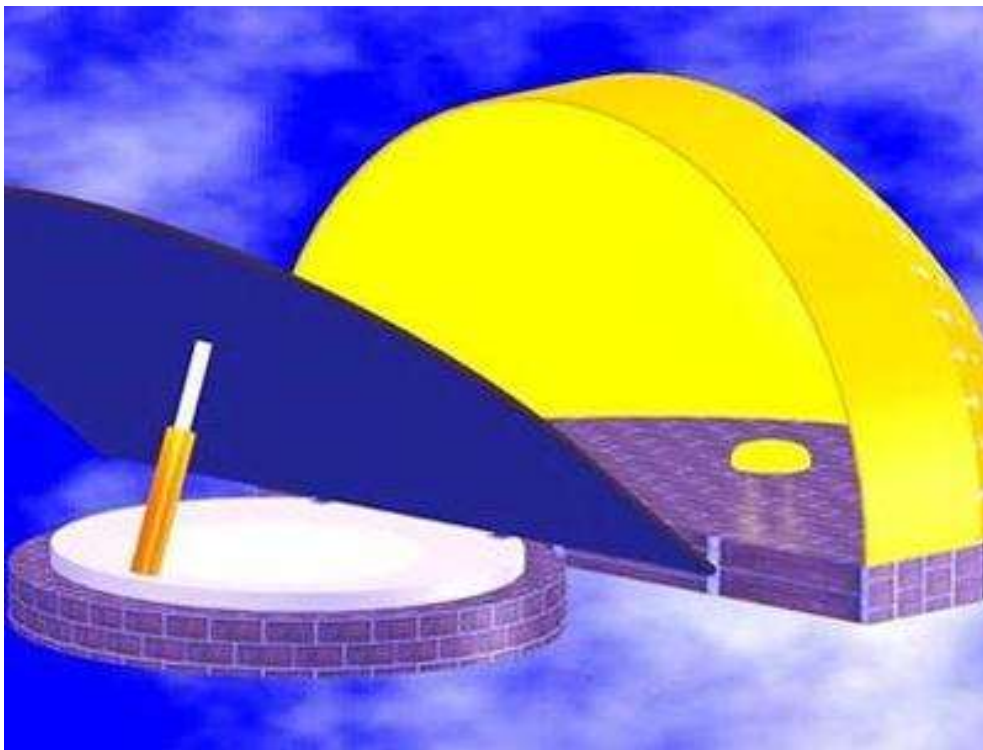




Prospectus / Media Kit

Solar Smelter Technology™



**Intellectual Property
Available for Acquisition**

Patent #9,062,896

Patent #8,984,839

Patent #8,776,785

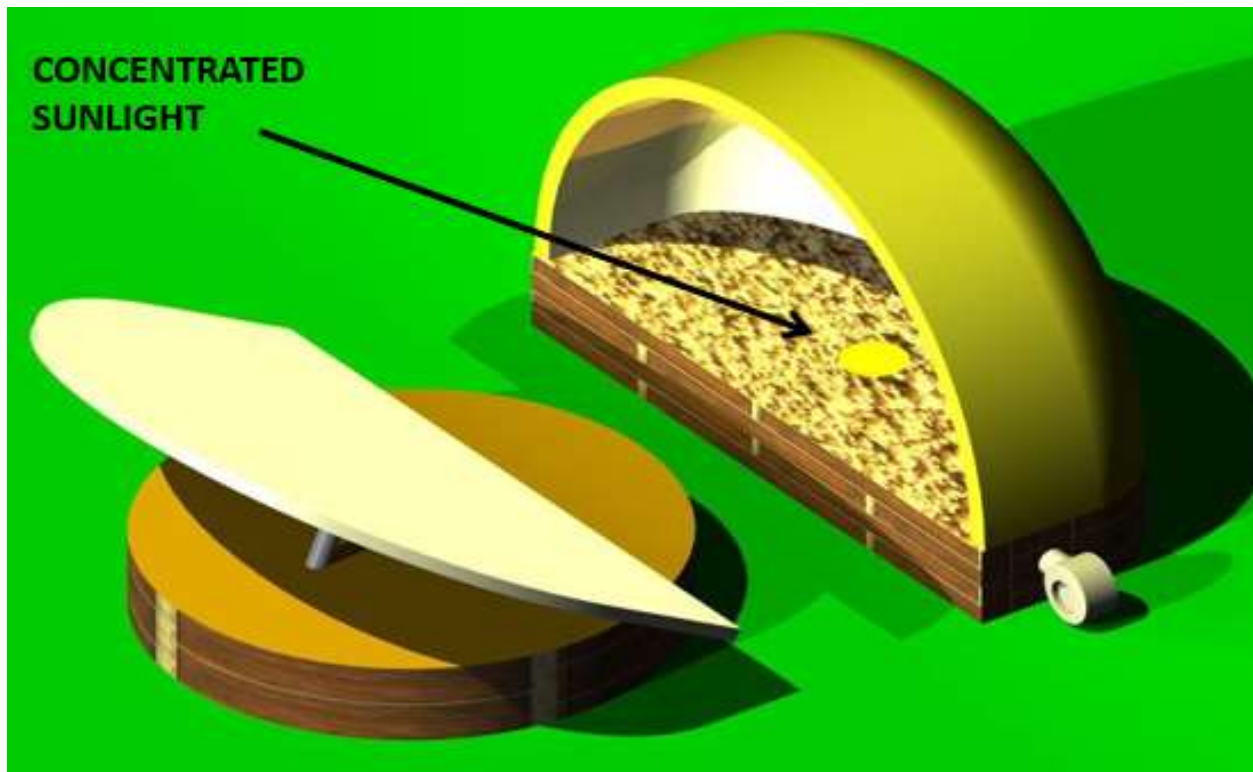
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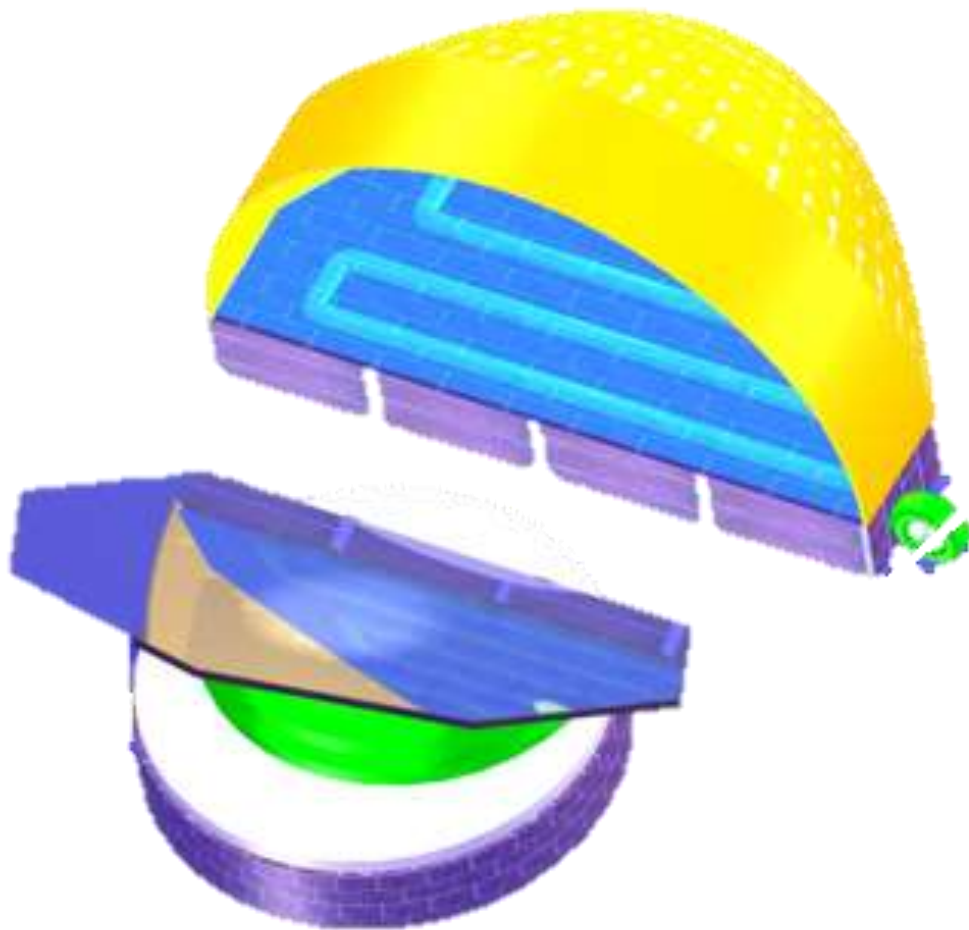
I Summary

This prospectus will introduce the **Solar Smelter Technology™**, a newly patented technology available for licensing. The **Solar Smelter Technology™** utilizes a combination of three patents, US Patent 8,776,785 – Solar Half Shell Smelter with a Heliostat on a Turntable, US Patent 8,984,839 – Reflecting Parabolic Splice solar Smelter, and US Patent 9,062,896 – System to create rotational Energy from a Wind-Chimney and Solar-Smelter. These three patents create a family of patents that can be licensed together under the name **Solar Smelter Technology™**.

