

EMISSION-FREE FUTURE NOW AVAILABLE.

NEO-CARBON ENABLING NEO-GROWTH SOCIETY Transformative Energy Futures 2050 (NEO-FORE)

The Neo-Carbon Energy research project examines a wholly renewable energy system with hydrocarbon storages. The foresight part of the project anticipates socio-economic implications of the new energy system. As the energy system would be distributed and provide energy at low costs, it would promote a peer-to-peer society of grassroots organizations and energy production.

The societal aspects of the peer-to-peer energy transition are explored through four transformational scenarios in 2050.

Radical Startups – society is organised around startups, which serve social and cultural goals besides economic ones
Value-Driven Techemoths – large technology companies, with a peer-to-peer ethos, have become “states within states”
Green DIY Engineers – citizens have organised as local communities to survive an ecological collapse
New Consciousness – shared identities replace individualism.
Robotisation and AI enable a self-actualizing economy



SOLAR AND WIND



NEOCARBONIZATION



ENERGY STORAGE



POWER TO PEOPLE

Neo-Carbon Energy (2014–2017) is one of the Tekes strategy research openings, carried out in cooperation with the Technical Research Centre of Finland VTT Ltd, Lappeenranta University of Technology LUT, and Finland Futures Research Centre FFRC.

What is Neo-Carbon?

In the neo-carbon energy system, solar and wind technologies produce energy that is stored in synthetic methane or other synthetic hydrocarbons. Carbon dioxide captured from air and hydrogen can also be used to produce practically all the chemicals and materials now produced from oil. The society as a whole will be affected by this new distributed production of energy and materials. The foresight focus of the project is on the economic, political, cultural and social changes related to this system that uses renewable energy. Potential socio-economic consequences and prerequisites of the neo-carbon energy system are anticipated. Latin American and African countries, as well as China, are included as case studies.

What is Neo-Growth?

A neo-carbon energy system can provide the material basis for a future network society and economy based on co-creativity, ecological lifestyles, and new low-carbon practices and technologies. Growth should be defined anew – so that it is environmentally sustainable, and instead of conventional economic goals serves the overall well-being of citizens.

e-Books

Surprising Energy Futures

http://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/FFRC-eBook_4-2017.pdf

Neo-Carbon Energy World – What Opportunities for Chile?

http://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/FFRC-eBook_3-2017.pdf

Clean Disruption for Abundant Futures

http://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/FFRC-eBook_2-2017.pdf

Argentinian Energy Landscapes

http://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/FFRC-eBook_12-2016.pdf

The Fuzzy Futures of Neo-Carbon Work

https://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/eBook_11-2016.pdf

CLA Game Report on Neo-Carbon Energy Scenarios

https://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/eBook_12-2015.pdf

Continuous Transformation and Neo-Carbon Energy Scenarios

http://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/eBook_10-2015.pdf

Towards the Third Industrial Revolution

<https://www.utu.fi/fi/yksikot/ffrc/julkaisut/e-tutu/Documents/FFRC-eBook-6-2015.pdf>

Working Papers

Glocal Insights to Neo-Carbon Energy and Its Forerunners

www.utu.fi/fi/yksikot/ffrc/tutkimus/hankkeet/Documents/NeoCarbon-WP1-4-2016.pdf

Electricity Markets Framework in Neo-Carbon Energy 2050 Scenarios

<http://www.utu.fi/fi/yksikot/ffrc/tutkimus/hankkeet/Documents/NeoCarbon-WP1-3-2016.pdf>

Towards Actor-based Neo-Carbon scenarios

<http://www.utu.fi/fi/yksikot/ffrc/tutkimus/hankkeet/Documents/NeoCarbon-WP1-2-2016.pdf>

Radical Transformation in a Distributed Society - Neo-Carbon Energy Scenarios 2050

<http://www.utu.fi/fi/yksikot/ffrc/tutkimus/hankkeet/Documents/NeoCarbon-WP1-1-2016.pdf>

Neo-Carbon Core Concepts in Exploring Transformative

Energy Futures <http://www.neocarbonenergy.fi/wp-content/uploads/2015/03/NeoCarbon-WP1-1-2015.pdf>

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Neo-Carbon Energy

<http://www.utu.fi/en/units/ffrc/research/projects/energy/Pages/neo-fore.aspx>

Home page: www.neocarbonenergy.fi

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