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#### Q4-2017, Annual 2017 and 12-months since Initiation Updates 1 May, 2018



Entering the US market is a significant long-term growth opportunity; major project and regulatory milestones in Poland and Israel increase installed **ENERGIXGROUP** capacity; new in-house O&M and project management capabilities improve financial and operational efficiency; target price raised to NIS 4.05.

Primary Exchange: TASE

Ticker: TLV: ENRG Sector: Cleantech **Industry:** Renewable Energy

#### Data as at 1 May, 2018 (Source: TASE)

Closing price: NIS 3.34

Market cap: NIS 1,258M

# of shares: 376,826,550

Stock performance (Y.T.D.): 32 %

Daily-trading-vol. (12 mos.): NIS 1.2M

Stock target price: NIS 4.05

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#### **Company Overview**

Energix Renewable Energies Ltd. (hereinafter "Energix" or "the Company") is a renewable energy company, currently active in the field of Solar Photovoltaic (PV) and Wind Energies. As one of the largest Israeli Independent Power Producers (IPPs), the company initiates, develops, constructs and owns long-term renewable energy projects. Once it has secured production rights through government tenders, Energix sells the generated electricity to utility companies who distribute electricity to end users. Energix shares have traded on the Tel Aviv Stock Exchange since 2011.

#### **Highlights & Analysis**

Energix released its annual report on 12 March, 2018 detailing the following:

#### The company operates in a highly regulated market, with growth dependent upon political sentiment towards renewables, the availability of financing and interest rates.

- Israel: In December 2017, the Company won a tender to supply 52MW at a • fixed tariff of ILA 19.78 per Kw to the national grid from Solar PV projects established in Israel by Energix (70% ownership) and its partner (30% ownership).
  - The tender awarded was the Company's second for 2017, after 0 securing a PV project generating 90MW in March 2017 (100% ownership).
  - Ministerial approval of the Aran project (~152MW) continues local 0 regulatory confidence in the Company.
  - Approval of several permits in 2017 sets the Company on track for financial closing in 2018 and for meeting construction and operation milestones as planned
- Poland: After decreasing 60% between 2015 and 2017, 'Green Certificate' prices have risen nearly 30% since mid-2017.
  - The government announced that it intends to publish tariff tenders for 0 the construction of new facilities for the production of electricity from wind energy and photovoltaic energy at a capacity of about 1,000MW. It is estimated that these tenders will be published during the second half of 2018.
- The US: In 2017, Energix entered the US market, announcing a JV with a local firm in projects totaling hundreds of MW with the Company's share in these projects ranging from 51% to 60%.

#### We increase Energix's equity value to \$425.2M / NIS 1,526.49M corresponding to a target price ranging between NIS 3.85 a NIS 4.29; a mean of NIS 4.05.

- Net Profit for 2017 totaled NIS 16M, an increase of 317% from 2016.
- For a detailed breakdown of our valuation methodology for the Company please refer to our Initiation of Coverage report of 25 June 2017.

#### **Revenue Forecast:**

Year	Capacity (MW)	Revenues (NIS 000s)	EBITDA (NIS 000s)	FCF (NIS 000s)
2016A	109	113,219	66,187	21,500
2017A	168	141,367	88,871	50,000
2018E	258	143,034	111,768	63,483
2019E	369	168,648	142,309	75,200
2020E	500	334,752	266,250	142,852

# **Executive Summary**

## 2017 Annual and Q4-2017 Financial Results

**Revenues** for 2017 totaled NIS 141.4M a 25% increase on revenues in 2016, this was mainly due to a 27% increase in sales of electricity to national grids. Revenues for Q4-2017 totaled NIS 41.1M a 25% increase on revenues for Q4-2016. Despite earning ~10% less revenue on electricity sales compared to the corresponding period in 2016, Q4-2017 saw additional revenues from other income streams, especially increased value in green certificates.

**Leasing expenses** totaled NIS 6.5M for 2017 a 55% increase on leasing expenses for 2016. Leasing expenses for Q4-2017 totaled NIS 1.6M, an increase of 57% compared with the corresponding period in 2016. The increase for both periods can be attributed to the Company having more active projects, and projects under establishment in 2017 than in 2016.

**Maintenance expenses** for Energix's energy generating facilities totaled NIS 25.2M in 2017, an increase of 47% from 2016. Maintenance expenses for Q4-2017 totaled NIS 7.2M, an increase of 9% from 2016. The annual expenditure increase is attributable to expansion of the Company's operations, including new facilities and the operation of those previously in development. The quarterly increase can be attributed to similar factors as well as differences in the state of the Company's project pipeline at 31 December 2016 verses 31 December, 2017.

**Development expenses** for 2017 totaled NIS 1.9M a marginal increase of 3% compared to 2016. Development expenses for Q4-2017 totaled NIS 161,000 a decrease of 71% compared with Q4-2016. The annual increase is negligible, while the quarterly decrease is attributable to most development taking place within H1-2017, whereas development was more evenly spread throughout 2016.

**General and administrative expenses** totaled NIS 18.9M for 2017, an increase of 13% on G&A expenses for 2016. G&A expenses for Q4-2017 totaled NIS 5.2M an increase of 10% from Q4-2016. Both the annual and quarterly increases are attributable to expansion of the Company's operations and pipeline.

**Net financing** expenses totaled NIS 27.6M for 2017, a marginal decrease of 2% from 2016. Financing expenses for Q4-2017 totaled NIS 8.3M compared with NIS 6.5M for Q4-2016, an increase of 28%. The annual decrease is negligible while the quarterly increase can be attributed to seasonal differences in the Company's financing activities in 2016 versus those for 2017.

