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# Shareholder Update. The EnviroMission Limited Technology Road Map.

Dear Shareholder,

EnviroMission ("the Company) wishes to disclose to Shareholders a summarised version of selected sections of the Company's Technology Road Map (TRM). The TRM is a dynamic document at the service of the Company's mission, business model and strategy. It is a two-month and on-going collaborative effort presenting the Company's technology evolution, technology evaluation, ongoing research and development, market considerations, and strategic thought. In its present state, the extensive document is intended to provide the framework for the Company's strategic pathway towards development success for Solar Cyclone Tower technology (SCT) and provide insight into Sustainable Competitive Advantages the Company seeks to create, leverage and exploit to further solidify project development opportunities well into the future. The summary reflects work and initiatives to be addressed over the next three to twelve months. Confidential information contained within the TRM is not revealed in this summary. Critical elements of the TRM will continue to evolve.

# Business Model and Strategy.

EnviroMission remains committed to designing and developing the most sustainable costeffective electricity producing generation when compared with other renewable and nonrenewable generation. As the developer and licensor of this sustainable technology, EnviroMission is focused on meeting sustainable electricity demand (and water where applicable) with the delivery of the world's first large scale Solar Cyclone Technology (SCT)The business model is multi-tiered focused on commercialisation with three major components:

- 1. Deliver SCTs as the developer of the technology.
- 2. Negotiate licensing agreements in suitable global markets.
- 3. Continue to enhance SCT technology to incorporate additional auxiliary products and revenue streams.



While the La Paz Solar Tower project is the most advanced in predevelopment efforts, the joint venture with the Company's licensee partner, DP Solrenergy India Private Ltd, in India could provide a faster track to commercialization as they bring alternate sources of capital. Should two or more projects be feasible with the La Paz Solar Tower and multiple licensee partners, given the resources, the Company will expand its operational infrastructure and work with technology partners to determine economies of scope and scale. The continuous development of EVM 's Intellectual Property (IP) associated with EVM's past and evolving technologies and processes unique to the use of these technologies. These assets are developed with EVM's Technology Partners as design progresses on a project and site-specific basis through partnerships and joint ventures including, partner academic institutions, potential government grants and institutions, and internally as EVM has the capital resources to conduct research and development and take protective intellectual property measures.

With work currently well underway the Company anticipates the objectives outlined in *figure 1* will inform and expedite project commercialisation in readiness for the critical Front End Engineering & Design (FEED) required to inform a tangible asset portfolio. Program Management strategies will also be incorporated into the commercialisation process to identify, track and manage cost estimations and other necessary deliverables critical to project success.



# Optioneering/Blue-sky

In recent months EnviroMission has initiated the Optioneering phase of works. EnviroMission in conjunction with Apollo Development (Company's affiliate) and the newly assembled technology team have begun work that proceeds conceptual design and informs the necessary FEED. The benefit of completing this process is the assembly and discounting of a catalogue of innovative ideas whilst informing the computational fluid dynamics (CFD) and Thermodynamics (TD) modelling for the project. This process identifies factors that produce the greatest impact to the model which will allow the modelling to be streamlined and more dynamic in nature.



Items currently being considered by the EnviroMission Technology team are:

- Tower configuration and geometry.
- Collector materials and size.
- Turbine options.
- Readily available storage options.
- Complementary technologies.
- Improvements in existing material selections.
- Supply chain issue identification.
- Focus on holistic review nothing to be considered in a vacuum.
- Cost benefit analysis of all changes, enhancements, modifications.

# Computational Fluid Dynamics and Thermodynamics Model.

Advancements of the Company's past computational fluid dynamic models (CFD) is a priority and will form an important piece of EVM's IP. The CFD will be grounded in the major variables impacting generation capability while incorporating the effects of thermodynamics. Modifications will be assessed in accordance with site-specific characteristics allowing dimensions and output to be calculated. Such a model will also consider cost, constructability, and engineering constraints. The CFD model developed at this stage would be validated via peer review and would ultimately be used to inform all stages of design and design modifications.

