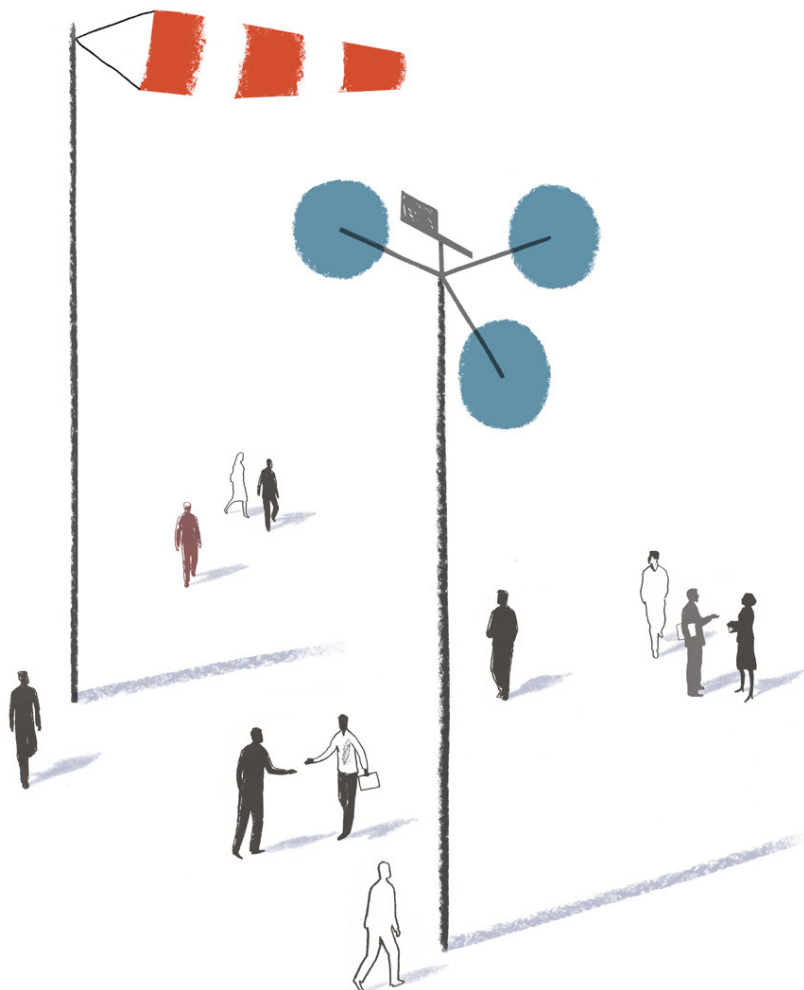


Cleantech in Israel:

A guide for investors and businesses

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1 Overview

1.1 Cleantech in Israel

“Solar energy is the largest and most impressive source of energy in our world”

(David Ben Gurion, First Prime Minister of Israel, 1955)

Since the country’s inception, the Israeli government has, held water and energy technology development as a national priority.

Cleantech companies, ranging from start-ups to established powerhouses, produce a range of critical technologies for a cleaner, more sustainable future. They also present a unique opportunity for investment as the market for sustainable solutions continues to expand dramatically throughout the world.

Israeli based worldwide leading companies such as ORMAT, SOLEL, NETAFIM, BETTER PLACE.

The Israeli government, recognizing the potential of clean technologies, has taken great steps to encourage investments within this lucrative and ground breaking field.

Quick Facts

- Israel’s arid climate, limited natural resources, and educated workforce together create an ideal environment for the development of breakthrough Cleantech technologies.
- Israel’s unique and innovative ecosystem allows the country’s government, elite academic institutions and private entities to work together for the advancement of its growing Cleantech sector.
- Israel is a world leader in the field of water reclamation, reusing almost 80% of its wastewater for agriculture applications. Combined with drip irrigation solutions, Israel retains one of the highest water efficiency ratios.
- Housing two of the largest SWRO desalination plants in the world, Israeli companies are a pioneering force in the field, managing ambitious desalination projects in both domestic and foreign markets.
- Ranging from its decades long use of solar thermal energy, to its pioneering research in the fields of energy crops and biomass, Israel’s renewable energy industry is quickly growing and demonstrating breakthrough technologies.