**Net depreciation** of systems totaled NIS 47M for 2017 compared to NIS 36.4M for 2016. In Q4-2017 depreciation totaled NIS 10.5M, compared to NIS 9.6M for Q4-2016. Both the quarterly and annual increases can be attributed to the Company having more systems connected, and thus more systems depreciating in salvage value over time.

**Income tax** for 2017 totaled NIS 5.1, an increase of 300% from the NIS 1.7M paid in 2016. For Q4-2017, income tax totaled NIS 2M, an increase of 300% from Q4-2016. The increase in both annual and quarterly income tax paid can be attributed to the 317% increase in net profit for 2017 compared with 2016.

**Net Profit** for 2017 totaled NIS 16M, an increase of 317% from 2016. For Q4-2017 net profits totaled NIS 6M, a decrease of 14% from Q4-2016. The annual increase in net profit can be attributed to the Company having more systems operating in 2017, compared with 2016 when many were under development. The quarterly decrease can simply be attributed to seasonal differences in the company's operational strategy in 2016 compared with that for 2017.

**Net cash** totaled NIS 96.4M at 31 December, 2017 compared with NIS 76.9M at 31 December, 2016 and NIS 147.7M at 31 December, 2015. This annual fluctuation in the standing cash balance can be attributed to the long-term financing of Energix's projects, and the industry timeline in general; (1) recruitment of funding, (2) incurring of large costs in establishment and development, and (3) incurring of minimal costs, alongside earning steady revenues throughout operation.

**Shareholder equity** as at 31 December, 2017 amounted to NIS 684.6M, constituting a significant increase compared to the previous period, which totaled NIS 523.9M. This increase, as well as the increase in the volume of cash, attests both the positive growth in the Company's revenues, and recurrent upsurges in capital raising.

## Analysis

The Company has over 160MW of installed power capacity in Poland and Israel. The Company has a pipeline ranging between 500MW and 1GW, the majority of which is expected to begin operation within the next 2-3 years. By 2022 Energix is likely to have in the vicinity of 1GW in installed capacity.

Project Name	Holding	Capacity (MW)	Operating Capacity (MW)	Energix's Maximum Potential Capacity	Energix's Operating Capacity
Banie (Poland)	100%	106	106	0	106
Ilawa (Poland)	75%	13.20	13.20	0	9.9
Aran	73%	152	0	111	0
Partnership in Israel*	70%	300*	0*	210	0*
Mt Hebron	50.10%	5	5	0	2.5
Neot Hovav	100%	37.5	37.5	0	37.5
GranotEnergix	<b>50%</b>	3.4	3.4	0	1.7
Small projects in Israel	100%	3.2	3.2	0	3.2
Project in Israel	100%	90	0	90	0
Total	n/a	707.1	168	411	161
Caden Energix (US)	51%-60%	hundreds	hundreds	hundreds	hundreds

\*Total potential capacity of 300MWp according to the company. 52MW of the 2018 tender in a 70/30 partnership with Energix's Israeli partner is under establishment and may become operational towards the end of 2018. 2018 operation of this facility has not been considered in our valuation.

Energix has an appealing combination of benefiting from both high returns during project development, and from relatively low risk characteristics based on long-term steady revenues generated from fixed income projects.

Energix's value proposition can be summarized by six core capabilities:

- Effective feasibility analyses (technical and commercial)
- Financial stability and backing
- A successful record of deals with banks and financial institutions
- An experienced project management team
- Close work with; regulatory bodies, OEMs and EPCs
- Constructing working facilities in record time

We view an investment in Energix as a good, relatively low risk investment, and an opportunity to earn 'fixed income" by investing in a firm that is operating in different locations, but exposed to future regulatory risks.

In light of the above, we increase Energix's equity value to \$425.2M / NIS 1,526.49M corresponding to a target price ranging between NIS 3.85 and NIS 4.29; a mean of NIS 4.05.

# **Upcoming Potential Catalysts**

Project	Event	Significance	Timeline
Aran - Wind farm in Northern	Project pending permission	High	Achieved
Israel (152MW)	Financial closing	High, NIS 28 million annual revenues	June
Banie and Ilawa - Polish Wind energy program	Introduction of new reforms to the green certificate system	High, subject to market volatility	30 April 2018
(119MW)	New Polish Government tenders for wind energy	High, subject to Energix applying to, and being awarded a tender	Q3-2018
<b>CadenEnergix</b> – PV projects in the US through a JV	Financial closing of projects with a capacity of 70-100MWp in Virginia	High	H2-2018

## **Investment Thesis**

Energix Renewable Energies Ltd. was incorporated on 7 December, 2006 as a private company, limited by shares. In May 2011, the Company went public. Energix shares are listed on the following indices; Tel Aviv 125, Blue Tech, TA Tech-Elite and TA Technology.

Energix's strategy is to leverage its leadership's background and experience in the real estate sector, and use it to minimize risks in the development stages of its renewable energy projects. This allows maximal revenues during latter operational stages resulting respectively in high returns during project development, and from relatively low risk in the long term given the reliability of long term electricity generation contracts (usually 25 years) and the steady revenue flow these yield.

Globally, Solar PV is set to be the fastest-growing renewable energy segment in 2018, with investment increasing 10.3% to \$123 billion from \$112 billion in 2017. Wind energy investment is expected to reach \$102 billion in 2018, second only to the Solar PV segment, among all others in the renewable energy domain. However, these markets are highly regulated and growth for companies such as Energix is dependent upon political sentiment towards renewables, as well as the availability of financing and interest rate levels; all out of Energix's control.