The **Solar Smelter Technology™** integrates **Thermal Storage** so as to provide heat 24 hours per day, even at night. It can make hot air, steam or hot heat transfer fluids. It is made of low cost bricks.

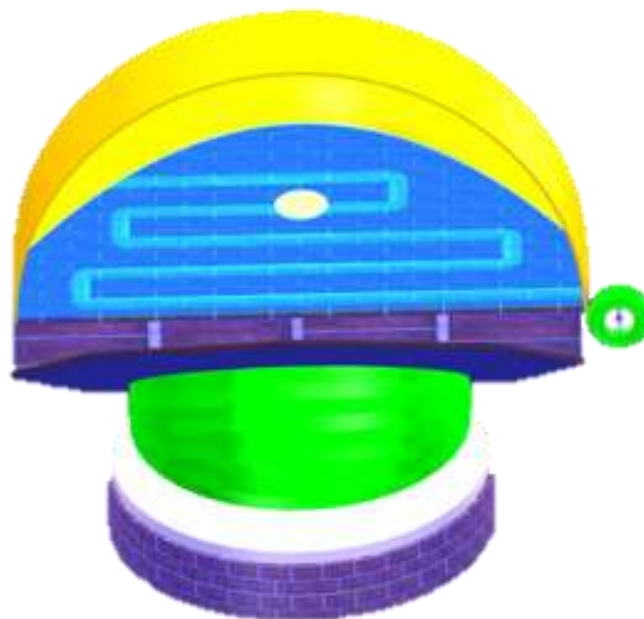
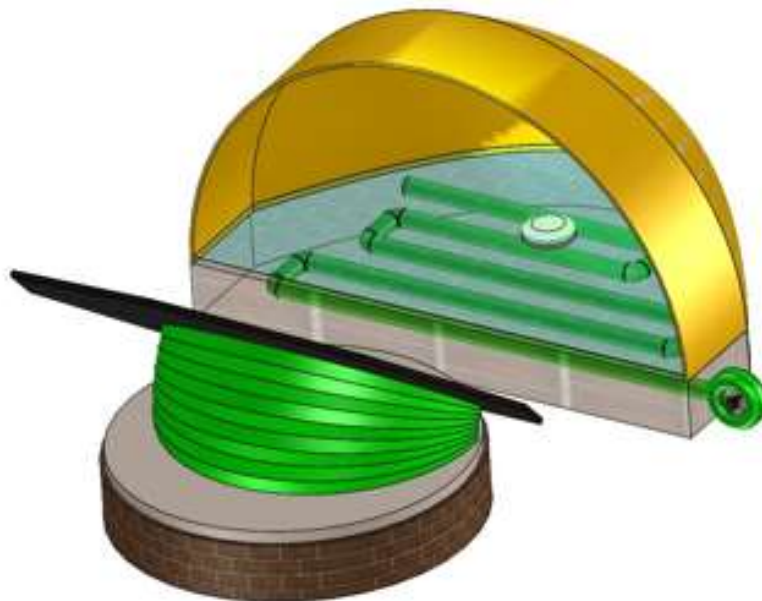


The **Solar Smelter Technology™** implementing the US Patent 8,776,785 manufactures hot air or hot fluids. A curved parabolic-half-shell and curved-overhang focuses the sun's rays, sunlight, unto a crucible, which is buried into a thermal-mass, or the ground. Using a planar-reflector, or heliostat, the sunlight is reflected horizontally unto an interior reflective wall of the curved parabolic-half –shell and curved-overhang. Surrounding the crucible is a thermal-mass with embedded pipes that manufacture hot and compressed air, or heat a gas or fluid. On top of the thermal-mass is a clear transparent-and-insulating floor that captures any stray solar rays, sunlight, adding heat to the thermal-mass. At the foci of the parabolic-half-shell and curved-overhang is a crucible for melting rocks, sand, glass or metal, or processing chemicals (USPTO).



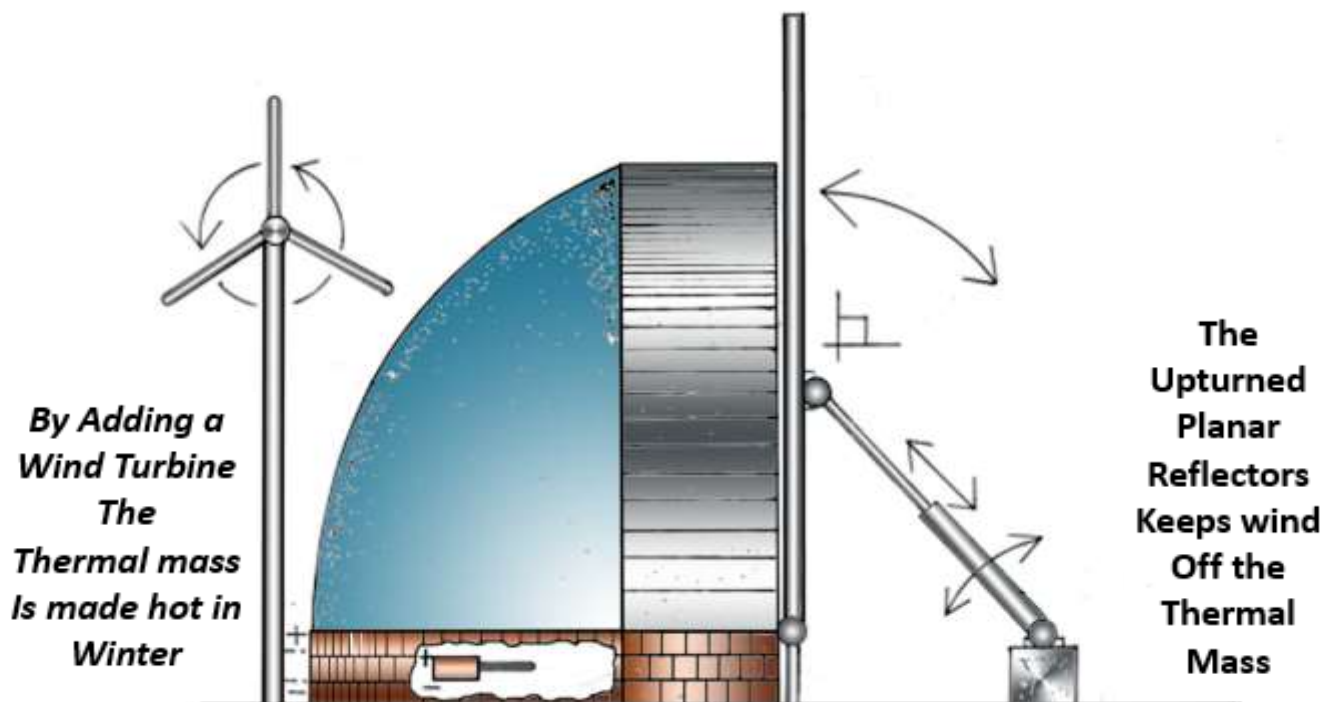
The **Solar Smelter Technology™** implementing the US Patent 8,984,839 is sliced by two planes to form a reflecting-parabolic-splice-solar-smelter so as to focus the sun's noon light to a crucible for smelting rocks, glass and metals and for processing of chemicals, using zero degrees of freedom (USPTO).

This **Solar Smelter Technology™** may be produced with an **Airbag Heliostat** or with a **Turn Table that Floats on Oil**.

