

ENERGY INDEPENDENCE INITIATIVE

A Renewable Energy Company

Executive Summary

Energy Independence Initiative (EII) is a renewable energy corporation, but it is like no other renewable energy company on the market. We are sure you have probably heard that 100 times. What if we told you that EII could provide a continuous source of energy that would operate 24 hours a day, 365 days a year for 30 years, produces zero carbon emissions and that energy production costs would be 50% below most worldwide markets. Would you be interested?

EII has the patents on such a system. The system is solar and an inexpensive energy storage system that's good for 30 years and the plants have the capability of producing potable water if desired. So, no more worries about where you can get the lithium.

EII's power plants are a hybrid consisting of solar production during the day and the use of stored hydrogen burned in generators at night to complete the 24-hour cycle, the cycle referred to as The Solar Hydrogen Cycle. EII uses a solar tracking system that produces 45% to 50% more energy than fixed tilt solar systems with 50% less land usage. The energy from solar field is split between the grid and the hydrogen manufacturing facility. The hydrogen that is produced is stored for nighttime energy production and periods when the solar field is dormant due to inclement weather.

What is EII's competition? The competition is the three primary renewable energy systems used today. Fixed tilt solar, fixed tilt solar with battery backup, and wind energy. EII is comparable in price with fixed tilt solar with battery backup and less expensive than wind solar but twice as expensive as fixed tilt solar. The major differences between EII and the other three forms of energy is EII operates 24 hours a day. What does that mean to the energy producer buying the EII system? It allows the producer to eliminate 100% of fossil fuel production equal to the energy produced by the EII system. The other three forms of renewable energy only operate about 30% of the time, which means when those systems are installed the producer can only eliminate 30% of fossil fuel production equal to the energy produced by the other three renewable energy systems. The benefits of EII's system are to reduce costs for the energy producer by eliminate fossil fuel, reduce carbon emissions, and provide an energy stream that is stable reliable and consistent for grid operations.

The IEA (International Energy Agency) predicts over the next five years 650 Twh of new solar construction. EII's targeted market is any energy consumer group paying more than \$.12 a kilowatt hour. Those areas include all southern Europe, Caribbean islands, South Pacific, Africa, portion of the United States and some countries in South America. The IEA prediction may be low based on the recent mandates set forth by the government to increase electric car production.

EII has a five-year plan to build out 500 MW of energy production at which time there will be enough income and assets to justify an IPO. To do this, EII is seeking venture capital to provide funds for a worldwide marketing campaign and construction of a design, research, and manufacturing facilities. The investment being 50% real-estate and 50% Series A funding,

Appendices

For access to supporting documents, please visit our website:

<https://eiienergy.com/docs/>

Items available for review:

- [Investor Presentation](#)
- Building Rendering
- Building Site Plan
- Copy of Patent
- State Certificate of Incorporation
- Solar-Hydrogen Plant Schematic
- Solar-Hydrogen control module logic diagram
- Original Solar-Hydrogen white paper
- Document: "Using H2 as a GT fuel"
- Document: "Hydrogen use in Internal combustion engines"



Business Plan
for
Energy Independence Initiative

A renewable energy company that designs and constructs power plants that produce continuous and reliable 24-hour power and potable water. The plants are 100% renewable energy using only sun and water as fuel in the patented “Hydrogen Cycle” process.

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ENERGY INDEPENDENCE INITIATIVE (EII), THE COMPANY

Energy Independence Initiative (EII) has developed and patented a renewable energy process using solar and hydrogen in combination that produces zero carbon emission, that provides continuous and reliable 24-hour power, potable water and its production costs are well below current worldwide energy markets.

The Lansing's, co-owners of The Arpen Group, a civil engineering corporation with 30+ years of infrastructure design and construction early on recognized that the Congressional mandate for 30% energy production from renewable energy by the year 2025 would pose instability problems to the existing grids because of the variability nature of the energy they produce and the inability of that energy production to coincide with peak demand.

It took a year or two looking at all available equipment that would go into a plant and the various combinations to create the process. At the conclusion of the research, Energy Independence Initiative, a corporation was formed in Texas, a research paper "The Hydrogen Cycle" was published for review and sent to the University of Texas mechanical engineering department and a think tank at the University of Oklahoma for peer review of new developing technology. Both peer reviews were very positive. However, the think tank at Oklahoma University was far more detailed in its investigation and final report. In a conversation with their engineers over and above the written reports, they indicated that the process was the "Holy Grail" of renewable energy and that it should be patented and further developed for commercial and industrial use.

During the time the patent was being processed, the Lansing's built a pilot plant as proof of concept. This allowed them to make adjustments in plant equipment to refine efficiencies and to verify the conclusions reached in their economic models. The patent for the Hydrogen Cycle was granted three years ago and remains in force today.

HOW DOES THE HYDROGEN CYCLE WORK?

The process begins with a solar array that produces enough power to satisfy the community power requirements during the day and power to produce hydrogen for nighttime energy production. The solar arrays are placed on dual axis trackers that keep the solar panels perpendicular to the sun's rays throughout the day. This provides the system with 45% more energy and uses 50% less land area than conventional fixed tilt solar arrays use.

