

TRIUMPH GULF COAST, INC. PRE-APPLICATION FORM

Triumph Gulf Coast, Inc. ("Triumph Gulf Coast") has created a pre-application process to provide initial consideration of eligibility for potential ideas of projects or programs that may seek an award of funding. Applicants are required to participate in the pre-application process. Notwithstanding the response from Triumph Gulf Coast on the pre-application form, an Applicant may still elect to submit an Application.

APPLICANT INFORMATION

Name of Individual/Entity/Organization: Earth Steps LLC
Proposal Title: New Renewable Energy Product Manufacturing in the Wakulla county
Amount of Triumph Funds Requested: \$13MM
Total Estimated Project Cost: \$20MM

Brief Description of Individual/Entity/Organization:

Contact Information

Primary Contact: Matt Chentnik
Title: Founder
Mailing Address: Earth Steps, 3954 W Pensacola Street
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Website: www.verticalsolarsystems.com

Names of co-applicants, partners or other entities, organizations that will have a role in the proposed project or program:

REQUIRED EXECUTIVE SUMMARY

In a maximum of two (2) pages, please describe the proposed project or program and anticipated outcomes including (i) the amount of funds being sought from Triumph Gulf Coast; (ii) the amount and identity of other sources of funds for the proposed project or program; (iii) the location of the project or program; (iv) summary description of the proposed program, including how the program will be transformational and promote economic recovery, diversification, and enhancement of the disproportionately affected counties, and (v) a summary timeline for the proposed project or program.

IMPORTANT NOTICE

This pre-application process will **not** result in an award of funding by Triumph Gulf Coast. Rather, this process is designed to facilitate submission of ideas for potential projects or programs before the Applicant expends time and/or resources to complete a full Application. All Applicants for funding are required to complete an Application, which will be reviewed and then considered for award at the discretion of Triumph Gulf Coast Board.

Please Select the Proposal's Eligibility Category(s)

Pursuant to Section 288.8017, Triumph Gulf Coast, Inc. was created to make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. The disproportionately affected counties are: Bay County, Escambia County, Franklin County, Gulf County, Okaloosa County, Santa Rosa County, Walton County, or Wakulla County. *See*, Section 288.08012.

1. From the choices below, please check the box that describes the purpose of the proposed project or program (check all that apply):

- ☐ Ad valorem tax rate reduction within disproportionately affected counties;
- ☐ Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;
- ☒ Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;
- ☐ Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;
- ☒ Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education, encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;
- ☒ Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and
- ☐ Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.

Please Select the Priorities this Proposal's Outcomes will Achieve

1. Please check the box if the proposed project or program will meet any of the following priorities (check all that apply):

- ☐ Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment.
- ☒ Increase household income in the disproportionately affected counties above national average household income.
- ☐ Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.
- ☐ Partner with local governments to provide funds, infrastructure, land, or other assistance for the project.
- ☒ Benefit the environment, in addition to the economy.
- ☒ Provide outcome measures.
- ☐ Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
- ☐ Are recommended by the board of county commissioners of the county in which the project or program will be located.
- ☐ Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.

\$13million over five years

Between 1 and 7 million in a combination of owner-invested capital, patent lease income, and loans.

A manufacturing facility and the corporate office will be in a yet to be determined location within Wakulla county.

This project will allow EarthSteps (a 10+ year old, successful, and debt free company) to bring a new provisionally patented renewable energy product to market. The initial market for the product, the Universal Mount Solar Energy Collector, will be mobile telecommunications providers and their network infrastructure needs. The major carriers all have made simultaneous public commitments to 1) use of renewable energy in their operations and to 2) rapid rollout of 5G networks, which require a much greater density of towers to provide coverage than existing 3G & 4G networks. These towers will be 20-40 ft high and will be interspersed throughout our communities (especially in high population density downtown areas). Earth Steps' experienced team of solar engineers and cellular tower engineers will employ standard solar manufacturing techniques to complete the development of this solar photovoltaic solution which solves multiple power generation and delivery problems in specific niche areas beyond the initial target market.

While Earth Steps' initial focus will be on this market, penetration will be sought in others immediately after the product is certified and generally available. Those second phase target markets are: Community Infrastructure, Roadway Lighting, Water Management Systems, and supplemental energy generation for Wind farms. The production volume of these unique but uncomplicated solar energy collection devices will result in excellent high-tech manufacturing experience for 50-100 skilled workers who will be under our employ. The green manufacturing facility Earth Steps will construct to support this operation will be located in Wakulla county. The UMSEC has global potential and ability to make Wakulla county the manufacturing hub for this unique product in the rapidly growing solar and renewable energy economy.

- The remaining engineering work required to bring the product to market
- Creation of core operating systems and processes
- The hire of a dedicated leadership team
- Construction of a production facility and the buildout of its manufacturing lines
- The hire of operations employees for the initial 3 phases of the 5 year ramp-up
- Marketing and sales efforts for the first 5 years

