deneum

low-cost energy generation

WHITE PAPER

CONTENTS

INTRODUCTION

During and after the Industrial Revolution, humanity failed to consider the costs and harmful impact that fossil fuels would have on our planet. Energy consumption grew rapidly, but the wisdom of the world community failed to keep apace. Only by the beginning of the 21st century did society start to take heed of the issue, with government-supported renewable energy generation gradually eating into the market share of fossil fuels. This has been a positive move; however, there are obvious signs that this won't last till complete replacement of the sources of pollution. We must accelerate the complete transition to a sustainable future.

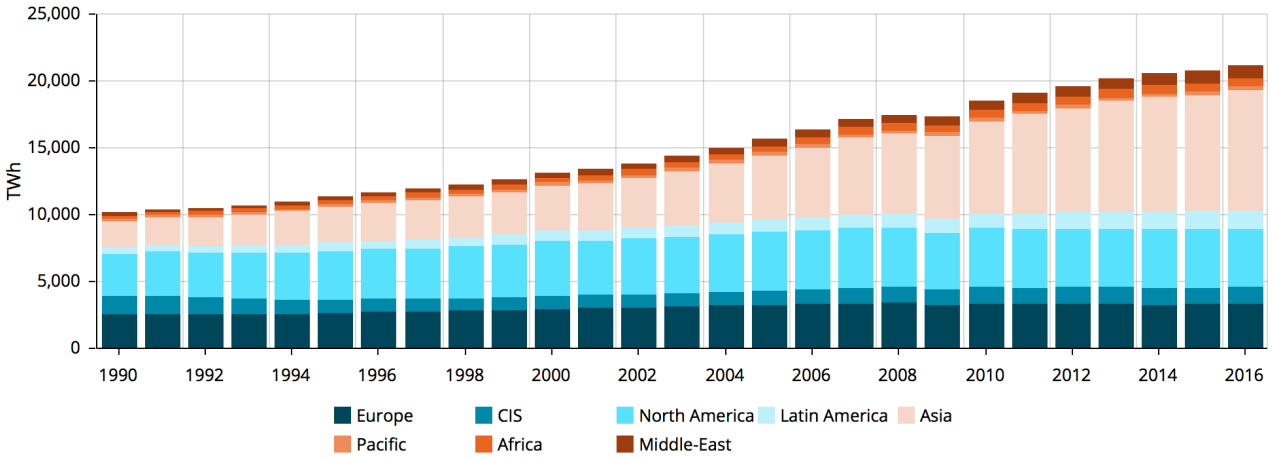
Can you imagine a fully electric aircraft with unlimited range? What if we could pay 80% less for our electricity bills? How many meaningful innovations could be brought to fruition if corporations reallocated the funds they pay for energy towards research and development? How beautiful would our cities look if all transport were fully electric and the air were pure? We believe that the time has come.

The Deneum team is made up of unique people sharing a common philosophy, with deep knowledge in their respective fields and awareness of their purpose. We possess deep expertise in the physical, chemical, and electrical sciences, with research and laboratory experience around the Deneum technology since 1989. Our team has conducted many hundreds of tests and experiments, with consistently positive results since 2012. Now, it is time to scale these results into a full production line.

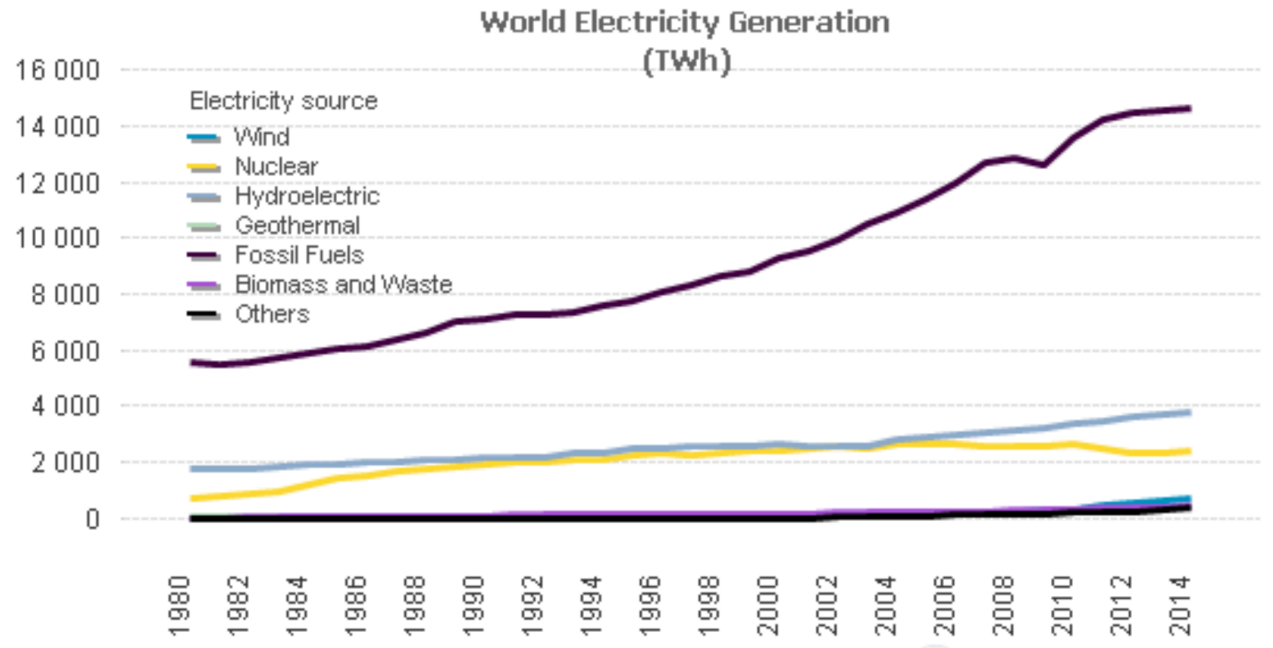
We invite everyone to take part in the energy revolution — creating a better planet for us and the generations to come.

Dmitry Samoylovskikh
CEO of Deneum
Forbes 30 Under 30

MARKET OVERVIEW



The planet consumed over 20,000 terawatt-hours of electricity in 2016 [1], with around 2% growth each year. One terawatt-hour equals 1 billion kilowatt-hours.



Key trends: Fossil fuels continued to gain, nuclear energy plunged, and renewables started to take off, but their overall share of total generation was still less than 15% [2].

The world's total electricity consumption money-wise totalled at over 2 trillion USD

One significant trend is rapid growth in electricity consumption used for cryptocurrency mining purposes. Consumption has risen from zero to over 0.2% of the world's total consumption (or over 50 terawatt-hours) per year, which is more than the total electricity consumption of Ireland. It is expected to increase by 100%-300% each year [3].

Bitcoin electricity consumption:

Furthermore, there are numerous industries that use primarily petroleum-based fuels, and these are not represented in the numbers above. Moreover, there are potential industries (such as short-haul air transportation) that lack battery density but would grow rapidly if the technology existed.

