenge, meeting future energy needs depends on water availability –and meeting water needs depends on wise energy policy decisions. Competition for water among municipalities, farmers, industrial and power suppliers is already evident in a range of locations, particularly in the Southwest United States but also around the world.

As **water tables decline**, the Organization for Economic Cooperation and Development estimates that 2.8 billion people—nearly half of the world's population— live in areas of high water stress, rising to 3.9 billion by 2030 if present trends continue. As cities grow, municipal water demands will increase. As populations rise and increase their consumption of meat, agricultural competition for water will intensify.

In the United States, generating energy consumes 20% of the water not used by agriculture. Rising demand for energy—both conventional and alternative— has the potential to significantly increase water consumption. As energy producers and consumers seek to reduce carbon emissions, water consumption frequently rises because many cleaner forms of conventional and alternative energy are potentially more water-intensive. Both traditional and renewable energy production are evolving toward potentially more water-intensive technologies, which risks adding to demands on water resources. New energy technologies are being developed to reduce water consumption. However, they are generally expensive, can reduce energy efficiency, and will need time before they can be commercially available at scale.

Now—as new energy policies are emerging - is the window of opportunity to add water to the agenda. Nations around the world are evaluating their energy options and developing policies that apply appropriate financial carrots and sticks to various technologies to encourage sustainable energy production, including cost, carbon, and security considerations. Water needs to be part of this debate, particularly how communities will manage the trade-offs between water and energy at the local, national, and cross-border levels. These decisions will impact businesses, investors, security, environment, justice, development, and sustainability. Policy makers, business leaders, investors, non governmental organizations, and the public at large need sound, non-partisan information to make the right choices. However, information about the water-energy nexus is often fragmented, weak and incomplete, difficult to compare, and filled with jargon. Inaccuracies in media reports are common because of gaps in understanding of the dynamics of the interaction between water and energy. Muddling the debate further, proponents on all sides of energy debates sometimes selectively choose (or even mischaracterize) data to their advantage.

Source: The Water-Nexus Report, March 2011, The World Policy Institute.