1.2 Investing in Sustainable Future

The Global Green Economy Index (GGEI), developed by a Washington based group called Dual Citizen, ranks 27 countries on 4 dimensions: leadership, domestic policy frameworks, cleantech investment and green tourism.

The expanded 2011 GGEI benchmarks these perceptions against a performance index designed to capture an objective, data-driven measure of national green performance. The 2011 GGEI report shows that although the perceived hot spots in clean tech investment appear to be in China, the return on investment is something else entirely. Israel ranked particularly well on the cleantech dimension, according to the report, #4 out of 27 national green economies.



Jeremy Tamanini, the founder of Dual Citizen sent Green Prophet the report: “Green reputations are a vital component of overall country brands and the Global Green Economy Index provides government and private stakeholders in the green economy a unique tool to track, analyze and improve upon performance in this sector,” he said, pointing out Israel’s leading role.

1.3 About GT Israel

Fahn Kanne & Co. Grant Thornton Israel is a member firm within Grant Thornton International Ltd. Fahn Kanne & Co. is one of the leading accounting firms in Israel.

Our advisory services accelerate market adoption, stimulate demand, and remove barriers to cleantech innovation. We help business leaders make strategic decisions involving cleantech innovation, providing up-to-date source for insights into companies, investors, financing and relationships across the clean technology ecosystem.

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2 Government Policy

2.1 Government Policy Framework

Government support in Israel can be separated into two categories - Project Policy and Research and Development (R&D) Support and Regulations.

The Israeli governmental ministry responsible for the energy market is the **Ministry for National Infrastructures**.

The **Public Utility Authority** (PUA) for electricity is the regulative body responsible for implementation of governmental policy and licensing. Since 2008 the PUA issued the different regulations enabling the production of electricity by the private market. In the past 3 years, since the sector was opened, the PUA issued licenses for a total of 150MWH of small solar energy installations up to 50KV, and 330 MWH of medium size plants up to 5MWH.

The Governmental policy is being implemented by the PUA and also by various ministries, like the Israeli Office of Real Estate, the National Planning Authorities.

The involvement of various authorities causes delays and obstacles for implementation of the governmental policy.

The **Office of the Chief Scientist** (OCS) of the Ministry of Industry, Trade and Labor is responsible for implementing the government's policy of encouraging and supporting industrial research and development in Israel through the Law for the Encouragement of Industrial R&D. The OCS provides a variety of support programs that operate on an annual budget of about US \$300 million. This is spent on about 1,000 projects undertaken by 500 companies. These programs have helped make Israel a major center of hi-tech entrepreneurship.

2.2 Project Policy

2.2.1 Project Support

In the past Israel was well known within the cleantech field for its expertise in the water sector. However, Israel is growing at a rapid pace within the renewable energy sector, as well.

The Israeli renewable energy market was formed in 2002 when a governmental decision set a national goal of 5% renewable energy electricity production to be reached by 2016. In 2009 the goals were changed and an operative governmental decision has set a goal of reaching 5% production of electricity from renewable sources by 2014 and 10% by 2020. Those goals were translated by the Ministry of National Infrastructures to an installed capacity goal of 2,760 MW by 2020.

Implementation of the government goals began in 2007 when the Ashalim tenders, for two large-scale Commercial Solar Power (CSP) plants and a medium size Photo Voltaic (PV) plant, were introduced by Government. The Israeli government also started implementing feed in tariffs on renewable energy sources in order to help achieve their goals.

