

PRESS RELEASE

Fusion Energy Agreement between RSE and BLUE LASER FUSION (USA)

The Memorandum of Understanding was signed in Rome during a two-day international discussion on innovation and the role of research and technology transfer in the energy transition. Guest of honor: Nobel Prize winner Shuji Nakamura.

Rome, 06.11.2024 – An agreement was signed in Rome on 4 November between RSE and the American company Blue Laser Fusion (BLF) to initiate joint research and development activities on the world's first commercial-scale inertial fusion energy (IFE) power plant.

The agreement was quoted as proof of Italy's commitment to this technology in the Prime Minister's **Giorgia Meloni** speech which was presented this morning by the Undersecretary to the Presidency of the Council, **Alfredo Mantovano** at the inaugural ministerial event of the World Fusion Energy Group at the Ministry of Foreign Affairs and International Cooperation. The activities will be carried out in three phases: a first analytical one, a second to build a prototype of a small-scale commercial inertial fusion energy (IFE) reactor ("Small-scale Fusion Pilot Reactor") and a the third, concluding one, to launch a prototype of a larger-scale commercial IFE reactor ("Full-scale Fusion Pilot Power Plant").

*"We are honored to have the opportunity to cooperate with a technological leader on an ambitious innovation project that aims at accelerating the energy transition", said **Franco Cotana**, CEO of RSE. "Our researchers will contribute with the expertise developed in Italy through the Energy System Research activities and through the many international cooperation opportunities, such as those linked to Mission Innovation. Working with BLF will allow us to increase our experience and knowledge of a challenging sector with important decarbonization targets", added Cotana. "Although it cannot yet be considered as an alternative to fission small modular reactors, this innovation marks a decisive step towards fusion, which does not use magnetic confinement but a simpler technology that has already been verified by the US Department of Energy's Livermore experiment in December 2022".*

The agreement with Blue Laser Fusion, founded in 2022 by Shuji Nakamura, winner of the Nobel Prize in Physics in 2014 and member of the RSE Scientific Committee, will help facing the environmental challenges that will make Italy a sector leader. Professor Nakamura is world-renowned for inventing the high-power blue LED that enabled the production of LED lamps, one of the greatest revolutions in energy efficiency, lighting technology and colorimetry. In recent years, the Nobel Prize winner has devoted himself to the development of high-power lasers, which now make it possible to trigger inertial confinement fusion. As a matter of fact, BLF is working to produce the first generation of clean energy, with zero carbon emissions.

Dr. Nakamura, Blue Laser Fusion CEO, commented: *"Blue Laser Fusion is very pleased to collaborate with RSE on the development of the first practical inertial fusion energy demonstration. This agreement with RSE will connect top scientists and engineers in Italy and Europe with the BLF laser, target development team and begin the process for establishing demonstration sites in Italy".*

The two days of multi-party discussions during which the agreement was signed highlighted the potential, albeit long-term, environmental and industrial benefits of this technology.

*"We need to make up for lost time in order to promote a change in the pace of Italian and European research, capitalizing on national technical-scientific excellence and industrial know-how at the highest level", said RSE President **Carloalberto Giusti**, Chancellor of the LINK University, who organized and opened an evening of discussion on the role of research and technology transfer in the energy transition.*

The discussion focused on the technical and scientific aspects of the possibilities offered by inertial confinement fusion, to which Italian research and industry can make a decisive contribution. This was a useful



opportunity to identify and develop an Italian roadmap for relaunching research and development activities in the sector.

"Every day, RSE proves that it knows how to look ahead and promote a debate that always has one objective: the innovation of our country, in line with the objectives of the energy transition and in compliance with economic, social and environmental needs," concluded Giusti.



From left: Shuji Nakamura, winner of the Nobel Prize in Physics in 2014 and a member of the RSE Scientific Council, and Franco Cotana, CEO of RSE.



From left: Shuji Nakamura and Franco Cotana at the World Fusion Energy Group, at the Ministry of Foreign Affairs and International Cooperation.



RSE

Ricerca sul Sistema Energetico, RSE S.p.A., a company indirectly controlled by the Ministry of Economy and Finance through its sole shareholder GSE S.p.A., has always been committed to analysis, study and research applied to the entire energy sector.

This research activity concerns the energy and sustainability supply chain, with particular reference to strategic projects at national and European level, from an experimental and applied perspective, useful for the central and local public administration system, the production system in its broadest formations, consumer associations and groups of small and medium-sized enterprises, also in synergy with other research centers. In its field, RSE acts as an interface between policy makers, business and citizens.

The major challenges of the energy and digital transition are the driving force behind RSE's projects, which are inspired by the themes of innovation, efficiency and circularity in all their aspects, not only energy-related, but also economic and social. This activity is the result of the skills and experience of an excellent human capital, made up of heterogeneous and specialized expertise, which allows us to guarantee a multidisciplinary and highly qualified approach.

Blue Laser Fusion

Blue Laser Fusion Inc. (BLF) is a leading fusion energy company based in Santa Barbara, CA with offices in Silicon Valley and Tokyo, Japan. The company is commercializing a proprietary and novel laser-based inertial fusion energy technology to deliver carbon-free, on demand, renewable, clean energy. BLF plans to commercialize GW scale power generation to provide energy security and electricity to the grid to meet the acute and increasing demand of the clean energy transition. BLF IFE technology will power energy-intensive industries including data centers and AI, semiconductor, chemical and steel manufacturing, direct carbon capture, water desalination and agriculture.

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