SPEECH ON THE 37TH ARA CONGRESS

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ENG GA INVESTMENT LIMITED (HK)

Dear ARA congress organizer:
Ladies and Gentleman!

I am from Hong Kong, so-called the pearl of the orient. Today I am very happy to have the opportunity to participate in this conference and receive the honorary Member Award from ARA and the Doctor Honoris Causa Award from University USPEE. Sincerely many thanks to all of you!

My holding companies are closely associated with energy, and as a generating equipment manufacturer operating under the company named Yatu with more than 20 years' experience. In year 2004, Yatu company was renamed as ENGGA Company. Currently our main products are alternator products and are among the top 3 alternator selling products in China domestic market. ENGGA exports products into Europe, Asia, America, and more than 40 countries. In year 2005 ENGGA stepped into wind power industry and have cooperated with Tsinghua University (China) and Chinese Academy of Sciences (CAS) to develop wind power generator together. In year 2008 ENGGA cooperated with IOPARA INC (Canada) to develop the vertical axis wind turbines and have got the breakthrough in technologies. Currently the prototype unit has been built in China and will be installed for power generation in Yangjiang City, China, in July 2013. This successful development of VAWT technology has double lifespan to existing wind power equipment up to 40 years and can reduce operating cost by 20%. Due to the simplified structure design and removal of several major components, the reliability of the equipment is greatly enhanced and the maintenance cost is profoundly reduced. The structure of VAWT is suitable for the manufacturing of the large wind power generators above 10MW. It is a key consideration for any future energy production equipment replacement. ENGGA will launch the VAWT product to market in the second half of this year and will make the announcement for your attention. We have applied 60 national patents for invention, patents for utility models and 9 PCT international patents which have already been opened in some countries. VAWT can produce a lot of power in the region which has good wind conditions. However, those region which has good wind condition , suitable for the large scale of installation are usually located at remote region such as desert area. In these regions the problems lies with the high cost for electricity transmission. A lot of power which is generated in the mid-night cannot be effectively utilized in a large scale because of the lack of energy storage and energy remote transmission technology. The wind power generation encounters the above mentioned technical difficulties in China. The technology to acquire the clean, renewable energy in large scale will have a breakthrough in the near future, however, the utilization of clean renewable energy in a large scale will be restricted if the electricity transmission and storage technology cannot keep up with the needs.

Focus on the above mentioned technical difficulties in the wind power generation, for years we have been researching and developing the new technology for the new energy transmission, in addition to electricity transmission. Currently we have found a new technology of energy transmission in remote area and completed the equipment design for new technology of energy storage. We are going to do a series of testing on this new technology and we are confident in solving a series of technical difficulties after the VAWT acquired the clean renewable energy in large scale, and converting the electricity transmission technology into more efficient and safe technology.

For years, we have made in-depth research in 6 global frontier technologies and have acquired achievements in the following:

1. 2x10MW Vertical Axis Wind Turbine Technologies;
2. New Technology of the Electricity Converting into the New Energy;
3. New Technology of the New Energy Converting into the Electricity;
4. Technology of the New Energy in Remote Transmission;
5. New Technology of the New Energy Storage;
6. New Technology of High Speed Rail Transit with the New Energy.

We have conducted the product development with above mentioned 6 technologies which are ongoing with some already completed. Our plan is to complete the conversion from above mentioned technology into the product in the shortest time. In the near future the product with these technologies will be utilized and we welcome our partners to participate and cooperation in research with us together.

History moving forward and human being are making the continuous improvement. The intelligence and wisdom of human being will make the sky more blue, the earth more green and the world more peaceful. Regardless of color of face and country boundaries, let us hand in hand and move toward the beautiful future together!

I take this opportunity to say thank you again to the congress organizer: ARA and University USPEE.

Many thanks to all of you again!

第 37 届美国罗马尼亚人文科学院大会演讲稿

邓允河

香港英格投资有限公司

尊敬的大会主办机构：

女士们，先生们！

我来自人称美丽的东方之珠的香港。今天，非常高兴有机会参加这次会议并接受美国罗马尼亚人文科学院授予本人名誉会员资格和摩尔多瓦国立大学授予本人名誉博士荣誉，谨此，表示衷心感谢！

本人控股及管理的企业与能源有关，是发电设备制造企业，有二十多年历史。原来的雅图公司十五年经营期满后再成立英格公司继承其产业。目前主要是生产发电机产品，并在中国销售业务在前三名，产品销售给欧洲、亚洲、美洲等四十多个国家。公司在 2005 年开始进入风电发电领域，先后与中国清华大学及中国科学院合作开发风电发电机。2008 年公司又与加拿大 IOPARA INC.公司合作开发垂直轴风力发电机，并取得突破。目前样机已在中国完成试制，今年七月将在中国阳江市安装发电。垂直轴发电机技术的开发成功，将使现有风力发电机的寿命大幅延长一倍达四十年，成本下降了 20%。由于结构简约并去除了多个主要部件，使设备可靠性更高，从而大幅减少维修成本。垂直轴风力发电机的结构适合制造大于 10MW 的大型风力发电机，因此是未来替代能源生产设备的重要选项。今年内的适当时候，我们将发布有关消息，请大家关注。这项技术我们申请了 60 多项中国发明专利和实用新型专利，并申请了全球 9 个国家的 PCT 专利，目前多个国家已公开。垂直轴风力发电机在风况良好的地区可以生产大量的电力，但是由于风况良好又可大规模装机的往往是偏远地区或沙漠，在这些地区，电力的输送问题、成本问题以及深夜产生的大量电能因储能与输送技术的滞后而得不到大规模的有效使用的问题随之而来。风力发电在中国遇到上述技术瓶颈。尽管大规模获得清洁的可再生能源手段近期将会有所突破。但是电力的传输与储藏的技术不能跟上，制约了大规模清洁能源的应用。

针对以上风力发电遇到的技术瓶颈，我们在前几年开始研究电力传输以外的能源传输技术。目前我们发现了一种新的能源远程输送技术和能源转换技术，设备已完成设计。近期我们将进行一系列新的试验，我们有信心解决垂直轴风力发电机大规模获得清洁再生能源后的一系列技术瓶颈，使人类单一的能源传输技术，由电力传输向更高效、更安全的新的领域迈进。

多年来，我们在全球前沿技术的 6 个领域作了深入的研究，并获得了可喜的成果：

1. 2-10MW 垂直轴风力发电机新技术；

2. 电能转化为一种新的能源的新技术；

3. 新的能源转化为电能的新技术；

4. 新的能源远程输送的技术；

5. 新的能源的储存新技术；

6. 以新的能源为动力的高速轨道交通新技术。

以上 6 项新技术我们已进行了产品开发，部分已经完成。我们的计划是利用最短的时间完成上述技术转化为产品，不久的时间上述技术的产品将会诞生，我们欢迎有识之士进行合作与研究。

历史在不断地前进，人类在不断地进步，人类的聪明才智将使未来的地球变得天更蓝、地更绿、人更和，让我们不分肤色、不分国界共同携手走向美丽的未来。

借此机会再次感谢主办方：美国罗马尼亚人文科学院和摩尔多瓦国立大学，谢谢大家！