Government Goal:

5% (850 MW) Renewable electricity by 2014

10% (3500 MW) Renewable Electricity by 2020

2.2.2 Feed in Tariffs**Solar**

- In 2008 the first regulative feed in tariff (FIT) frame work was introduced for small scale PV systems setting a quota of 50MW for residential consumers (systems up to 15KW/15MW quota) and commercial consumers (systems up to 50KW/35 MW quota).
- In August 2010 a new quota of 120 MW was introduced alongside with an unlimited quota for residential consumers (limited to 2010).
- In January 2010 a FIT regulative framework for medium-size installations, for rooftops and ground installations, was approved and a quota of 300 MW was introduced.
- Large-scale plants regulative framework FIT, for Commercial Solar Power and PV, is expected to be introduced setting a quota of 500MW and a separate quota of 50 MW for medium size ground installations which will be governed by governmental tenders.
- In the Arava southern part of Israel a 60MW power plant will be built using both CSP and PV participants.

Wind

- Small-scale wind turbine FIT was also introduced in 2009 (consumers up to 15KW and commercial up to 50KW turbines) and medium & large wind turbine FIT is planned for the near future.

Biomass

- A FIT regulative framework for Biomass systems are also expected in 2011.

A chart of feed in tariffs is in appendix 2-1

2.3 Research and Development Support and Regulations

The main OCS program (the R&D Fund) supports R&D projects of Israeli companies by offering conditional grants of up to 50% of the approved R&D expenditure. If the project is commercially successful, the company will be under the obligation to repay the grant by royalty payments.

A new support program for traditional industry was launched in 2005 by the OCS, which offers separate evaluation and discussion for projects from traditional industries.

Besides the main OCS program other domestic support programs include:

- **The Technological Incubators** which provide a framework and support (including grants of up to 85% of approved expenses) for nascent companies to develop innovative technologies.
- **The Heznek-Seed Fund** through which the government matches an investor's investment in the share capital of a seed company, later giving the investors an option to purchase the government shares. Grants are up to 50% of the approved work program.
- **The Tnufa Program** is designed to encourage and support an individual entrepreneur in his initial efforts to build a prototype, register a patent, design a business plan etc. Grants are up to 85% of the approved expenses for a maximum of \$50,000 for each project.

- **The Magneton and Noffar programs** are designed to support applied academic research in all areas and especially in biotechnology and nanotechnology in order to promote the transfer of the technology to the industry. Grants are up to 66% and 90% of the approved expenses respectively.
- **The Magnet Program** supports the formation of consortia comprised of individual firms and academic institutions in order to jointly develop generic, pre-competitive technologies by offering grants of up to 66% of the approved budget.

2.3.1 Employee Grants for R&D Centers

The Ministry of Industry, Trade and Labor has launched a new incentive program for supporting R&D centers established in the Negev (south) and Galilee (north). This program is part of a long term plan areas to spread the prosperity the Hi-Tech community has brought to Israel by providing these areas with high-paying quality work places.

Minimum Requirements:

- Minimum of 15 employees required
- The average cost of salary of all new employees has to be at least 2.5 times the average cost of salary in Israel (about 20,000 NIS or \$US 5,000).

2.3.2 Taxation for R&D Centers

A foreign corporation, setting up an R&D center in Israel, may submit a request to recognize this center according to the Law for the Encouragement of Capital Investments. The basic requirements for approval are:

- The employment of at least 10 qualified personnel (software engineers, systems analysts, biotech researchers, etc...)
- Approval as an "Industrial R&D High-Tech" facility from the Office of the Chief Scientist, Ministry of Industry, Trade and Labor.

Preferred Enterprise Status according to the Law

Should the R&D Center, be located in the center of the country (Tel-Aviv, Haifa etc.) the company can apply to the Tax Authority to obtain "Preferred Enterprise" for it according to the Law for the Encouragement of Capital Investments.

If granted "Preferred Enterprise" status the R&D center will have to operate on a "Cost Plus" basis according to the standard transfer pricing rate in the industry as this accounting method is usually applied between the parent corporation and its R&D subsidiaries. A foreign owned company will then be eligible to corporate tax as shown in appendix 1-1.