Cars

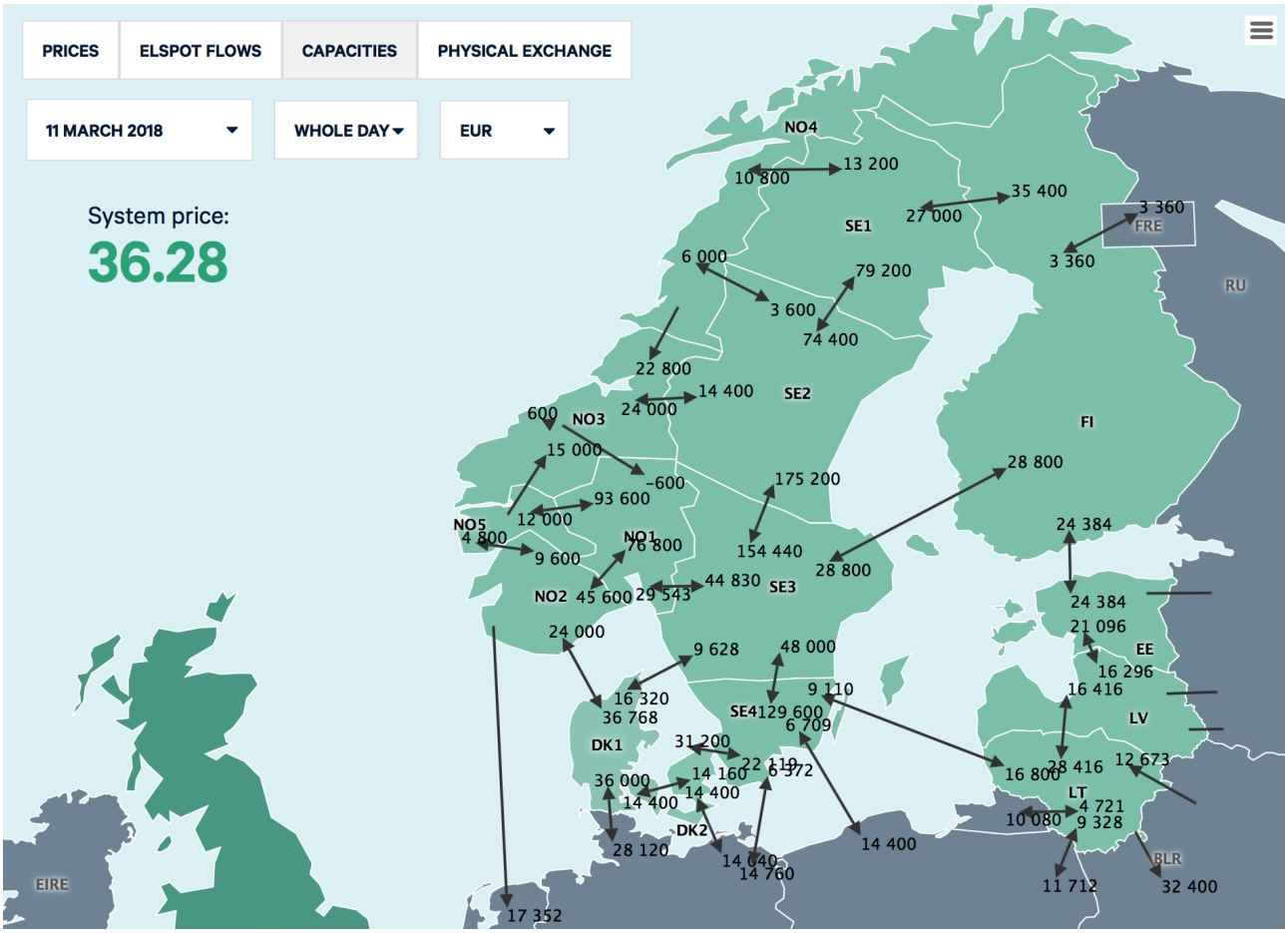
1,100+ billion USD

Aviation

130+ billion USD

The European electricity market is well interconnected and democratized, Nord Pool being the largest European electricity market driven by market rules. This electronic exchange brings together electricity producers, retailers, and consumers in Denmark, Sweden, Finland, Norway, Estonia, Latvia, and Lithuania. An electricity producer based in any of these countries can sell electricity through the grid to a customer located in any other country on the list.

Nord Pool Grid Capacity and Current Price, megawatt-hours [4]:



A producer with a disruptive low-cost technology can sell to the grid at ~35 EUR/MWh or directly to corporate consumers at 50-100 EUR/MWh. The market is liberalised and it's capacity is huge.

CHALLENGES

Stagnating industry with high prices and high costs

Solar and wind energy are often mistakenly associated with free or low cost. Governments tend to massively support solar and wind to increase the share of renewable resources in their country's total energy production. In most countries, this support eventually comes to an end, so they cannot be expected to grow on their own – wind and solar plants are dramatically less efficient than natural gas-burning plants, in terms of both capital and operating costs.

There is little room for conventional (natural gas-burning) plants to increase efficiency and reduce costs. Moreover, their costs are correlated with gas prices, which are not likely to drop much below current levels.

Think of this scenario as the space industry when SpaceX entered the fray. The only difference is that we already have the technology – unlike SpaceX, we do not have to start from scratch.

Exciting breakthrough opportunities in transportation and more

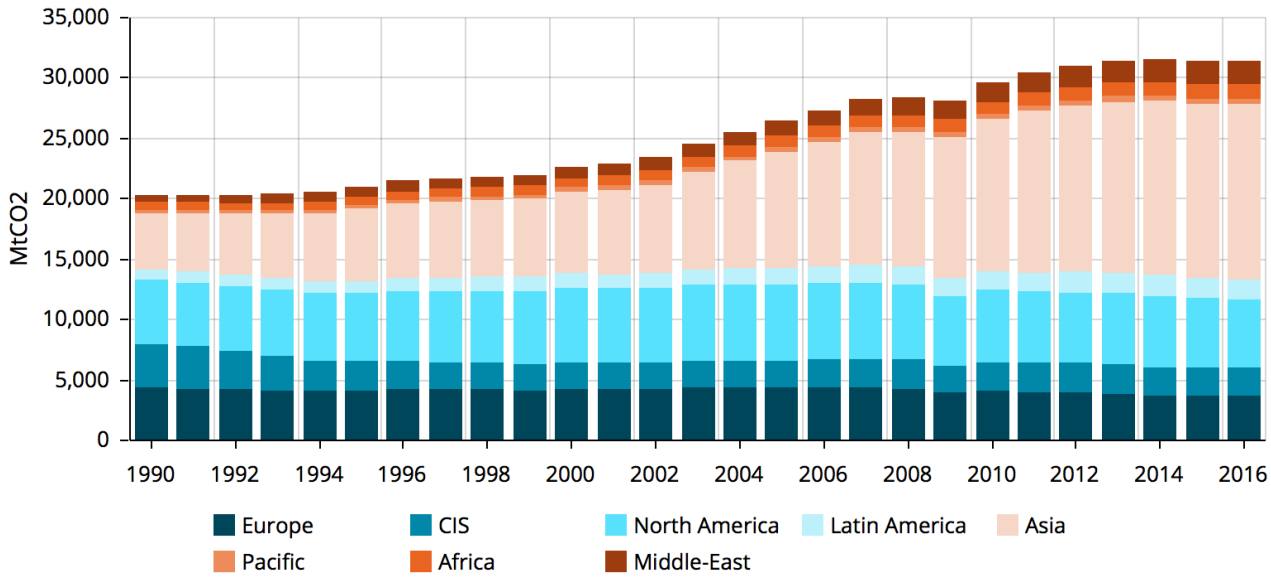
Entire industries, such as road, sea, and air transportation, could change dramatically. The transportation sector is currently responsible for up to 75% of the world's total energy consumption. With the gradual shift towards electrical engines, that number will continue to rise over time. However, this is not happening quickly, for two main reasons: 1) a lack of technology (low battery density, high weight) and 2) a lack of infrastructure.

To experience a boom in growth, the industry needs a solution with autonomous and efficient power stations that give vehicles sufficient power. This solution would open the floodgates for such exciting concepts as cost-effective local air commuting, which many companies are currently considering.

