North Carolina Agricultural & Technical State University

World Energy Systems Inc Proposal
For a Joint Venture with IWVC

By

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INTRODUCTION

This is a proposal for international participation in conjunction with India Wind Ventures Company (IWVC) to design and construct a non-pollutant, safe, low maintenance, cost efficient 10 MW output capacity windmill energy generation system.

COMPANY BACKGROUND

World Energy Systems, Inc. (WESI) is a family owned corporation interested in alternative sources for energy. Started by Brandi Girish in the early 1960’s, WESI began its young life in a small town near Houston, Texas generating electricity from windmills to support 20 acres of farmland for a family agricultural business. It wasn’t until the 1965 when young Bill Girish, grandson of Girish, enrolled into the School of Engineering and Natural Sciences at North Carolina A&T State University did the idea of commercializing the family business evolve.

Upon completing his program of study, young Girish worked for 15 years at a renowned gas and electricity company in Nigeria, West Africa. He worked his way up to senior engineer, branch and area manager prior to leaving the company to expand the families business. Through experience abroad he learned international business and law, and returned to the United States to earn a masters of business administration through the executive program at Texas A&M State University. During his program of study, he developed a business plan to globalize WESI by competing against his previous employer for the market in Nigeria, West Africa. WESI has been in the market for fourteen years now, concentrating in alternative sources of electricity, serving the domestic and
industrial population in the United States, Zimbabwe and Nigeria. Growing from a family run business to a corporation comprised of highly educated CEO’s, COO’s, engineers and over 6000 skilled and unskilled employees working to promote and popularize renewable energy, particularly wind power which will decrease the rise in cost of electricity.

OPPURTUNITY

Project Objectives

The objective of the project proposal is to remove barriers to the expanded and sustainable utilization of renewable energy in Gujarat, India. It will facilitate and accelerate the use of renewable energy technologies and efficiency measures in Gujarat thus reducing the need for the generation of energy fossil fuel (coal) thermal power. Gujarat is a rural area with enough land available to present the opportunity to apply emerging technologies to a land which suffers from summer droughts yet have enough wind power coming from the southern hemisphere to generate electricity.

Additionally, it is in Gujarat best interest to develop an alternative to the current conventional methods of producing electricity (power) using coal due to its rising cost, and needs of the people.

Expected Output

The expected outputs from this project are as follows:

1. Increased availability of power in metropolital and rural areas
2. Decrease the overall cost of production, and consumption of power

3. Improved engineering and technology skills in the industry

4. Develop a manufacturing extension partnership between our researchers, scientist, and engineers and that of other companies working towards the same goal

5. Enter a lasting, and profitable international joint venture

6. Strengthen private and public sector energy efficiency capabilities in Gujarat

BUDGET

- Electric turbine $6.0 (million)

Description: A modern 300 kw/h wind turbine that use only the energy from moving air to generate power will cost $300,000 each. The required rated output according to the proposal is 750 kw/h, hence the output of two and a half turbines are required to attain the rated output.

Justification: In Gujarat, the generation of power by the wind turbines produces the equivalent of the electricity consumption of more than 900,000 homes.

- Foundation 0.2
- Labor 4.08
  - Skilled 2.84
  - Unskilled 1.24
- Equipment 0.3
- Layout plan 0.1
- Land survey 0.1
- Materials 1.0
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- Marketing 0.075
- Technology 0.2
- Training/Education 0.06

Project Total ~ $12.2

Figure 1 represents the total expenditures for the joint venture for the first fiscal year.
Joint Venture Management

1. Dr. Kevin Shaw, Professor in the field of physics and electrical engineering at the University of California at Berkeley
2. Dr. Rajan Thomas, Professor in the electrical engineering department at the Indian Institute of Technology
3. Richmond Okoro, Safety and Environmental Engineering Consultant
4. James Billiard, former Director of the Federal Department of Energy
5. Jermame James, Electronics and Technology Consultant
6. Charlene Duncan, Area Manager of Business and Finance
7. Latasha Beckman and Girish Arunagiri, Professional Engineers in facilities layout and design, and technical consultants

These individuals mentioned above will serve on the joint venture management team, providing years of proven experience and expertise in their fields.

Conclusion

From years of penetrating this market, the management and employees of World Energy Systems Inc. believe we bring the best plan and package to form a everlasting relationship with India Wind Ventures Corporation. We are an integrated energy corporation, in performing its services to the industry will at all times ensure quality services by providing a safe working environment.