CFD modelling is estimated to take 4-5 months to complete inclusive of the optioneering phase on the front end. The model would then serve as a major asset for the company and act as the base case when analysing other technologies or enhancements.

Use of the EVM model will allow quick analysis of the impact of changes to the system on the total power output. This, in turn, will allow a cost benefit analysis for any changes or additions to the system.

During this phase of work, EVM expects to engage various specialists localised in this field whilst also partnering with various academic institutions equipped to undertake these modelling requirements. EnviroMission has, and will continue to, develop strategic partnerships designed to accommodate, enhance and inform all aspects of project feasibility and FEED.

# Capital Raising.

Funding will be required to complete carry out the Modelling and Optioneering phases. Our Management Team will continue to identify various forms of investment. Management will also identify potential government funding, subsidies and other relevant regulatory advantages that are available to the company and counterparties.



# Research and Development initiatives currently being assessed and undertaken.

SCT Projects of this magnitude inevitably bring innovation opportunities. EnviroMission will endeavour to build proprietary IP in all its development activities subject to a cost / benefit analysis and on a "case by case" basis. There are a range of peripheral auxiliary enhancements SCTs can benefit from, ranging from (but not limited to), water harvesting, collector augmented PV assimilation, carbon capture and sequestration, biofuel production, vertical hydroponic agriculture, telecoms and nano coatings designed to stream-line SCT structural efficiencies. Importantly, each opportunity represents a potential secondary revenue stream whilst importantly, providing a distinguishing characteristic for EnviroMission's planned solar tower system.

Some advancements are even envisaged to be potentially sold or licensed separately creating further revenue generating opportunities for all EnviroMission Stakeholders.

# SCT Enhancements.

EnviroMission will continue to, review and evaluate enhancements to the tower collector, turbine and generator, and storage systems. One such possibility is 'rifling' the tower to increase the speed of air thus increasing the pressure drop across the turbines to improve electrical generation. The company is also evaluating evolutions in potential materials identified as compatible with the collector's construction and life cycle whilst evaluating the viability of the following.

#### i. Water harvesting

A number of water harvesting methods including, water catchment and extraction from the SCT system, are being considered. The company will apply a "best fit" approach to all future project developments. This approach factors in differing market appetite, site specific conditions including atmospheric conditions and detailed costing analysis.



# ii. Photovoltaics (PV)

There are a number of ways that PV can be deployed on the collector.

- a) Partial PV cover of the collector
- b) Transparent or Semitransparent PV can form the surface of collector
- c) PV technology that will produce electricity and still heat the air under the collector.

#### iii. Carbon capture and sequestration

The company is currently exploring existing and proposed initiatives for carbon capture and sequestration with a number of concepts identified as credible, however, it should be noted the available processes are currently too capital intensive. That said, EVM will continue to evaluate progressions in this sector.

#### iv. Biofuels

Theoretically, the greenhouse environment beneath the collector potentially favours biofuel production. EnviroMission will perform a rigorous cost/benefit analysis on the biofuels option as an integrated component with the tower design.

#### v. Agriculture.

The SCT collectors greenhouse environment provides a speculative opportunity to farm the ground or hydroponically produce food.

#### vi. Storage

Several storage media have been considered since the inception of Solar Tower technology and it has been confirmed the utilization of locally sourced materials (aggregates) would (site dependent) allow large amounts of excess heat to be captured beneath collector and naturally radiated to heat the air into the evening to increase power production at times of greatest revenue potential. It was estimated power production could be increased for 4+ hours.



# Development initiatives.

EnviroMission in collaboration with Apollo intends to build upon work regarding the building or licensing of the SCT and its technology for US, India and Sovereign, such as MENA, markets as well as with private and governmental representatives within these markets. The following is a brief summary of these markets:

#### The US Markets

The US markets are considered the most efficient in the world and reward generators especially for being a low cost provider as well for other grid needs. The projected US and North American projects revenues originate from three sources: Energy, Capacity and Renewable Credits.