Energix's value proposition includes: effective feasibility analyses (technical and commercial), financial stability and backing, a successful track record with banks and financial institutions in closing deals, and an experienced project management team that works closely with; regulatory bodies, Tier 1 /OEM and EPC companies, to construct working facilities in record time.

We view an investment in Energix as a good, relatively low risk investment, and an opportunity to earn 'fixed income" by investing in a firm that is operating in different locations, but exposed to future regulatory risks.



# Y.T.D. Stock Movement (12 months)

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# **Company Overview**

Energix Renewable Energies Ltd., (hereinafter "Energix"), which commenced operations in 2006 and went public in 2011, is a company active in the renewable energy industry in Israel and abroad.<sup>1</sup>

The company develops, operates and owns wind and solar electricity generation facilities in Israel and overseas and aims to become a leading Independent Power Producer (IPP)<sup>2</sup> in the markets it operates in.

Energix's strategy is to leverage its leadership's background and experience in real estate to enjoy both high returns during project development, and low risk with steady revenue during the long-term contract period (usually 25 years).

Energix was established by Alony Hetz Properties & Investments Ltd. (TASE: ALHE, market cap: NIS 5,620 million), one of Israel's largest real estate holding companies, with a commercial real estate portfolio in Israel and overseas. Alony Hetz is Energix's largest and controlling shareholder (of approx. 70%), and thus plays a significant role in strategy planning and execution.

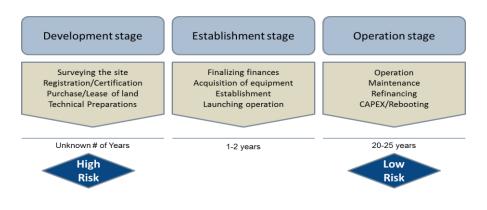
The renewable sector shares characteristics like the commercial, income-producing, real estate sector. In both, the project development stage is associated with high-risk/high-return, while rental and leasing contracts enjoy low-risk/long-term, steady revenue streams. Alony Hetz identified an opportunity to combine its experience in project development and its management skills with long-term renewable energy project contracts, in order to yield high returns on investment.

Over the past few years, Energix has built a strong financial position, and implemented innovative project management practices to meet highly challenging schedules and deadlines.

#### Value Proposition

Energix has gained capabilities and experience across the three stages of renewable energy projects; development, establishment/construction and operation. Energix's proposition to partners and suppliers includes:

- Effective feasibility analyses (technical and commercial).
- Financial stability.
- A successful track record in closing deals with banks and financial institutions.
- Project management team that works closely with regulatory bodies, Tier 1 /OEM and EPC companies to construct a working facility in record time.

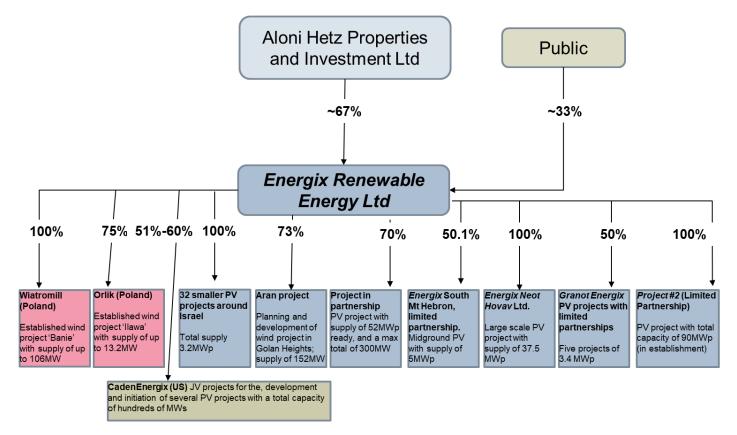


<sup>&</sup>lt;sup>1</sup> Renewable energy: energy generated from non-fossil fuels sources such as solar, wind, geothermal heat, etc.

<sup>&</sup>lt;sup>2</sup> Independent power producer (IPP)- an electric power generation entity that is not a public utility.

# **Company Structure**

Energix's structure reflects the multiple projects and initiatives with which the company is involved, from inception and development, to operations and ownership.

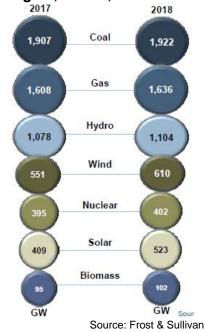


# **Global Renewable Energy Market Overview**

The global renewable energy market is driven by commercial and technological developments, including price reduction, as well as, increased efficiency and supportive regulatory incentives from governments.

- Global power investment reached \$411 billion in 2017, the main driver of this increase being the \$309 billion invested in renewable energy.
- Solar PV investment totaled \$112 billion in 2017, and is . expected to increase 10.3% to \$123 billion in 2018.
- Wind energy investment totaled \$100 billion in 2017 and is expected to increase 2% to \$102 billion in 2018.
- The contrast between regions for renewable energy investment is significant.
- Installed renewable energy capacity set to grow by almost 300GW. All markets are set to witness an increase in both Solar PV and Wind energy capacities in 2018. The global capacity of these two methods of power generation is expected to increase 114GW and 59GW respectively in the coming year.
- President Trump will not defeat renewable energy. The only region that will witness a decline in the Y.O.Y. growth of installed renewable energy capacity is the US. Despite President Trump's solar

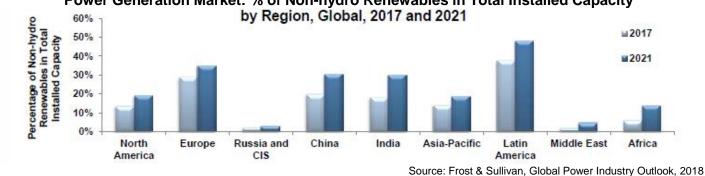
Installed Capacity Forecast by Region, Global, 2017-2018



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tariffs the reduced growth is not set to exceed 10%. Meanwhile the President's hope to grow the struggling Coal sector is not set to materialize with a forecasted 15GW reduction in coal powered capacity. Nevertheless the 40% decrease in solar prices witnessed between 2015 and 2017 is expected to slow due to the President's tariffs.

