



MOVA Technologies, Inc. Begins Second Stage of Panel-Bed Development

July 31, 2017

[Pulaski, Virginia] – Carbon filtration technology using solid sorbents is not projected to be implemented until 2030 according to the US Department of Energy. MOVA Technologies aims to deliver that date a decade ahead of schedule thanks to its patented panel-bed filter. MOVA has begun the second stage in developing its panel-bed filter that could reduce costs and emissions associated with energy production from carbon-based fuels and contribute towards MOVA’s vision of small, modular power plants that produce cleaner, cheaper energy.

Based in Pulaski, Virginia, MOVA Technologies, Inc. is a technology company developing its panel-bed filter to be used in carbon-based fuel-fired facilities. MOVA is in a contract with the Mid-Atlantic Technology, Research and Innovation Center (MATRIC) to develop the panel-bed filter, and recently received results of MATRIC’s techno-economic analysis that reported panel-bed filtration could reduce both capital and operating costs of energy production compared to existing technologies, and identified NO_x and SO_x emissions as the initial pollutants to target. MOVA is now underway in the ‘Technology Scoping’ stage with MATRIC to design the full-scale panel-bed and a laboratory for further testing to include research on more pollutants such as CO₂.

What is Panel-Bed Filtration?

The panel-bed filter is a multi-emissions filtration system (MEFS) that uses solid sorbents to capture gaseous emissions and particulate matter. Picture a cloud of ash filtering through a bed of sand: the sand acts as a solid sorbent which captures ash as the cloud passes through the sand bed. In the same way, solid sorbents in the panel-bed filter capture pollutants produced during fossil fuel incineration to prevent their harmful release into Earth’s atmosphere.

Environmental Benefits

Panel-bed filtration is an important implementation as the world transitions towards cleaner, sustainable energy alternatives. The MEFS setup eliminates the need for multiple filters, reducing the energy and space required for operation. The use of solid sorbents enables pollutants to be captured, separated and extracted, allowing for the safe disposal or reuse of the pollutants.

Future Plans

Tires and small modular power plants are among the components of MOVA’s integration into innovative energy. *The Economist* article “Clean Energy’s Dirty Secret” explains that as renewable energies have an increased influence in the energy sector, small, modular power plants will be needed across power grids as a reliable source of energy. Designing these plants around the capabilities of panel-bed filters could increase efficiencies and lower emissions of carbon-based fuel. MOVA intends to research tire incineration with MATRIC as an energy source in small modular power plants. Tires are rapidly polluting the Earth and serve as a vessel for disease transportation, so developing their use as a clean energy source could have significant environmental benefits.

MOVA Technologies, Inc.
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Pulaski, Virginia 24301



Town of Pulaski

It is no coincidence MOVA placed headquarters in Pulaski as West Main Development (WMD) commences. President and CEO Steve Critchfield and Operational Assistant Brett Alderson are actively involved with WMD to help with the revitalization of the Town of Pulaski, and see MOVA as the frontrunner to bring more start-ups to Pulaski and demonstrate the potential for success the town offers.

“First, with plans to build a small power plant using MOVA’s patented technology in the Pulaski area, MOVA will help kick start the revitalization of Pulaski. Second, MOVA having headquarters on West Main St. while the WMD project is going on will help get the community to see that business is coming back to the area. I think the two projects [MOVA, WMD] are going to have a big economic impact not only in Pulaski, but also in all of Southwest Virginia,” says Alderson.

On Thursday, August 3rd from 4:30-6:30 p.m. MOVA will be hosting an Open House for the Roanoke-Blacksburg Technology Council at the MOVA Headquarters on 29 West Main St., Pulaski, Virginia 24301. MOVA is excited to engage with the technology community of Southwest Virginia and looks forward to attending the Pulaski Yankees baseball game for Star Wars night following the Open House.

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MOVA Technologies, Inc. is a technology company located in Pulaski, Virginia based on patents developed by Dr. Arthur M Squires (1916-2012), a distinguished member of the chemical engineering profession, a member of the National Academy of Engineering, and a Distinguished Professor Emeritus at Virginia Polytechnic Institute and State University.

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