



LOW ENERGY NUCLEAR REACTIONS

'COLD FUSION'

Byron New Energy



COLD FUSION MEETING

NEW REVOLUTIONARY GREEN TECHNOLOGY

BYRON/TWEED SHIRES AND AUSTRALASIA

BYRON NEW ENERGY

WHAT IS LENR/COLD FUSION?

WHY THERE HAS BEEN CONTROVERSY

PROOF THAT IT NOW WORKS

ANDREA ROSSI SKYPE

OPPORTUNITIES FOR US ALL

QUESTIONS

ANNOUNCEMENT

On this historic day, Friday 13, 2012 the availability of Cold Fusion is announced to Australasia.

The Advent of Clean Green Renewable Inexpensive Energy as a replacement for Fossil Fuel, Oil, Gas, Fracking and URANIUM is here NOW

From this time, orders can be placed for Industrial and Commercial 1MW heating Units.

Please see Sol Millin after this Meeting



1MW E-CAT

Thermal Output Power 1 MW
Electrical Input Power Peak 200 kW
Electrical input Power Average 167 kW

COP 6

Power Ranges 20 kW-1 MW

Modules 52

Power per Module 20kW

Water Pump brand

Water Pump Pressure 4 Bar

Water Pump Capacity 1500 kg/hr

Water Pump Ranges 30-1500 kg/hr

Water Input Temperature 4-85 C

Water Output Temperature 85-120 C

Control Box Brand Natl. Instr.

Controlling Software Leonardo

Operation and Maintenance Cost \$0.5/MWhr

Fuel Cost \$0.1/MWhr

Recharge Cost \$10/module

Recharge Frequency 2/year

Warranty 2 years

Estimated Lifespan 20 years

Price \$1.5M

Total Cost (20 years operation) \$12/MWh

Dimension 2.4x2.6x6m

Delivery: 4 months

Price \$1.5M
Plus taxes
duties, delivery,
installation,
maintenance

Full warranty

Table 2. Regional Variation in Levelized Cost of New Generation Resources, 2016.

Plant Type	Range for Total System Levelized Costs (2009 \$/megawatthour)		
	Minimum	Average	Maximum
Conventional Coal	85.5	94.8	110.8
Advanced Coal	100.7	109.4	122.1
Advanced Coal with CCS	126.3	136.2	154.5
Natural Gas-fired			
Conventional Combined Cycle	60.0	66.1	74.1
Advanced Combined Cycle	56.9	63.1	70.5
Advanced CC with CCS	80.8	89.3	104.0
Conventional Combustion Turbine	99.2	124.5	144.2
Advanced Combustion Turbine	87.1	103.5	118.2
Advanced Nuclear	109.7	113.9	121.4
Wind	81.9	97.0	115.0
Wind – Offshore	186.7	243.2	349.4
Solar PV ¹	158.7	210.7	323.9
Solar Thermal	191.7	311.8	641.6
Geothermal	91.8	101.7	115.7
Biomass	99.5	112.5	133.4
Hydro	58.5	86.4	121.4

Source: Energy Information Administration, Annual Energy Outlook 2011, December 2010, DOE/EIA-0383(2010)

10KW Home E-Cat Heating Unit

We are taking pre-orders for this device that is scheduled to be on sale in the USA in the Fall (September) of 2012

Estimated Price \$400 to \$500 USD

Estimated Lifetime 30 years

Fuel will last for 180 days for 24 hours non-stop operation

Refills are available online and the price of one refill is \$10

Maintenance/Refilling of the E-Cat are very easy; anybody can do it. The E-Cat will be about the size of a desktop computer

Will operate in a self-sustain mode (no power in)

Planned to retrofit Electrical generation module

Please see Sol Millin after this Meeting

This slide updated
Mon 23 Jan 2012

As more data is released we will inform you

<http://ecatnews.com/?p=1830>

BNE FOUNDER & TRUSTEE



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1st class B.Sc. Degree
Physics Applied Mathematics
Scholar of the Year 1960 Hilton
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IT Systems Architect
Founder and Trustee – Byron New
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Sathya Sai Baba Devotee
Values: Truth, Love, Virtue, Peace,
Non-violence
Has been doing Service in Byron Bay
District and Africa since 2002

BYRON NEW ENERGY

CHARITABLE TRUST

BNE Mission Statement

Byron New Energy Charitable Trust is a not for profit organisation.