Power from the solar array is sent to the control room where it is monitored, and an automated control system distributes the power to the grid for commercial use and to the hydrogen production plant. The key element in the production of hydrogen is water. Any type of water can be used (sea, waste, brackish and well). The primary water is filtered through a reverse osmosis process. The first three stages of the process produce water that is potable. The size of this portion of the plant can be enlarged to provide water for a community's domestic needs if desired. The next two stages of filtration take the potable water to a level where it is distilled having absolutely no solids or impurities.

Alkaline electrolyzers receive the distilled water where it is broken down into its elemental forms of oxygen and hydrogen. The oxygen is pure industrial grade and can be captured and sold. The hydrogen that is produced is pressurized to between 5000 and 10,000 psi and stored in pressure vessels to be used in the production of electricity during nighttime and extended weather events when the solar arrays are not producing.

The primary use of the hydrogen is to provide electricity during nighttime hours. This is accomplished by releasing hydrogen gas to the generators when the commercial demand exceeds power production from the solar array. In addition, the hydrogen energy production becomes a backup system for the solar array when there are extended weather events. Each plant is designed with sufficient hydrogen storage based on historic weather events to provide uninterrupted power to the grid when those events occur.

The generator units consist of three types of engines connected to a dynamo. In small installations, an internal combustion engine much like a small automotive engine is used. In medium to large sized plants diesel engines can be used and if necessary multiple units in series can be added to meet the demand. In very large plants turbine generators with co-gen Rankine cycle generators are used to increase efficiency by 25%.

The result of combustion of hydrogen creates heat and water vapor (i.e., steam). The exhaust from all three types of engines is directed through a condenser where the exhaust is condensed into its previous state of water. The water is then collected and returned to the electrolyzers where it is separated again into oxygen and hydrogen completing the cycle. Once the system is primed with its initial water, very little additional water is ever needed and the only fuel necessary to operate the plant is sunlight.

EII'S MARKETS

What makes EII very different from any other renewable energy companies is EII offers a true 24-hour continuous and reliable renewable energy and potable water production at costs per kilowatt hour that are well below current market rates.

EII's market has been defined by the current International Energy Agency (IEA) estimate of worldwide energy production. It estimates energy usage at about 26,700 (trillion-watt hours) Twh of which renewables represent 7% of that total making the renewable contribution and estimated 1,869 Twh. IEA's projected outlook for the next five years is an increase 50% over that period which equates to new construction of 934 Twh. Based on industry trends where solar has become less costly than wind, 70% of that new construction should be in the form of solar, a solar increase of approximately 650 Twh of new construction.

Over that five-year period, EII's projected sales are projected to be 800 MW which is only 0.08% of the projected world market as demonstrated in the figure below.

Most renewable energy falls into two categories, wind and solar. Neither to date can provide economic 24-hour power. There have been some attempts to marry lithium batteries to these renewables in an attempt to develop a 24-hour process. Those attempts have been declining recently based on the high

cost, short life and the ecological disposal problems of the used batteries. Looking at Lithium batteries as a competitor to our process, it is unlikely that batteries can see major improvement because of the limiting chemistry involved in the ion exchange that occurs in producing electricity. The other limiting factor is the competition for battery use in the automotive industry and the limited number of natural resources to produce the batteries. Another limiting factor for the battery industry is the worsening relations with China who controls most of the worlds lithium resources and battery production.

Wind energy which has been touted as a 24-hour solution, has fallen well short of those expectations. Recent studies developed by the National Renewable Energy Laboratory (NREL) and its European counterpart have reported that the average wind field produces energy only 15% to 30% of the time and only has a 10-to-15-year life under constant use. Further detriments to using wind energy is the high cost of maintenance, bird kills and harmonics that disturb animal habitats. Reported by NREL in their report, maintenance costs for wind are \$0.04 to \$0.06 per kilowatt in the first 5 years. Beyond 5 years, maintenance increases to \$0.10 to \$0.15 per kilowatt.

Renewable energy is limited in its use without having a means of energy storage. As the grid approaches 30% of renewables, control and distribution of the energy on the grid becomes difficult. California is a good example of what happens with renewables and no storage. During daylight hours solar fields on fixed tilt arrays only produce power for 6 to 7 hours per day. The peak power production occurs for two hours when the sun is at its zenith. Two hours either side of that peak period, energy production drops down to 50%. This does not correlate with energy peak demands that occur in the morning and late afternoon thus there is a danger of brownouts and blackouts unless the renewables are provided with some type of stored energy, or are supplemented with traditional fossil fuel power plants. 2001, Texas, was a prime example of what happens when renewables cease to function with no reserve energy storage. In a major statewide snowstorm that ceased operation of all renewables, the grid crashed for several days. Currently, renewable energy is being supported by oil gas and coal energy generation during hours when renewables are off-line but that is rapidly being legislated out of existence. The solution of course is a 100% renewable energy source that provides 24-hour continuous and reliable energy that is economically feasible. That solution has been developed and patented by EII and is ready for commercialization.