Approved Enterprise Status

Should the R&D Center, be located in the priority area of the country (e.g. The Galilee in the north, the Negev in the south) then the company should apply to the Investment Center - a department of the Ministry of Industry, Trade and Labor- to gain "Approved Enterprise" status. It will then be entitled to an investment grant according to the Law for the Encouragement of Capital Investments.

If granted "Approved Enterprise" status the R&D center will be entitled to an investment grant of up to 20% of the approved investment and will have to operate on a "Cost Plus" according to the standard transfer pricing rate in the industry. A foreign owned company will then be eligible to corporate tax and above mentioned investment grant as shown in appendix 1-1.

3 International Support Programs

3.1 Bi-National Support

Israel has been a hotbed for International support in the field of cleantech. Realizing the potential for growth, many countries have developed partnerships with Israel to establish R&D incentives.

International support programs include bi-national funds for competitive R&D, enabling a joint R&D program with a foreign counterpart. Such funds include:

Israel-U.S. Binational Industrial Research and Development (BIRD)

BIRD provides both matchmaking services between U.S. and Israeli companies, as well as funding covering up to 50 percent of project development and product commercialization costs.

Canada-Israel Industrial Research and Development Foundation (CIIRDF)

The CIIRDF is involved in three broad complementary activities:

- Promoting and marketing the benefits of joint Canadian-Israeli R&D collaboration;
- Matching companies in one country seeking a research partner in the other;
- Supporting projects by contributing up to 50% of the joint R&D costs.

Singapore-Israel Industrial R&D Foundation (SIIRD)

The SIIRD works to:

- Create new/enhanced products and technology
- Expand product portfolio for customers
- Create new markets and customers
- Shorten time to market

Britain-Israel Technology Foundation (BRITECH)

Britech is a joint initiative of the UK and Israeli governments dedicated to supporting collaborative partnerships between high-technology companies. Britech has provided grants of more than £12M to collaborative R&D projects, and helped to establish more than 100 technology partnerships.

Korea-Israel Industrial R&D Foundation (KORIL-RDF)

Korea-Israel Industrial R&D Foundation supports approved joint projects by disbursing cash grants up to 50% of the eligible R&D cost to a maximum of USD 500K. These grants are subjected to repayment, up to, but not beyond the total funded amount, should there be commercial revenues arising from the projects.

3.2 Current International Support

Recently, the prime ministers of Canada and Israel have decided to expand the R&D relations between the two countries in the area of innovations in a couple of issues including the field of water technologies and alternative energy. To move forward on this matter, the Chief Scientist formulated a plan that provided a response to the research and development community and will advance the area through cooperation with similar R&D entities in Canada. Therefore, the Chief Scientist in the Ministry of Industry, Trade and Labor issued a call to industrial companies, researchers in the academic world and public research institutes in Israel which were interested in such kind of activity, to receive information (an RFI) regarding the interest they had in this manner.

The France Israel Innovation Day will commence in the coming months. This event is jointly organized by the French Ministry of Economy, Finances and Industry and the Israeli Ministry of Industry, Trade and Labour.

The France Israel Innovation Day is an opportunity to:

- Learn about innovation tools and innovation system dedicated to companies for technological cooperation, investment and R&D in both countries.
- Participate in workshops on Medical Nanotechnologies, IT technologies, Solar Energy and Alternative Fuels.
- Create new businesses with French and Israeli peers.

3.3 Other Support

In addition to these foundations, numerous international R&D agreements with countries such as Austria, Belgium, Ireland, Germany, Holland, France, Hong Kong and China, among others, provide access to sources of national funding. Israeli companies participating in the program are also entitled to receive R&D grants from the OCS.

Israel is a participant in the European Union R&D Program, the only non-European Associated State, fully participating in the program.