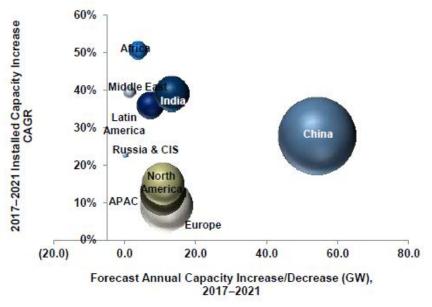
Renewable energy capital costs continue to decline, driven primarily by decreased equipment costs, but also through competitive market-based contracts that reward the lowest bidders for providing capacity. Thus, the amount of capacity constructed per dollar invested continues to increase, making renewable energy more competitive.





#### **Global Solar Market Overview**

Global Solar Power investment is expected to increase from \$112 billion in 2017 to \$129 billion in 2021. During the forecast period (2017-2021) Solar PV investment is expected to total \$603.5 billion. China is expected to account for ~34%, the rest of the Asia-Pacific (including India) ~32%, Europe and North America ~30% and the ROW ~4%. Solar power is forecasted to reach an installed capacity of 861GW by 2021, more than double the global installed capacity of 409GW as at the end of 2017.



#### Solar Power Market: Installed Capacity by Region, Global, 2017–2021

Bubbles Represent the Total Size of Installed Capacity in GW, 2021

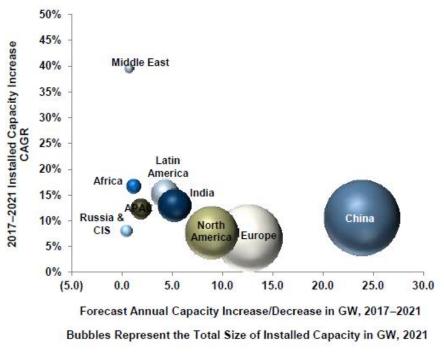
Source: Frost & Sullivan, Global Power Industry Outlook, 2018

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#### **Global Wind Market Overview**

In 2018, \$100 billion is forecasted to be invested in wind power, resulting in an annual global capacity increase of 59GW. By 2021, annual investment will increase to \$106 billion. The global CAGR of the industry is expected to be 12% from 2017-2021, however this differs from region to region with the highest growth forecasted for India and China, while in Europe growth will stagnate after several consecutive years of record instillations, and in the US new anti-renewable energy legislation will slow growth, but not bring about a decline.





Source: Frost & Sullivan, Global Power Industry Outlook, 2017

# Poland Renewable Energy Market Overview

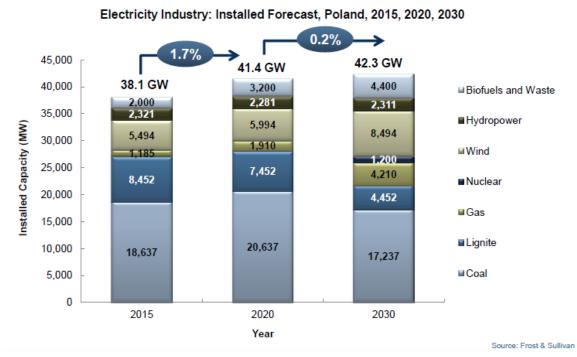
The Polish power generation sector is dominated by coal (hard and soft), contributing 78% of the total electricity generated in 2015. Poland is a prominent producer of coal with proven coal reserves of 5.7 billion tons. These reserves are worth hundreds of billions of dollars in revenue, and serve as a key reason for politicians to oppose renewable energy projects. Poland's geography makes both offshore and onshore wind energy an attractive option; however recent laws banning installation of a turbine from within two kilometers of a house or forest have had a dramatically negative impact on the industry. Solar Energy is unlikely to be a major source of power due to the limited amount of consistent sunlight over Poland. Recent years have seen a continual 22% growth in demand for electricity by residential and commercial consumers, however, industrial demand, at 44%, is expected to remain the largest demand sector for at least the next 15 years. Electricity in Poland is sold through a designated exchange.

Poland has committed to generate 15% of its total energy consumption from renewable sources (RES) by 2020 under the EU Renewable Energy Directive (2009/28/EC)3. In recent years, due to political changes, the Polish renewable sector is witnessing regulatory uncertainty and, therefore, unstable market conditions and prices. Most experts believe that the likely result of various regulatory changes, including the switch from a green certificate scheme to auctions for green certificates, will be Poland falling short of its 15% renewable energy target for 2020. Still, the Polish government does not appear to prioritize this issue, and the

<sup>&</sup>lt;sup>3</sup>Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

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forecasted growth rate for the renewable energy segment is rather low. As an example, Poland, along with Greece, were the only countries, which did not agree to refrain from adding new coal powered plants after 2020. Poland is therefore likely to remain dependent on coal-fired energy generation for at least another decade.