EII's market is any utility companies or government agency that is continuing to expand their renewable energy resources whose current retail cost of energy is \$0.12 per kilowatt or higher. Major markets would include countries in Southern Europe, Africa, Caribbean, and South Pacific. Most of the world is now paying in excess of \$0.30 per kilowatt for their energy. Major industries that use a great deal of electricity in the manufacturing process are and another target for EII's Solar Hydrogen Process.

EII has several advantages in the current market space that other companies do not have. EII offers 24 hour continuous and reliable energy that can solve grid stability problems. EII can provide potable water to meet community needs. EII's ability to provide 24-hour power eliminates the need to use fossil fuels to supplement the renewables and in doing so raises their ESG scores giving them the prospect of additional support from the UN and The World Bank. EII's current cost of energy is well below current market rates.

MARKETING AND SALES

Marketing for EII does not consist of commercial or Internet advertising. The audience EII's marketing is trying to reach is small in comparison to those selling widgets. The customers for EII are heads of utility companies, government agencies and large manufacturers. Energy providers over the next five years will be moving to eliminate dependency on fossil fuels for energy production and will institute development of renewable energy facilities to meet the various international treaties and UN mandates.

The initial marketing approach is through personal contact from our marketing director and staff to potential customers. Once a dialogue has been opened with agency personnel that show an interest, personal travel to meet individuals to further cement relationships and provide more detailed information for further consideration of EII's product is likely. At this stage it may be desirable to hire local lobbyists with the necessary political connections to provide assistance in obtaining approvals and ultimately the Power Purchase Agreement.

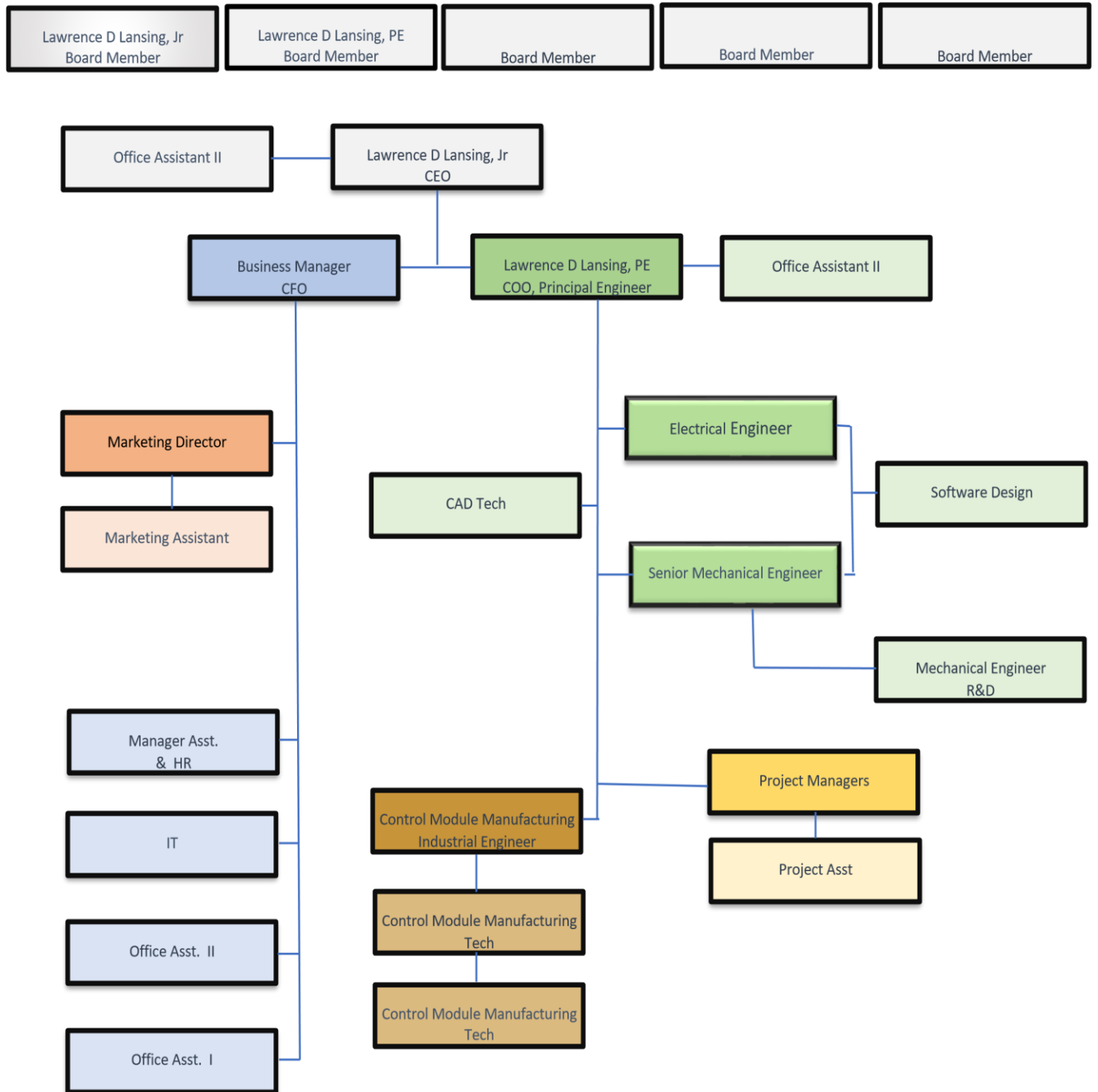
Once EII's manufacturing and demonstration power plant facilities are constructed which should be in year one, part of a marketing program would be to invite decision-makers to visit, at EII's expense, the demonstration facility in Texas in order to view the equipment and demonstrate in detail its operations.

