

***newcleo* and Viaro Energy sign MOU to deploy clean nuclear technology to decarbonise oil and gas sector**



- London-based independent upstream energy company Viaro Energy and clean nuclear technology developer *newcleo* have established a strategic partnership centred around the future deployment of Advanced Modular Reactors (AMR) to support the decarbonisation of the oil and gas sector
- Following the successful completion of feasibility studies, the companies will establish a joint venture to deploy *newcleo*'s 200MWe lead-cooled fast reactors at Viaro Energy sites to decarbonise its existing and future assets

London, 5 March 2024 – *newcleo*, the clean and safe nuclear technology company developing innovative Generation IV reactors using nuclear waste as fuel, and Viaro Energy Limited (Viaro), a London-based independent upstream energy company, are pleased to announce a strategic partnership centred around the decarbonisation of the oil and gas sector through the deployment of cutting-edge low-carbon nuclear technology.

newcleo and Viaro have signed a Memorandum of Understanding (MOU) outlining a framework for planned collaborative activities to decarbonise Viaro's existing and future oil and gas infrastructure.

newcleo is developing a unique lead-cooled fast reactor (LFR) technology which will be suitable for a wide range of locations thanks to its unique intrinsic safety and compact characteristics and can be co-located with electro-intensive industries. The LFRs will also run on reprocessed spent fuel currently created by existing reactors – not only reducing the climate footprint of *newcleo*'s own operations, but it will also effectively close the fuel cycle, increase the useable energy from previously mined uranium, eliminate the need to extract and process new uranium resources and reduce the stock of long-lived wastes.

Following the completion of feasibility studies, the companies will establish a joint venture for the deployment of *newcleo*'s 200MWe LFR reactors at chosen sites within Viaro's portfolio, assessing both existing assets and prospective acquisitions in which Viaro is currently engaged. The technology will contribute to net-zero goals by maximising the benefits of AMRs for cogeneration, combined heat and power and off-grid application. The average life span of an LFR reactor is 60 years and after the decarbonisation of the Viaro's hydrocarbon assets, the LFRs will continue providing clean energy to the UK's national electric grid and elsewhere across Europe where the technology is implemented.

In addition to the executed MOU, as demonstration of its belief in *newcleo*'s potential for supporting the energy transition generally and specifically through the decarbonisation of oil and gas assets, Viaro has also directly invested in *newcleo* by way of acquiring shares in its latest capital raise.

Francesco Mazzagatti, CEO of Viaro Energy, commented:

“The partnership with newcleo is a major milestone in our strategy to exemplify the only economically viable approach to the energy transition by investing in both energy security and long-term net-zero goals. We are proud to spearhead decarbonisation efforts in the oil and gas sector through the implementation of newcleo’s clean nuclear energy technology into our operations.”

Stefano Buono and his team are true visionaries with decades of experience with nuclear energy, and we are confident in newcleo’s potential to pave the way towards a sustainable and affordable, clean energy solution, as evident from its already numerous partnerships with the leaders and pioneers of each core industry segment. It is because of my belief in the concept and the team behind it that both Viaro and myself personally have also acquired shares in newcleo.”

Stefano Buono, newcleo Chairman and CEO, commented:

“This is an exciting partnership and demonstrates the potential for newcleo’s technology to support industrial decarbonisation. The transition to net-zero will only be achieved by decarbonising not only the energy, transport and heat sectors but also energy intensive and “hard to abate” heavy industries.”

“Our technology means that, for the first time, nuclear reactors will provide decentralised, baseload, low-carbon energy to customers with enhanced safety and security of supply. Viaro’s pragmatic and forward-looking approach will help them to blaze a trail towards lower-carbon operations in the oil and gas sector and we are delighted to be partnering with them and to provide energy solutions to make their aims a reality.”

Notes to editors

About *newcleo*

Privately funded and headquartered in London, *newcleo* was launched in 2021 – and since raised a total of EUR 400m – to be an innovator in the field of nuclear energy. Its mission is to generate safe, clean, economic and practically inexhaustible energy for the world, through a radically innovative combination of existing, accessible technologies.

With visionary co-founders, *newcleo* capitalises on thirty years of R&D activity in metal-cooled fast reactors and liquid-lead cooling systems, and our senior management and advisory team can boast hundreds of years in cumulative hands-on experience.

Counting on more than 600 highly skilled employees across the Europe, *newcleo* has business, scientific, operations and industrial manufacturing capabilities in a vertically integrated model designed to deliver its ambitious timeline for its plan-to-market.

newcleo's technology, mostly comprising a novel approach to already qualified solutions, addresses equally well the three challenges affecting the nuclear industry to date: waste, safety and cost.

- **Waste:** fast reactors are capable of efficient “burning” (i.e., fission) of depleted uranium, plutonium and Minor Actinides. When operated with MOX fuel generated from reprocessed nuclear waste, *newcleo*'s reactors not only ensure sustainability by closing the fuel cycle, but can also boost energy independence.
- **Safety:** lead-cooled reactors operate at atmospheric pressure. The properties of lead (thermal capacity and conductivity, boiling point, chemically inert, low neutron activation, shielding properties) together with *newcleo*'s passive safety systems ensure very high levels of safety
- **Cost:** *newcleo*'s reactor design has been optimised over the last 20 years leading to the concept of an ultra-compact and transportable 200MWe module with improvements in energy density compared to other technologies. Costs are kept low by means of simplicity, compactness, modularity, atmospheric pressure operation and elevated output temperature.

newcleo is also working to significantly invest in MOX fuel manufacturing in developed countries, extracting energy from the current nuclear industry by-products.

newcleo is ready to develop a new, sustainable, and completely safe way of generating nuclear energy that will help humanity reach zero emissions, and mitigate global warming.

About Viaro Energy

London-based Viaro Energy is an independent upstream energy company focussed on investments in the North Sea basin. Viaro was established by its CEO Francesco Mazzagatti, who has operated in the energy sector since 2012.

Viaro has achieved significant growth through highly value-accretive acquisitions in the UK Continental Shelf and Dutch North Sea, a combination of strategic investments in exploration opportunities and mature producing fields, all geared towards ensuring Europe's long-term energy security during the energy transition.

Through partnerships in JV fields via its main operating subsidiary RockRose Energy, Viaro contributes to 9% of total gross daily gas production in the UK. The company's significant production base is majority gas-weighted, benefitting from considerably lower environmental emissions. It has achieved up to 30,000 boepd of production from its existing assets.

Alongside continued investment in and preservation of European energy security, another area of focus will be on targeted investments to support the decarbonisation of the industry and the overall energy transition – to both materially reduce carbon emissions and address the growing global energy needs of the future.

Viaro Energy, through its subsidiary RockRose Energy, currently holds non-operating working interests in a significant number of producing oil & gas fields within both the UK and Dutch sectors as well as equity in the associated infrastructure. These holdings translate to RockRose Energy being a partner in key terminals such as: the Shetland Gas Plant (UK), Bacton Terminal (UK) and the Den Helder gas plants (NL), in addition to being a material contributor to each country's energy security.

Some of the company's key assets include: Easington Catchment Area, Bacton Catchment Area and the Anning & Somerville development in the Southern North Sea; the Greater Laggan Area and the Tuck Licence in the West of Shetland; Arran and Ross & Blake in the Central North Sea and AB Block and K4b-K5a in the Netherlands.

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