Stop burning carbon fuels

CO_2 emissions are not getting lower; instead, they have stabilized and are likely to mirror growing energy consumption in the coming years. The chart below shows the emissions trend from 1990-2016. One green source of energy, provided it is more efficient than current polluting technologies, will trigger the movement towards a greener planet. That is *the* challenge of our generation – and we believe we must play an active role in it.

The global CO_2 Emissions, 2016:

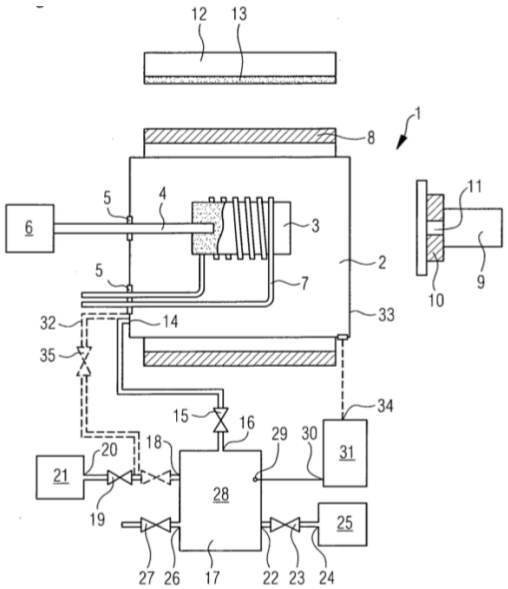


Breakdown of Contributors:

The industry is awaiting a breakthrough.

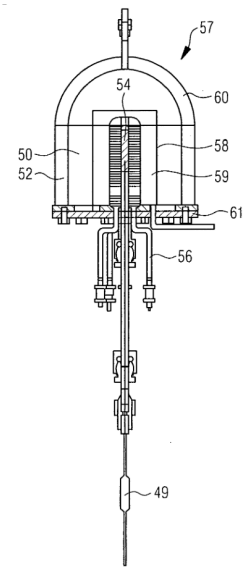
TECHNOLOGY

Deneum is a complex technology embodied in a module (Deneum Power Station) with a capsule inside that contains the active body.



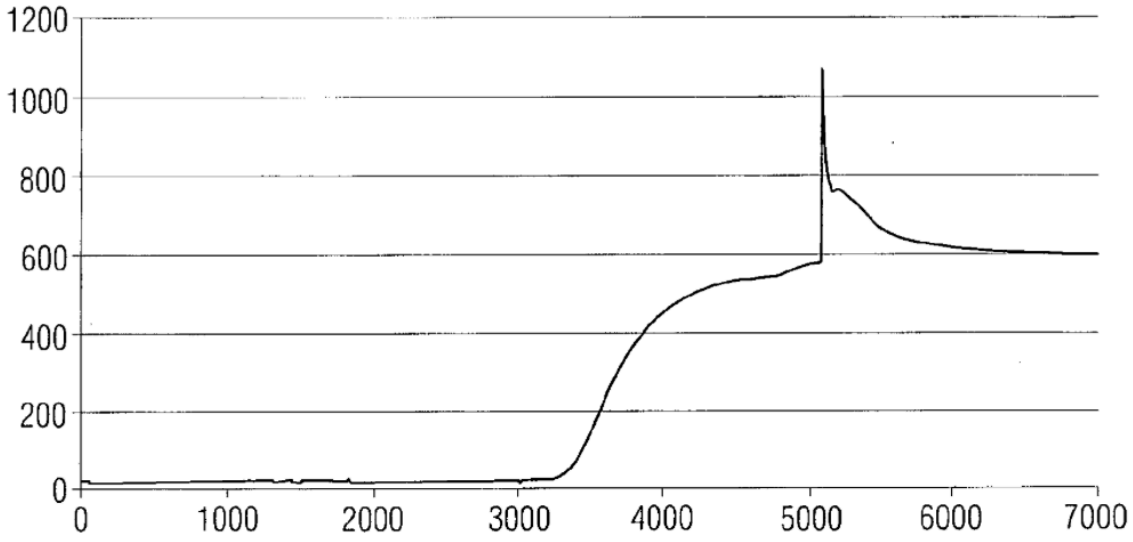
The principle is based on the interaction between substances within the active body while being heated inside the Power Station. Our team blends and specially handles two main materials: titanium (metal) and deuterium (also known as heavy water).

The interaction in the active body results in excessive heat, which is turned into mechanical energy (electricity) by conventional means. In addition, we use our own innovative methods when transforming heat into electricity to reach the highest possible efficiency.



In technical terms, the deuterium in the capsule is absorbed into a metallic crystal lattice, which is selected from a group of substances in metals that can sufficiently accept hydrogen. As mentioned above, we use titanium as the absorbing metal. The titanium, which is already present as titanium hydride inside the degassed thermal vacuum, is heated by internal batteries or by input power to a temperature of 600-1,373° K (326-1,100° Celsius) until the balanced residual gas inside the capsule reaches a pressure of no more than 1 Pa, which happens at 873° K (1,100° C). The active heating stops, and then the titanium lattice cools down to a value between 823–863° K (550—590° C). After the titanium lattice is saturated with deuterium, the deuterium is injected into the capsule with the aim of initiating the interaction. As a result, the active body self heats by 55-57° and cools back down (we call this “auto-variation”), resulting in excessive heat, which is then turned into mechanical energy. (“Excessive” means that the output energy exceeds the input energy that is spent on running the processes.)

The initial heating takes several minutes and happens only once to start up the Power Station. After that, the Power Station is autonomous or self-sufficient, meaning that it is powered by the energy it generates. As mentioned above, the Power Station contains lithium-ion batteries of sufficient capacity to start up the Power Station. If the batteries go flat (after a long period of non-use, for instance), the Power Station can be plugged into a 220v circuit.



Some would call this process “cold fusion” or “low energy nuclear reactions”. We wish to avoid assigning any of these terms to the processes that happen within Deneum Power Stations. Instead, our scientific team is drafting academic explanations that we hope will gain wide acceptance within the global scientific community, as well as prevent the use of any misleading terms.

So far, we have two patents which describe the module design and the processes that occur inside the module. These two patents do not cover Deneum’s primary know-how though: the way we prepare the active body. The patent submissions for this process are to be filed in the summer of 2018.

European patent: https://patents.google.com/patent/EP2701157A2/en?oq=ep+2701157
Russian patent: https://patents.google.com/patent/RU2145123C1/ru

The laws of conservation of momentum and energy are an important part of the theoretical explanation behind the reactions that occur within a Deneum Power Station. Hence, it is energetically more favorable when two translationally moving particles meet, than it is when a moving particle hits a stationary particle.

