

## MARKET INTELLIGENCE

### INTERVIEW WITH DAVID ARISON: PERFORMANCE-BASED FINANCING FOR WATER PROJECTS



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Over 35 percent of the drinking water produced in the region is lost in the distribution systems. David Arison, controlling shareholder of Miya and Bank Hapoalim, offers a way out.

In 2012, the water company that served the city of Nassau, and the surrounding New Providence Island, was unable to meet the needs of its 250,000 clients, a major problem since that's, roughly, 70 percent of the total population of The Bahamas. The Water and Sewage Corporation (WSC) ran a costly and inefficient production and distribution process which caused daily shut-downs, and a poor all-around service.

"WSC was contemplating expansion of its production facilities by 2 million imperial gallons per day (Migd) to meet rising demand and water losses," Philip Davis, Deputy Prime Minister and Minister of Works and Urban Development of The Bahamas, told Latin Trade.

Instead, the municipality fully outsourced the service to Miya, a subsidiary of Arison Investments, which also controls Bank Hapoalim, the largest financial services group in Israel.

The business philosophy of the Arison Group is one: "Doing good is good business," said David Arison, Vice President of Global Business Relations at Miya, and member of the board of Arison Investments, in an interview with Latin Trade.

Miya's approach to the problem was to reduce losses and optimize processes to make the operation financially viable, while improving living conditions of users and protecting the environment.

Miya estimated the value of the desalinated water distributed by WSC, which was not paid by users. Non-Revenue Water (NRW), as they call these losses, amounted to 60 percent, Arison recalled. "In 2012 when Miya began its studies and developed its NRW reduction strategy, water losses were almost 7 Migd. In 2013 when they started implementing the reduction strategy, NRW had continued to increase to the point where WSC could only maintain supplies for about 16 hours," Minister Davis said. "By the third quarter of 2013 the benefits of Miya's intervention were already beginning to be realized, and by the end of 2014 losses had been reduced by 1.4 Migd, WSC had saved about 1 billion gallons of water, and production challenges were history."

Under Miya, performance gains are crucial since this 10-year, \$83-million project, only received partial funding in the form of a loan from the Inter-American Development Bank (\$56.1 million according to the Bank,) and the rest would have to be financed with the savings generated by the project itself.

Miya strives to always achieve the best possible social and environmental impact. In their Bahamian project, within 8 months, water supply was back to 24/7 and pressure increased so that the service was notably improved. Two years later, water production for the optimized system was cut by 20%. This allowed the implementation of more comprehensive maintenance programs and to have the possibility to execute the plan in an orderly and timely manner, said David Arison.

By the end of 2015, Miya achieved the production and quality targets set for the end of 2016, which will allow even more flexibility. "At the end of the contract, it is expected that 10 billion gallons will be saved and the project would have paid for itself," Davis added.

### **The Latin American dimension**

Arison places at 30 percent the world average of fresh water that leaks out of the distribution systems. The problem in Latin America and the Caribbean is greater as its average is well above 35 percent.

Water management problems in the region differ from country to country. While Colombia might have abundant water supply in most of its geography, Caribbean islands have to deal with high cost of desalination, Arison illustrates.

Miya's approach is to provide individual utility companies with tools and skills to deal with water losses. It's a combination of precise engineering modeling, leak detection, selective pipe replacement, and community awareness and engagement. This method becomes more valuable as rainfall patterns change due to global warming. In some cases rainfall will never fill the reservoirs at their current locations, Arison warns.

Managing water distribution is not a simple task. Leak detection, for instance, is complicated due to the fact that 95 percent of the leaks do not surface. In spite of this, utilities should have to be able to reduce leakage at least to an economically optimal level—a point where it would be more expensive

to replace ducts than to allow for the loss of water. Miya provides them with measurement devices, better data, and better billing systems.

Community engagement is yet another piece of the solution. In New Providence, Miya trained schoolchildren on techniques to reduce their water consumption in the household. Their bills were cut by 20 percent.

The result did not come as a surprise. In Sao Paulo, Miya led a water optimization project in 671 public schools. In this program for Sabesp –one of the largest utilities in the world by population served- Miya upgraded infrastructure and trained students in water conservation. As a result, consumption decreased by 30 percent - instead of the originally planned 10 percent-, and saved 123.5 million liters of water per month. Also, a positive ROI was achieved in 15 months, the company reported.

A third of the Brazilian project was to be paid based on performance, an option which has to attract mayors who want to develop costly and long term water management projects. Financing is not always easy. Until the Bahamas project, the nature of these projects did not fit in to any existing loan modality the IDB had. Performance-based deals involve buying goods, works, services, and consultancies. However, there are no direct payments for installing specific infrastructure or completing specific services. Rather payments are primarily driven by the actual results.

But in the end, when all parties join forces, the miracle of abundant drinking water is possible. “The government is particularly grateful to IDB for allowing Bahamas to use this performance-based model of NRW reduction and they are, we believe, equally satisfied with the outcomes to date,” deputy Prime Minister Davis concludes.