



Sustainable Energy Technologies Ltd. (STG-TSX :V)

COMPANY DETAILS

|                             |         | 2011E*      | 2012E* | 2013E* |        |
|-----------------------------|---------|-------------|--------|--------|--------|
| SHARES – BASIC MM           | 195.85  | SALES \$MM  | 41.04  | 96.99  | 140.25 |
| SHARES – FD MM              | 238.10  | EBIDTA \$MM | 10.91  | 27.19  | 38.82  |
| SHARES-MANAGEMENT MM        | 12.05   | FD EPS      | \$0.06 | \$0.14 | \$0.20 |
| MARKET CAP \$MM             | \$49.94 | SALES Y/Y % | N/A    | 136%   | 45%    |
| LT. DEBT (06-30-09) \$MM    | \$4.20  | EPS Y/Y %   | N/A    | 149%   | 43%    |
| WORKING CAP (06-30-09) \$MM | \$9.12  | EV/SALES    | 1.11X  | 0.47X  | 0.32X  |
| CASH \$MM                   | \$8.74  | EV/EBIDTA   | 4.16X  | 1.67X  | 1.17X  |
| ENTERPRISE VALUE \$MM       | \$45.41 | P/E         | 4.58X  | 1.84X  | 1.29X  |

MARKET INFO

|                  |        |
|------------------|--------|
| 16-11-2009 CLOSE | \$0.26 |
| 52 WEEK HIGH     | \$0.26 |
| 52 WEEK LOW      | \$0.05 |

\* SEPTEMBER YEAR END



Source: BigCharts.com – November 16, 2009

TURNING ON THE LIGHT

D&D's INVESTMENT THESIS

- Worldwide demand for electricity is expected to double over the next 20 years. Renewable energy will play an ever growing role as a source of this electrical supply and we expect the solar power to offer the highest growth rates in the entire energy arena.
- The Global over-capacity of crystalline and thin-film solar products has precipitated a substantial decline in the average selling price (ASP), causing margin pressure for solar power manufacturers across the board.
- Modules are becoming commoditized where as the only differentiation factor will be which module will have the greatest yield for the lowest cost per watt (\$/Wp). The result; solar power is more economically attractive then ever before. The Solar / Photovoltaic (PV) market will return to pre credit-crash market growth rates of >30% per year starting in 2010.
- Industry trends show that, roof-top PV installations will surpass large ground mounted projects in the future. **Sustainable Energy Technologies Ltd. (STG)** – a small Canadian public company - **offers the best inverter for roof-top PV**. The manufacturing of which will be located in Ontario in early 2010.
- The Company has just launched their PARALEX™ system which offers a turnkey PV solution to the system installers and general contractors allowing a high yield thin-film installation coupled with a SUNERGY™ parallel PV inverter with an easily assembled racking system, targeting residential and commercial roof-top installations.

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See "Important Disclosures" section at the end of this document for key required disclosures, including potential conflict of interest.

Sustainable Energy Technologies Ltd.



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KEY EVENTS

- Solar power can be harnessed as thermal energy or converted directly into electricity through the photovoltaic effect. It is the PV market that we are convinced will grow at >30% per year for the foreseeable future. Governments around the world have clearly embraced this view and are creating incentives to kick-start this growth primarily through the adoption of a Feed-in Tariff mechanism.
- In our view; “Roof-Top” is where solar power is heading. It will overtake the large solar farms in numbers of installed projects since PV is the only energy source that can be generated right where it is needed without building out the expensive and extensive transmission infrastructure. With distributed generation there is the added advantage of becoming a peak shaver generating maximum output to match our electrical demand with regards to air-conditioners and the daily business cycle.
- Robert H. Bucher has been appointed president and CEO of Sustainable Energy Technologies on September 1, 2009.
- Mr. Bucher brought with him extensive technology experience and an impressive track record. Mr. Bucher’s industry experience includes: CEO of Adept Technology (ADEP:NASDAQ) and CEO of Norsat International, Inc. (NII:TSX). In the past 2 months since taking the helm at STG, Mr. Bucher has logged over 175,000 km as he has launched several major developments across Europe and on the west coast of the United States.
- Mr. Bucher announced that the company had launched PARALEX™ - a unique extra-low voltage, high yield commercial power system. PARALEX™ continues STG’s value, safety and yield proposition through the ability to offer a complete turn-key low voltage PV system. PARALEX™ utilizes a cost effective fully scalable system easy to set up with a safety factor that the system installers and consumers demand.