#### **Polish Wind Power Market**

Wind power is the leading renewable energy technology in the Polish market. Much of the wind capacity is developed through Independent Power Producers (IPPs). IPPs play a major role in the Polish Energy Industry. Recent political conditions in Poland are to the detriment of the wind power segment, and yet, Poland is forecasted to increase its installed capacity from ~6.5GW in 2017 to ~8GW in 2020 and to ~ 10GW by 2030.

The recent move by the government towards an auction-based system favors coal-based energy generation. Recent taxes on wind farms have aroused investor uncertainty, adversely affecting new wind-power auctions in Poland. However, market growth has still exceeded expectations. In 2015, due to these restraints, the forecasted growth in installed capacity was just 500MW by 2020. In 2016 alone, 680MW of wind energy facilities were installed in Poland.

Despite, the new RES act, the Polish wind industry is forecast to install a further 1,500MW by 2020. This growth is strong, but is still less than would be expected independent of regulatory hurdles. Given that wind power is the only way for the country to achieve its 2020 renewable energy target of 15%, increasing the growth rate to match market demand, and meeting the 2020 target largely depend on the Polish government.

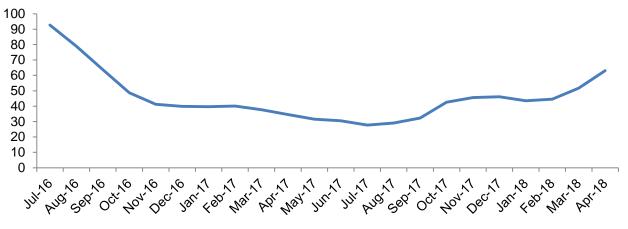
#### **Polish Regulations**

In Q4-2017, the Polish government reached an agreement with the European Union for a €9.5 billion package for financing renewable energy activities, depending, among other things, on the Polish government's compliance with targets for generating electricity from renewable energy. Accordingly in early-2018, the Polish government published a draft amendment to the Renewable Energy Law in Poland and announced that it intends to publish tariff tenders for the construction of new facilities for the production of electricity from wind energy and photovoltaic energy at a capacity of about 1,000MW. It is estimated that these tenders will be published during the second half of 2018.

#### Polish Regulations – Green Certificate System

Poland has a Green Certificate system in place, whereby authorized electricity providers utilizing renewable energy sources are awarded 1 Green Certificate per MWh of generated electricity; these certificates are traded on the commodity exchange. Since the new renewable energy laws were put into effect, the price of certificates witnessed a steep decline, decreasing from 100-150 PLN (Polish Zloty) during 2015 to below 25 PLN during June 2017. This has been a result of oversupply. However, in mid-2017, the announcement of regulatory reform sent prices up 75% in just one month. Prices continued to rise, and it was announced that the reformed system would take effect 30 April 2018. As at 19 April 2018, green certificates traded on the commodity exchange at PLN 71.54 and OTC at PLN 97.60.





Source: Polish Power Exchange, 2018

#### Israel Renewable Energy Market Overview

Israel, a country with over 300 sunny days annually, has an opportunity to become a leader (in terms of percentage of total power generation) in PV energy. However, Israel failed to meet the 5% of renewable energy generation target set by the government for 2014, due to various regulatory and administrative barriers and restraints. In October 2015, in anticipation for the Paris Convention, the government of Israel set new targets to reach 13% renewable energy generation by 2025 and 17% by 2030.

According to the 2016 annual electricity status market report, submitted and published by the Electricity Authority in Israel, renewables accounted for 2.6% of total electricity production in 2016, and a target has been set to reach 10% by 2020. Working to meet these targets, the first of six tenders, to be held over the next two years for a total of 1,000MW by 2019, were awarded in 2017 by the Ministry of Energy and the Electricity Authority. In a further effort to drive the industry, the Electricity Authority announced in 2017, additional tenders totaling a generation capacity of 1,600MW to be awarded by 2020. Finally, in September 2017 competitors for Electricity Authority tenders issued proposals for generation at record low tariffs per Kw.

#### **Competitive Landscape**

The opportunities in the Israeli renewable energy market support development by many companies; some specialize, while others diversify through add-on activity. These companies compete over the limited quotas available for developing, contracting, building and operating renewable power generation facilities. In addition to local companies, multinational companies have become actively involved in the development and operation of facilities, highlighting the local market's potential.

Interestingly, the relatively new renewable energy sector shares structural and operational similarities with the established real estate sector. Of the hundred or so companies active in the Israeli renewable energy market most are focused on one stage of the project process (development, establishing/construction, and

operations), and some operate in more than one renewable energy sector. Only a few, typically large companies, such as Energix, Enlight, Shikun U'Binui and EDF, operate across all project stages.

In the wind power sector, large scale projects are still in the preliminary survey and initiation stages; a few years away from construction and operation. Key companies (and their main facilities) which are similar to Energix and operate within this sector include, Afkon (Ramat Sirin) and Enlight (EmekHaBacha).

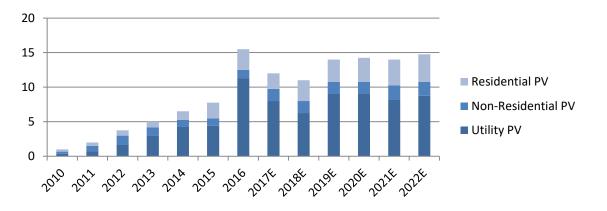
#### US Renewable Energy Market Overview

The United States is one of the world's leading producers of renewable energy, and is growing in general, with the PV market expected to grow especially, as a result of new projects over the next five years. The goals of renewable energy production in the US are determined at the state level and therefore vary from state to state. Despite the US market being challenged by the Trump Administration, the market is still very attractive, especially because of the limited nature of these reforms and the fact that many states have enacted their own measures to lessen the impact on the industry.

