Water and Finance: Investment Insight 1.0

This is the first in a new series of investment updates for the water sector. In addition to the Chief Liquidity Series briefing documents, it was thought a briefer, trimonthly newsflash highlighting recent trends and news items concerning water related risks and opportunities in the finance sector would be a useful addition from UNEP-FI to the WFWS. We welcome your own suggestions for key issues to include in this regular update. Please contact margot.hill@unep.org.

Water Risks in Solar Thermal

A number of new stories have recently highlighted the acute water risk in for solar thermal projects. While a push towards solar thermal projects has been seen in many countries, the highly promising technology also consumes large amounts of water to not only cool the steam driven turbines, but also to keep the reflective panels clean. Photovoltaic power plants, which mount solar panels in large arrays on the ground, use considerably less water but are more expensive and less efficient. Other technologies focus mirrors and a tower to produce high temperature steam, just as solar thermal farms to, but use ‘dry cooling’ (fans and heat exchanges instead of cooling towers) to cut water use.

In Nevada, fierce local opposition force German solar developer Solar Millennium to change its plans for using up to 1.3 billion gallons of groundwater per year for cooling its solar power plant, to switch to a dry cooling method, despite losses in efficiency and rises in costs. While in California, Tessera Solar has had to buy ten times the amount of water rights than the 12 million gallons per year required by the plant because the aquifer is so depleted, just to retire the pumping rights to the water it does not use.

The town of Perth in Western Australia has implemented a large scale water recycling system where treated domestic wastewater is used in cooling towers for a large power generation plant. It is located in Kwinana, and the contact to find out information about operation would be the Western Australian Water Corporation.

Links to further stories:
Solar Developer Abandons Water Plans: New York Times
Massive $1 Billion Solar Thermal Plant Planned in Australia: Inhabitat
**Energy Water Use**

A recent survey by the US Geological Survey has shown that while water use has dropped due to improved efficiencies in the domestic, agriculture and industrial sectors, water use for the provision of energy (from fossil and renewable sources) is still rising. As population and energy demand continue to grow, increased stress on already limited water resources is set to worsen.

*Power Thirsty?: Planet Positive*

**CEO Water Mandate**

The fifth working conference of the CEO Water Mandate took place at the UN Global Compact in New York in June. The conference is designed to shape and advance the work of the initiative’s three current focus areas/workstreams: water policy engagement, corporate water disclosure, and water and human rights. Recognizing that business, government, and civil society share a critical interest in reducing water-related risks through common solutions, on June 10th the UN Global Compact’s CEO Water Mandate released a Framework for Responsible Business Engagement with Water Policy to facilitate effective water policy engagement.

CEO Water Mandate: [UN Global Compact](http://www.un.org/), [UN Global Compact](http://www.un.org/)

**Bulk Water Exports**

*As demand for freshwater increases globally, a few companies and water-rich countries envision water shipped in large tankers designed for oil as the next big supply-side solution. Sitka and Alaska Resource Management LLC, the partnership formed by the two companies, are seeking to be the first to introduce bulk supplies of freshwater, transported in huge tanker ships, as a new commodity in global trade.*

Links to further stories: [Circle of Blue](http://www.circleofblue.org/)

**Australia**

Australia’s five largest cities are spending $13.2 billion on desalination to remove salt and yield potable water. But desalination is also drawing fierce criticism and civic protests. Many homeowners, angry about rising water bills, and environmentalists, wary of the plants’ effect on the climate, call the projects energy-hungry white elephants. Stricter conservation measures, like mandating more efficient washing machines, would easily wring more water from existing supplies, critics say.

*Arid Australia Sips Seawater, but at a Cost: New York Times*
Swiss Initiative to Fund Infrastructure Projects Related to Water

This fund aims to involve the producers of certain goods that have high water footprints (e.g., gold or wheat) and distributors of drinking water which would deliver 40 litres of water/day/capita to poor populations. This project would be financed by the agricultural and industrial sectors that up to 70% and 15% of water consumption, respectively. Valérie Issumo is the founder of the project and has been working for 15 years in the trade of soft commodities.

Marché à terme éthique de l’eau Initiative suisse pour financer des projets d’infrastructure en eau. Read the full article (in French) here.

Water Risk Index

Water scarcity is an emerging challenge with potentially significant implications for water-dependent industries such as power, food and beverage, mining and manufacturing and others. The Water Risk Index is a tool for companies to measure, map and manage water risks that are geographically defined (i.e. ambient). The Water Risk Index builds off the WBCSD’s Global Water Tool by further localizing water risks in specific watersheds. Thus it offers:

- higher resolution, i.e. more data at the local level of sub-basins and administrative units
- wider coverage: it goes beyond physical water scarcity (i.e. access risk) to also include regulatory and socio-economic drivers of cost and disruption risk
- predictive capability: it tracks and projects trends for all risk indicators

Water Risk Index: providing local context for a global issue. Please contact Piet Klop or Jeff Rodgers of the WRI [pklop@wri.org or jrogers@wri.org] if you would like more information regarding The Water Risk Index.

OTHER IMPORTANT NEWS

Members of the Water & Finance work stream are invited to attend UNEP FIs side event at the World Water Week in Stockholm on September 6th. There will also be a private meeting at Nordea for all members present. Please indicate if you require further details or if you will be attending.

UNEP FIs AGM will take place on 12-13th of November 2010. All members are invited to join as there will be a separate Water & Finance session on 12 October in the morning. Please indicate if you will likely be attending.