EII is selling packaged renewable energy power plants uniquely designed to meet the customer's requirements. The plants provide the customer with continuous, reliable energy production 24 hours a day, 365 days a year for 30 years at prices lower than the current energy cost of production. Once the plants are constructed, EII does the initial startup and trains local personnel to do minor maintenance and oversee the operation of the plant. The plants are monitored 24 hours a day both locally and through the cloud at the command center in EII's facilities in Texas. Any problems arising in the system would be identified at both locations where engineers at the command center in Texas would be available to assist in solving the problem.

MANAGEMENT AND ORGANIZATION

Organizational Chart, EII Energy

Year- Five Structure



The organizational chart on the previous page is color-coded representing different functions within the organization. Gray, represents upper management, blue represents internal business functions, orange represents marketing, green represents all engineering functions, yellow represents project management and brown represents manufacturing and maintenance.

The Board of Directors consists of five positions. Two positions are held by the principles of the Corporation. The remaining three positions are open to investors, legal consultants and financial consultants.

CEO

This position will be held by Lawrence D Lansing Jr. He is codeveloper of the patented Solar Hydrogen Cycle and co-owner of the parent engineering company The Arpen Group. His education is in economics and his experience has been in business management since moving to Texas. Prior to that, working for The Arpen Group, he acquired a very strong background in engineering and project management. His function is to take directions from the Board of Directors and apply those decisions to the day-to-day operations throughout every element of the company. He has the responsible of preparing reports for the Board of Directors and suggesting operational changes as the company scales up.

CFO

This individual should be educated with a Master's degree in business administration or economics. He should have a number of years of experience in the management of a small to midsize companies. This position is responsible for Accounts Receivable, Accounts Payable, financial reports, tax returns, payroll, insurance and all other day to day business functions for the company. He reports directly to the CEO and supervises marketing efforts.

COO

This position will be held by Lawrence D Lansing, PE. He is codeveloper of the patented Solar Hydrogen Cycle and co-owner of the parent engineering company The Arpen Group. His education is in civil and mechanical engineering and holds engineering licenses In California and Colorado with provisional licenses in a number of other states. He has 30+ years of design and construction experience in all types of infrastructure including involvement and construction of the first commercial solar project in the United States. In his career he has supervised companies having engineering personnel in excess of 100. He reports directly to the CEO and is responsible for all preparation of design documents, development of hardware and software for energy plant production, supervises project management and manufacturing of the control module systems.

Marketing Director

An individual with experience in renewable energy marketing. He and his assistant are responsible for developing clientele. Travel as necessary to educate interested energy producers on the benefits of using EII's patented process is likely. He is responsible for securing lobbyists to assist in obtaining the necessary permits and power purchase agreements. He is responsible for scheduling and conducting educational tours of EII's facilities and the preparation of professional videos describing the EII energy process. He reports directly to the CEO.

Electrical and Senior Mechanical Engineer

Both Engineers need to be highly experienced in their individual fields. Registration is optional based on experience. The Electrical engineer should have experience in energy distribution on a commercial scale and knowledge of energy distribution and switching within the production plant. The Senior Mechanical Engineer is responsible for all the equipment needed for energy production. Both engineers will work together with the CAD designer to prepare construction documents for plant construction. Both engineers will work with the software engineer to revise and create the programs necessary to automate energy production. The Senior mechanical engineer is also responsible for supervising his subordinate mechanical engineer in research and development of engines and generators to increase the efficiency of EII's energy production. Both engineers will be involved in the creation of the control module and control console and will work directly with that team.

Project Manager

This is an individual with an extensive background in major construction. He should be educated in construction management and contract administration. He and his assistant work with both the mechanical and electrical engineer in the preparation of construction specifications. He checks the availability of equipment to be used in the construction of the plants, issues contracts for the construction of EII's power plants, monitors construction progress and authorizes payments to contractors. He may from time-to-time travel to the construction site to verify construction progress and quality of workmanship. He reports directly to the COO.

IT

This individual is a trained technician with PCs, networks, satellite, and cloud communications. He is responsible for maintaining the network within EII's facilities. He is responsible for setting up data links to the various EII power plants. He will assist the software engineer in completing the necessary cabling and software installation for the control module and control console. He will prepare marketing displays of plant operation to help educate visitors that arrive at EII's facilities. He reports directly to the CFO.