#### Energy

Energy commodity is providing electrical service into the surrounding grid, consumed by residential, commercial and industrial customers.

#### Capacity

Capacity encompasses multiple service types, but all serve the same basic purpose to provide grid stability.

#### **Renewable Credits**

Renewable credits are the premium paid by the energy market to provide electrical energy from renewable sources.

The La Paz Solar Tower will feed the Western Grid of the US including the ability to wheel energy into multiple western states such as California and can take advantage of all three electricity generation revenue sources. Apollo has also studied project opportunities in Texas, New Mexico and elsewhere and brings the Company many years of successful US energy experience in retail energy, wholesale energy, plant operations, grid management, and relevant government relations.



#### India Market

EnviroMission, with assistance from Apollo, has been working with Indian authorities with the objective of identifying representation through local companies to secure a power purchase agreement and to speed SCT development or licensing. In February of 2022, EnviroMission signed a joint venture agreement with DP Solrenergy India Private Limited ("Solreenergy") for these purposes. The Company is committed to the success of this partnership and, at present, is anticipating the results of work Solrenenrgy is conducting in determining suitable land sites for the first SCT in India.

India is the global leader in solar PV deployment and presents an attractive market opportunity for several reasons. There are similarities between India's evolving power generation protocols and U.S. power generation regulations and operations.

The tower's economic and operational characteristics fit well with India's power generation and transmission grid, which is struggling to keep pace with burgeoning retail electricity demand.

EnviroMission foresees that the SCT will have an operational advantage vis-à-vis other generators, as it will be among the lowest cost power producers. EnviroMission is researching ancillary services in addition to electricity generation that may increase SCT profitably by providing needed water and other basic services to nearby communities. As a matter of sound analysis, the financial benefits and costs of these ancillary options as well as the SCT's performance trade-offs will be thoroughly evaluated to determine eligibility for consideration in the SCT design and configuration.

### Sovereign Markets

SCT sales and operations within a sovereign nation presents the advantages that the SCT power is sold and dispatched to a single authorized government buyer under a negotiated long-term power purchase agreement.

Private ownership of generation is allowed in many markets in MENA including Qatar, Oman, UAE, Saudi Arabia, among others, who sell their production into a single buyer market under a power purchase agreement (PPA). These agreements typically run for 20-25 years starting with commercial operations. The PPA normally includes capacity and variable cost payments. Capacity payments include the fixed cost of the plant including debt repayments, return on capital, depreciation, and fixed O&M costs which are paid regardless of production.



It is understood that water harvesting, while site specific, may be incorporated in the design of SCTs in the MENA regions and is a major reason why SCT design for the optimization of such capability in concert with electricity generation is a major initiative of the Company in the near term.

#### Organization Overview

This organization overview reflects the near-term EnviroMission team structure for advancing the technology development during 2022 and into 2023. EnviroMission leadership structure (See Figure 2 below), in conjunction with Apollo Development, is designed to foster collaborative efforts predicated by the pursuit of advancements in tower technology, engineering, and financing partners thereby furthering the company's development prospects and initiatives.

Under this organizational structure, the EnviroMission board is supported by the EnviroMission executive team as it grows and the Apollo technology team. The Apollo technology team assists EnviroMission in informing the evaluation, development, integrity, and selection of viable SCT technology options in readiness for the initiation of the Technology Road Map's Phase 1 front end engineering design work (Project FEED).

EnviroMission's executive team will undertake tasks tied to the execution of various tower development and operational decisions, and the generation and management of third-party partner relationships and collaboration efforts.

Among its other responsibilities, this executive organization will advise, monitor, and approve tower project management planning, progress, and results. The tower project management process is described in greater detail below.



As capital resources and projects advance, the EnviroMission leadership structure will naturally evolve to adapt and meld to changes in market conditions.



Figure 2 EVM Near Term Leadership Structure