Case 1: A moving particle (mass m_1, speed $\mathbf{v}_1$) impinges on non-moving particles:

$$P_1 = m \quad v_1 = \text{const.},;$$

$$\mathbf{P_1 = m\ v_1 = const.};$$

$$\Sigma \quad |P_1| = m \quad |v_1| = m \quad v_1 \ ;$$

$$\Sigma\ |\mathbf{P_1}| = m\ |\mathbf{v_1}| = m\ v_1;$$

$$e_{1\,.\,kin} = \tfrac{1}{2} \quad m_1 \quad v_1^{\,2} = \text{const},$$

$$E_{1,kin} = \tfrac{1}{2}\ m_1\ \mathbf{v_1}^2 = \text{const.}$$

Case 2: Two oppositely moving particles (each mass $m_2 = m_1$, velocity $v_2 = \pm v_{1/2}$) meet horizontal and elastically:

$$P_2 = +\,m_2 \quad v_2 - m_2 \quad v_2 = 0 = \text{const.},;$$

$$\mathbf{P_2 = +\ m_2\ v_2 - m_2\ v_2 = 0 = const.};$$

$$\Sigma \quad |P_2| = m \quad |v_2| + m \quad |-v_2| = m \quad v_2 + m \quad v_2 = 2 \quad m \quad v_2 = 2 \quad m \quad v_1 / 2 = m \quad v_1 = \Sigma \quad |P_1|\,;$$

$$\Sigma\ |\mathbf{P_2}| = m\ |\mathbf{v_2}| + m\ |-\mathbf{v_2}| = m\ v_2 + m\ v_2 = 2\ m\ v_2 = 2\ m\ v_1/2 = m\ v_1 = \Sigma\ |\mathbf{P_1}|;$$

$$e_{2\,.\,kin} = \tfrac{1}{2} * [m_2 \quad v_2^{\,2} + m_2 \quad v_2^{\,2}] =$$
$$= m_2 \quad v_2^{\,2} =$$
$$= m_2 \quad (v_1 / 2)^2 =$$
$$= \tfrac{1}{4} \quad m_1 \quad v_1^{\,2} =$$
$$= \tfrac{1}{2}\, e_{1\,.\,kin}\,,$$

$$E_{2,kin} = \tfrac{1}{2} * [m_2\ \mathbf{v_2}^2 + m_2\ \mathbf{v_2}^2] =$$
$$= m_2\ \mathbf{v_2}^2 =$$
$$= m_1\ (\mathbf{v_1}/2)^2 =$$
$$= \tfrac{1}{4}\ m_1\ \mathbf{v_1}^2 =$$
$$= \tfrac{1}{2}\ E_{1,kin}.$$

The demonstrating prototype of the Power Station will be showcasing how the technology works.
The live steaming is scheduled to start on Sep 15th, 2018.
Investors with 3,000 Tokens or more are welcome to come to our European lab to see the prototype at work and meet us in person.

BUSINESS MODEL

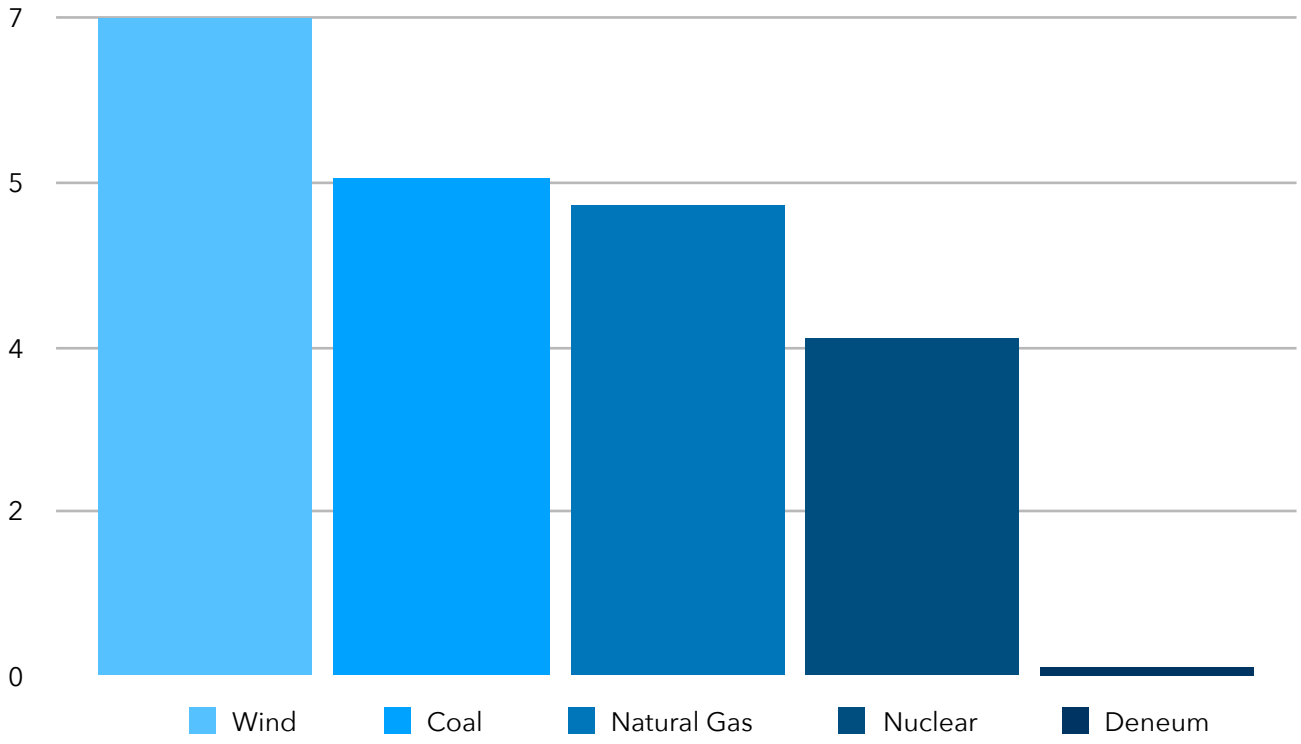
Deneum will adopt two approaches once the project is launched. We expect to launch in late 2020, and it may take additional time to obtain the necessary certificates to comply with regulations in certain countries. The first deliveries for testing purposes are expected in late 2019.

Our business model assumes obtaining control over crucial material supplies to prevent prices from soaring when demand spikes. Proven global reserves of titanium well exceed the amount needed to switch all energy production to Deneum technology, while deuterium reserves are almost endless, since deuterium is part of the global ocean.

Both approaches take advantage of the very low electricity costs that Deneum technology provides.

.

Electricity Costs by Source, Average, Eurocents per 1 kW-h, 2016:



This unique advantage allows to reach ROI of up to 87%

Selling Power Stations

The plan is to initially release three stand-alone Power Stations for 5 kWh, 10 kWh, and 100 kWh – the modules that are connectable in parallel to reach any output power needed.

These stand-alone Power Stations will sell directly to end consumers via our own distribution centers located in Europe, North America, Asia, and the CIS. The price of one Power Station will be the equivalent of what the consumer pays for 2-3 years worth of electricity consumption. The active material (the fuel for Power Stations that comes in capsules) will be free of charge for a certain period of time.

Initial calculations show that we can easily offer a free electricity supply for 30 years.

5kW	10kW	100kW

Main Consumer Groups:

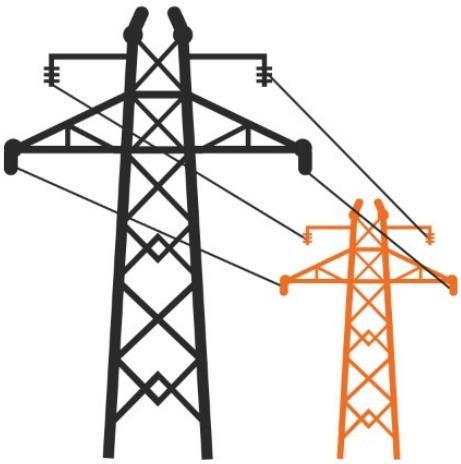
Manufacturing	Crypto-mining	Transportation
Electricity producers	Residential	Governments

Selling Electricity to End Consumers and to the Grid

Along with selling Power Stations, it also makes sense for us to sell electricity. Any new or existing facility or residential district can be powered by Deneum Power Stations at a lower price than off-the-grid retail prices. These Power Stations also eliminate the need for major investments into refurbishing existing grids when you need to connect to the grid.

We plan to sell electricity to both end consumers and to the grid. We plan to build our own large plants and wholesale low-cost electricity to the grid. We aim to start with one 100 MWh plant, generating and selling up to 400 gigawatt-hours per year to the grid in Northern Europe through the Nord Pool system.

