



Category: Renewable energy, R&D.

www.newco2fuels.co.il

Company profile

NCF is developing an innovative and breakthrough technology providing a revolutionary, cost effective solution to two global concerns; CO₂ emissions and diminishing liquid fuel reserves.

NCF's product uses a proprietary technology, generating liquid fuels or electricity, by using solar energy and CO₂ emissions and water as feedstock.

Year of establishment: 2011

No. of employees: 14

Background of the company

NewCO₂Fuels Ltd., founded in 2011, commercializes a technology originating from Prof. Jacob Karni's laboratory at the Weizmann Institute of Science. Prof. Karni and his team conducted eight years of research on high temperature CO₂ dissociation and showed that the technology has the ability to convert CO₂ into fuels. Prof. Karni, with 20 years of research and development experience, has a keen interest in the development of new methods for concentration, absorption, conversion, transmission and storage of solar energy, and implementing these methods in genuine solar power-conversion systems.

Technologies & product(s)

General description:

NCF use concentrated solar energy for the dissociation of carbon dioxide (CO₂) to carbon monoxide (CO) and oxygen (O₂). Simultaneously, the same device can dissociate water (H₂O) to hydrogen (H₂) and oxygen (O₂). The CO, or the mixture of CO and H₂ (called Syngas), can then be used as gaseous fuel (e.g. in power plants), or converted to liquid fuel (e.g. methanol), which has the potential to be stored, transported and used in motor vehicles.

Function of the product(s):

Create liquid fuel from CO₂ using solar energy.

Objectives / Target companies

NCF objective is to develop and commercialize a revolutionary, cost effective solution to two global concerns; CO₂ emissions and diminishing liquid fuel reserves.