#### **US Solar PV Power Market**

The PV field in the United States is based on an open market for the sale of electricity produced from the system plus a federal tax incentive. The electricity sales market in the United States allows for great flexibility in the sale of electricity, and electricity producers can sell electricity directly to consumers, while most of the electricity sales deals with local electricity companies, but in recent years the trend has been strengthened to switch to direct agreements with consumers who have made 100% electricity from renewable energy, sold directly from the facility to the consumer or by means of a virtual agreement and settling accounts with the local electricity company. Agreements on the sale of electricity (be they to the Electric Corporation or directly to consumers) last for a period of 15-20 years.

In 2017, the United States was one of the leading installers of solar PV systems worldwide, having installed 7,017MW. The PV market can be segmented by the end-user of the energy into residential, non-residential and utility PV segments. The Utility PV segment is forecasted to continue accounting for the largest share of the overall PV market in the US, with its share of the market set to decrease only slightly till 2022. In the forecast period of 2018-2022, it is expected that approximately 70GW of PV installation will take place in the US. In 2018, new installed capacity will drop from 2017 due to legislation enacted by the Trump administration; however the market will recover by 2019 and continue to grow until 2022 when installation levels will approach the record year witnessed in 2016.



# US PV Installation Forecast, 2010-2022E (GW)

According to the SEIA's report for Q3-2017, 2,031 MW of solar PV was installed in the U.S, a 51% decrease year-over-year from Q3 2016. Through the end of Q3, installations are tracking 22% behind the pace set through the same period during a record-breaking 2016. On a positive note, the report also notes that through those first three quarters, 25% of all new electricity generation brought on-line came from solar, ranking second only to natural gas. In Q3-2017 there were price increases across all market segments for the first time since SEIA began reporting on the industry. These increases stem from increases in module costs due to a global shortage of Tier 1 module supply. In the US, the price increases were extenuated due to the introduction of the Section 201 petition by the US federal government.<sup>4</sup>

#### New Regulations affecting PV Installations

In January 2018, the President of the United States decided to impose an import tax ("customs") on some of the types of solar panels imported to the United States. As noted, customs do not apply to imports of all types of solar panels, for example, it does not apply to thin film panels such as those produced by First Solar. Energix estimates that customs will have no effect materially on the prices of the panels that the company estimated prior to the engagement with the American entrepreneur. The President has also decided not to adhere to the EPA's Clean Power Plan, and has cut many initiatives to encourage investment in climate-change-friendly industries. In February 2018, the President announced his intention to cut clean energy programs in FY2019.

The President's agenda has also been to the detriment of renewable energy companies due to his investment and regulatory favor to substitute methods of energy generation, particularly coal but also oil and gas. In March 2017, the President lifted a freeze on new coal leases on public lands, and canceled the requirement for oil and gas companies to report emissions. He also permitted coal companies to dump debris into bodies of water. The President has also approved a number of oil and gas pipelines since taking office. Finally, after repealing the ban on offshore drilling for oil and gas in the Atlantic and Arctic Oceans in 2017, the President hopes to open all waters to oil and gas drilling in 2018.

# **Company Activities**

Energix initiates, develops, constructs, manages, operates and owns renewable energy projects. The company's project pipeline, across all these stages, totals over 1GW.

In 2017, Energix made major improvements to their in-house capabilities which, ceteris paribus, will see projects executed more quickly, efficiently, and cost-effectively. The changes implemented are relevant to each project development stage and, as demonstrated from the reduced expenses reported for FY2017, are likely to increase profits for the company as it progresses along its packed project pipeline across three continents. These changes further affirm that Energix as a company as well and truly progressed into 'operational maturity', a stage in business development whereby less suppliers and service providers are relied on, and more operating activities are done in-house by well trained professionals. The three main areas of change were in; management, maintenance and EMT.

- 1. **Management:** Energix project managers have at least five years' experience in the field and have now been with the company long enough to see projects over their entire lifecycle.
- 2. **Maintenance:** Energix now completes maintenance and monitoring in-house, rather than through suppliers. To this effect, two new offices were opened near major facilities, one in Majdal Shams (near Aran), and one in Beer Tuvia (near Neot Hovav).
- 3. **EMT:** Energix recruited employees from other companies with Engineering, Monitoring and Technology (EMT) experience to oversee in-house operation of connected systems. This, along with

<sup>&</sup>lt;sup>4</sup> Solar Energy Industry Association (SEIA)

the development of in-house maintenance and monitoring are expected to significantly reduce OPEX and lead to higher profits in the long-term.

Energix's current pipeline and projects, per stage, are defined as:

- "Grid connected": a facility that is fully active and selling electricity to a grid.
- "Ready to construct": a project that has received regulatory approval but has either not yet reached financial closure or for which construction is halted by Energix, usually due to unfavorable regulatory or commercial conditions.
- "In Development": a project that is at the stage of evaluation, planning, or regulatory processing, the latter usually being the process of re-designating agricultural or uncultivated land in order to revive a regulatory permit to build and operate an electricity generation facility.



\*52MW of the tender in a 70/30 partnership with Energix's Israeli partner is under establishment and may become operational towards the end of 2018. 2018 operation of this facility has not been considered in our valuation.

# Key Projects – Israel

Energix initiates, develops, constructs, manages, operates and owns renewable energy projects.

#### Photovoltaic Systems in Israel

Energix owns or co-owns grid-connected installed systems with a capacity of 49MWp (Energix's share amounts to approximately 45 MWp). A project in Neot Hovav has 37.5MWp, and the remaining 11.5MWp is split among 39 small systems with different partners such as Granot (50% in a 3.5 MWp installation) and Meitarim (50.1% in a 5 MWp installation).