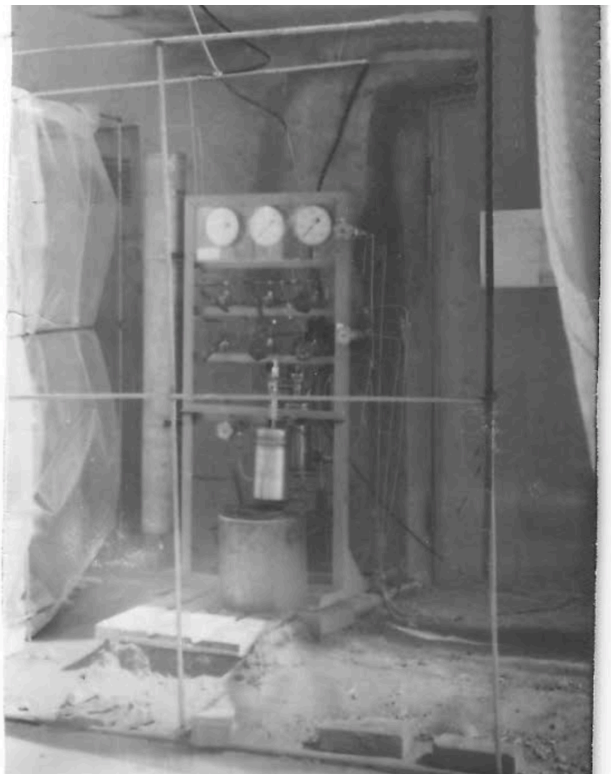
Ultimately, we plan to have hundreds of plants on five continents, with a total capacity of more than 2,500 terawatt-hours per year by 2030. The current average wholesale price of 2,500 terawatt-hours is around $100 billion USD.



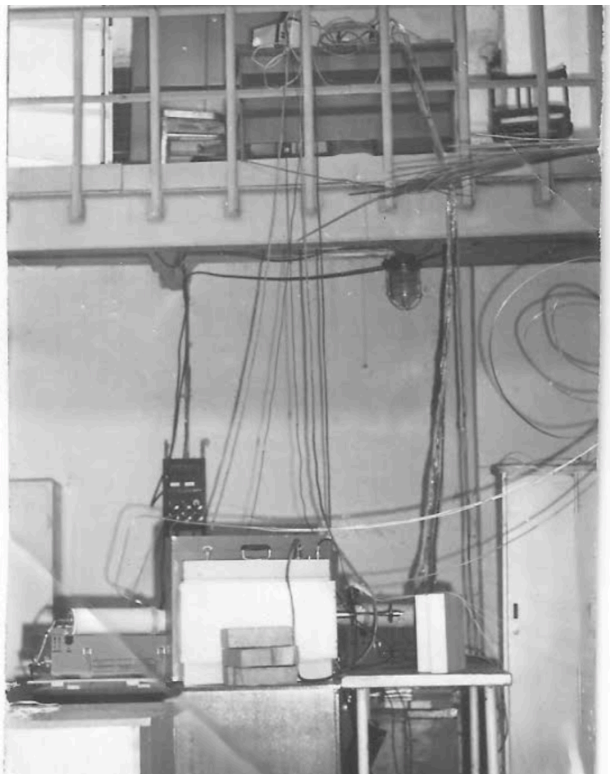
Selling of 2,500 terawatt-hours to the grid totals at around $100 billion USD

EXPERIENCE

This is how it all started back in 1989:
the first prototype for titanium saturation with deuterium.

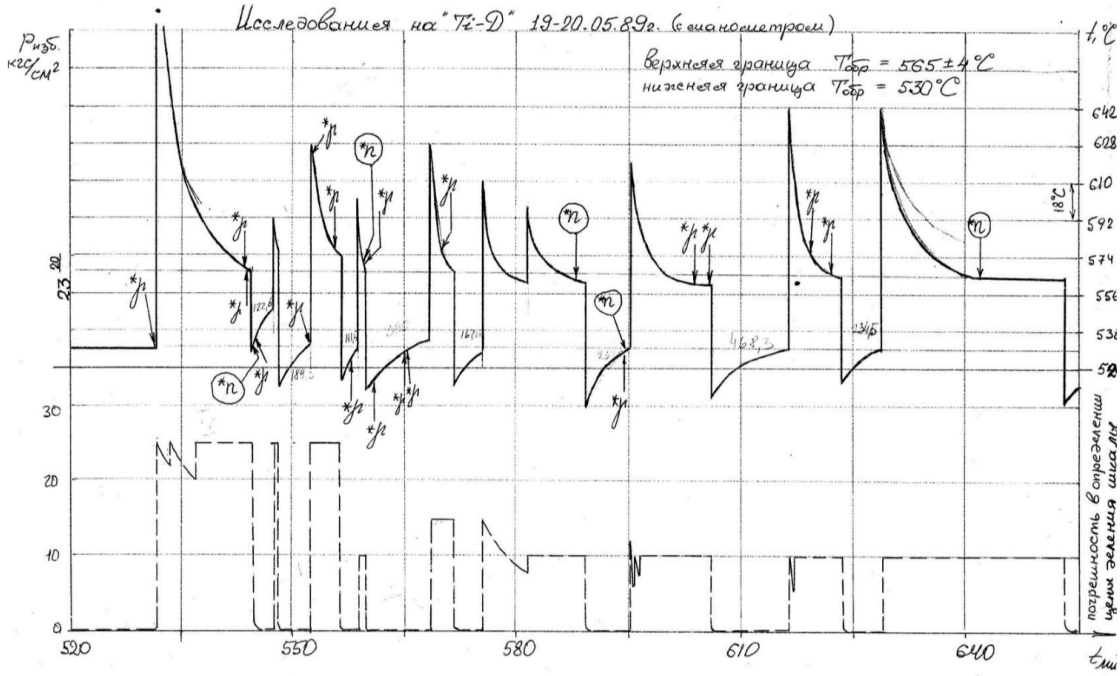


High pressure gas module



Experimental cell with detectors

Research of Titanium Saturation with Deuterium,1989



SERGEY A. TSVETKOV, and VYACHESLAV I. ZAKHAROV
Scientific Cooperation SORUS, Sverdlovsk Region, 624051 Zarechny, USSR

Received September 4, 1990
Accepted for Publication April 3, 1991

A laser-induced cold fusion reaction has been obtained in Ti-H_2-D_2-T_2 systems. Correlations are found among gamma-ray pulses, neutron emission pulses, and phase transitions in the Ti-D_2 system. No thermal effect is observed. Gamma-ray fluxes of ~5 × 10^3 gamma/s and neutron emission of ~2 × 10^2 n/s in pulses of <0.5 s have been obtained. The possibility of laser generation of gamma rays in the cold fusion reaction is discussed, as are aspects of laser-induced phase transitions in metal-gas systems.

INTRODUCTION

At present, there is great interest in obtaining a deuterium nuclear fusion reaction in a solid crystal lattice.[1] Since the publication of Ref. 2, wherein a neutron flux was reported to accompany palladium electrode saturation with deuterium during heavy water electrolysis, many researchers have attempted to obtain visible evidence of such a reaction. Jones et al.[3] managed to define the spectrum of neutrons detected during heavy water electrolysis in an electrolytic cell outfitted with palladium electrodes. Thus, the following reaction was identified:

$$D + D \rightarrow {}^3He + n(2.45\ MeV)\ .$$

Neutron fluxes and, in some cases, gamma-ray emission have been reported during metal-deuterium phase transitions[4-7] and after titanium and palladium film implantation by deuterium ions.[8] Investigation of neutron fluxes that occur under mechanical destruction of heavy ice have acquired new interest.[9,10] Neutron emission was observed in solids with deuterium that has undergone plastic deformation under pressure.[11,12] Stable gamma-ray and neutron fluxes have been observed in a titanium-deuterium-hydrogen system at phase transitions.[4]

This technical note continues previous studies[4] on the initiation of phase transitions in metal-gas systems by exposing titanium samples to laser pulses[a] and on the detection of neutron and gamma fluxes. Laser exposure increases the probability of obtaining a local nonequilibrium region in titanium deuteride by causing a significant axial temperature gradient in the sample. Laser bursts on the sample end cause shock waves capable of inducing phase transitions and cracking of the sample. Time-dependent axial temperature curves calculated in a semi-infinite target model are shown in Fig. 1.

