
Message from the CEO

Dear readers

Three months have passed since our last newsletter and much has happened in the world of renewable and alternative energy. Obama has laid out his new climate action plan aiming at reducing emissions, curbing climate change and increasing renewable energy projects and China has launched its pilot carbon trading scheme. Global news once again reflects the strong interest of leaders and countries over the world in protecting our planet and ensuring a greener future. It is in this spirit that NCF continues to devote all its efforts to building a green, cost efficient solution for alternative fuels.



In pursuit of this goal, over the past quarter, NCF team members have traveled to Europe, the U.S., China and Australia. The idea was to learn more about specific markets, meet with government officials and suppliers, talk with actual and potential partners and to attend several conferences.

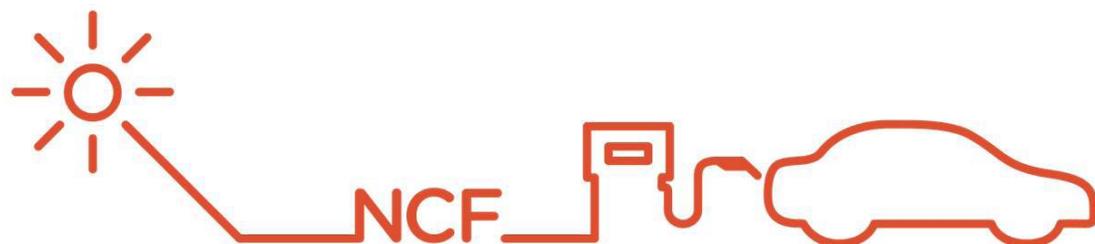
In addition, NCF has had some very exciting days as it made its first steps in the integration of its solar testing process. Solar radiation was directed into the testing facility and the alignment procedures of the various optical elements such as the concentrating mirrors were conducted. NCF also had a major breakthrough in its lab, which will be described in more detail in this newsletter.

Enjoy your reading.

Regards,

D. Banitt

Dudi (David) Banitt
CEO



NewCO₂Fuels Technical Updates

Breakthrough in the Lab

One of our main challenges in successfully converting CO₂ and H₂O into syngas and synthetic fuels on a large scale was securing a cost-effective, fast way to produce the core chemical reaction chambers.

The previously used reactor chambers that were created at the Weizmann Institute of Science for purpose of research were manually produced using very expensive materials. Reproducing these chambers on a larger scale would have been time consuming and prohibitively expensive. Therefore, as its first and main task, NCF searched for methods and ways to produce reaction chambers that would optimally represent the delicate trade-off between catalytic performance, longevity, endurance of the harsh operating conditions, cost and manufacturability.

*“Outstanding
chemical
performance
achieved”*

A solution was found which was able to satisfy the demanding criteria. After a long way of design and experiments, actual chambers' initial testing was conducted in order to verify this solution, its compliance to the performance criteria, its failure modes and also to define its optimal operating conditions.

To date, we have tested multiple chambers and are happy to report that good chemical performance has been achieved. NCF's scientists now understand the reliability and endurance of these reaction chambers, and how to make them work under the system's extreme conditions.

Therefore, NCF can now strongly affirm that one of its main challenges has successfully been overcome. The NCF scientific team will continue to work on these reaction chambers to enhance their chemical performance and reliability even further.

Technology Demonstrator

NCF has spent the last three months building its technology demonstrator, a small scale prototype, to prove the technology works not only in the lab but also on a larger scale, under actual solar conditions and by industrial design and devices. The technology demonstrator testing facility is now in its last stage of construction. Actual testing will start by the end of the summer. In the meantime NCF has successfully set up its system and control instruments and tested some of the solar components to ensure the sun's energy is captured in the most effective way.

In addition, many visitors have had the opportunity to visit the solar testing facility where the technology demonstrator is located, and to see the current NCF design as it materializes.