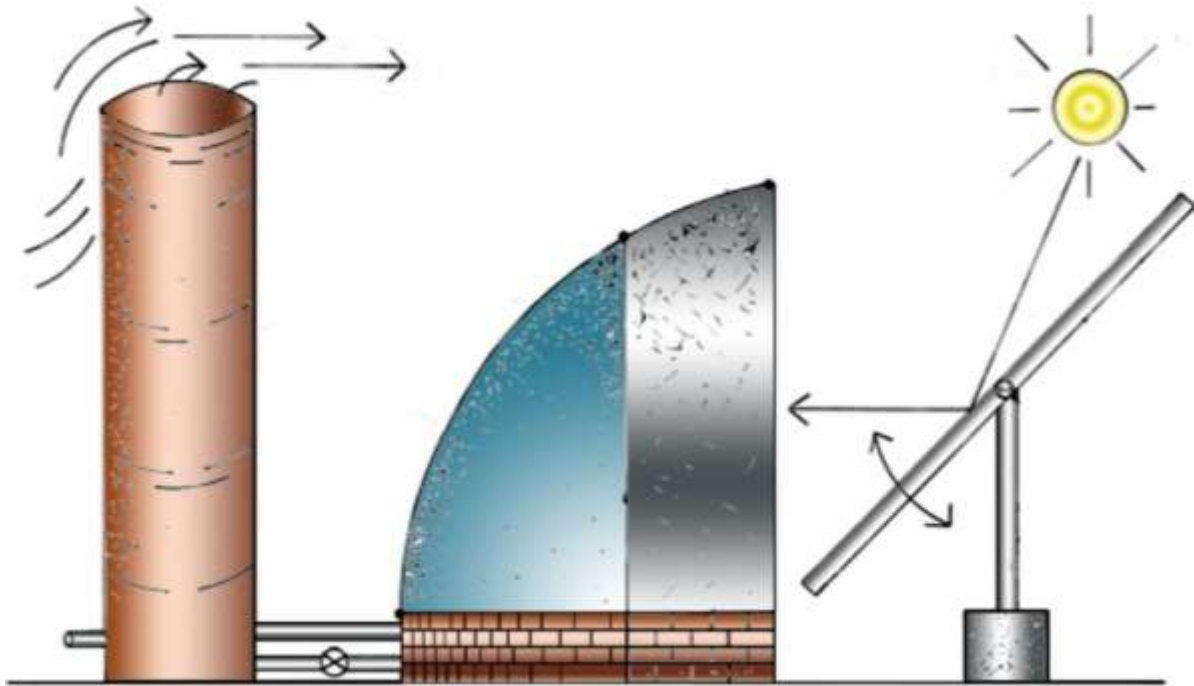


The **Solar Smelter Technology™** implementing the US Patent 9,062,896 provides a rotating-air-compressor that moves ambient-air into a solar-smelter, which heats and compresses the ambient-air for a wind-chimney. Located in the wind-chimney is a rotating-helix that capture the ambient-air, creating rotational energy. An over-spin-valve controls the velocity of the ambient-air to prevent over spinning of the rotating-helix. A rotating-shaft drives a rotating-machine. Attached to a parabolic-half-shell is a parabolic-overhang protecting a crucible in the solar-smelter from rain and wind (USPTO).

**BY INTEGRATING WIND ENERGY You can heat a Thermal Mass
SO AS TO PROVIDE HEAT from a Solar Smelter in Winter. The upturned
Planar Reflector traps the heat in for winter.**



**BY INTEGRATING WIND CHIMNEY TECHNOLOGY
YOU CAN MAKE Alternating Current Electricity
OR Pump Water with a SOLAR SMELTER**



*By storing the sun's energy in melted "solar" lava, it
provides heat 24/7
Cheaper than lead acid batteries.*

Solar Smelter Technology™ Summary

Patent Number:	United States Utility Patent No. 9,062,896, Patent No. 8,984,839, and Patent No. 8,776,785
Industry:	Solar / Environmental
Target Market Size:	Communities and municipalities Environmental groups and non-profits Utility companies Water irrigation industries Disaster relief and humanitarian organizations Military National and International governments Industrial applications
Primary Use:	Solar Power
Key Benefits:	<ul style="list-style-type: none">➤ Makes AC electricity even at night and through the winter➤ Reduces cost of high temperature solar air and water pumping➤ Solves the “Duck Curve”
Est. Production Cost:	est. \$100.00/per unit (minute)
Est. Selling Price:	est. \$300.00/per unit (minute)

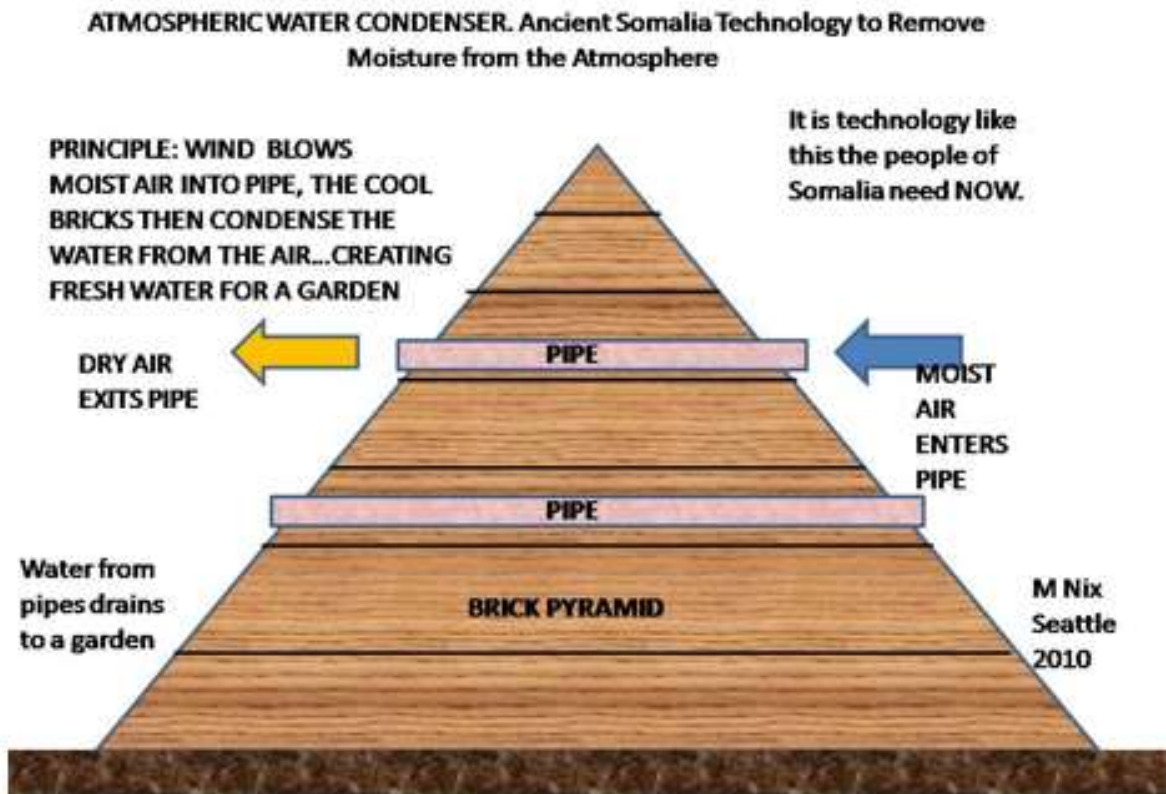
The target market for purchasing the **Solar Smelter Technology™** are every community and municipality, environmental groups and non-profit groups, utility companies, water irrigation industries, disaster relief and humanitarian organizations, military, national and International governments, and all industrial applications needing high temperature, hot air or water.

With a low manufacturing cost, the margins are good for both the manufacturer and wholesaler. Gross margin earnings of 80 percent or more could be easily attained with

this product. Financial projections are contained in Section V. Wholesalers are expected to be eager to place sizable initial and follow-up orders to capitalize on the exclusiveness this value-added product offers.

BankOnIP has been retained by the patent owner to secure a licensing or sales agreement in order to bring the unique features, quality, effectiveness, and value of this technology to the marketplace. The first firm to bring this exciting design to the market will capitalize with a favorable return on investment and enjoy the commercial benefits well into the future. Currently, we are seeking a partner that can *fully* and *profitably* exploit this rare and lucrative licensing opportunity.