Control Module Construction Group

This group may be more of a maintenance services group. We anticipate, once the design of the control module is upgraded, it would be sent out to an electronics firm for manufacturing. The control consoles likewise, would be designed and sent out to a furniture manufacturer. Upon returning these items to EII's facilities, the only construction necessary would be the installation of computers, monitors and cabling between a control console, the control module and power plant facilities to begin the testing procedures. This personnel group could also be used for general maintenance within EII's facilities. They report directly to the COO.

Current Staff

EII's current staff consists of the two principles and a number of consultants. Dale Langley Esq. is one of the top patent attorneys in Texas and is responsible for securing the patent rights for EII. He will remain with EII as attorney of record to maintain EII's patent.

James Watt Esq. has been associated with The Arpen Group for more than 20 years. He currently functions as in-house counsel and marketing director. Because of health reasons he will not continue with EII as it scales up.

Anzhelika Khokholkova, PhD a co-owner of EII and consultants with regard to the chemical reaction that takes place within the electrolyzer. She will be working with the electrical engineer in performing experiments to increase the efficiency of hydrogen production in the electrolyzers.

Nicholas Shattock, PhD is an electrical engineer responsible for the first prototypes of the control module. He has recently taken another position and will not be available to continue with EII in the future.

Lyudmila Chepurnykh, PhD is a consultant for water purification when EII is producing potable water for domestic use. She will remain a consultant to EII and is available upon request.

PRODUCTS AND SERVICES

EII offers renewable energy power plants that provide 24-hour continuous, reliable energy production as its primary function. The plants are offered to utility companies, government agencies and large manufacturing facilities. EII's customers only pay for energy produced by EII at an agreed rate specified within the structure of a Power Purchase Agreement (PPA). Size of the plants can vary from small 100 kW units to larger plants in excess of 100 MW.

EII can provide potable water to meet community needs with minor increases in the size of the RO system, water storage facility and UV filters. The capital expenditure to provide the service is well worth the amount of revenue stream that the service provides. In EII's economic models it assumes no domestic water production, however when added it doubles the profitability of the plant.

Another revenue stream that is not accounted for in the economic models is the sale of 99.9% pure oxygen that is the byproduct of the hydrogen production. Market for this product would be regional to the plant's location and therefore nearly impossible to calculate the value of this product without knowing that location.

EII as conditioned in the power purchase agreement provisions for the operation and maintenance over the 30-year lifetime of the plants. In each plant location, EII uses the local population to train operators and maintenance personnel to oversee plant functions and supports these local operators through direct communication to EII facilities in Texas.

COMPETITIVE ANALYSIS

Over the previous 10 years three major players have emerged in the renewable energy market, fixed tilt solar, fixed tilt solar with battery backup and wind energy. In this section, each type of energy producer will be analyzed and compared to EII's Solar Hydrogen method of energy production. It is difficult to do a

direct comparison between all four methods because three of these methods have varying production rates and do not provide a 24-hour continuous stream of energy. The industry has settled on a formula to analyze cost of production based on energy produced over a given time which they referred to as Levelized Cost of Energy (LCOE).

Solar Fixed Tilt

A solar fixed tilt array is a series of solar panels attached to metal racks in an east-west direction and tilted to the latitude at which the field is constructed. In the case of Dallas, Texas the angle of tilt would be 32°, in El Paso, Texas the angle of tilt would be 29° based on the latitudes of the two cities. This type of solar array uses on average 6 acres of land use per megawatt and there are no other auxiliary land uses with this type of installation. These projects have a commercial life of 30 years with 20% derogation in panel performance occurring within the first 20 years. Cost of installation is approximately \$1 million per megawatt. The cost of operation and maintenance is low. The average LCOE for this type of project is \$0.045 Kwh.

What does for example a 20 MW solar project mean? By definition it is the maximum instantaneous energy output. Solar panels reach their maximum efficiency when the photons from the sun are perpendicular to the surface of the panel. Studies have shown that a 6° variation from the perpendicular reduces energy production from the solar panel. Comparing energy production on an annual basis, there are only two periods of time in a year when the sun is near perpendicular to the fixed tilt array and that occurs at the spring and autumn equinox at the sun's zenith. Conversely, the worst energy production occurs at the winter and summer solstice when the sun is lowest and highest respectively from the horizon. Daily energy outputs are more varied. One hour after sunrise and before sunset the sun angle is 15 degrees above the horizon which means the photon angle to the solar panel is 75° from vertical which in turn produces very little energy. As the sun approaches its zenith energy production is at its maximum. 2 ½ hours either side of the zenith energy production is 50% or less. Unfortunately, when a fixed array solar field is producing maximum energy midday it does not support maximum energy usage that occurs at 10 AM and 6 PM when the solar field is operating at 50% or below.

Fixed Tilt Solar with Battery Backup

The fixed tilt solar array is physically the same and the energy output characteristics also remain the same as described in the Fixed Tilt Solar section above. The change in this type of energy production plant is the addition of battery backup. The batteries are recharged from the solar field and are designed to provide additional power at the peak periods of 10 AM and 6 PM when the solar field is at 50% production. The batteries are only capable of providing energy for approximately 4 to 6 hours depending on demand. The expected lifespan of the battery backup system is between 5 and 15 years which means placement of the battery system will be required 1 to 2 times during the 30-year life of the project. The cost of operation and maintenance is moderately high because of the required battery replacement. Projects require on average eight acres per megawatt and have a LCOE of \$0.10 Kwh.