EXPERIMENTAL EQUIPMENT

The layout of the test rig is shown in Fig. 2.

A $TiH_{1.97}$ rod manufactured by an original technique[14] was used as the initial sample. This sample was subjected to thermal vacuum degassing. The equilibrium pressure of the residual gas was used as the criterion to stop the degassing. This pressure did not exceed 1 Pa in the absence of pumping out at 923 to 973 K. No destruction or cracking was found after degassing. A thermocouple was installed 10 mm inside the end of the rod.

A furnace with a high-precision BPT-3 temperature regulator was used for heating and thermostating the sample in the 293 to 973 K temperature range. Electrical signals generated by the thermocouple were recorded by a TZ 4620 recorder with an error of ±5%.

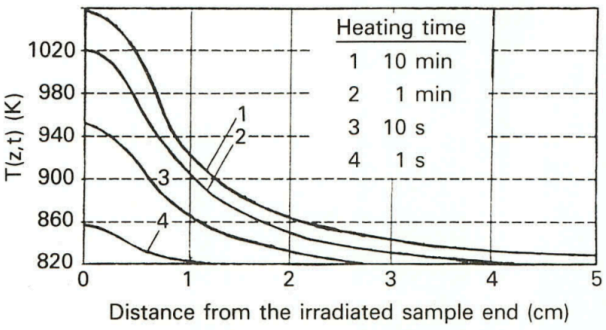


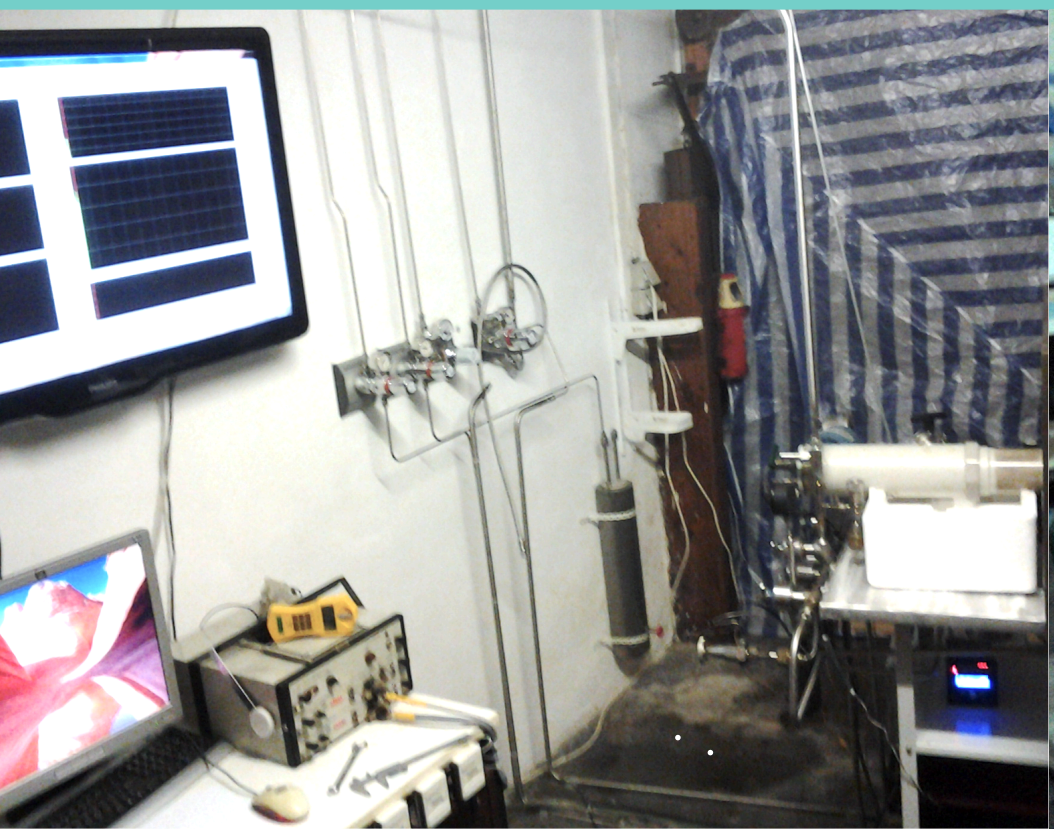
Fig. 1. Temperature distribution along the Ti-D sample axis under laser radiation heating.

[a]The idea of laser-induced cold fusion is also reported in Ref. 13.

Full article is available here: https://www.researchgate.net/publication/292036859_Laser-Induced_Cold_Nuclear_Fusion_in_Ti-H2-D2-T2_Compositions

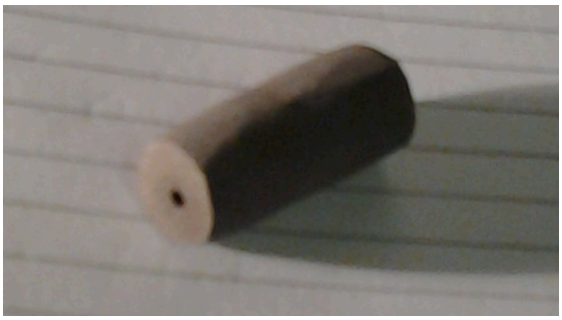
Since 1989 there were numerous publications, interviews and conferences made by Mr. Tsvetkov and team, which can be found online.

By 2012 the next generation of the prototype (G2) was assembled. This prototype was used for 62 successful experiments.



2012 prototype: high-pressure chamber and monitoring system

High-pressure moulding



"Active body": 7 grams, 60x15mm.
We plan to get this as large as 2 kilograms. With the current unprecedented efficiency of 104.3 Wh per gram of the active body reached with this prototype, it will provide over 200 kWh of thermal energy.

TEAM & ADVISORS

Dmitry Samoylovskikh
CEO

Forbes 30 Under 30
Co-founder of Tesla Amazing - successful international company, funded on Kickstarter: top 2 projects during the whole campaign. All obligation are fulfilled on time.
Now: distribution network in 37 countries and laboratory focusing on disruptive green energy technologies.
Higher School of Economics - Master's

Sergei Tcvetkov
Technology

Molecular physics: physics of nuclear reactors and isotope separation. Author and co-author of several patents for cold fusion, both Russian and European.
Multiple works published in scientific articles.
Has been conducting research and development since 1989.
Russian Academy of Sciences.
Physical Technics Faculty of Ural Polytechnics Institute

Sergei Godin
Research

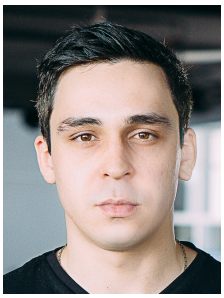
Expert in digital and analogue electronics, electrotechnic, measuring devices, signal analysing, and experimental setups.
Main fields of expertise: experimental plasma physics, electrodynamics, and vortex plasmatic stations.
Author of numerous scientific works and patents.
Moscow Institute of Electrotechnics

Maria Lapuk
Public Relations

Over 10 years of experience in digital PR. One of the most recognized PR leaders in the region. Awards include "PR Profile of the Year 2015", "Most Influential Networker 2013", "PR Professional of the Year 2012"

Artem Lukashin
Investments

15 years of experience in asset management and hedge funds. Former Head of Sales at Troika Dialog, Vice-President at Renaissance Capital, founder of MoneyBall Multi-Strategy Fund.
Moscow State Technics University



Max Podolski
UI & UX

Over 7 years of experience in UI and UX. Along with independent developments, performed prototyping and product design for mobile points of sale for IKEA and Mobile Yota Devices.