Ancient Technology

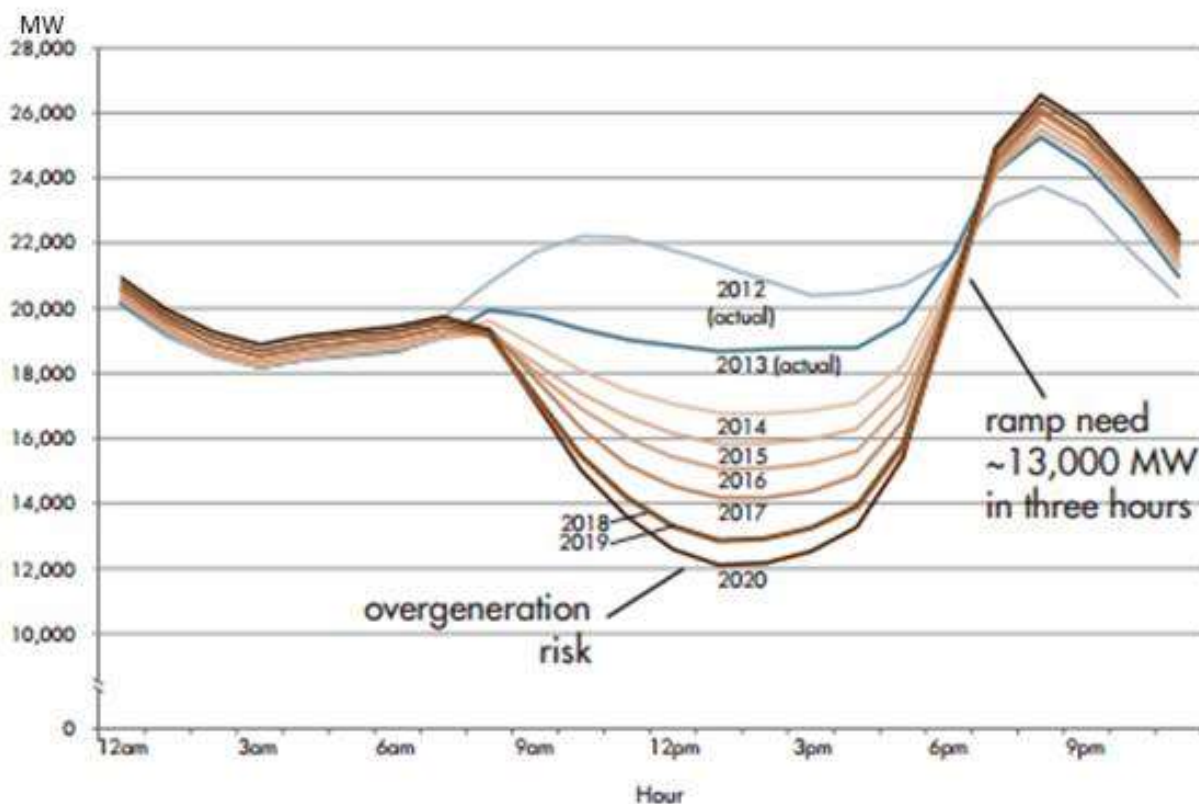


II Competitive Landscape

Competitive Advantages / Breakthrough Opportunity

Right now in the solar industry, the electric utilities industry has a problem with photovoltaics, which is labeled “the Duck Curve”. PV’s come off-line when the sun sets, exactly when utilities need more power and the utilities have to make up for the lost power from fossil energy.

The duck curve shows steep ramping needs and overgeneration risk



(from the California Independent System Operator)

By integrating the **Solar Smelter Technology™**, the “Duck Curve” is solved. Right now solar thermal technology is either line focus parabolics or solar power towers, so by making this out of masonry, it helps reduce the cost of solar thermal power.

Presently other methods include solar towers and dish types. These can actually compliment the **Solar Smelter Technology™**, not compete. The true competition is oil, natural gas, nuclear, coal, and all fossil fuels.

Product Features and Benefits

- Reduces cost of high temperature solar air
- Makes AC electricity even at night and through the winter
- Reduces cost of water pumping
- Solves the “Duck Curve”
- Clean energy
- Low cost
- No moving parts, except for the sun
- Reduces cost of solar thermal power
- Produces high, hot, compressed velocity air
- Long lifespan
- Uses masonry
- Potential to replace fossil fuels
- For the smelting of metals, oars, and glass
- Makes electricity alternating current, base load, 24 hours a day, even at night and winter
- Cheaper than PVs
- Makes heat cheaper than natural gas
- Brings industrial process heat
- Hotter than fossil fuels

Comparable Established Products



Kurzweil Portable Solar-Powered Desalination System



Parabolic Trough



Dish Sterling System



Solar Tower



Aqua4 Water Fx System



IBM Solar-Powered Desalination



eSolar CSP Desalination



Spectra Watermakers Aquifer



Photon Energy System



Solartron Energy System –SolarBeam 7m



Arun@160



Mobile MaxPure – WorldWater & Power

Currently, there are no products on the market that offer all of the features and advantages of the **Solar Smelter Technology™**. The first manufacturer to bring this product to market will profit greatly from its inherent uniqueness and cutting edge design. The **Solar Smelter Technology™** is truly in a class by itself.

Referenced Patented Products

The United States Patent and Trademark Office referenced the following patents when issuing the patent for the 9,062,896:

- U.S. Patent No. 8,776,795, issued July 2014 to Bathe et al.
- U.S. Patent No. 8,776,785, issued July 2014 to Nix
- U.S. Patent No. 8,552,579, issued October 2013 to Richter
- U.S. Patent No. 8,534,068, issued September 2013 to Yangpichit
- U.S. Patent No. 8,360,052, issued January 2013 to Nix
- U.S. Patent No. 8,344,305, issued January 2013 to Convery
- U.S. Patent No. 7,821,151, issued October 2010 to Le et al.
- U.S. Patent No. 7,344,353, issued March 2008 to Naskali et al.
- U.S. Patent No. 7,026,723, issued April 2006 to Moreno
- U.S. Patent Application No. 2012/0139249, issued June 2012 to Peng
- U.S. Patent Application No. 2012/0055160, issued March 2012 to Peng
- U.S. Patent Application No. 2012/0037142, issued February 2012 to Nix
- U.S. Patent Application No. 2011/0204648, issued August 2011 to Wilson
- U.S. Patent Application No. 2011/0173980, issued November 2010 to Yangpichit
- U.S. Patent Application No. 2010/0283254, issued June 2012 to Richter et al.
- U.S. Patent Application No. 2008/0156315, issued July 2008 to Yangpichit
- U.S. Patent Application No. 2006/0016182, issued January 2006 to Comandu et al.

The United States Patent and Trademark Office referenced the following patents when issuing the patent for the 8,984,839:

- U.S. Patent No. 8,360,052, issued January 2013 to Nix
- U.S. Patent No. 7,337,843, issued March 2008 to Mecham et al.
- U.S. Patent Application No. 2005/0284145, issued December 2005 to Repetto

The United States Patent and Trademark Office referenced the following patents when issuing the patent for the 8,776,785:

U.S. Patent No. 7,975,685, issued July 2011 to Zhao

U.S. Patent No. 7,337,843, issued March 2008 to Mecham et al.

U.S. Patent No. 6,953,038, issued October 2005 to Nohrig

U.S. Patent Application No. 2010/0078012, issued April 2010 to Nix

U.S. Patent Application No. 2008/0131830, issued June 2008 to Nix

None of the above referenced patented products offer all the features and benefits of the combined patents for the **Solar Smelter Technology™**.

Competitive Summary

Solar Smelter Technology™ Market Comparison		
Feature	Solar Smelter Technology™	Fossil Fuels
Reduces cost of high temperature solar air	YES	NO
Makes AC electricity even at night and through the winter	YES	NO
Reduces cost of water pumping	YES	NO
Solves the “Duck Curve”	YES	NO
Clean energy	YES	NO
Low cost	YES	NO
No moving parts, except for the sun	YES	NO
Reduces cost of solar thermal power	YES	NO
Produces high, hot, compressed velocity air	YES	NO
Long lifespan	YES	NO
Uses masonry	YES	NO
Potential to replace fossil fuels	YES	NO
For the smelting of metals, oars, and glass	YES	NO
Makes electricity alternating current, base load, 24 hours a day, even at night and winter	YES	NO
Cheaper than PVs	YES	NO
Makes heat cheaper than natural gas	YES	NO
Brings industrial process heat	YES	NO
Hotter than fossil fuels	YES	NO

III Product Analysis

Product Specifications

The **Solar Smelter Technology™** is comprised of:

- Parabolic half shell
- Base – Cement
- Parabolic splice smelter
- Pipes
- Cement bricks
- Blowers
- Compressors
- Dimensions:
 - Length - 16'
 - Height - 8'
 - Depth - 4'
 - Weight - Approximately 10 pounds



Exact specifications may vary depending on manufacturing requirements; therefore the foregoing should be considered as illustrative only of the principles of the product and should not limit additional suitable modifications and equivalents that fall within the scope of the patent.