The group has a goal of love and selfless service to humanity at large, of researching, developing, publishing freely in the public domain for the good of humanity at large, and manufacturing, devices that use clean renewable energy sources that supply viable alternatives to those devices that use non-environmentally friendly non-renewable fuels such as nuclear and fossil fuels.

COLD FUSION

Discovered 1989 by Fleischmann & Pons

Huge controversy since difficult to repeat and seemed to disobey the known laws of Nuclear Physics

Fusion of two (light) elements to make a third – Alchemy

1 million times more energy than chemical reaction

Much research in intervening years

New Technologies available eg Nanotech

<http://www.youtube.com/v/S7IAIzMBzLQ&autoplay=1>

DOES COLD FUSION WORK?

Sven Kullander is the Chairman of the Science Academy of Sweden and Professor Emeritus of the University of Uppsala (Sweden) and Hanno Essen Professor of Nuclear Engineering at the University of Stockholm (Sweden) and past Chairman of the Skeptics Society of Sweden

These gentlemen were invited to an experimental test of a mini-Rossi device at the Leonardocorp, Bologna 29 March 2011



Click here for [KE Report](#)

Eng. Rossi
Professor Essen and
Professor Kullander
With 25KW E-Cat device

KULLANDER & ESSEN

Any chemical process for producing 25 kWh from any fuel in a 50 cm³ container can be ruled out. The only alternative explanation is that there is some kind of a nuclear process that gives rise to the measured energy production.



SUPPORTING EVIDENCE

NASA – RELEASE 12 JAN 2012

<http://ecatnews.com/?p=1830>

Prof. Focardi - This is an energy revolution

<http://www.youtube.com/v/2cOEHQmnG-I&autoplay=1>

Mats Lewan, reporter at NyTeknik after the E-cat demo

<http://www.youtube.com/v/JWoaJ5NEj-w&autoplay=1>

October 28 2011 Test of the 1 MW E-Cat Cold Fusion Device by Andrea Rossi.mpg

<http://www.youtube.com/v/uFiJb2UhzqY&autoplay=1>

See the E-cat run in self-sustained mode

<http://www.youtube.com/v/gNhQlufkdL4&autoplay=1>

MORE HARD EVIDENCE

The Space and Naval Warfare Systems Command



March, 1989

- Pons and Fleischmann announce that electrochemical cells are producing more heat than can be accounted for by chemical means and speculated that nuclear reactions must be occurring.
- Physics community notes:
 - the experiments aren't repeatable
 - there aren't any refereed papers
 - the experiments haven't been replicated
 - "If it's nuclear, where are the neutrons?"
 - It doesn't match theory
- Thousands of scientists worldwide attempted experiments—most failed

Today



- **Current Status:**
 - the experiments are repeatable
 - there are many refereed papers
 - multiple experimental replications have been performed
 - multiple nuclear products, including neutrons have been detected
 - Work to update theory underway
- Groups of scientists worldwide have successfully performed experiments

SPAWAR SYSTEMS CENTER PACIFIC IS...

The Naval, Joint and National knowledge superiority through quality research, development, acquisition, test and evaluation (RDAT&E) and full life cycle support of effective Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), Information Operations (IO), Enterprise Information Services (EIS) and Space capabilities.