NCF's team working on the assembly of the technology demonstrator



Solar mirror that is used to concentrate the solar energy

Roadshow

During two extensive visits to Australia held lately, NCF held meetings with over 20 companies and groups from the energy sector. The purpose was to introduce the technology, present it to opinion leaders and find potential financial and strategic partners. NCF found great interest in Australia, once again confirming the viability of its solution for the energy market.

David Banitt, CEO of NCF undertook a visit to China to better understand the Chinese market and to present our technology at a Coal to Substitute Natural Gas conversion conference. NCF received very positive feedback from the Chinese plant owners and engineering companies and will continue to investigate potential collaboration with Chinese firms.



David Banitt, presenting at a conference in China

Business Development on the Go

NCF continues to seek financial and strategic partners who share NCF's view of a clean and sustainable future and that will join its progress to the next development stage. For this purposes, NCF has begun working with the Israeli chambers of commerce in several parts of the world. It is participating in conferences in Israel, the U.S., and Europe including the delivering of presentations in Israel and China.

NCF is also talking with large engineering firms and technology providers to promote strong relationships with companies that can provide the supporting facilities NCF needs around its core technology.

Team Expansion

NCF has welcomed two new Material Engineers. They will join the team's efforts to provide solutions to its main challenges that derive from the extreme conditions and very high temperatures under which the system operates.

New Website

NCF launched a new website at the end of June in order to improve its users' experience and better provide information to interested readers.

www.newco2fuels.co.il

News Around the World

Air Pollution in China: The Kids Aren't Alright

Last fall, a startling new report revealed that air pollution caused an estimated 3.2 million premature deaths worldwide in 2010. Now, thanks to a new analysis by our friends at the Health Effects Institute (HEI), we understand that nearly 40 percent of the world's premature deaths attributable to air pollution (1.2 million people) occurred in China.

http://switchboard.nrdc.org/blogs/bfinamore/the_kids_arent_alright.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+switchboard_bfinamore+%28Switchboard%3A+Barbara+Finamore%27s+Blog%29

Alternative Fuels Could Cut 80 Percent Of Greenhouse Gas Emissions By 2050

The United States could cut petroleum consumption and greenhouse gas emissions by 80 percent by 2050 for light-duty vehicles through the use of alternative fuels and strong government policies aimed at overcoming high costs and influencing consumer choices.

<http://www.redorbit.com/news/science/1112806239/greenhouse-gas-emissions-drop-80-percent-205-alternative-fuel-031913/>

World Bank Finds 60 Carbon Pricing Systems In Place Or In Development

It's ironic considering all the attention on the struggles of the EU Emissions Trading System, but today over 40 national and 20 sub-national government jurisdictions have either implemented or are considering carbon pricing mechanisms.

<http://cleantechnica.com/2013/05/31/world-bank-finds-60-carbon-pricing-systems-in-place-or-in-development/#Bw6PGuGLH755Z6Ks.99>

100% Renewable Energy For Australia Not So Costly

An exploratory study into 100% renewable energy scenarios for Australia has concluded that its impact on consumer electricity prices over the next few decades may be no more than the increases in the last few years to support much criticised network upgrades and the introduction of the carbon price.

<http://cleantechnica.us2.list-manage.com/track/click?u=a897522b53d0853c85abbf9fa&id=4f04a7724c&e=6dbec4914a>

CONFERENCES AND EVENTS

Intersolar North America 2013

San Francisco, USA
08-11 July 2013
<http://www.intersolar.us/en/intersolar.html>

ECOS 2013

16-19 July 2013
Guilin, China
<http://www.cicst.org.cn/ecos2013/index.html#>

Clean Energy Week 2013

Brisbane Australia
24-26 July 2013
<http://www.cleanenergyweek.com.au/>

Second Sustainable Earth Sciences Conference and Exhibition

Pau, France,
30 September - 4 October 2013
<http://www.eage.org/events/index.php?eventid=960>

ISES Conference (ISES)

3-8 November 2013
Cancun, Mexico,
<http://www.swc2013.org/site/>



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