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Session 2. Background paper

The financial model of Igudan: An innovative business model to scale up investment in wastewater reuse

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Background

Igudan is the largest sewage treatment plant in Israel, servicing close to 2.5 million inhabitants in Israel's most densely populated area – the Dan region (central Israel).

Igudan is comprised of two legal entities:

(1) Igudan, a non-profit statutory corporation established in 1955, being held by 7 municipalities (providing services to 16 additional municipalities). Igudan is responsible for the collection, transportation and treatment of sewage from the municipalities; and

(2) Agudat Mey-Ezor Dan, a corporation held 50% by Igudan and 50% by the 7 municipalities holding Igudan. The Aguda is responsible for the sewage treatment through SHAFDAN (Dan Region Wastewater Treatment Plant located close to Rishon Lezion, approximately 10 km south of Tel Aviv), which it fully owns.

Through its water recycling process, Shafdan (which is the most advanced mechanical-biological facility of its type for purifying wastewater in the entire eastern Mediterranean Basin) produces high-quality irrigation water for all types of agricultural crops in Israel. The quality of the recycled water is close to the quality of drinking water. Already today, out of the total quantity of wastewater that enters Igudan's system, approximately 140,000,000 m³ of wastewater is recycled in Israel for the water economy (of which about 96% is used for agricultural purposes). Currently, about 60% of agricultural activity in the Negev Desert is irrigated by Shafdan water, thereby saving millions of cubic meters of drinking water for the State of Israel.

In 2009, a new investment plan amounting to more than NIS 2 billion (approximately 500 million USD) was approved by the relevant authorities. The plan included an upgrade of existing sewage lines as well as the construction of new lines to enable population growth and system redundancy to improve system reliability and flexibility. In addition, the plan included major investments in the sewage treatment plant with the construction of an anaerobic treatment facility that would cease the uncontrolled flow of treated wastewater into the Mediterranean Sea.

Issues that needed resolution

Igudan has entered a significant investment program with reliance on outside financing to complete the required investments. Investments were to allow Igudan's future growth and continued operation for the next 30 years, therefore, requiring a very long-term financing. Igudan's income is based almost entirely on a tariff set by the Water Authority.

There are two typical financing structures available:

(1) Corporate Finance – Financing on the balance sheet of the borrower, typically shorter term;
(2) Project Finance – Financing of specific projects with a full collateral package and ongoing supervision of lenders. This form of financing is custom-drafted to match the borrower's CF forecast and is typically for a longer term (typically, the construction period in Israel is +18 years). However, the risk is usually very low as the project is backed by a long-term off-take agreement.

Eventual solution

Type of financing:

In light of Igudan's long term requirements to enable maintaining a tariff that is in line with the expected useful life of the projects being constructed, a "Project Finance" type financing was required. However, in light of other existing lenders, limited collateral packages and requirements to maintain the ability to continue and add leverage for future developments, the typical "Project Finance" framework did not work.

The requirements for Igudan's financing package were as follows:

(a) Long term financing (20 years at least);
(b) Ability to add additional lenders in the future (Igudan did not secure the full financing package since not all projects were finalized and therefore, the total financing needs were not fully known);
(c) Provision of limited collateral and maintenance of remaining assets to act as future collateral for future development projects.

The solution formalized was a loan provided by banks and local financial institutions that have elements of project financing and corporate financing, i.e. close bank supervision similar to project finance, however, maintaining the flexibility to add additional debt in the future and a collateral package that was shared by all lenders.

This structure was made available to Igudan in light of several key characteristics:

(a) Igudan was rated ilAA by S&P Maalot;
(b) Igudan's regulator (the Water Authority) is committed to providing Igudan with the required tariff to enable it to amortize the loan;
(c) Igudan, as a non-profit organization, cannot use funds for any other purpose than to finance operating expenses or investments. Therefore, the lenders' concern for fund "leakage" was significantly reduced.