

Windmill Lighting Energy Project Pitch Deck

1. Cover Slide

- **Project Name:** Windmill Lighting Energy
 - **Contact Details:**
 - **City:** Hosur
 - **Email:** dheepak516@gmail.com
 - **Mobile:** 9342299132
 - **One-liner:** Transforming highway safety with renewable wind-powered lighting.
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2. Team

- **Dheepak S:** Project Lead, specializing in Electrical and Electronics Engineering with expertise in renewable energy.
- **Amshith A S:** Technical Lead, focusing on the design and development of wind turbine systems.
- **Kaliswaran M M:** Operations Manager, managing the installation and maintenance of lighting systems.
- **Gunal M:** Business Development Manager, handling client relations, sales, and marketing.

All team members are students studying Electrical and Electronics Engineering.

3. Problem Statement

- **Current Challenges:** Highways need efficient, sustainable lighting solutions to enhance safety and reduce accidents. Existing systems are often costly and unreliable.
 - **Existing Solutions:** Traditional electric lighting systems are expensive to install and maintain, and they depend on the power grid, which can be inconsistent.
 - **Our Solution:** A wind-powered lighting system that operates independently of the grid, providing reliable, cost-effective, and eco-friendly illumination for highways.
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4. Product/Technology Overview

- **Innovation:** Our product uses wind turbines to generate electricity for highway lighting. The system includes energy storage to ensure continuous operation, even during low-wind periods. The compact and modular design allows for easy installation and minimal maintenance.
- **Key Features:**

- **Renewable Energy:** Harnesses wind energy, reducing dependence on non-renewable resources.
 - **Energy Storage:** Includes batteries to store excess energy, ensuring consistent lighting.
 - **Cost-Effective:** Low operational costs due to minimal maintenance and zero energy costs post-installation.
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5. Business Model

- **Revenue Streams:**
 - **Sales:** Direct sales of windmill lighting units to government and private highway authorities.
 - **Maintenance Contracts:** Recurring revenue from maintenance and servicing contracts.
 - **Leasing:** Option to lease units to clients, providing a steady revenue stream.
 - **Customers:** Target customers include national and state highway authorities, infrastructure development companies, and private toll operators.
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6. Market Opportunity

- **Market Size in India:** Over 200,000 kilometers of highways. Assuming one windmill lighting unit per kilometer, the potential market size is 200,000 units. At an average price of ₹1,60,000 per unit, the market potential is ₹32 billion annually.
 - **Global Potential:** Expanding to countries with extensive highway networks, such as the USA, China, and Brazil, significantly increases the market potential, potentially reaching hundreds of billions of rupees annually.
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7. Progress and Milestones

- **Achievements:**
 - **Prototype Development:** Successfully developed a working prototype.
 - **Submission:** Submitting the pitch deck to Uptoskills for further recognition and support.
 - **Engagement:** Engaging with local highway authorities to gather interest and feedback for pilot projects.

- **Visuals :**



8. Competitive Landscape

- **Competitors:**
 - **Traditional Electric Lighting Providers:** Offer conventional lighting solutions that are grid-dependent.
 - **Solar-Powered Lighting Solutions:** Use solar panels but can be less reliable in regions with low sunlight.
- **Our Advantage:**
 - **Lower Operational Costs:** Wind energy reduces long-term costs.
 - **Sustainable and Renewable:** Environmentally friendly solution with a low carbon footprint.
 - **Grid Independence:** Operates independently of the power grid, ensuring reliability even in remote areas.

9. Financial Projections

- **Assumptions:**
 - **Unit Price:** ₹1,60,000 per unit
 - **Year 1 Sales:** 500 units
 - **Year 2 Sales:** 1,000 units
 - **Year 3 Sales:** 1,500 units
- **Revenue Projections:**
 - **Year 1:** ₹8,00,00,000
 - **Year 2:** ₹16,00,00,000
 - **Year 3:** ₹24,00,00,000

- **Cost Breakdown:**
 - **CAPEX (Capital Expenditure):** ₹1,60,00,000 for initial production setup
 - **OPEX (Operational Expenditure):**
 - **Salaries:** ₹80,00,000 annually
 - **Marketing:** ₹40,00,000 annually
 - **Maintenance:** ₹40,00,000 annually
 - **Unit Economics:**
 - **Revenue per Unit:** ₹1,60,000
 - **Cost per Unit:** ₹96,000
 - **Gross Profit per Unit:** ₹64,000
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10. Funding Requirements

- **Funding Needed:** ₹4,00,00,000
 - **Use of Funds:**
 - **Manufacturing Setup:** ₹1,60,00,000 for equipment and production facilities.
 - **Marketing and Sales:** ₹80,00,000 to promote the product and secure initial clients.
 - **Operational Costs:** ₹80,00,000 for salaries, logistics, and administration.
 - **R&D:** ₹80,00,000 for further development and optimization of the technology.
 - **Proposed Valuation:** ₹16,00,00,000 pre-money valuation.
 - **Investment Plan:** This investment will cover 18 months of operations, enabling the deployment of 500 units and reaching ₹8,00,00,000 in revenues. Post this phase, we plan to raise a Series A round of ₹16,00,00,000 to scale up production and expand to international markets.
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11. Current Equity Structure and Fundraising History

- **Equity Structure:**
 - Dheepak S: 40%
 - Amshith A S: 20%
 - Kaliswaran M M: 20%
 - Gunal M: 20%
- **Investment History:** Self-funded initial prototype development with ₹2,000.
- **Previous Investors:** None

12. Exit Strategies

- **Potential Exits:**
 - **Acquisition:** Potential acquisition by large infrastructure firms or renewable energy companies.
 - **IPO:** Possibility of going public within 5-7 years as the business scales.
- **Comparable Exits:**
 - **Acquisitions in the Renewable Energy Sector:** Similar startups have been acquired by major players for significant multiples of their revenue.
 - **IPO Success Stories:** Comparable companies in the renewable energy and infrastructure sectors have successfully launched IPOs, providing strong returns to early investors