

## **Press Release:**

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CVMR Corporation (CVMR<sup>®</sup>) and its Canadian subsidiaries, EnerCarbon Inc. (EnerCarbon) and M-Power Corporation (M-Power), announced a major breakthrough in the development of their off the grid Power Generating system based on temperature differential effect using a graphene layer to capture heat from the sun. They also announced an innovative idea of converting waste, including various plastics, to valuable products by means of a novel energy-efficient and inexpensive process.

Mr. Kamran M. Khozan, Chairman of the group introduced the senior team members involved in the development of these innovative technologies:

- Mr. N. Victor Emmanuel P.Eng. (Chief Operating Officer at CVMR<sup>®</sup>)
- Mr. S. Kovtun, M.Sc. (Head of R & D at CVMR<sup>®</sup>);
- Dr. H. Radfarnia, D.Eng. Chemical Engineer, (Head of R&D at EnerCarbon);
- Mr. M. Milinkovic, P.Eng. (Process Engineer at M-Power);
- Mrs. P. Milinkovic, M.Sc., P.Eng.(Consulting Engineer at M-Power);
- Mr. Q. Mohammad B.Sc. (Senior Electrical & Process Engineer at CVMR<sup>®</sup>);
- Mr. D. Zhiw Xie, M.Sc. (Senior Design Engineer at CVMR<sup>®</sup>);
- Mr. M. Hargett, M.Sc. (President of CVMR<sup>®</sup> US Operations);
- Dr. F. Rassadi, D.Eng., Process Engineer, (Head of CVMR<sup>®</sup> German Operations);
- Prof. Teng Ronghou, D.Eng. (Head of R&D at CVMR<sup>®</sup> Chinese Operations)

CVMR<sup>®</sup> and EnerCarbon, in a joint effort, have been able to produce graphene by the following methods:

- 1) Refining and slicing of mineral graphite;

- 2) Converting methane gas to graphene, using the CVD process developed at CVMR<sup>®</sup>;
- 3) Capturing CO<sub>2</sub> emissions, from industrial operations, through a novel, modular, scalable, scrubber system with a small footprint, and turning the captured CO<sub>2</sub> into various valuable solid products.

One of the uses of the graphene thus produced is to put it in aerosols and spray it over the surfaces that could capture heat from sunlight and, through a system developed by CVMR<sup>®</sup> and M-Power, convert that heat to electricity produced and distributed off grid or in micro-grids, by generators that are silent and environmentally completely neutral. The system uses Vanadium batteries to store the produced energy for smooth, continuous operation.

The latest breakthrough announced for the first time today by CVMR<sup>®</sup>, EnerCarbon and M-Power is their success in breaking down plastic and other waste materials and converting them to useable, value added products that are environmentally neutral, without using the costly method of incineration and gasification technologies. The process is far less energy intensive and compared to conventional thermal processing technologies, much less costly.

CVMR<sup>®</sup> and its sister company EnerCarbon were selected as one of the finalists for a substantial grant provided by the Government of Ontario through the Ontario Centres of Excellence ("OCE") under a three-phase competition over three years, called Ontario's Solutions 2030 Challenge. The grant is in support of the project led by CVMR<sup>®</sup> to uptake CO<sub>2</sub> from industrial operations and convert it to graphene and graphite.



**CVMR®'s Team**