

15th February 2023

Clontarf Energy plc
("Clontarf" or "the Company")

JV HoA on Direct Lithium Ion Extraction Technology in Bolivia.

Clontarf Energy plc (AIM: CLON) is pleased to announce a heads of agreement around the potential formation of a 50:50 Joint Venture with US based, OTC Markets traded, technology company, NEXT-ChemX Corporation ("**NCX**") covering testing, marketing, and deploying of NCX's proprietary (patent pending) direct lithium ion extraction ("**DLE**") technology in Bolivia. Formation of the JV is subject to final due diligence and the parties entering into formal documentation, which is intended to occur within the next 30 days.

NCX's ion extraction technology uses the surface area of hollow fibre membranes to extract lithium ions from brines. The technology is a continuous process, and does not require high pressure, temperature or electrolysis. It does not rely on osmotic processes, or costly filtration techniques electrolysis, but instead mimics biophysical processes of natural principals to induce ions in solution to cross the membrane barrier. This mimics how mammal organisms remove wastes from a donor liquid without physically mixing with an acceptor liquid.

The technology has been proven to be effective and efficient during laboratory testing, and in the Board's view, NCX's technology is an innovative approach to direct lithium extraction.

Environmental attractions include limited energy and water consumption, extracting the targeted ions and generating minimal waste. It is suited for lithium extraction from Bolivian brines, where evaporative ponds are not optimal due to rainfall conditions, altitude and magnesium content.

Laboratory / bench test analyses extracted ions from solutions at ambient temperatures and pressures - even in very low concentrations.

The next step is to test selected brines from potential sources. NCX is assembling, subject to funding being delivered from Clontarf (per the below), a pilot plant in Texas to test large volumes of brines, moving towards feasibility and commercialisation. The plant will test circa 1,000 litres of each specific brine, with an overall 20,000 litre trial run size, allowing a customised NCX DLE commercial system to be assembled (in modular form) and placed on site for field testing.

The NCX DLE Technology is patent pending, with intellectual property protection managed by Patent Attorneys specialised in chemical processing and materials science.

Clontarf is in discussions with Bolivia's state owned lithium company ("**YLB**") to test NCX's proprietary DLE membrane technology on priority brines, which may include identified salares on which preliminary samples have been taken.

Negotiations with the proper authorities covering the source and volumes of brines to be processed, and on which commercial terms, are expected to follow successful pilot plant operation - subject to applicable laws.

The pilot plant testing and extraction will begin during **March 2023**, including both preliminary testing, as well as pilot plant operations, with results expected by **May 2023**.

Heads of Agreement Terms:

A 50:50 joint venture company to be formed on completion of due diligence covering the exclusive rights to the marketing, testing and deployment of the NCX DLE technology in Bolivia.

Clontarf Energy plc to contribute \$500,000 towards the pilot plant construction and testing as an exclusivity fee for the use of the NCX technology.

NCX will then issue shares equal to \$500,000 at its next financing (CHMX:OTC) to Clontarf Energy plc.

Clontarf Energy plc will issue shares as follows to NCX:

- i. 385 million new Ordinary Shares on proceeding with the Pilot Plant \$500,000 contribution from Clontarf;
- ii. 250 million new Ordinary Shares after successful pilot processing of Bolivian brines through the NCX pilot plant; and
- iii. 250 million new Ordinary Shares after entry into a construction and processing contract between the JV and the Bolivian authorities on processing of Bolivian brines utilising NCX processing technology.

NCX, or its nominee, will have the right, but not the obligation, to invest £250,000 into the Company at a price of £0.00065, for 30 days from the signature of this HoA.

As noted above, formation of the JV is subject to final due diligence and the parties entering into formal documentation (based on the terms of the Heads of Agreement), which is intended to occur within the next 30 days.

Chairman, David Horgan, commented:

"The world needs a dramatic increase in battery grade lithium salts output. Projected global demand cannot be delivered without major Bolivian output. The delay has been the shortcomings of evaporative ponds at high altitude, some rainfall and impurity levels.

"We believe that these constraints may be bypassed through innovative technology.

"In minimising environmental impact, we have worked to reduce water use by 95%, and minimise the footprint of on-site operations.

"Any Bolivian operations will conform with applicable laws, in partnership with the State Lithium Company, and respect high international operating standards."

ENDS

This announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ("MAR").

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