MORE EVIDENCE

NASA and LENR

Dennis M. Bushnell

Chief Scientist

NASA Langley Research Center

Michael A. Nelson

MSFC Low Energy Nuclear Reaction (LENR) Space

Applications Lead (ER22) NASA-MSFC

Dr. Joseph M. Zawodny

NASA Langley Research Center

NASA STATEMENTS

Over 2 decades with over 100 experiments worldwide indicate LENR is real, much greater than Chemical, Transmutations, Minimal radiation

Theories since '06 indicate is probably weak interactions/ beta decay, NOT "Fusion"

The many Rossi demonstrations in '11 suggest LENR may produce "useful" quantities of heat [up to 15KWs ?].....
Watts-to-Kilowatts also produced in Piantelli and Patterson Experiments

ANDREA ROSSI



E-CAT COLD FUSION TECHNOLOGY
COMMERCIAL 1MW UNIT
CLEAN GREEN RENEWABLE
NO RADIATION
NO RADWASTE



E-CAT COLD FUSION TECHNOLOGY

COMMERCIAL 1MW UNIT

Public Customer Acceptance Test

in Bologna 28 October, 2011

RAN FOR OVER 5 HOURS WITHOUT ANY INPUT
POWER AND PRODUCED OVER 470KW CONTINUOUSLY

HUGE CONTROVERSY ON THE INTERNET

Peer Reviewed Publications

- **21 peer reviewed Journal articles and 2 book chapters have been published or are going to print:**
 - American Chemical Society Low Energy Nuclear Reactions Source Books Vol. 1 and Vol. 2
 - Journal of Electroanalytic Chemistry
 - Naturwissenschaften (Germany)
 - *Einstein published here.*
 - European Physical Journal of Applied Physics
 - *Nobel Prize winners, 2007, for Chemistry and Physics published here.*
 - Thermochimica Acta
 - Journal of Fusion Technology
 - Il Nuovo Cimento (Italy)
 - Physics Letters A

Recent Media Coverage following ACS Presentation

Mar 22-24, 2009 in Salt Lake City



- KSL-TV, CH-5 (NBC, Salt Lake City)
- Top Yahoo News story for several days
- Listed on Drudge Report
- Houston Chronicle
- San Diego Union Tribune
- The Economist
- New Scientist online
- Fox News online
- *Over 100 worldwide news web sites*
- **Discovery Science Channel**
"BRINK"



The Economist



Attributes of SSC Pacific LENR Research

(Surviving 20 years in this controversial field)

- **Followed the Scientific Process**
 - Carefully design and conduct experiments
 - Repeat/Validate the results
 - Publish the results in peer-reviewed journals
 - Design new experiments based on the results
- **Hiding in plain sight**
 - 23 peer-reviewed technical publications
 - Two articles in “New Scientist” plus NPR feature
 - Numerous web based articles
 - Discovery Science Channel “Brink”
- **Response from the Scientific Community**
 - Bob Park, U of MD “... this is science.”
 - Johan Frenje, MIT (Hot Fusion) “... the data and their analysis seem to suggest that energetic neutrons have been produced.”
 - Robert Duncan, Vice Chancellor of Research, U of MO, and “60 Minutes” expert, “... this is not pariah science.”

BYRON NEW ENERGY

Build new green energy research laboratories

New green energy research & development

Integrate extend new green technology into Australia and the World

Support similar charitable groups

Make use of gravity, anti-gravity, electromagnetic, electronic, magnetic, water, hydrogen, oxygen, zero point or vacuum or radiant energy and/or cold fusion

Eradication of radio-activity

THE FUTURE IS HERE NOW

LENR/COLD FUSION IS COMMERCIALY AVAILABLE

INITIAL SALES WILL BE FOR INDUSTRIAL AND
COMMERCIAL HEATING

INDUSTRIAL/COMMERCIAL ELECTRICAL POWER
GENERATION PLANNED FOR LATE 2012

THE 10KW HOME E-CAT IS PLANNED TO BE ON SALE IN
THE USA IN SEPTEMBER

Thank You

If you have any questions, please do not hesitate to ask

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