Wind Energy

Current wind machines are massive structures some weighing as much as 200 tons. The circular diameter of the wings can approach 200 feet. It is difficult to describe an average wind field because of the varying sizes in machines with some being onshore and others offshore. The average land use for a wind field is 50 acres per megawatt. Land use within the wind field is limited to field crops such as wheat or cotton. Average life of the projects is predicted to be 15 years. The cost of maintenance on these fields is extremely high with NREL (National Renewable Energy Laboratory) predicting maintenance costs at \$0.04 to \$0.06 per kilowatt in the first 5 years. Beyond 5 years, maintenance increases to \$0.10 to \$0.15 per kilowatt. There is a large range of LCOE for wind with the low at a little more than \$0.09 Kwh. NREL puts the LCOE in their latest report at \$0.15 to \$0.18 Kwh.

Developers of wind farms and when manufacturers claim production rates at 30 to 40% when in reality studies are showing production rates between 15% and 30%. That means that during a day 70% to 85% of that day there is no energy being produced. For the grid operator, this is a nightmare because he has no idea of when power is to be generated and how much it will be and for how long. This inability to regulate when and how much power is applied to the grid will ultimately lead to brownouts, power surges and blackouts.

There are a number of inherent problems with wind. Most notably, are the harmonics generated by the wings as they pass through the atmosphere generating low-frequency signal that has been distressing to animal and aquatic life. They are also having a devastating effect on the Red-Tailed Hawk and Eagle populations. Decommissioning is very expensive and to date there is only one landfill in the US that will accept and dispose of the wings.

The Solar Hydrogen Cycle

The major difference between the Solar Hydrogen Cycle and the other three renewable energy processes, is that EII's energy production is not variable. When EII advertises a plant at 20 MW, it is 20 MW of energy production 24 hours a day. There are no peak production periods and no downtime, just a constant, reliable stream of energy.

The process as described in this report is a combination of solar and the manufacturing of hydrogen gas. The solar array is arranged on pedestals the track the sun's position keeping the solar panels perpendicular to the sun's photons during the entire solar day. This generates a minimum of 45% more energy than fixed tilt array with estimates as high as 70% if considering the altitude of the sun during the months of the year. The land use for the Solar Hydrogen Cycle is approximately 3.5 acres per megawatt. With extended pastels elevating the solar arrays, auxiliary land uses may be grazing, row crop production, and in urban settings vehicle parking underneath. The plants are designed for a 30-year lifetime operation. The solar arrays will degrade in the same manner as described in the Solar Fixed Tilt section. Cost of operation and maintenance is low. The average LCOE for EII's project plants is \$0.10 to \$0.12 Kwh.

Analysis

Land Use	EII at 3.5 acres per megawatt with more auxiliary uses compared with 6 (Solar), 8 (Solar+battery), 0.75 (wind) acres per megawatt.
Energy Production	The daily energy production is 6 to 8 times higher than the other three energy producers.
LCOE	At \$0.10 to \$0.12 Kwh EII is equal to Fixed Tilt Solar with Battery Backup, is higher than Fixed Tilt Solar at \$0.045 Kwh and better than Wind at \$0.15 to \$0.18 Kwh.
Plant Life	The 30-year plant life compares equally with Fixed Tilt Solar and Fixed Tilt Solar with Battery Backup and is much better than Wind at 15 years.
Maintenance Cost	It is higher than Fixed Tilt Solar, lower than Fixed Tilt Solar with Battery Backup and much lower than Wind energy.
Grid stability	EII is the only energy producer that can provide a stable energy platform with its continuous and reliable energy production.

The analysis indicates that wind is the least desirable based on cost, environmental issues and the intermittent energy production. The Fixed Tilt Solar and the Fixed Tilt Solar with Backup Battery are more consistent with energy production but only during daylight hours. EII's energy production process is solar with **storage**. One should think of the hydrogen in EII's Solar Hydrogen Cycle as a very large cheap battery which will provide the additional 60% of daily needed energy when the solar field is dormant. An energy reserve that has enough stored energy to provide continuous energy during nighttime hours and through extended weather events when the solar field is inoperative.

EII's Solar Hydrogen Cycle is not the least expensive and cannot be because it is providing six times the amount of daily energy production of the other three. Because it is continuous, it eliminates the need for alternative energy sources to support 70% of daily energy production the other three methods cannot. Those alternate sources would be natural gas, fuel oil and coal. Removing those costs from the energy equation, EII then becomes by far the most economical and reliable renewable energy source.

OPERATING PLAN

A number of years ago during the initial push for renewable energy when fixed tilt solar and wind were the primary industries focused on accomplishing the removal of fossil fuels from energy production. The Arpen Group (TAG) was involved in the construction of the first commercial solar project in the United States which was only moderately successful, and several wind projects introduced through client contact. We were familiar with reports that warned with 30% of

renewable energy on the grid that was intermittent, the grid could become unstable and subject to brownouts and blackouts. This was reinforced by having an opportunity to observe the operation of the West Coast grid within their control center in Southern California.