In March 2017, Energix won Israel's first ever competitive tender to install 90MWp and received a guaranteed price of 0.199 NIS per KWh over a 23-year period. Energix estimates the cost of construction at NIS 250-300 million, with an annual EBITDA of NIS 23-26 million. Construction is expected to continue throughout 2018, with system operation beginning towards the end of the year.

On December 26, 2017 the Company reported a significant event (see Frost & Sullivan's immediate report of <u>31 December 2017</u>). The Company announced that it had won an Electricity Authority tender at a guaranteed rate for photovoltaic installations with a capacity of about 40 MW which is the maximum quota allocated to any winner in the competitive process. The tariff determined in the competitive process for all the winners is 19.78 Agorot (NIS 0.01) per 1KWh, for a period of 23 years from the date of connecting the installation to the electricity grid, linked to the inflation index. The company estimates that the expected annual revenue from the project will range between NIS 16M and NIS, with annual EBITDA estimated at between NIS 13M and NIS 15M. The Company estimates that the construction of facilities at the full quota of the winner involves an investment of NIS 140-170 million.

#### Wind Projects

#### Aran (Golan Heights)

Located in the Golan Heights Energix has a project in development of 152MW. Following a clearance from the Ministry of Defense in June 2016, and positive feasibility reports received during Q1 2017 from Israel Electric Company, Energix expects financial closing during 2018. Once the project is constructed, the company estimates it will generate annual revenues between NIS 140M and NIS 160M. In 2017, the Company announced it had received permission to increase the height of wind turbines at the facility from 150m to 200m. This will mean fewer turbines are constructed, yet generating the same capacity, thus reducing the CAPEX incurred by Energix.

#### Key Projects – Poland

Energix initiates, develops, constructs, manages, operates and owns wind energy projects in Poland. Energix owns or co-owns grid-connected installed systems with combined capacity of 119MW (Energix's share amounts to approximately 116MW). A project in Banie has a capacity of 106MW, and another in Ilawa has a capacity of 13.2MW. The company sells the electricity on the Polish Power Exchange (TGE).

#### Key Projects – the United States

In December 2017, as an initial stage of the Company's operations in the United States, the Company signed an agreement with an American entrepreneur with a backlog of photovoltaic projects at various stages of development and development in the United States with a total capacity of hundreds of MWp Photovoltaic project in the United States. The projects are mainly concentrated in Virginia, South Carolina, North Carolina and Arizona. The projects are set to have a total capacity of hundreds of MW with 70MW to 100MW in Virginia set to go online in 2018. The projects will range in capacity from 20MW to 100MW.

The main incentive for foreign entrepreneurs is in the form of a Taxation Benefit (ITC), so that an entrepreneur can enjoy a 30% tax credit from the project costs received on the day the project is connected to the electricity grid (the calculation of the costs from which the benefit is derived is in accordance with the conditions set forth in the legislation).

In order to benefit from the tax benefit, the entrepreneur is required to contract with a local partner who has a federal tax liability in the United States ("tax partner"). The tax partner generally joins the stage of connecting the facility to the network and usually puts up between 40% and 45% of the cost of construction of the facility in exchange for all the tax benefits to which the project is entitled, as well as an additional refund from the project's cash flow during the first five years to activate it.

The tax benefits will be gradually reduced by the regulator. In 2020, so that in respect of a project whose construction began in 2020, the tax benefit will be 26%, a project whose construction began in 2021, 22% and a project that began in 2022 and thereafter, 10%. In addition, there is a five-year accelerated depreciation benefit for most of the cost the project. In addition, President Trump's announcement of a general reduction in the corporate tax rate from 35% to 21% is a major driver of foreign investment to the US across all industries.

# **Contact Details & Management**

#### Energix Renewable Energies Ltd.

Atrium Building 2 Jabotinsky St. Ramat Gan 5250501, Israel T: +972(0) 3 566 8855 F: +972(0) 3 566 8822 E: info@energix-group.com

#### Management:

#### Mr. Nathan Hetz, Chairman of the Board

Nathan Hetz is the founder of Alony Hetz Properties and Investments Ltd. In addition to his Board Chairmanship at Energix. Mr. Hetz is also the Chairman of the Board of Directors of Amot Investments Ltd. and a member of the following Board of Directors: Equity One Inc., First Capital Realty and PSP Swiss Property AG. Mr. Hetz received his B.A. in Accounting from Tel-Aviv University and is a certified public accountant in Israel.

#### Mr. Asa (Asi) Levinger, CEO

Asa Levinger has served as Energix CEO since the company was founded in 2009. Prior to joining Energix, Mr. Levinger served as the Assistant to the CEO of AMOT Investment Ltd. Mr. Levinger worked in the Israeli Hi-Tech industry in R&D and as a VP Business Development in an Israeli Private Equity Fund. Mr. Levinger received a B.Sc. in Computer Engineering and a MBA, both from the Technion - Israel Institute of Technology.

#### Mr. Elad Cohen, CFO

Elad Cohen has served as Energix Chief Financial Officer since March 2014. Prior to joining Energix, Mr. Cohen served as a corporate controller at Alony Hetz Properties and Investments Ltd. Mr. Cohen has a BA in Economics and Accounting from the Tel-Aviv University.

#### Mr. Israel Aviram, VP Operations

Israel Aviram serves as Energix's VP of Operation as of 2017. Prior to joining Energix, he managed a number of companies at Mer Group in Israel and abroad, primarily those involving infrastructure and energy projects. Israel brings with him over 15 years of management experience in the O&M field. He holds a degree in Civil Engineering from the Technion- Israel Institute of Technology.