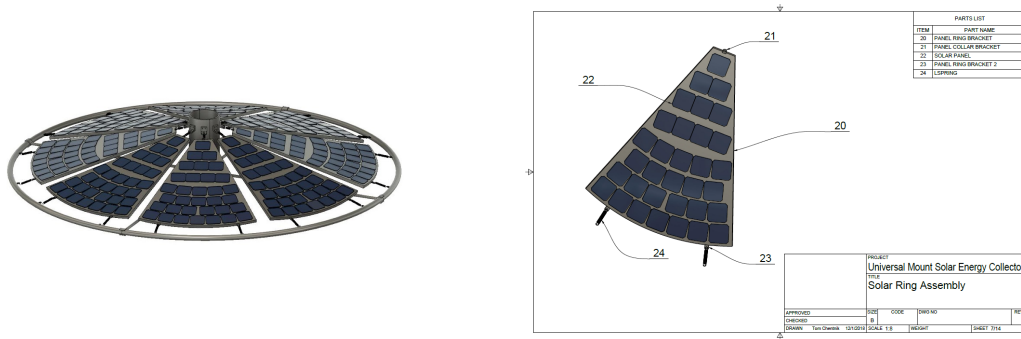
Summary timeline of the project:

Project Phase	Year 1				Year 2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Refine product engineering / design for manufacturability																				
Create supply chain																				
UL / ETL Certification																				
Facility (Construct and establish operations)																				
People (exec team, manufacturing team)																				
Systems (financial, HR, ERP, etc.)																				
Go-to-market (Planning and execution)																				

Executive Summary

The Company: EarthSteps is a 10+ year old company that has successfully raised capital for other product development and has complied with federal and state grant governance requirements. The company is fiscally conservative and debt free.

The Product: Earth Steps has provisionally patented a product called the Universal Mount Solar Energy Collector, which is directed to the field of localized power generation for community infrastructure. The application of this invention will result in an improvement in solar energy harvest capabilities on new and existing structures without using any additional ground space.



Solar photovoltaic energy is a reliable form of energy. The cost of solar energy has slowly decreased to the point of being competitive with traditional energy production methods as the industry has matured. Just like in any maturing industry, there is early adoption, established manufacturing for the mass market, and then the creation of niche markets...

The manufacturing methods for this line of products are relatively standard and the risks are known to the industry. They are moderately labor intense and thus will produce a series of skilled jobs and opportunities for advancement in the solar manufacturing industry. Because this market is niche and involves the communication industry the power sources should be manufactured in the United States. The special equipment to produce these devices is readily available. These solar products will be manufactured in Wakulla county as a foundation product for the niche solar markets that will appear and grow as the established markets continue to do their mass implementation.

Phase 1 Targeted Market: Earth Steps is targeting mobile telecommunications providers and their network infrastructure needs because the major carriers all have made simultaneous public commitments to 1) use of renewable energy in their operations and to 2) immediate and rapid rollout of 5G networks, which require a much greater density of towers to provide coverage than existing 3G & 4G networks.



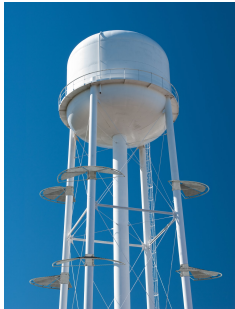
Each of these towers will require a dedicated power source and backup power to keep the tower reliable. The good news is the mini antennae require minimal power compared to the current towers and the UMSEC can greatly reduce or completely eliminate the daily power draw from the grid. In many locations a grid power source is not available.



The providers are also looking for ways to ensure network availability in the event of a major weather event which can often see traditional power infrastructure fail. The current backup technology is a dirty diesel generator.

These devices are designed with floating, non-contiguous PV modules that enable the assembly to withstand wind loads equivalent to those of a hurricane. The modules are also bi-facial, allowing energy harvest from both sides. A mobile network that stays functional after a major hurricane benefits first responders and anyone dealing with its aftermath which can significantly impact public safety. To help meet this need, EarthSteps has also engaged a solar lithium battery company to customize batteries specific to the UMSEC product.

Phase 2 Targeted Markets: Earth Steps' 5yr strategic plan lays out the targeting of additional markets as soon as the manufacturing operation and supply chain are stable and the product has attained necessary certifications. Three of these markets are:

Community Infrastructure	Roadway Lighting	Water Management Systems
With every parking lot, neighborhood, city block, or entertainment venue that is constructed an additional strain is placed on existing energy infrastructure. Installing a UMSEC on each light tower or traffic signal pole eliminates the need to connect to the power grid.	There are about 275,000 miles of state and interstate highways in Florida alone. Lighting these roadways can be very capital intensive when power infrastructure costs are considered. The UMSEC can be sized to power a roadway light pole for 100% off-grid hurricane resistant use.	A lot of energy is required to store water and move it around our communities and, given that land around support facilities (like water towers) is typically very scarcely available, a renewable energy solution that uses available vertical space makes sense.
		

The Plan: The business plan for this request involves the creation of a management, marketing, and operations team. This will be followed by continued engineering of the product, Design-For-Manufacturability improvements, low volume manufacturing, and product certification. After product certification we will increase production to meet market demand.

EarthSteps anticipates the creation of 6 mid-level and upper level management positions, 12 full time manufacturing positions and 8 entry level positions in the solar manufacturing sector in the first year as well as 10 field level installer positions.

The green manufacturing facility Earth Steps will construct to support this operation will be located in Wakulla county and is planned to be a 100% solar powered, hurricane proof insulated concrete form structure with solar charged battery back up. It will serve as a manufacturing facility for cutting edge solar energy harvesting equipment, a training facility and a living example of new sustainable construction, and a potential base of operations for first responders in a natural disaster. The UMSEC has global potential and ability to make Wakulla

county the manufacturing hub for this unique product in the rapidly growing solar and renewable energy economy. Based on market and cost assumptions, it is anticipated that the project will break-even in year 2 or 3 and will reach sustained profitability by the end of year 5. A cost-benefit analysis will be provided for the next application phase.