TAG investigated and researched wind, solar and battery in various combinations in order to eliminate the intermittent nature of renewable energy. It wasn't until our CEO introduced the idea of using hydrogen burned in generators to bridge the periods when the renewables were not producing energy. Hydrogen being the only gas when burned that does not emit carbon dioxide. TAG was familiar with the concept of using alternative fuels in generators. We used the methane gas generated from sewer treatment plants in generators to power those facilities. The solar hydrogen cycle became a real possibility when we were introduced to an Israeli solar tracking system that maintained the solar panels perpendicular to the sun throughout the entire solar day producing 45+% more energy than the commonly used fixed tilt solar systems of equal size.

After completing further research on plant equipment, plant design and economic feasibility studies, we prepared a paper "Renewable Energy-Hydrogen Cycle" which was submitted for peer review. The results of the peer reviews were very positive indicating that our economics were well under what NREL predicted for commercial use of hydrogen in energy production and that the process should be patented.

Dale Langley Esq. a well-known patent attorney in Texas, was engaged to complete the patenting process at the same time EII was formed as a corporation in Texas and we began building and operating a small plant as proof of concept.

EII is now looking forward to commercializing the Hydrogen Cycle and we have a five-year program to accomplish that with an initial round of investment funding. We think we are stronger than Startup but a week Series A funding candidate. Both types of funding will be discussed and how it affects the initial operation of EII.

Referring to the organization chart, EII is segregated into three divisions. A business section for accounting, HR and marketing. In engineering division which provides for the design of contracted power plants, research and development and a project management division which is responsible for contracting and supervising construction of the power plants.

A Startup funding of \$2 to \$4 million will provide for rented office space and one hire which would be the Marketing Director. These funds would be used to prepare professional videos describing the Hydrogen Cycle, the ability of the director to contact and meet potential clients and higher lobbyists to assist in acquiring The Power Purchase Agreements (PPA) necessary to construct a

power plant. This initial funding would provide EII with three years of operation to obtain the first PPA. Once the initial PPA is obtained (realistically six months), the PPA can be used as collateral to obtain additional commercial funding, investor funding or venture capital to build the power plant and provide EII with additional funding of \$6 million to build its permanent facilities.

The additional funding would allow EII to hire the CFO, Electrical Engineer, Cad Tech, Software Designer and Project Manager which is the personnel necessary to complete design of the first power plant. It also allows EII to build its office, research, manufacturing and solar hydrogen demonstration plant. The solar hydrogen demonstration plant serves two purposes; (1) allows EII to test its control modules and control consoles before delivery and installation in the project power plant; (2) it is a marketing tool whereby the marketing director can invite potential clients to observe the actual equipment and operation of the Hydrogen Cycle.

Should EII be fortunate enough to acquire a Series A type funding of \$10 million, it changes significantly and accelerates the startup. The initial funding under this scenario would facilitate the immediate hire of the marketing director which would allow him to do everything as described above and would allow EII to initiate construction of its permanent facilities and most importantly the construction of the demonstration solar hydrogen plant. Hiring of the CFO, Electrical Engineer, Cad Tech, Software Designer and Project Manager would be delayed for approximately six months until the permanent facilities were nearly ready.

EII's projected goal over the first five years is to contract 400Mw of power production. After the initial hire, who are essentially the division heads, personnel will be added in each division on an as needed basis to support the volume of activity.

In the world of energy production, 500 MW is a very small percentage of the world energy market. With the demand from governments pushing increased sales of electrical vehicles the demand for power plants will expand dramatically. The plants needed will be renewable energy in order to meet the various international treaties, ESG scores reduction of carbon dioxide emissions and other environmental considerations. The new renewable energy cannot be of an intermittent nature such as just wind or just solar, the electrical grid will become unstable and unreliable. This puts EII in a good position to provide cheap energy production and storage that currently no other renewable energy source can provide.

FINANCIAL NEEDS AND PROJECTIONS

The initial startup funding was self-funded and covered expenses for the current staff, thousands of hours of research, reports, peer reviews, economic models, pilot plant and patents. EII is now ready to commercialize its Hydrogen Cycle and is seeking financial assistance to do that.

EII is proposing a small office complex about 7000 ft.² and a manufacturing and research facility with about 5000 ft.². In addition, there would be a small but complete and operating solar hydrogen power plant. The office space would include executive offices, a boardroom, restrooms, kitchen and the remainder would be offices for marketing, the engineers and design staff necessary to prepare construction documents for proposed plants. The maintenance of research facility is to be used for modifying engines and turbines to run more efficiently on hydrogen gas, test methods by which we can increase the efficiency of the electrolyzers and construction and programming of the plant control modules. The solar hydrogen demonstration plant will be small but will contain every element that exists in a larger plant. The demonstration facility is used in two ways, (1) to test newly manufactured control modules for any defects before installation into a project plant; (2) to be used as a marketing tool for prospective clients to demonstrate the various functions of the plant and how they are controlled and monitored.