ISERD - The Israeli Directorate for the Framework Program- provides assistance to Israeli companies and research organizations who wish to implement R&D programs with the European business and science communities. Grants to industrial R&D are 50% of the full cost and overhead; grants to universities are 100% of the additional costs and 20% of overhead.

The Global Enterprise R&D Cooperation Framework encourages cooperation in industrial R&D between Israel and multi-national companies (MNCs). This program shares the high risks and enormous costs inherent in hi-tech development with the partnering companies. Joint R&D projects between MNCs and Israeli companies, authorized by the OCS, could be entitled to financial assistance of 50% of the Israeli company's R&D approved costs. Direct investments in joint R&D project with Israeli companies will be credited with 150 percent of the value of such investment for "Buy-Back" liabilities.

Project Centers -The MNC established a Projects Center in order to identify Israeli partners with whom it will conduct joint R&D projects. Government funding will be the lower of the following three:

- 40% of the total operational costs of the Projects Center
- 50% of the total investments the Projects Center are conducting with the Israeli partners.
- The total investments the Projects Center will invest in the periphery (priority) areas and Traditional Industries.

4 Investor Perspective

4.1 Private Equity (PE)

In the first half of 2011, \$965 million was invested in 29 Israeli private equity deals, a decrease of 16 percent from \$1.146 billion invested by PE investors in 31 deals in H1 2010. In the 2011 period, 22 foreign PE funds invested \$683 million, or 71 percent of the total, up from \$565 or 49 percent in the same period last year.

Q2 2011 investments were 16 percent above the \$371 million of the same quarter of 2010 (11 deals). Foreign PE funds accounted for 73 percent of Q2 2011 investments, mostly reflecting the \$307 million buyout of IT services provider Ness Technologies by Citi Venture Capital International.

- The cleantech sector compromised 21 percent of private equity funds.
- Morgan Stanley invested \$200 million in a straight equity deal in solar power plant developer BrightSource.
- In H1 2010, the cleantech sector led investments with 46 percent, followed by real estate with 12 percent and the industrial sector with 10 percent.

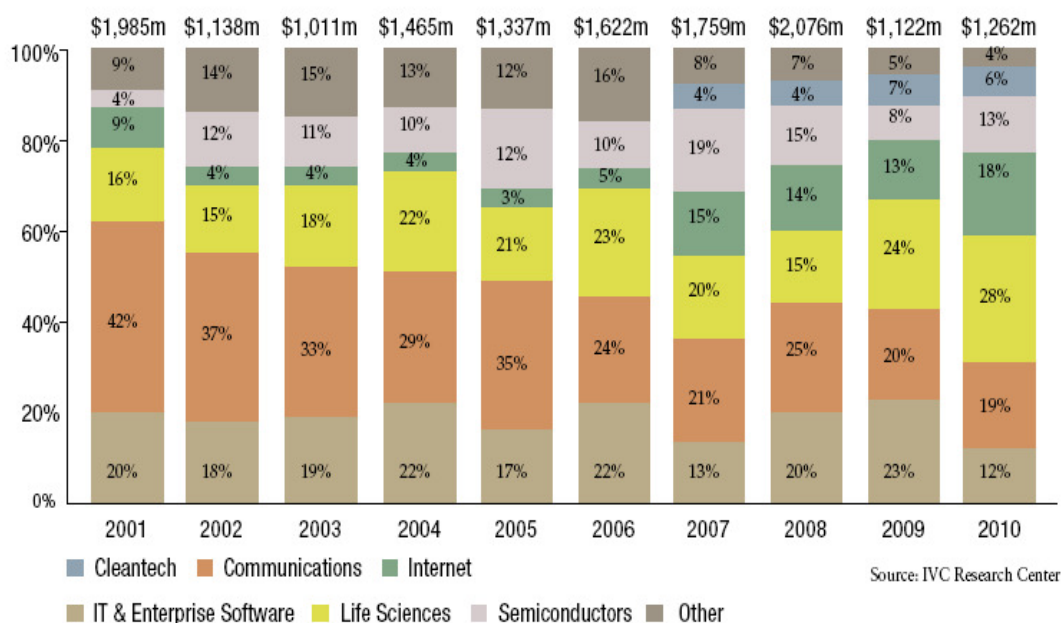
4.2 Venture Capital (VC)