#### Ms. Moran Birman

Moran Birman serves as the VP Business Development at Energix Renewable Energies Ltd., responsible for driving the company's strategy and market development activities in the U.S. and Europe. Since joining Energix, Moran has successfully managed the company wind projects in Poland with a total capacity of more than 120MW and with total investment of around 200 Million EUR. Moran has worked with various small to large enterprises and financing institutions. Prior to this position Moran has acted as the executive assistant to the CEO, hold multidiscipline responsibilities and formulates the activities along with the executive management to align with the company business strategy. Moran holds a BA from Interdisciplinary Center in Herzliya.

# Appendix

# **Appendix I - Financial Reports**

Balance Sheet	31.12.15	31.12.16	31.12.17
Current assets			
Cash and cash equivalents	73,435	39,114	96,444
Deposit held	5,024	0	93,208
Clients	5,786	10,351	11,981
Accounts receivable (AR)	59,833	12,854	12,159
Green Certificates	900	9,558	8,218
Hedged Financial Instruments	2,770	5,035	-
Total current assets	147,748	76,912	222,010
Cash limited in the Long Term	16,692	31,527	
Deposit held	0	0	43,023
Leasing expenses paid in advance	29,679	27,006	25,469
Connected power generation systems	746,943	1,057,870	1,073,645
Systems being established	36,380	32,391	126,952
Receivables for projects under execution	957	0	0
PPE	0	2,323	2,998
Investment in investee companies (as per the balance method)	16,277	14,827	14,200
Other receivables	1,170	7,887	6,426
Long term financial instruments	0	12,624	0
Deferred taxes	6,329	3,591	12,765
Total non-current assets	854,427	1,190,046	1,305,478
Total assets	1,002,175	1,266,958	1,527,488
Suppliers and service providers	66,661	52,227	38,261
Short term financing from financial institutions	26,000	65,501	-
Current maturities of long-term loans	16,666	31,898	-
Creditors and credit balances	69,048	5,494	43,497
Accounts Payable (AP)	0	0	36,313
Total current liabilities	178,375	155,120	118,071
Loans from financial institutions	296,108	552,574	676,185
Deferred tax liabilities	4,196	7,034	10,651
Liabilities from terminating relations between	0	0	417
employee/employer	-	-	
Other long-term liabilities	4,082	28,283	10,651
Total non-current liabilities	304,386	587,891	724,823
Total Liabilities	482,761	743,011	842,894
Total Equity	519,414	523,947	684,594
Total liabilities and equity	1,002,175	1,266,958	1,527,488

Profit and loss	31.12.15	31.12.16	31.12.17
Total Revenues	60,035	113,219	141,367
Leasing	2,430	4,202	6,529
Acquisition of Systems	4,945	17,121	25,244
Reduced value of green certificates	0	6,616	-
Costs of establishing facilities	70	241	-
Development expenses	2,315	1,891	1,953
Salary and associated expenses	6,207	7,974	8,303
Administration and other expenses	5,881	8,987	10,467
EBITDA	38,187	66,187	88,571
Discharge of financial asset impairment losses	0	3,594	-
Depreciation and amortization	15,803	36,400	(41,183)
EBIT	22,384	33,381	47,183
Financial income	3,831	478	1,748
Financial expenses	15,040	28,646	(29,390)
Profit/Loss after Financing	(11,175)	(5,213)	27,642
Balance carried forward from holding companies	1,023	1,501	1,537
Income Tax	3,151	1,653	(5,058)
Comprehensive Annual Profit/Loss	(9,047)	(5,061)	16,020
Annual profit/loss attributable to minority interests	3	1,164	(1,035)
Annual profit/loss attributable to shareholders	9,044	6,225	17,055

# Appendix II - Team Bios

**Kobi Hazan** is the Lead Analyst for Frost & Sullivan's Independent Equity Research practice. He has over 14 years of experience in capital markets, including research, analysis, investment advisory, and management. Mr. Hazan served as a Fund Manager for provident and mutual funds at Analyst Ltd. and, since 2012, he runs the Amida Israel Fund, a hedge fund specializing in Israeli equities. Kobi holds a BA (Economics and Management) from The College of Management Academic Studies. He is licensed as an Investment Advisor in Israel.

**Dr. Tiran Rothman** is Director of Operations at Frost & Sullivan, Israel and also oversees the Firm's Independent Equity Research practice. He has over a decade's experience in financial research and analysis, obtained through positions at a boutique office for economic valuations, as chief economist at the AMPAL group, and as co-founder and analyst at Bioassociate Biotech Consulting. Dr. Rothman also serves as Head of the Economics & Management School at Wizo Academic College, Haifa. Tiran holds a PhD (Economics), MBA (Finance), and was a visiting scholar at Stern Business School, NYU.

**Daniel Grunstein** is a Consulting Analyst at Frost & Sullivan in Israel and has been working on the TASE program for the past 14 months. Daniel has five years of work experience in research and international business development in Australia and Israel. Daniel holds a BA (Economics) from the University of Sydney, and an MBA (Innovation & Strategy) from Tel Aviv University.

**Nadav Ofir** is Head of Consulting at Frost & Sullivan in Israel. He has over 12 years of experience in consulting and providing research and economic analysis for companies in various industries, including in the energy and real estate sectors. Nadav holds a BA (International Relations) from the Hebrew University of Jerusalem, and an MEI Masters of Entrepreneurship and Innovation) from Swinburne University of Technology (Australia).

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