PARTNERS


elering


NORD
POOL


e·on


WinWin
SOLUTIONS


nektorov, saveliev
& partners


TARGET
GLOBAL


OnGrid™
Systems


tesla amazing

TOKEN SALES

Deneum Token (Ticker: DNM) is a utility token. It is not a security and it does not grant shareholders rights.
Token sale is held by Moon labs OU, the company registered in Tallinn, Estonia, EU.
Commercial Name of the project: "Deneum".
Deneum Tokens are provided though a smart contract based on the Ethereum platform that meets the ERC-20 standard and token holders can store them in numerous wallets and services.

The token sales will be held in three stages:

Private Sale	**Pre-ICO**	**ICO**
$2.95	$5.65	$8.90
Max Tokens Issue: 450,000 Hard Cap: $1,327,500 Soft Cap: $500,000 Apr 02 - Apr 27, 2018	Max Tokens Issue: 900,000 Hard Cap: $5,085,000 Soft Cap: $1,000,000 Oct 1 - Nov 15, 2018	Max Tokens: 10,000,000 Hard Cap: $89,000,000 Hard Cap: $5,000,000 Nov 15 2018 - Jan 31, 2019

The total tokens to be issued during the three ICO stages: 15,000,000 (11,400,000 Tokens are available for Crowd Sale stages). The Sales Run ends upon the end date or upon reaching the Hard Cap of the stage.

As DNM is a utility token, the company will issue new tokens for new consumers to purchase electricity supplies – but no earlier than December 1, 2020, or once retail sales are launched. New tokens will be issued only when the supply by current Token Holders is not sufficient for a new consumer to efficiently purchase Deneum electricity.

The process will be Escrow-controlled (see details in the Token Distribution section). In case of an Ethereum fork, Deneum will announce which branch it supports.

Bonuses might be offered to early stage and large investors. Information about additional incentives will be published at www.deneum.com, as well as in updates and edits to the White Paper.

The whole Token Sales campaign will be supported via multiple communications channels, primarily via the official Telegram group (https://t.me/deneum_chat).

PRIVATE TOKEN SALE

1 DNM = 1 MWh

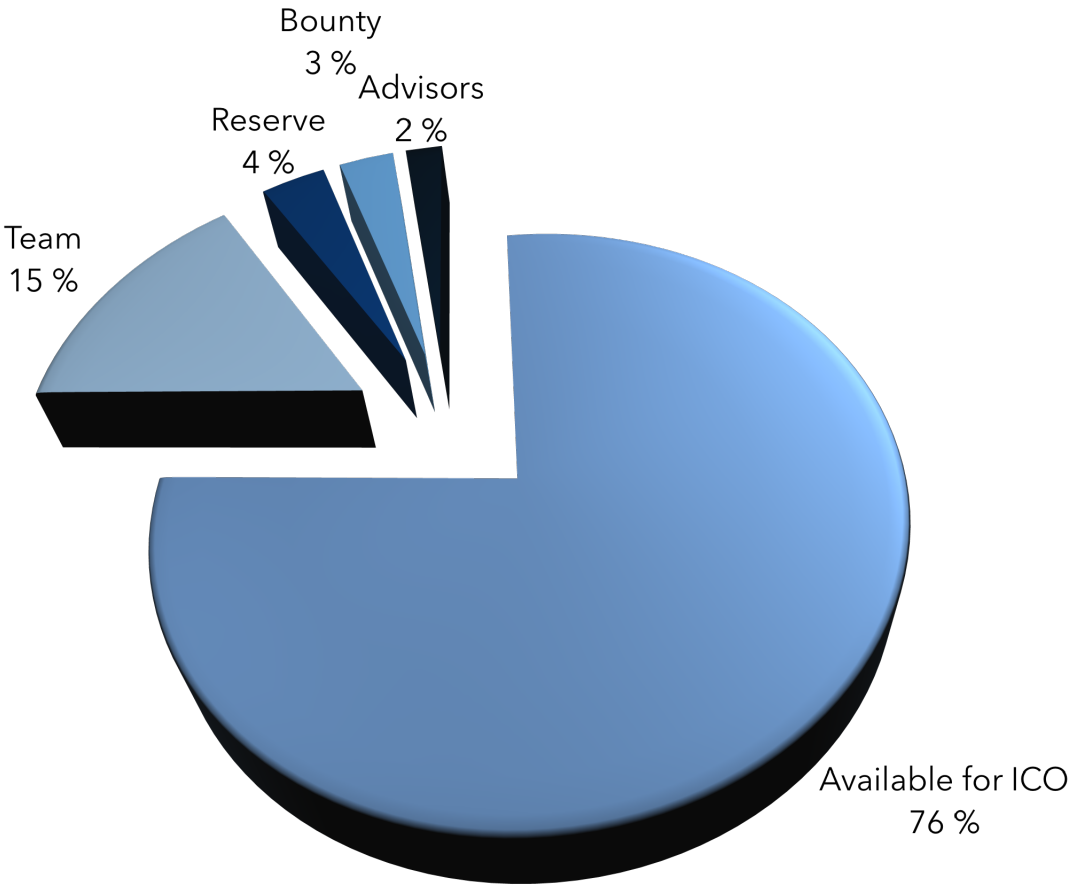
Price:	**$2.95 USD**	The Token Price is set in US dollars. We accept Ethereum and cash. The quantity of Tokens is defined based on the current Ethereum price at coinmarketcap.com.
Target:	**$50 USD (1694%)**	The target price of $50 USD is calculated as a 30% discounted price of average wholesale and retail prices in Europe (~72 USD).
Buy Back:	**$4.42 USD**	The buy back procedure is built into the Smart Contract. Token holders have the option to request buy back at $4.425 USD on April 5th, 2019.
Hard Cap:	**$1,327,500 USD**	The Soft Cap (the level above which the round will be considered successful) is $500,000 USD.
Period	**Apr 2 - Apr 27**	The round will end on April 27th, 2018 or once the Hard Cap is reached – whichever comes first.
Minimum:	**100 Tokens**	The minimum purchasing amount is 100 Tokens, which totals at $295 USD.

DNM Crowd Sale Contract Address (the address to contribute):

DNM Token Address (to show up in your wallet):

www.deneum.com

TOKENS DISTRIBUTION



ICO	TEAM	RESERVE	BOUNTY	ADVISORS
11,400,000 DNM	2,250,000 DNM	600,000 DNM	450,000 DNM	300,000 DNM

The Token Sale is Escrowed-controlled, and there are several milestones upon which a certain amount of funds will be released:
– up to $30,000,000 USD are released when DNM Tokens are transferred to Token Holders;
– if more is raised, the rest is released when the company publicly reveals the G3 Prototype: an experimental device that autonomously works for at least 6 months without refuel.

The Team members' Tokens have a two-year lock-up, with four six-month vesting periods.
The Advisors' tokens are locked for six months.
The Reserve tokens are locked for 12 months.

USE OF TOKENS

Exchange into electricity

Deneum Tokens (DNM) are the currency consumers use to purchase Deneum electricity. Any consumer will be able to purchase a certain amount of Deneum electricity, which we will physically supply.

