

# 18th July, 2022

BSE Limited	National Stock Exchange of India Limited
Phiroze Jeejeebhoy Towers	Exchange Plaza, 5th Floor
Dalal Street	Plot No. C/1, G Block
Mumbai: 400 001	Bandra Kurla Complex
Scrip Code: 500440	Bandra (East)
_	Mumbai – 400 051
	Scrip Code: HINDALCO
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Dear Sir/ Madam,

Sub: Press Release of Hindalco Industries Limited ("the Company")

Ref: Regulation 30 of the Securities Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015

Enclosed herewith is the Press release dated 18th July, 2022 of the Company for entering into partnership with Phinergy, an Israel-based company and IOP( IOC Phinergy Private Limited) on Aluminium-Air batteries for EVs and energy storage

Thanking you

Yours faithfully

For HINDALCO INDUSTRIES LIMITED

**ANIL MALIK** 

President & Company Secretary

Encl: as above







# Hindalco, Phinergy and IOP to partner on revolutionary Aluminium-Air batteries for EVs and energy storage

- Make EV adoption easier in India by extending vehicle driving range without the need for charging infrastructure
- Reduce dependence on battery imports
- Boost Atmanirbhar Bharat by enhancing energy security

## **TEL AVIV/ MUMBAI 18 July 2022**

Hindalco Industries Limited, Aditya Birla Group's metals flagship has signed an MoU with Phinergy, a leading Israel-based pioneer in metal-air battery technology, and IOC Phinergy Private Limited (IOP) - a joint venture between Phinergy and India's leading energy PSU Indian Oil Corporation. As per the MOU, Phinergy and IOP will partner exclusively with Hindalco in India, on R&D and pilot production of aluminium plates for Aluminium-Air batteries, and recycling of aluminium, after usage in these batteries.

In the Aluminium-Air battery, developed by Phinergy, energy is released when aluminium reacts with oxygen in ambient air to produce aluminium hydroxide. Due to its light weight and high energy density, an Aluminium-Air battery significantly increases the driving range of Electric Vehicles. It also enables quick 'refuelling' and eliminates the need for expensive nationwide charging networks. Aluminium-air batteries are expected to make EV adoption more convenient, and accelerate the transition to zero emission mobility. An added benefit is that aluminium hydroxide in the battery can be recycled to recover aluminium. The leading automobile manufacturers in India are currently testing the technology.

Speaking about the partnership, Satish Pai, MD, Hindalco Industries Limited said, "Climate action is integral to our business and our partnership with Phinergy and IOP is a significant step towards decarbonising mobility. The partnership is also a testament to Hindalco's globally recognised capabilities in innovation and R&D and we are happy to contribute to the development of the Aluminium-Air battery. India has an abundance of aluminium resources and this technology can help enhance the nation's energy and resource security."

**David Mayer, CEO, Phinergy, said,** "Phinergy strongly believes Aluminium-Air batteries will contribute to the clean energy revolution in India. The partnership with Hindalco, a global aluminium industry leader, is a major step in the deployment of Aluminium-Air batteries in India and we are confident this collaboration will significantly enhance the development of an ecosystem enabling to supply "aluminium as energy" made in India. "

**Sanjeev Gupta, Chairman, IOP, said,** "IOP was incorporated with the objective of commercialisation and manufacturing of Aluminium-Air energy systems in India to strengthen India's energy security. Aluminium is abundantly available in India and its usage as an energy storage medium through this novel technology has the potential to contribute immensely to *Atmanirbhar Bharat*. This partnership with Hindalco is a big step towards catalysing our efforts to develop a favourable ecosystem for faster dissemination of the Aluminium-Air battery technology. The collaboration will propel India's aspirational journey towards sustainable, affordable and safe energy options for stationary and e-Mobility purposes".

The EV market, which would be the primary segment for Aluminium-Air batteries, is projected to achieve cumulative sales of 80 million units by 2030, according to a joint report by the

German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, and NITI Aayog. Aluminium-Air batteries offer a viable alternative to other battery chemistries and will boost the domestic manufacturing of batteries to meet India's growing demand for energy storage,

#### **About Hindalco**

Hindalco Industries Limited is the metals flagship company of the Aditya Birla Group. A \$26 billion metals powerhouse, Hindalco is the world's largest aluminium company by revenues, and a major player in copper. It is also one of Asia's largest producers of primary aluminium.

Guided by its purpose of building a greener, stronger, smarter world, Hindalco provides innovative solutions for a sustainable planet. Its wholly-owned subsidiary Novelis Inc. is the world's largest producer of aluminium beverage can stock and the largest recycler of used beverage cans (UBCs).

Hindalco's copper facility in India comprises a world-class copper smelter, downstream facilities, and a captive jetty. The copper smelter is among the world's largest custom smelters at a single location. Hindalco's global footprint spans 50 manufacturing units across 10 countries.

Hindalco was named the world's most sustainable aluminium company in the Dow Jones Sustainability Indices (DJSI) in 2020 and 2021.

#### **About Phinergy**

Phinergy is an innovative cleantech company based in Israel, developing breakthrough clean energy systems based on its patented metal-air technology. This technology enables energy generation by combining oxygen from ambient air with metals, specifically aluminum and zinc. The applications of Phinergy's technology include energy backup for critical sites, range extension for electric vehicles, and use as a renewable energy storage.

#### **About IndianOil**

IndianOil is one of the largest corporates and the top-ranked Indian energy PSU in the Fortune 500 rankings, with a net profit of Rs 24,184 crores for fiscal 2021-22. A diversified, integrated energy major, IndianOil has a presence in almost all the streams of oil, gas, petrochemicals, and alternative energy sources. With a 31000-plus workforce, extensive refining, distribution & marketing infrastructure, and advanced R&D facilities, IndianOil touches the lives of over a billion Indians every day through its ever-expanding network of customer touchpoints, currently numbering over 56,000 across the country.

## **About IOP**

IOC Phinergy Private Limited with its registered office at New Delhi is a joint venture between IndianOil and Phinergy for the commercialization and manufacturing including research & development of Aluminium-Air energy systems