
Log 9 Materials Leverages Nanotechnology to Tackle India's Energy Challenges

2019-11-20



The cleantech startup of Log 9 Materials, spun off from the Indian Institute of Technology, Roorkee, is seeking to replace crude oil and fossil fuels with aluminium-based clean energy sources by means of graphene nanotech-based products and solutions aimed at rising to the challenges of India's energy sector. The company has recently secured a \$3.5 million fund for developing and marketing the products designed based on aluminium fuel cells.

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Bengaluru-based cleantech startup Log 9 Materials—an IIT Roorkee spin-off working in the nanotechnology domain—is on a mission to provide 100% clean and circular energy economy solutions for making [India](#) energy independent and an exporter of fuel in a new world order it calls the 'Aluminum economy', with [graphene](#) nanotech-based products and solutions. Recently, Log 9 raised Series A funding from Sequoia [India](#)'s scale-up programme Surge and Exfinity Venture Partners. The company had earlier raised seed funding in March 2017, followed by pre-Series A funding of around Rs 3 crore in 2018. The latest funding secured by the company amounts to Rs 24.22 crore (around \$3.5 million).

The newly raised funds will be used by Log 9 for further product development and commercial and industrial deployment of its aluminium fuel cells—a project in the clean energy domain that the startup has undertaken since last year. The aluminium fuel cell technology is being developed by Log 9 for both stationary and automotive applications, wherein graphene is being used to make these cells commercially viable as well as economical and sustainable for the domestic and international markets.

On the new fund raise, Akshay Singhal, founder and CEO, Log 9 Materials, said, “We are extremely grateful to the investors who have put their faith in our scientific capabilities once again, and infused fresh capital into our company. We will be using the amount to propel development and deployment of our flagship project on Aluminium-Air fuel cells, which is currently in the optimisation stage.”

He added: “Our endeavour will be to accelerate modifications in the product development cycle so as to create a commercially viable product for both electric vehicles (EV) as well as stationary applications, and we are confident of rolling it out in the market in the next 18-24 months. The ultimate objective is to transition towards an aluminium-based cleaner energy economy that will shift our dependence from crude oil and fossil fuels for energy generation and storage.”

The aluminium-fuel cells – the latest project conceptualised and implemented by Log 9 Materials, has the potential to revolutionise the clean energy, electric mobility and transport sectors in [India](#) and across the globe. It is a primary energy generation technology similar to hydrogen fuel cell, but more economical, safer and scalable.

Since inception in 2015, Log 9 Materials has attempted to solve myriad practical and real-life challenges with the novel use of graphene nanotechnology. While in the initial years the startup experimented and developed product prototypes in a variety of domains, it has narrowed down to only two sectors in the recent past – filtration and energy.

As the EV market continues to evolve globally, batteries with sustainable, more robust energy generating technologies will lead the growth in the times to come, and to this end, Log 9 Materials aims to promote an end-to-end clean circular energy economy using aluminium as the fuel, via its aluminium-based fuel cell technology.

Read the [original article](#) on The Financial Express.