In 2010, 391 Israeli high-tech companies raised \$1.26 billion from local and foreign venture investors. The amount raised was 13 percent above the \$1.12 billion raised in 2009, but 39 percent below the \$2.08 billion raised in 2008. The average company financing round was \$3.23 million, compared with \$2.51 million in 2009 and \$4.3 million in 2008.

- In 2010, the cleantech sector attracted 6 percent of all the venture capital.
- Twenty-nine cleantech companies attracted \$83 million or 6 percent of total capital raised in 2010, compared with \$80 million (7 percent) in 2009 and \$84 million (4 percent) in 2008.
- Within cleantech, the energy subsector attracted 70 percent of the amount raised by the entire sector in 2010. The average financing round of cleantech companies was \$2.86 million.

4.2.1 Venture Capital by Sector

Venture Capital by Sector for the years 2001-2010



4.2.2 Venture Capital Firms

Venture Capital firms that have experience in the field of cleantech include:

Israel Cleantech Ventures

Hakfar Hayarok Youth Village
Ramat Hasharon 47800
Tel. +972-3-644-6611
Fax: +972-3-649-3737
Email: info@israelcleantech.com
Website: www.israelcleantech.com

Giza Venture Capital

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Email: liorb@gizavc.com
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4.3 Notable Israeli Cleantech Companies

Solel Solar Systems Ltd. is an Israeli solar thermal equipment designer and manufacturer based in Beit Shemesh, Israel. Solel makes equipment for solar thermal power plants, facilities that use the sun's heat to create steam and turn an electricity generator. In October 2009, Siemens signed a \$418-million contract to buy Solel Solar Systems.

Better Place is a venture-backed company that aims to reduce global dependency on petroleum through the creation of a market-based transportation infrastructure that supports electric vehicles. Better Place's primary R&D facility is located in Tel Aviv, Israel.

BrightSource Industries (Israel) Ltd., headquartered in Jerusalem, is a wholly-owned subsidiary of BrightSource Energy. The BSII team provides product development and engineering services, and supplies the solar fields, including heliostats, solar boilers, and control systems for all of BrightSource Energy's projects.

Appendix:

TABLE 1-1: Taxation for R&D Centres

Company Tax Rates

Years	Centre of the country	Priority Area
2011-2012	15%	10%
2013-2014	12.5%	7%
2015 onwards	12%	6%

Investment Grant

Investment grant as a percentage of approved investment	Centre of the country	Priority Area
	----	6%

Tax Benefits

	Centre of the country	Priority Area
Company tax	8%	5%
Dividend tax	15%	15%

TABLE 2-1: Feed in Tariffs

Technology	FIT (NIS)	Size	Quota (KW)	Date	Quota (MWH)
Solar	2.04	Home	(↓ 15 KW)	Current	
	1.51	Small Commercial		2011	50
	1.41	Small Commercial	(15-50 KW)	2012	
	1.31	Small Commercial		2013	
Wind	1.68	Home	(↓ 15 KW)	Current	30
	1.31 (*)	Commercial	(15-50 KW)	Current	
Solar Thermal	1.49 (**)	Medium	(↑ 51 KW)	Current	300
	0.60	Large	---	Expected	500
Biomass	0.60		---	Expected	160
Total					1,040

(*) These tariffs will be until the end of 2011. From 2012 and on, there will be a decrease of 2% per year in the tariffs.

(**) These tariffs will be valid until they end or until the year 2017, whichever is earlier. From 2012, the tariffs will decrease by 5% per year until 2014.

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