The minimum delivery amount is currently 3 GWh, or 3,000 DNM. This means that any Token Holder with 3,000 DNM or more will be able to order a Power Station that supplies 3 GWh over the course of one year (or a shorter period if the electricity is consumed faster).

In this case, the Power Stations will be owned by us and rented out free of charge to the consumer for one year. After one year, the consumer will have the option to purchase more DNM for the next period; otherwise, the Power Station will be returned to us.

Depending on location, a surcharge may be added for delivery.

Price Justifying

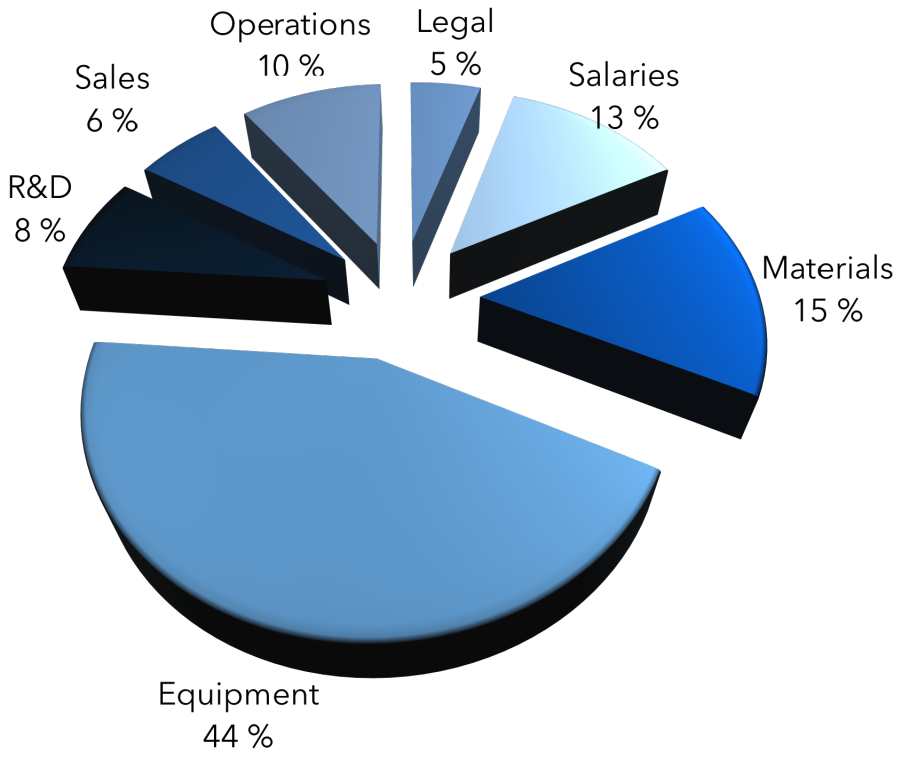
As the project gets nearer to the launch of initial sales and power supplies, the DNM price will approach the average electricity price in countries within our coverage – an inevitability due to arbitrage opportunities.

Otherwise, anyone can purchase electricity from us and sell to consumers (or to the grid) at a higher price, which will inevitably happen. Over time, increased demand for DNM will be pushing its price higher, closing the price gap between DNM and the average market price.

The average market price in Northern Europe (where initial sales are likely to happen) is currently around 58 EUR, or $72 USD (the wholesale price is around 40 EUR, and retail is around 110 EUR).

This gives us confidence that the DNM price will reach $45-50 USD by the time of launch, which is scheduled for late 2020.

FUND ALLOCATION



Equipment (44%). This is the main object to which funds will be allocated. Equipment includes all necessary supplies of parts and equipment for setting up the large-scale production line, the G3 Prototype, and the initial retail-ready Power Stations.
Materials (15%). This includes procurement of both main materials used in the technology: titanium and deuterium, as well as gases, liquids, and operational materials necessary for research and construction purposes. This percentage will decline as quantities increase.
Salaries (13%). Includes hiring full-time specialists on contracts and payrolls for two years prior to launch, plus one year for reserve.
Operations (10%). Includes laboratory rental costs, business travel for staff, accounting, and other operational costs for two years prior launch, plus one year for reserve. The percentage will decline as quantities increase.
R&D (8%). Research and development aimed at reaching maximum efficiency.
Sales (6%). Includes marketing, promotion, lobbying, and other expenditures aimed at increasing sales.
Legal (5%). Includes expenditures for certification, patents, and trademarks, as well as incorporating and protecting the company and its assets.

Percentages may vary depending on the amount raised.

ROADMAP

April 2018
Private ICO completed

August 2018
G3 Prototype Constructed

September 2018
Online Streaming begins

November 2018
Pre-ICO completed

November 2018
Retail-ready Power Station construction begins

January 2019
ICO completed

April 2019
All patents application submitted

June 2019
Retail-ready Power Station construction completed

October 2019
Retail-ready Power Station tests completed

November 2019
Certification process completed

December 2019
First deliveries to Token holders

June 2020
Sales to the grid begin

December 2020
Retail sales begin

LEGAL

Certain statements, estimates, and financial information contained within this White Paper constitute forward-looking, or pro-forma statements, and information. Such statements or information involve known and unknown risks and uncertainties which may cause actual events or results to differ materially from the estimates or the results implied or expressed in such forward-looking statements.

This White Paper does not constitute an offer to sell or a solicitation of an offer to buy a security in any jurisdiction in which it is unlawful to make such an offer or solicitation.

Personal information received from Token Holders, customers, vendors, employees, and others, including quantities obtained, payments received, account information, etc. may be disclosed to law enforcement, government officials, and other third parties when Deneum is required to disclose such information by law, subpoena, or court order. Deneum will claim no responsibility nor be held responsible for any such information disclosure. The company will not share information unless required by law.

Given that Deneum is a European-owned and -operated company, Token Holders are required to comply with all applicable domestic and any applicable international laws. Deneum does not claim to make any representations regarding legal matters. Consult with your legal professional. The Token Holder is responsible for complying with the applicable laws and regulations that exist now and any subsequent changes to legislation that would apply.

The project is subject to multiple risks, such as:

Regulatory. Creating a Power Station that is tremendously more efficient and cost-effective than any existing technology means that the creators may encounter some resistance or barriers along the way to bringing their product to market. It may be challenging to obtain the necessary certificates for retail sales and/or to get permissions to sell electricity onto the grid.

Financial. Although there are sufficient quantities of the materials needed to produce the Power Station, increased demand could drive up the prices of these materials. The project may encounter the need to hire more staff and/or expand its premises. Prices for electricity could decrease, reducing margins. All this and other risks may impact the initial business plan.

Innovations. As is the case for any company creating a new technology, there are numerous risks associated with being a pioneer. For example, some parts may have to be produced in-house to keep costs down, which will require more time and resources.

External fraud. Token sales are often vulnerable to scam risks, including tokens being stolen. We will take every precaution to prevent such scams.

Price fluctuations. The price of tokens may fluctuate over time. Token Holders may incur financial losses, and profits are not guaranteed.

REFERENCES

1. Global Energy Statistical Yearbook 2017: https://yearbook.enerdata.net/electricity/electricity-domestic-consumption-data.html

2. The Worlds Bank - World Development Indicators: http://www.tsp-data-portal.org/Historical-Electricity-Generation-Statistics#tspQvChart

3. Digiconomist: https://digiconomist.net/bitcoin-energy-consumption

4. Nord Pool: https://www.nordpoolgroup.com/Market-data1/#/nordic/map

5. Fusion Technology Magazine, 1991, Vol. 20, Issue 2, pages 234-238: https://www.researchgate.net/publication/292036859_Laser-Induced_Cold_Nuclear_Fusion_in_Ti-H2-D2-T2_Compositions

EDITS

– Version 1.22, March 10, 2018.