Estimated Manufacturing Cost

Using estimated material cost for the foregoing items and a small burden charge, the estimated manufacturing cost would approximate \$100.00 per unit minute for the **Solar Smelter Technology™**. However, given the variations in materials and manufacturing efficiencies in producing the **Solar Smelter Technology™**, the cost could be lowered significantly. Therefore, these figures should be considered as a guide only, for the purposes of demonstrating the market potential for this product.

Expected Pricing

The suggested retail price is estimated to be \$300.00. At this price-point, the consumer will conclude that it is a small price to pay for an item that offers such value-added features.

Assuming a 3.0 to 5.0 markup from manufacturing cost, which is estimated at \$100.00 per unit minute and is detailed in the previous section, the projected wholesale price would be \$150.00 per unit minute. This pricing will be attractive to the retailer, which would approximate a 60 percent gross profit.

Enhancement In Addition to the IP

A working prototype of the **Solar Smelter Technology™** can be made available to demonstrate the design and functionality of the product.

IV Financial Pro Forma

Five-year pro forma: Share Capture of the Environmental Industry Revenue

Estimated Market: \$345,000,000,000 (U.S.)
Projected Share: 0.0005%
Annual Growth: 10%

<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
\$1,725,000	\$1,897,500	\$2,087,250	\$2,295,795	\$2,525,573

Five-year pro forma: Share Capture of the Environmental Industry Revenue

Estimated Market: \$140,000,000,000 (Global)
Projected Share: 0.001%
Annual Growth: 10%

<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
\$1,400,000	\$1,540,000	\$1,694,000	\$1,863,400	\$2,049,740

The preceding financial projections assume that the **Solar Smelter Technology™** will capture a very conservative percentage of the \$345 billion environmental industry revenue in the US and the \$140 billion solar industry globally. A standard 10 percent new product adoption curve is assumed once the product gains market acceptance. These projections should be considered as illustrative only of the tremendous market potential for this distinctive new product.

V Industry & Market Trends

Industry Size and Trends

Environmental Industry

The U.S. market for Environmental Goods and Services (EGS) is currently estimated at \$345 billion according to the Environmental Business Journal's (EBJ) *Environmental Industry Outlook* edition. This represents approximately 37.6 percent of the global market. According to the International Trade Centre, International Trade Forum, the environmental technologies, products and services have, in 20 years, grown to match the aerospace and pharmaceutical industries in size.

The global market for environmental technologies goods and services has reached over US\$917 billion and is expected to reach \$1.9 trillion by 2020. U.S. environmental companies export close to US\$50 billion worth of goods and services annually. The U.S. industry for environmental technologies employs approximately 2.6 million people.

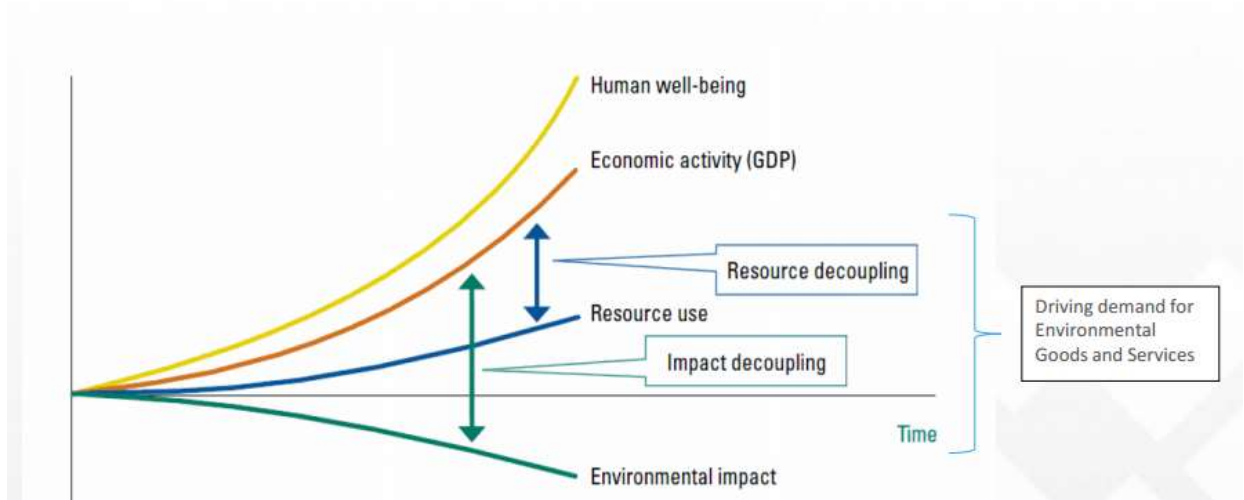
Growth rates in the \$345 billion U.S. environmental industry is expected to continue to improve in 2016 as government markets stabilize and the recovering economy benefits from low oil prices and more development and construction, according to Environmental Business Journal's (EBJ) *Environmental Industry Outlook* edition.

Environmental Goods & Services Industry Statistics

Key Environmental Goods & Services Industry Figures	2014
Industry Revenue	\$345 billion
Revenue Growth	20.6%
Exports	\$48.4 billion
Global Revenue	\$917 billion
Number of Employees	3.6 million

*EBJ

Decoupling economic growth from environmental impact



Source: UNEP

According to IBISWorld, the demand from the public and private sectors for environmental consultants will bolster industry revenue over the next five years. Specifically, companies are looking to improve their reputation and reduce their carbon footprint, strengthening demand for industry services. The Environmental Consulting industry is in the growth stage of its economic life cycle. The industry is characterized by growth faster than that of the overall economy, new businesses entering the industry, a moderate rate of technological change and introduction of new services.

Environmental Consulting & Engineering Industry Statistics

Key Environmental Consulting & Engineering Industry Figures		2014
Industry Revenue		\$28.6 billion
Revenue Growth		1-2%
Number of Establishments		53,785
Employment		125,140

*EBJ and IBISWorld

According to Environmental Business Journal's (EBJ), the U.S. environmental consulting and engineering (C&E) industry generates close to \$29 billion in revenues annually. EBJ's preliminary estimate shows an expected growth of 3-4 percent for 2015 based on revenues of more than 600 firms.

According to "The World Environmental Market" by Ed Mallet, the multi-billion dollar market for environmental goods and services, while predominantly focused on developed countries, is increasingly becoming a global industry. The highest growth rates for environmental products and services over the next five years are expected to be in Asia, Eastern Europe, and Latin America. Over the next four years, the Canadian and U.S. industries are expected to grow by about four percent per year. "The global quest for energy and mineral resources has driven environmental markets in many nations, but increased regulation, enforcement and infrastructure has also played a role in growth," said George Stubbs, EBJ's senior editor.

