

Why did Acceleron close a \$24 million funding round?

Today, Acceleron announced it has closed a US \$24 million funding round to help develop prototypes of key reactor components and has now completed 100 hours of continuous fusion at its test facility at the Paul Scherrer Institute in Villigen, Switzerland. The experiments are aimed at gathering data rather than producing useful amounts of energy.

How does Acceleron fusion work?

Its reactor will work by firing a beam of muons at a pellet of nuclear fuel kept under extremely high pressure. Using this approach, Acceleron's plant could operate below 1,000 °C -- not exactly "cold" fusion, but not nearly as hot as other strategies such as magnetic confinement or inertial confinement.

How does Acceleron slash the energy required to produce muons?

Acceleron's approach is to first try to slash the energy required to produce muons, in part by piggybacking on improvement in accelerator efficiency. This has jumped from around 20 percent in the 1980s to 50 percent today, Knaian says, and the U.S. Department of Energy targets 75 percent for next-generation accelerators.

Does Acceleron have a cold fusion experiment?

Update: Added details about the 1989 "cold fusion" experiment and updated the headline. Where most startups aim to recreate the superheated, super-pressurized conditions inside of a star, Acceleron takes a different approach.

How hot can Acceleron fusion be?

Using this approach, Acceleron's plant could operate below 1,000 °C -- not exactly "cold" fusion, but not nearly as hot as other strategies such as magnetic confinement or inertial confinement. These other fusion approaches require temperatures in the millions of degrees to heat fuel until it becomes a plasma.

What is a muon in Acceleron?

The muons at the heart of Acceleron's approach are from the same family of subatomic particles as electrons, but roughly 200 times their mass. They are created when protons and neutrons collide, which generates particles known as pions that then decay into muons.

By the end of 2020, around 4.4 gigawatts of onshore wind energy were connected to the grid in Ireland. ABO Energy is in a good position. ABO Energy Ireland Limited has already installed turbines in Glenough, Gortahile, Gibbet Hill, Cappawhite B and Clogheravaddy with a total of 106 megawatts. We also built a 220-kilovolt transformer station to ...

Acceleron Fusion provides clean energy solutions by using fusion technology. Cambridge, Massachusetts, United States; 1-10; Series A; Private; ; 2,789; Highlights. ... A clean energy solution utilizing muon-catalyzed

fusion technology to generate power for various applications, including urban energy supply, electric ...

Chairperson, Renewable Energy Ireland. Dr Tanya Harrington is the Chairperson of Renewable Energy Ireland. Tanya is a public policy and regulatory affairs professional with over 20 years" experience in helping organisations drive the effectiveness and performance of their policy-focused teams.

Andrew Hickey is Commercial Manager at Hitachi Energy Ireland providing sustainable energy solutions that facilitate reliable and efficient system integration of the future digital electric grid. Andrew has 20 years of industry experience, including five years of delivering electrical systems and grid interconnection across multiple sectors. ...

3 ???&#0183; Fusion startups have been on a fundraising tear lately, and a young startup, Acceleron Fusion, is joining the pack, having raised \$15 million of a targeted \$23.7 million round, according to an SEC filing.. The fusion sector recently has been showered with interest from investors, who no doubt have been encouraged by the breakthrough experiment at the National Ignition ...

Ireland 2050 is an Energy Institute initiative to empower and enable everybody to participate in the debate about Ireland"s energy future. The site is in three sections: The Past: How we came to be here; The Present: Questions and responses to issues within the current energy system; The Future: A tool to explore our future energy choices

Acceleron said its technology uses subatomic muons to achieve fusion reactions at temperatures below 1,000&#176;C, rather than the 100 million degrees Celsius temperatures required by traditional plasmas. ... raising the possibility that the process could be used to generate energy. However, calculations done at the time concluded that it would ...

ESB Networks has announced that Ireland"s electricity grid now has 1GW of energy storage available from different energy storage assets. This figure includes 731.5MW of battery energy storage system (BESS) projects and 292MW from Turlough Hill pumped storage power station - which is celebrating its 50th anniversary this year.

National energy related emissions decreased by 8.3% in 2023 reaching their lowest level in thirty years. The data shows good signals of progress, but Ireland will have to increase the rate of change significantly to deliver on its legally binding targets.. Ireland"s total energy demand increased by 0.8% in 2023, led mainly by increased energy demand for ...

There are a range of supports available if you are experiencing challenges with the costs of electricity. In addition, the Government of Ireland has announced a fourth scheme to credit every domestic electricity customers" account with ...

The company was formed with an aim to maximise the potential of Ireland"s uniuqe wind and land resources

and accelerate Ireland's transformation to a low carbon energy economy. FuturEnergy Ireland is targeting the delivery of 1GW of renewable energy by 2030 through the development of high-quality onshore wind and battery storage projects.

Ireland imports almost 82% of its energy in the form of oil and gas. As Ireland continues to diversify its energy sources in line with an overall objective of reducing carbon emissions to zero by 2050, we have a look at where our energy comes from, what efforts are being made to increase renewable energy production in Ireland and how these influence the ...

All parties involved agreed that Ireland has the capability and responsibility to take a leading role in Europe's energy transition. To realise Ireland's potential in producing ample renewable energy for the purpose of decarbonising our economy, a substantial collective effort is needed, involving various sectors such as the government, private industry, and the broader ...

Chairperson, Renewable Energy Ireland. Dr Tanya Harrington is the Chairperson of Renewable Energy Ireland. Tanya is a public policy and regulatory affairs professional with over 20 years" experience in helping ...

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Ireland's energy supply remains heavily dependent on imported fossil fuels. In 2023, 82.6% of Ireland's energy came from fossil fuels. Ireland set a record high of 23.38 TWh in renewable energy use across electricity, transport, and heat for 2023, however its overall renewable energy share (RES-overall) was just

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