The total staff needed for EII is five-year operation plan is outlined in the organizational chart in an earlier section. Additional office staff needed will be a marketing assistant, electrical engineer, programmer, a CAD drafting technicians and two executive assistants. The manufacturing facility will require an additional mechanical engineer and three technicians.

The funding requirements are as follows for the entire five year startup:	
Land Purchase, 10 acres(minimum)	\$5 million
Office Building	\$2 million
Research and Manufacturing Facility	\$1 million
Solar Hydrogen Power Plant	\$5 million
Office and Manufacturing Equipment	\$1.2 million
Marketing Budget	\$3 million
Staff Salaries	\$4.5 million
Cash Reserves (approximately 15% contingency)	\$3.8million
Total Investment and income needed from all sources	\$22.50 million

Funding could be accomplished with a Series A funding of \$17 million to cover construction of the facilities and marketing. Series B funding would be needed possibly at a later date to fill technical positions and complete research and development on engines and electrolyzers. Series B funding may not be necessary if EII captures a PPA in the first year and uses construction financing to complete the development. If Series A funding is substantially less than the \$17 million needed this is likely to delay market penetration by a year possibly two. Acquisition of a Power Purchase Agreement (PPA) and associated construction funding could cover some of the expenses listed above.

EII from its economic model program quotes the LCOE at \$.10-\$.12 Kwh. Those numbers are derived from cost of materials and labor, the efficiencies and solar panels and their derogation of the first 20 years, solar radiation, whether anomalies, efficiencies of inverters, transformers, pumps, motors, electrolyzers, electrical resistance in cabling, the heat rates and efficiencies of the various engines and generators, taxes, a 15% contingency factor on CAPX, and investor payback to mention just some of the factors that go into each extensive plant analysis. The economic programs of been developed by EII and are its proprietary property.

As discussed in the marketing section, most of EII’s market is within countries and power producing agency is where the consumer rates are around \$0.30 per kilowatt hour. This is fairly consistent around the globe with the exception of countries that subsidize energy rates for their consumers. These countries are still producing power at well over \$0.20 per kilowatt hour but selling to their consumers at \$0.02 or \$0.03 per kilowatt hour.

Within every consumer Price rate for energy there a hidden costs of overhead and maintenance and transmission distribution costs. In general, those costs are \$0.03 and \$0.02 per kilowatt hour respectfully. For example, if for dealing with an agency that has consumer rates of \$0.30 per kilowatt hour, we can assume their actual cost of production is about \$0.25 per kilowatt hour. If EII’s LCOE is \$0.12 per kilowatt hour, that leaves \$0.13 per kilowatt hour profit to be negotiated out with the client. That amount of profit would be great for EII and its investors, however we don’t think that’s realistic. Using this example client, we think what is realistic is a proposal at \$0.17 or \$0.18 per kilowatt hour giving the example client a reduction in energy production costs of \$0.07 per kilowatt hour and EII a profit of \$0.06 per kilowatt.

What does a \$0.04 per kilowatt hour minimum net profit generate for EII and its investors. The potential profit is \$0.04 per kilowatt hour, 24 hours a day, 365 days a year for 30 years yields a **net profit** of 22% on every Kwh of energy produced. The numbers do not include any green energy credits which would decrease the tax liabilities and add to the net profits. The following table represents income year by year over 10 years of growth. The income is based on an average of \$0.18 per Kwh and a fixed growth rate after year 5 of 500 Mwh per year.

10 Year Projected Income at \$0.18 per Kwh										
Plant size, Mwh	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
20	\$0.00	\$32 M	\$32 M	\$32 M	\$32 M	\$32 M	\$32 M	\$32 M	\$32 M	\$32 M
100			\$158 M	\$158 M	\$158 M	\$158 M	\$158 M	\$158 M	\$158 M	\$158 M
200				\$315 M	\$315 M	\$315 M	\$315 M	\$315 M	\$315 M	\$3.15 M
500					\$788 M	\$1.58 B	\$2.37 B	\$3.16 B	\$3.95 B	\$4.73 B M
Totals By Year	\$0.00	\$32 M	\$190 M	\$505 M	\$1.29 B	\$2.08 B	\$2.88 B	\$3.67 B	\$4.46 B	\$5.24 B
Total 5 Year Income					\$2.02 B					
Total 10 Year Income										\$20.34 B

Income generated by year five could support an exit strategy with the creation of an IPO.

The following is an example of why EII's marketing and profitability will be successful. The US Virgin Islands is currently paying in excess of \$.50 Kwh, consumer retail. EII can offer the islands power at \$.25Kwh. Industry-standard for maintenance, overhead and grid distribution is approximately \$.04 to \$0.05 per kilowatt. EII's solar hydrogen process would lower the islands retail cost for power to \$.30 Kwh saving the consumers \$.20 Kwh and reducing the islands dependency on imported oil. EII makes \$.12-\$.15 Kwh profit on energy produced 24 hours a day, 365 days a year for the next 30 years. There is no risk to the provider. EII's power purchase agreement specifies the provider only pays for energy produced by EII.

CONTACT

Additional information is available upon request. You can also visit our website at www.EIIenergy.com.

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