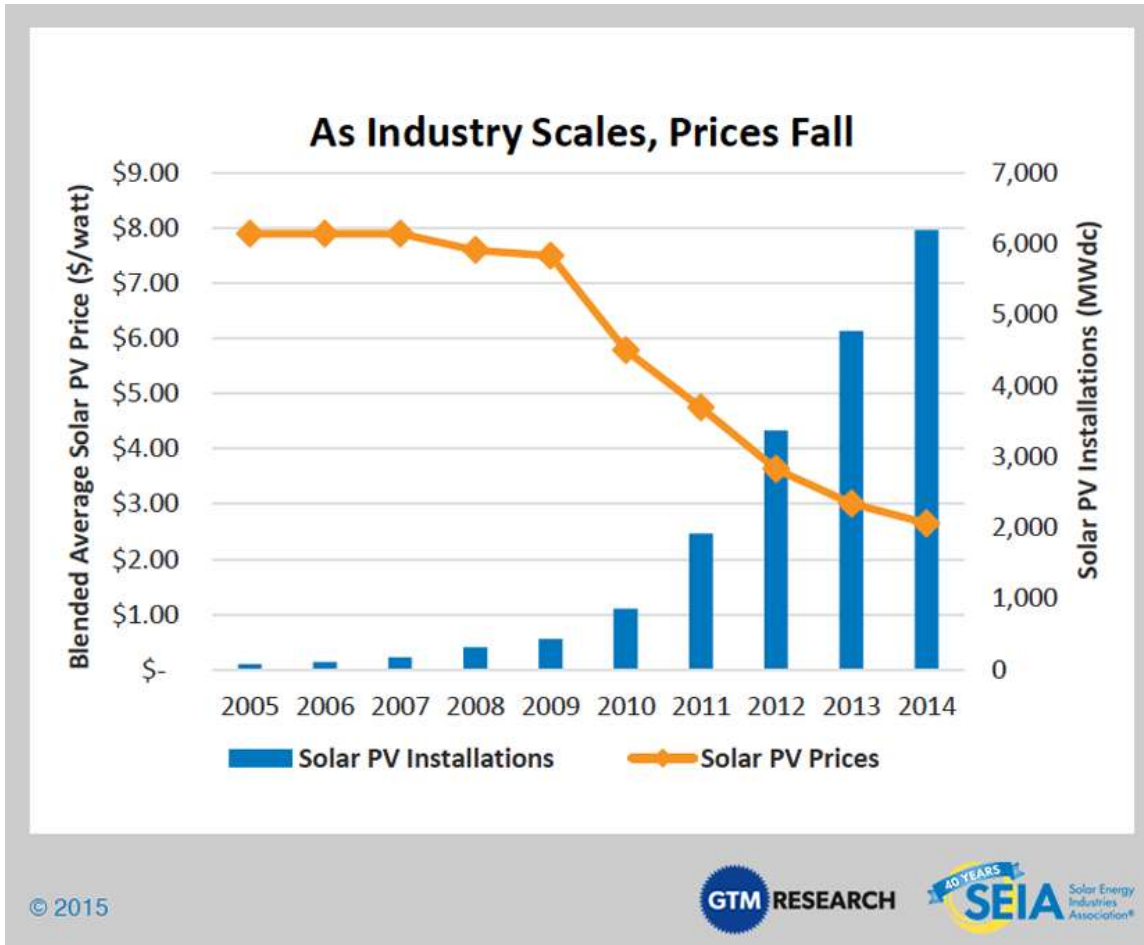
Solar Energy Industry

According to the Solar Energy Industries Association (SEIA) the U.S. solar industry continued on its record-breaking trajectory in Q2 2015 with 1,393 megawatts (MW) of installed solar capacity, making this the largest Q2 in history. As has been the case over the last 18 months, the residential and utility-scale markets led the way, installed 463 and 729 MW, respectively.

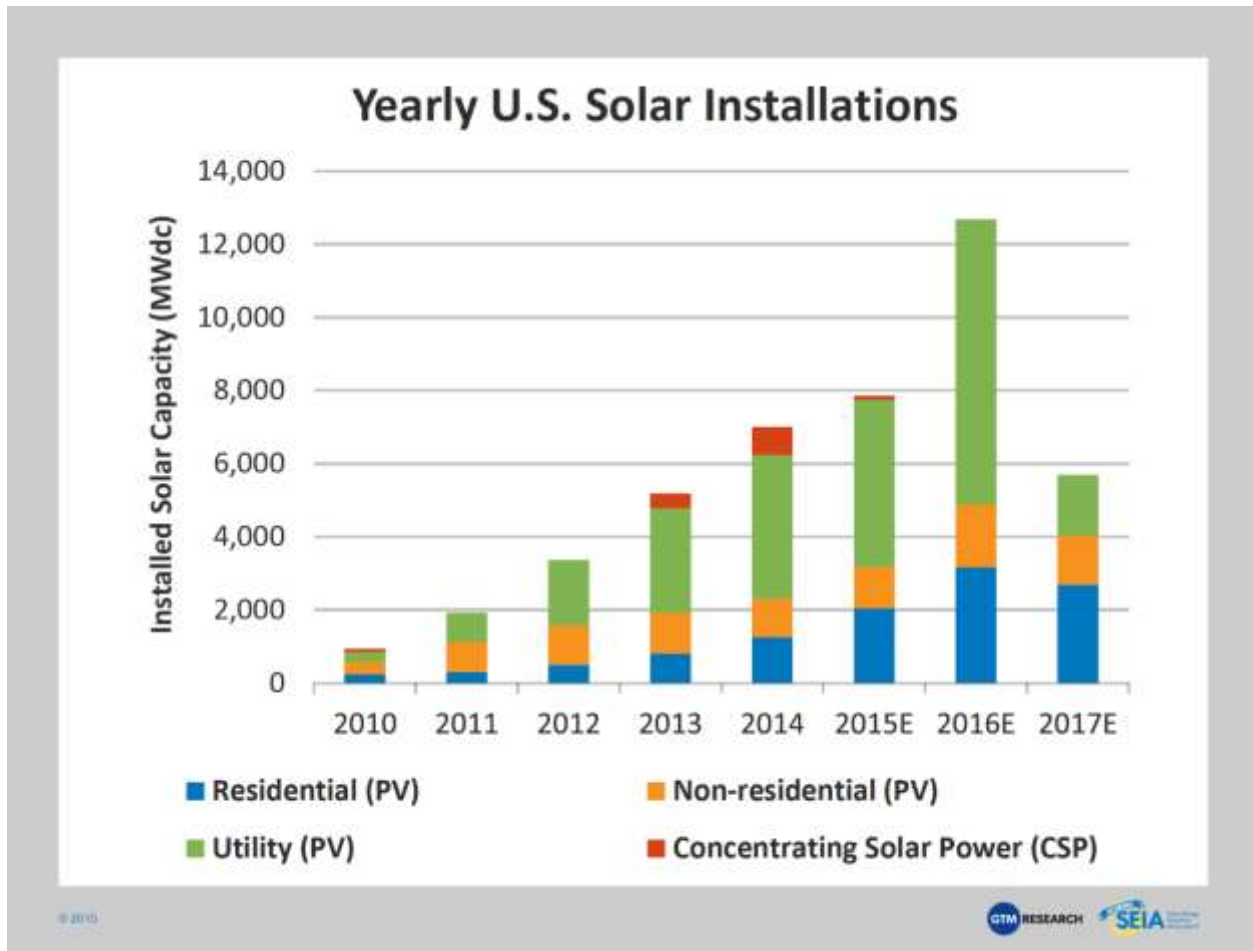
Through the first half of the year, the solar industry has supplied 40 percent of all new 2015 electric generating capacity - more than any other energy technology. With more than 5,000 MW of installed solar capacity projected over the second half of 2015, the U.S. solar industry is expected to reach nearly 8,000 MW for the year, and 28,000 MW in total.

SEIA reports that there are now over 22,700 MW of cumulative solar electric capacity operating in the U.S., enough to power more than 4.6 million average American homes. With over 135,000 installations in the first half of 2015, nearly 784,000 U.S. homes and businesses have now gone solar and a new solar project was installed every 2 minutes. Growth in Q2 was led by the utility-scale sector, which posted its largest quarter of the year at 729 MW, and the residential sector, which grew 70 percent over last year to install

473 MW and will likely surpass its 2014 total in Q3. Since the implementation of the ITC in 2006, the cost to install solar has dropped by more than 73 percent. While residential costs have dropped by 45 percent since 2010, utility-scale costs have dropped more significantly, with recent contracts at prices below \$0.05/kWh.