PARALEX™ Launch in Hamburg Germany



- On October 22<sup>nd</sup>, Sustainable Energy announced **plans to manufacture their line of PV inverters in Ontario with production targets of 120 MW by the end of 2010 and 250 MW by the end of 2011**. STG plans on leveraging the Ontario feed-in tariff (FIT), and provincial content regulations to aid in meeting its objectives.
- Realignment of company's strategy:
  - The Ontario FIT allows PV system owners to see an unleveraged IRR of approximately 12-15% with leveraged returns in the high 'teens to mid 20's.
  - Capitalize on the extra low-voltage solution coupled with the greater yield that a parallel system will employ on a roof top, especially when factoring in system sizes and system yields.
  - PARALEX™ system will allow for the rapid deployment of the companies value proposition through the use of 3<sup>rd</sup> party thin-film modules, coupled with installation and systems expertise.
- The global PV growth is widely expected to resume its 30-40% CAGR over the next couple of years. As more countries and jurisdictions start to adapt FIT structures - they will replace the countries that reduce their FIT rates as PV becomes more cost effective.
- The PV industry is poised to become a \$40 billion industry in 2010.
- The Chinese solar industry has as much as a 2 GW of oversupply. Essentially twice forecasted demand, this is in part due to the collapse funding in the aftermath of the credit crisis of 2008.
- The Chinese Central Government will be ordering commercial banks not to finance poly-silicon projects, citing the current over-production capacity of ~ 20,000 tons per year. In 2008 there was an output of 4,000 tons. With projects designed for an annual production capacity of 80,000 tons are under construction.
- Module costs reduced by 35%; the reduction in the installed cost per watt, allows for the elusive search for the long sought after 'grid-parity'. We are seeing installed \$/Wp of around \$5.00 on larger projects, down from \$8.00/W 1.5 years ago.
- 70% of installations will take place in the Roof Top Market. Spanish, French, Swiss, Greek and Ontario markets are offering higher incentives for the installation of roof-top PV, subverting



the transmission infrastructure issues that arise in large scale PV solar farms.

- STG is focusing on France, Spain, Greece and Ontario favoring safe jurisdictions with FIT programs that have low contract and investment risk.
- These markets are well positioned to illustrate Sustainable Energy's value proposition of its PARALEX™ system providing greater yield in the roof-top energy space, where the technological benefits of STG's parallel design parameters become more evident.
- **Green Energy and Green Economy Act;** Ontario is the first jurisdiction in North America to implement an European style FIT Program. Also, the province was the first jurisdiction in North America to have a comprehensive standard-offer program for electricity supplied from renewable energy sources. – Renewable Energy Standard-Offer Program (RESOP).
- Germany's renewable energy law (EEG) was introduced in 2000. Since then, Germany has installed over 5,000 MW of PV generation which has attracted and created manufacturing capacity to meet the demand of the renewable energy sector. The German government reported that more than 214,000 people are employed in the country's green-energy sector, with their FIT being a major contributor to this level of economic activity.
- The Ontario FIT – unlike its European counterparts – does not decline over time, instead the FIT pricing structure is open to review every two years and adjusted based on market supply, demand and changes in the cost of technology. – With the next review scheduled for October 1<sup>st</sup> 2011.
- The Ontario - Green Energy and Green Economy Act (GEGEA) and resulting FIT provides a stability that is needed to allow Ontario to become competitive with the United States in creation of jobs and manufacturing capacity of renewable energy technology.
- A window has opened for a 20% rate of return with a 20 year Government guarantee. With the optimal window in the 250-500 kW project size. This targets medium size commercial installations eliminate the foot-print disadvantages of thin-film over the typical crystalline silicon players. Therefore passing the cost savings that thin-film brings to the playing field on to the project developers.



