Introduction

In Response to your request for proposal our firm, PCPJ/WA, will provide a proposal designed to fit your companies needs. Wind energy, provided by horizontal axis wind machines, is our specialty. Our firm was formed in response to the need of alternative energy needs here in the United States. Wind energy offers stiff competition for nuclear energy and fossils fuels because it is environmentally sound as well as cost effective. It can provide power for large sites and will provide extremely low energy prices for areas who have prevailing winds of 13 miles per hour (21 kilometers per hour) or higher. They can generate energy at lower than 5 cents per kilowatt-hour. Our firm specializes in creating wind farms or groups of windmills to provide energy as needed.

PCPJ/WA is also concerned about maximizing our investment. We have based much of our information upon successful Western Europeans ventures especially in Denmark. For example; for the sixth consecutive year, sales from Danish wind turbine manufacturers set a new record. Statistics from the Danish Wind Turbine Manufacturers Association show that the production of wind turbines has increased six times in the course of the last five years, corresponding to an annual growth rate of 44% per year. These statistics are favorable and solidify our interest in forging a joint venture in
Western Europe. Our outlook on this investment are projected to be profitable for both of our companies.

In our research we have found that some parts of the southern most region of France provide adequate wind resources that support your specifications in your RFP.

Wind energy seems to retain its position as the fastest growing energy technology in the world. Already a total of 4,893MW of additional worldwide capacity was installed, representing a worldwide average growth rate of 27.75%. Wind energy capacity installations worldwide have surged from under 2,000 MW in 1990 to the present level of approximately 13,400 MW at the end of 1999, representing more than a six and a half–fold increase during that time period.

About Us:

First, our firm Purkett, Cox, Post, and Jones Ltd. doing business as PCPJ Wind Alliance would like to formally thank your firm, Wind Power Associates, for considering our proposal. Our firm is an independent developer of utility-scale wind energy projects active in the mid-Atlantic and Southeast region of the United States. PCPJ/WA develops and constructs renewable energy projects by forging partnerships with landowners, local communities, power purchasers/marketers, utilities and investors. We are based in
Greensboro, North Carolina but we develop, own, and operate utility scale wind energy projects. PCPJ/WA has extensive experience in resource evaluation, wind farm design, environmental impact assessment, project coordination, and financing and we are currently evaluating projects in the US, France, Denmark, and the UK. We specialize in horizontal axis machines and employ various expert consultants and legal associates that aid in our growth and advancement.

This is an example of one of our farms in Denmark.

**What We Offer:**

We can provide for the needs of Wind Power Associates and our own interest in coming together as a joint venture. We are prepared to:

- Establish a location that will provide optimal conditions for the venture.
- Provide windmill maintenance and technical support.
- Assist in locating various forms of financial funding for the joint venture.
- Venture into new markets and actively seek out potential customers.
- Assist in the recruitment effort.
Establishing Location:

We have selected the city of Valras-Plage, France located on the Southeastern French Coast. This city is just south of Beziers.

This particular site is 73,352 Km and has a mean wind speed of 7 meters per second. There are 111.323 meters of swept area per hectare. The region is located mainly near Valras Plage.
the vast grape and wine harvesting facilities in Southern France. It is also near major
routes and freeways ensuring equipment accessibility during construction and for future
maintenance or upgrades. The wind turbine design we have selected has a lifetime of 20
years. With offshore wind conditions (low turbulence) it is likely that the turbines will
last longer, probably 25 to 30 years. At this location we are bidding a cost of
approximately $0.039 USD (3.9 cents) per kWh. That is a 20% reduction of the $0.05
maximum in your RFP.

Windmill Maintenance and Support:

Most of maintenance cost is a fixed amount per year for the regular service of the
turbines instead of using a fixed amount per kWh of output of our calculations. Costs
usually run around $0.01 USD/kWh. The reasoning behind this method is wear and tear
on the turbine generally increases with increasing production. Other than the economies
of scale which will vary with the size of the turbine there may be costs in the operation of
wind parks rather than individual turbines. These costs are related to the semi-annual
maintenance visits, surveillance and administration, etc.

The primary danger in working with wind turbines is the height above ground
during installation work and when doing maintenance work. The safety and health of our
employees is always a number one priority. Most of the new Danish wind turbines are
required to have fall protection devices in which the person climbing the turbine has to
wear a parachutist-like set of straps. The straps are connected with a steel wire to an
anchoring system that follows the person while climbing or descending the turbine and
they provide ample protection from the machinery. Fire protection and electrical
insulation protection is governed by a number of international standards. During
servicing it is essential that the machinery can be stopped completely. In addition to a
mechanical brake, the rotor can be locked in place with a pin to prevent any movement of
the mechanical parts.
Financial Funding:

ARCADIA WINDPOWER LTD.

Provides equity financing for domestic and overseas wind electricity projects. In addition to investing from its own venture capital and project finance funds, ARCADIA acts as financial adviser and packages wind farm opportunities to its network of institutional and individual investors.

Price competition and Product range is currently particularly tough, and the product range particualrly large around 500-750000 USD. This is where you likely to find a machine which is optimized for any particular wind climate, and that is the area we want to pursue, with our team and financial funding, and us joining up the project should be a success.

A wind turbine cost between 400000-500000, the installation cost is typically between 100000-150000 that brings you to a total between 500000-650000 per wind turbine.

Recruitment Effort:

We will recruit qualified managerial staff and engineers who have more or no less than three (3) years of experience in the field. Pertinent coursework is provided for the managerial staff in order to ensure working knowledge of wind power technology. In association with North Carolina A&T State University the Management Staff will be required to complete the following coursework through virtual or online classroom activity:

MEEN-571 TurboMachinery
The cascade theory, applied to turbomachines: impulse and reaction turbines; compressible fluid dynamics, gas turbine principle; pumps, compressors and blowers; design of turbo machines elements , project work.
MEEN-563 Energy Conversion System Design
Design considerations in steam power systems, internal combustion power systems, refrigeration and heatpump systems, and overview of direct energy conversion devices. Power system design work.

MEEN 415 Aerodynamics
The course begins with the fundamentals of fluid static's and dynamics followed by an introduction to invision flow over air foils, wings and flight vehicle configurations.

Also countrymen with crafts and skills will be trained and provided with employment, bringing more job opportunities to the area.

Departmental Structure of the JV

♦ Managerial Staff
♦ Engineering Department
♦ Maintenance
♦ Public Relations and Customer Development.
♦ Operations Training

Managerial Department: This department entails specialists who are prolific in the field of power plant management and the understanding of staff management and recruitment at windmill farms.
**Engineering Department:** We maintain engineers and meteorological specialist who are capable of the planning and assessment of wind and solar energy projects. We offer coursework and training to enhance our engineering staff. Quality Assurance standards are also stressed. Our staff is competent in all aspects of data collection and analysis, meteorology, remote communications, and power quality analysis.

**Maintenance:** Our maintenance staff will be trained in the maintaining of wind turbines and trouble shooting.

**Public Relations and Customer Development:** This department promotes projects by forging partnerships with landowners, local communities, power purchasers/marketers, utilities and investors.

**Operations Training:** We will maintain an expert staff whose training areas include design, installation, operation, monitoring and testing techniques.