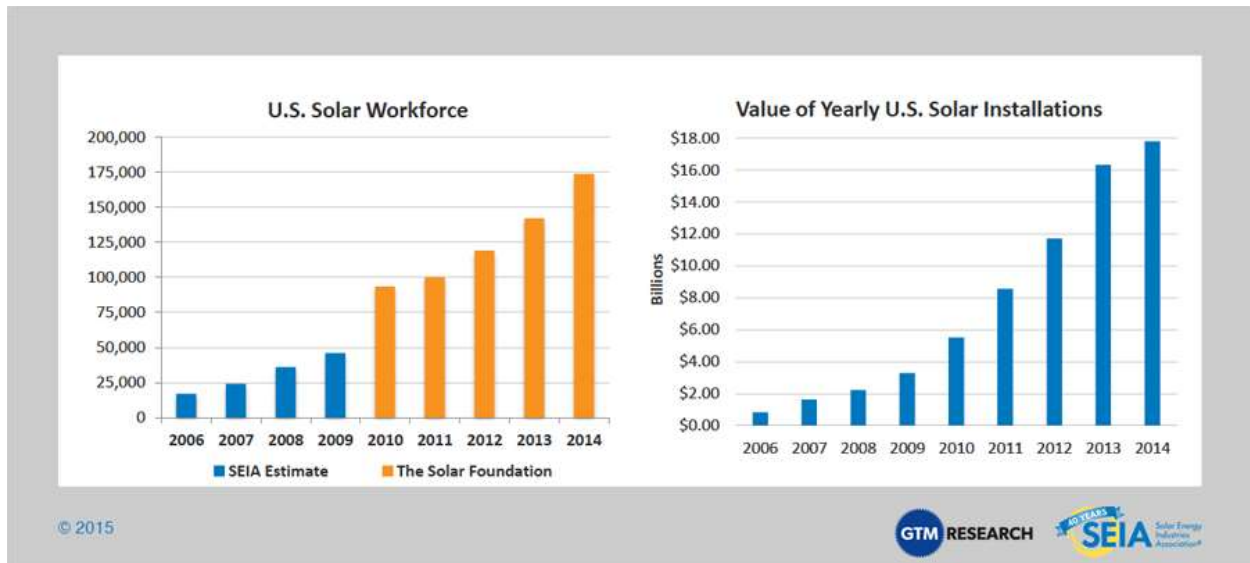


Roughly 20,000 MW of solar capacity is forecasted to come online over the next two years, doubling the country's existing solar capacity. Growth is expected to be broad-based, with more than 16 states expected to top the 100 MW mark in 2016, up from 9 states in 2014. However, without congressional action, the upcoming expiration and reduction of the Investment Tax Credit is expected to lead a 57 percent decline of installed solar capacity in 2017 (SEIA).



As the solar industry grows, so does its benefit to the economy. According to The Solar Foundation, there are now nearly 174,000 solar workers in the U.S., more than a 20 percent increase over employment totals in 2013. These workers are employed at 6,100 businesses in every state. The increasing value of projects has injected life into the U.S. economy as well. In 2013, solar installations were valued at \$13.7 billion, compared to \$11.5 billion in 2012 and \$8.6 billion in 2011.

In 2014, almost \$140 billion was invested in the solar industry. Of this massive investment, \$70 billion was invested in smaller-scale, distributed solar projects like rooftop systems. (unreasonable.is)



Target Market Analysis

As mentioned earlier in this prospectus, the target market for purchasing the **Solar Smelter Technology™** is comprised of every community and municipality, environmental groups and non-profit groups, utility companies, water irrigation industries, disaster relief and humanitarian organizations, military, national and International governments, and all industrial applications needing high temperature hot air or water.

VI Licensing Opportunities & Patent Information

BankOnIP is the exclusive agent to represent the licensing or transfer of the patent and trademark rights. BankOnIP is a well-respected international firm dedicated to the marketing of patented technologies. Our team has over a hundred years of combined experience in the fields of technology transfer, licensing, and marketing consultation. BankOnIP represents dozens of product lines and has successfully represented numerous award-winning products. With a shared risk philosophy, BankOnIP strives to develop mutually beneficial financial arrangements with manufacturers and/or distributors.

Currently, we are seeking a licensing arrangement involving the patent to make, use, manufacture, market, and distribute the **Solar Smelter Technology™**. Please contact Mark Petheram, Executive Vice President, BankOnIP, Ltd. at (913) 928-6297 ext. 202 or e-mail him at mark@BankOnIP.com to discuss this rare and lucrative new product opportunity.

Intellectual Property Information

Martin E. Nix holds United States Utility Patent No. 9,062,896 filed on May 16, 2013, and issued on June 23, 2015. This patent for the **Solar Smelter Technology™** expires in 2033, commensurate with the filing date. This patent has two claims that protect the exclusive design and function of the **Solar Smelter Technology™**.

Martin E. Nix also holds United States Utility Patent No. 8,984,839 filed on May 11, 2013, and issued on March 24, 2015. This patent for the **Solar Smelter Technology™** expires in 2033, commensurate with the filing date. This patent has one claims that protect the exclusive design and function of the **Solar Smelter Technology™**.

Martin E. Nix also holds United States Utility Patent No. 8,776,785 filed on July 7, 2009, and issued on July 15, 2014. This patent for the **Solar Smelter Technology™** expires in

2029, commensurate with the filing date. This patent has one claims that protect the exclusive design and function of the **Solar Smelter Technology™**.

Intellectual Property Owner Background



Martin Nix is an inventor with nine patents, one pending, in solar technology, including solar smelters. He is the founding secretary for Solar Washington, a not-for-profit for solar development. He is a graduate of University of New Mexico, with a Bachelors of University Studies. He attended New Mexico State University engineering school, and attended the School of Planning and Architecture at University of New Mexico. He is a graduate of North Seattle Community College in Construction Engineering Graphics. Associate of Applied Science. He has a Certificate in computer programming from Seattle Central Community College. He is a certified FAA aircraft mechanic who is currently testing the 787 aircraft for the Boeing Company. Previously he worked for engineering system on designing the 777 electrical system. He was a math editor for the Strategic Defense Missile System at Boeing Aerospace Company with a 25 year career at Boeing. He is also an active member of Solar Cookers International, a group dedicated to developing solar cooking technology, especially for third world nations. Presently, he is doing research into use of solar energy to help solve global warming.

Exhibit Summary

Exhibit A - Trade Show Information

Exhibit B - Trade Publication Information

Exhibit A -Trade Shows

**Environmental Industry Summit
XIV**

Dates and Location:
March 9-11, 2016
Hotel del Coronado
San Diego, CA

Intersolar North America

Dates and Location:
July 12-14, 2016
Moscone Center
San Francisco, CA

GLOBALCON

Dates and Location:
March 9-10, 2016
Hynes Convention Center
Boston, MA

**MiaGreen 2016
Expo & Conference**

Dates and Location:
February 9-11, 2016
Miami Airport Convention Center
Miami, FL

Renewable Energy Expo

Dates and Location:
December ?, 2016
Las Vegas Convention Center
Las Vegas, NV

Energy Exposition

Dates and Location:
August 17-18, 2016
The Ranch
Loveland, CO

Solar Power International

Dates and Location:
September 12-15, 2016
Las Vegas Convention Center
Las Vegas, NV

Licensing International Expo

Dates and Location:
June 21-23, 2016
Mandalay Bay Convention Center
Las Vegas, NV

Midwest Solar Expo

Dates and Location:
May 17-19, 2016
TBA
Minneapolis, MN

**Solar Power
PV Conference & Expo**

Dates and Location:
February 24-25, 2016
Westin Boston Waterfront
Boston, MA

Exhibit B - Trade Publications

Solar Success
Solar Thermal
Home Power
Solar Power
Solar Living
Solar Projects
Solar Water Heating
Solar Builder
Solar Technologies
Today's Energy Solutions
Environment
Environmental Engineer
Environmental Design and Construction
Environment International
Environment Today
Environmental Action
Environmental Digest
Environmental Outlook
Environmental Pollution
Environmental Solutions
Environmental Technology
GREEN-Alternatives Magazine
Green Book
GreenViews
Energy Global

The tradeshows and trade publications listed are possible marketing tools that we include in the prospectus because of our belief in the complete marketing program. Although BankOnIP represents products at numerous tradeshows and in certain publications, we do not guarantee representation at all of the listed shows or publications.



US009062896B2

(12) **United States Patent**
Nix

(10) **Patent No.:** **US 9,062,896 B2**
(45) **Date of Patent:** **Jun. 23, 2015**

(54) **SYSTEM TO CREATE ROTATIONAL ENERGY FROM A WIND-CHIMNEY AND SOLAR-SMELTER**

(71) Applicant: **Martin Eugene Nix**, Seattle, WA (US)

(72) Inventor: **Martin Eugene Nix**, Seattle, WA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 173 days.

(21) Appl. No.: **13/986,595**

(22) Filed: **May 16, 2013**

(65) **Prior Publication Data**
US 2014/0338658 A1 Nov. 20, 2014

(51) **Int. Cl.**
F24J 2/34 (2006.01)
F24J 2/02 (2006.01)

(52) **U.S. Cl.**
CPC ... *F24J 2/02* (2013.01); *Y02E 10/40* (2013.01)

(58) **Field of Classification Search**
CPC *F24J 2/02*; *F24J 2/13*; *Y02E 10/40*
USPC 126/400, 620, 680, 681, 684, 688, 689, 126/690, 692, 696
See application file for complete search history.