- Continued lowering of the average selling price (ASP) due to the oversupply of modules, shifts away from a supply-side towards a demand-side market. With the reductions in the ASP we are seeing IRR reflecting the lower cost and high return on their investments. This is a short term benefit as Country's re-evaluate their own programs; they will no-doubt lower the FIT rate to reflect lower system cost.

**– Forecasted<sup>1</sup> IRR for Ontario Roof-Top Installed Solar Photovoltaic Projects**

| Assumptions:  | System Size:                | 250kW                         | 500kW  |
|---------------|-----------------------------|-------------------------------|--------|
|               | FIT Rate (kWh):             | \$0.71                        | \$0.63 |
|               | Installed Cost 2010(\$/Wp): | \$4.81                        | \$4.75 |
|               | Installed Cost 2011(\$/Wp): | \$4.06                        | \$4.00 |
|               |                             | <b>2010 Yield<sup>2</sup></b> |        |
| Debt Leverage | Unleveraged                 | 12.2%                         | 10.6%  |
|               | 25%                         | 12.9%                         | 10.7%  |
|               | 50%                         | 14.0%                         | 11.0%  |
|               | 70%                         | 15.9%                         | 11.5%  |
|               | 80%                         | 18.1%                         | 12.1%  |
|               |                             | <b>2011 Yield<sup>2</sup></b> |        |
|               | Unleveraged                 | 15.2%                         | 13.4%  |
|               | 25%                         | 16.7%                         | 14.4%  |
|               | 50%                         | 19.5%                         | 16.1%  |
|               | 70%                         | 24.5%                         | 19.1%  |
|               | 80%                         | 30.4%                         | 22.6%  |

<sup>1</sup> D&D Securities Company

<sup>2</sup> 20 year Government Guarantee (Ontario Power Authority)

- 3-6 month inverter shortage in Europe. Allowing Sustainable to reduce their current supply of inverters on hand - approximately \$2.5million of inventory.
- Thin-Film will continue to put price pressure on the crystalline producers. As the growth of Thin-Film continues to lower the cost of the PV models, Thin-Film will continue to take market share, seeing ~20% of the market by 2012.



## CONCLUSIONS

- We believe that modules are becoming commodities; as companies continue to compete against each other with lower ASP's – Project developers will strive for the highest yield with the lowest \$/Wp. One of the most attractive plays in this space - we believe - continues to be the peripherals – inverters and other balance of system suppliers.
- Roof-Top PV will surpass ground based solar farms in the next few years.
- Sustainable Energy's Inverter (SUNERGY™) coupled with the PARALEX™ installation solution has the possibility of becoming the operating system of choice for commercial and residential roof-top PV. We believe Sustainable Energy's business proposition can be compared to the Disk Operating system (DOS) that launched Microsoft.
- Corporation's Management has a strategy to deliver one of the lowest cost per watt solar inverter.
- The private labeling agreement with Salicru S.A. –we believe– will be duplicated in the coming months with other large companies to be licensed for use in all major markets – Germany, USA, Canada and the rest of Europe.
- Gaining first mover advantage in the new Ontario renewable energy marketplace.
- Very competitive product pricing with a well defined roadmap outlining the company's direction for the next two years, will allow Sustainable Energy to capitalize on their system, inverter, price and safety propositions.
- Movement into system development through their PARALEX™ product line allows Sustainable Energy to become a vertically integrated company, seeing returns on all aspects of their system, which we believe is imperative in bringing the true benefits of PARALEX™ to the marketplace.
- A financing void will be created as Canadian lenders start to get up the learning curve with regards to financing PV installations; which we believe will be filled by EU lenders who understand the FIT structure, hurdles and other risks associated with financing this space.



## Important Disclosures

### Legal Disclosure

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**Company Specific Disclosure**

Sustainable Energy Technologies Ltd.

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|--|--|--|
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**Important Disclosure Footnotes for Companies Mentioned in this Note that are covered by D&D Securities Company:**

**Stock Price as of November 16, 2009**

Sustainable Energy Technology Ltd. (STG – TSX Venture; Cdn\$0.25)

**Companies Mentioned in this Note that are not covered by D&D Securities Company:**

**Stock Price as of November 16, 2009**

Adept Technology. (ADEP – NASDAQ; US \$2.72)

Norsat International, Inc. (NII - TSX; CND\$0.67)



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