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4,335,544 A	6/1982	Manson
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6,016,015 A	1/2000	Willard
6,089,021 A	7/2000	Senanayake
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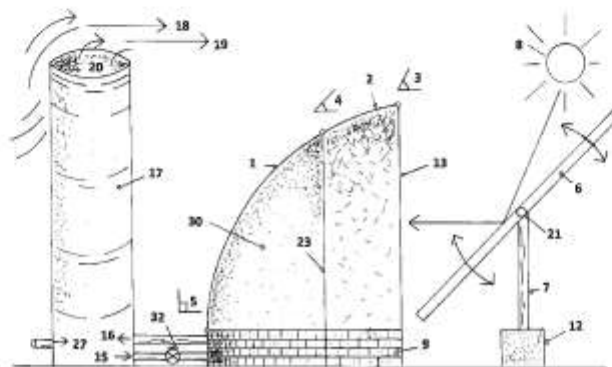
U.S. Appl. No. 12/459,719, filed Feb. 16, 2002, Nix.

Primary Examiner — William Gilbert

(57) **ABSTRACT**

A rotating-air-compressor moves ambient-air into a solar-smelter, which heats and compresses the ambient-air for a wind-chimney. Located in the wind-chimney is a rotating-helix that captures the ambient-air creating rotational energy. An over-spin-valve controls the velocity of the ambient-air to prevent over spinning of the rotating-helix. A rotating-shaft drives a rotating-machine. Attached to a parabolic-half-shell is a parabolic-overhang protecting a crucible in the solar-smelter from rain and wind.

2 Claims, 5 Drawing Sheets





US008984839B2

(12) **United States Patent**
Nix

(10) **Patent No.:** **US 8,984,839 B2**
(45) **Date of Patent:** **Mar. 24, 2015**

(54) **REFLECTING PARABOLIC SPLICE SOLAR SMELTER**

(71) Applicant: **Martin E. Nix**, Seattle, WA (US)
(72) Inventor: **Martin E. Nix**, Seattle, WA (US)
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 220 days.

(21) Appl. No.: **13/815,582**

(22) Filed: **Mar. 11, 2013**

(65) **Prior Publication Data**
US 2014/0251312 A1 Sep. 11, 2014

(51) **Int. Cl.**
F24J 2/02 (2006.01)
F24J 2/13 (2006.01)

(52) **U.S. Cl.**
CPC *F24J 2/02* (2013.01); *F24J 2/13* (2013.01);
Y02E 10/40 (2013.01)
USPC **52/681**; 126/690

(58) **Field of Classification Search**
USPC 126/617, 618, 680, 681, 684, 689, 690,
126/400, 620, 692, 696
See application file for complete search history.

(56) **References Cited**

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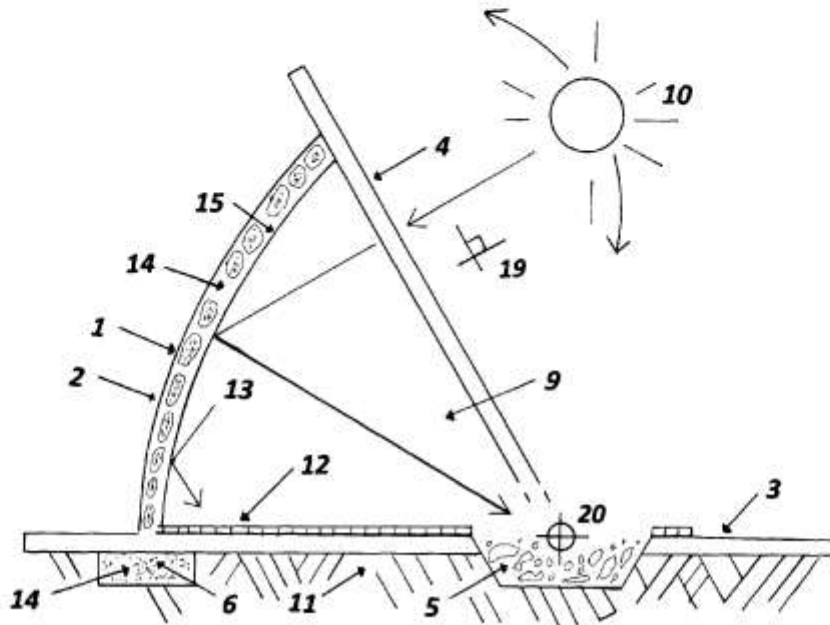
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Primary Examiner — William Gilbert

(57) **ABSTRACT**

A revolution-of-a-parabolic-curve is sliced by two planes to form a reflecting-parabolic-splice-solar-smelter so as to focus the sun's noon light to a crucible for smelting rocks, glass and metals and for processing of chemicals, using zero degrees of freedom. (50 words)

1 Claim, 5 Drawing Sheets





US008776785B2

(12) **United States Patent**
Nix

(10) **Patent No.:** **US 8,776,785 B2**
(45) **Date of Patent:** **Jul. 15, 2014**

(54) **SOLAR HALF-PARABOLIC SHELL SMELTER WITH A HELIOSTAT ON A TURNABLE**

(76) Inventor: **Martin E Nix, Seattle, WA (US)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 811 days.

(21) Appl. No.: **12/459,719**

(22) Filed: **Jul. 7, 2009**

(65) **Prior Publication Data**

US 2011/0005515 A1 Jan. 13, 2011
US 2012/0037152 A9 Feb. 16, 2012

(51) **Int. Cl.**
F24J 2/16 (2006.01)
F24J 2/18 (2006.01)
F24J 2/10 (2006.01)
F24J 2/02 (2006.01)

(52) **U.S. Cl.**
CPC .. *F24J 2/10* (2013.01); *Y02B 40/18* (2013.01);
F24J 2/18 (2013.01); *F24J 2/02* (2013.01);
Y02E 10/40 (2013.01)
USPC **126/686**; 126/617; 126/619; 126/620;
126/681

(58) **Field of Classification Search**
USPC 126/617, 618, 619, 620, 634, 656, 680,
126/681, 685, 686, 688, 689, 690, 696, 400
See application file for complete search history.

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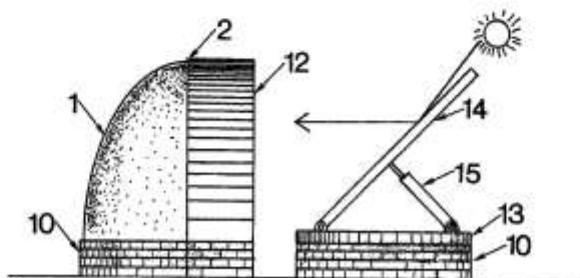
(Continued)

Primary Examiner — Avinash Savani

(57) **ABSTRACT**

Invented is a solar smelter that also manufactures hot air or hot fluids. A curved parabolic-half-shell and curved-overhang focuses the sun's rays, sunlight, onto a crucible, which is buried into a thermal-mass, or the ground. Using a planar-reflector, or heliostat, the sunlight is reflected horizontally onto an interior reflective wall of the curved parabolic-half-shell and curved-overhang. Surrounding the crucible is a thermal-mass with embedded pipes, that manufacture hot and compress air, or heat a gas or fluid. On top of the thermal-mass is a clear transparent-and-insulating floor that captures any stray solar rays, sunlight, adding heat to the thermal-mass. At the foci of the parabolic-half-shell and curved-overhang is a crucible for melting rocks, sand, glass or metals, or processing chemicals.

1 Claim, 5 Drawing Sheets



Disclosure Statement

BankOnIP (the "Company") has prepared the attached business Prospectus (the "Plan") based upon its current understanding of the industry, expansion plans, markets, technology and other pertinent indicators. The plan contains information to provide prospective investors with a foundation on which to base meaningful discussion with management of the Company. The projected financial information is management's projection of possible future results and is dependent on many factors over which they are derived. Neither the Company nor any of its representatives makes any express or implied representation or warranty as to the attainability of these projections or the accuracy, completeness or reasonableness of the assumptions. Neither the company nor any of its representatives makes any express or implied representation related to any past, current or future patent infringement claims the Plan represents.

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Opportunity at a Glance

New Technology:

Solar Smelter Technology™

Patent:

9,062,896, 8,984,839, 8,776,785



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For additional information and potential terms to acquire this innovative technology contact Mark Petheram, Executive Vice President, BankOnIP.

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