dynaCERT
Carbon Emission Reduction Technology

DRIVING CHANGE FOR A BETTER FUTURE

THE HYDRAGEN™ TECHNOLOGY

EDISON AWARDS
GOLD
2018 WINNER

dynacert.com

FORWARD LOOKING STATEMENT

This Presentation/Document is based upon information supplied by the management of dynaCERT Inc. ("dynaCERT" or the "Company") and is being furnished on a strictly confidential basis, solely for use by prospective investors. Each recipient of this presentation/document agrees that all of the information contained herein is confidential and is not to be used for any purposes whatsoever except to assist the recipient in evaluating the Company. Each recipient agrees to keep the information contained herein in strict confidence and, neither directly nor indirectly, to reproduce or transmit in any form or by any means any of the information contained herein or to disclose such information to any person, firm, or corporation without the prior written consent of the Company. dynaCERT Inc. expressly disclaims any and all liability for any representation or warranties, expressed or implied, contained in this presentation/document or for omissions from it. Only those particular representations and warranties that may be made in a definitive agreement respecting any proposed transaction, if and when executed, shall have legal effect.

This presentation/document contains forward-looking statements reflecting dynaCERT's current forecast of certain aspects of the Company's future. It is based on current information that has been assessed, but which by its nature is dynamic and subject to rapid and even abrupt changes. Forward-looking statements may include, without limitation, statements regarding growth projections, including financial forecasts and the projected rollout of the Company's products. dynaCERT's actual results could differ materially from those stated or implied by the Company's forward-looking statements due to risks and uncertainties associated with its business, including, but not limited to:

- The requirement for significant financing to develop and market its technology;
- The ability to establish and maintain arrangements with industry recognized strategic partners;
- Market acceptance of the Company's technology and products;
- Competition in all aspects of its business;
- The effect of general economic, credit and capital market conditions on its business;
- The ability to complete product development milestones and progress towards commercialization of product within the contemplated timetable;
- The ability to attract and keep highly qualified staff and management; and
- Changes in product profit margins due to pricing changes driven by variations in customer demand, competition, or unforeseen factors.

The Company's forward-looking statements should be considered in the context of these and other risk factors. All future written and oral forward-looking statements made by the Company on its behalf are also subject to these factors. The Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Securities laws vary between Canadian provinces and investors should seek independent legal advice regarding compliance with applicable securities laws in connection with any investment in the Company. The securities of the Company are not registered under United States securities laws. This presentation/document is not a prospectus or a public offering in any jurisdiction.

ABOUT US

We are dynaCERT Inc., a growing energy sector company based in Toronto/ON, Canada. We specialize in developing, manufacturing and distributing *Carbon Emission Reduction Technologies* to a global marketplace *(except in California)*.

Throughout our years in business we have worked to provide a reliable and effective electrolysis unit that generates hydrogen and oxygen on demand to:

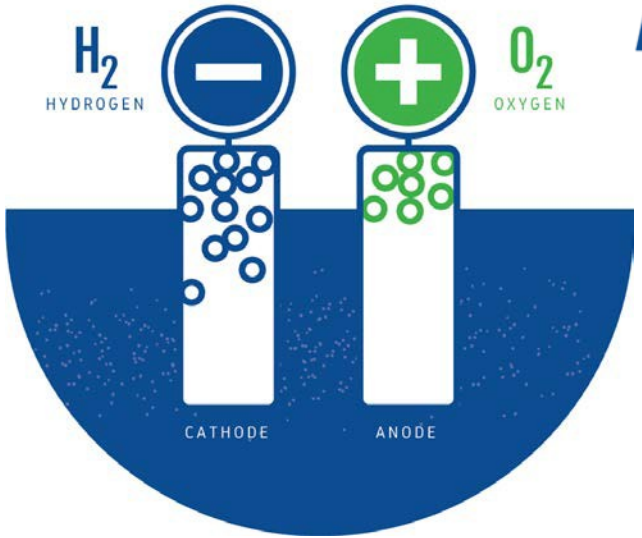
(A) address the growing requirements to reduce emissions!

(B) provide an increase in fuel economy!

Our future is exciting. | Our perspective is global. | Our mission is achievable.

HYDRAGEN™ – SIMPLY EXPLAINED

HydraGEN™



Electrolysis creates H_2 & O_2 gases | which are added to the engine airflow | resulting in better combustion

COMPANY BACKGROUND

- 2004 - Started as Dynamic Fuel Systems Inc. 2004 - First JetStar unit produced gas
- 2009 - Introductory sales generated to First Adopters
- 2009 - Engine testing revealed separate gases provide unique characteristics
- 2010 - Developed Patent Pending system that separates hydrogen and oxygen – *HydraGEN™*
- 2012 - Dynamic Fuel Systems Inc. becomes dynaCERT Inc.
- 2016 - 3rd party testing from UOIT confirmed the performance of the *HydraGEN™* technology
- 2017 - Developed Patent Pending "Smart" Electronic Control Unit (ECU) – the brains of the *HydraGEN™*
- 2017 - Shipping of HG1 product to customers worldwide
- 2017 - Successful refrigerated trailer testing on a 2.1 L diesel engine completed
- 2017 - 3rd party testing and verification by the PIT Group in Montreal

2017 | PIT Group confirmed Emission Reductions and Fuel Efficiency

MANAGEMENT

Jim Payne
President & CEO

Robert K. Maier
COO, Chief Engineer

Carmelo Marrelli
CFO

Enrico Schlaepfer
VP of Global Sales

Edward Cordeiro
Key Account Manager

David Bridge
Technical Advisor

Ruston Hoffman
R&D Mgr.

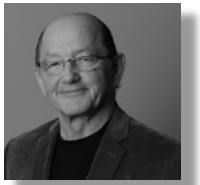
Gurjant Singh
Production Mgr.

Khoa Tran
Director Finance

Rachael Deacon
Senior Buyer

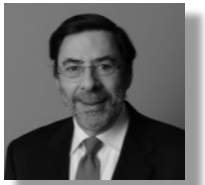
EXPERIENCE | DEDICATION | PERSISTENCE

BOARD OF DIRECTORS



Wayne Hofmann
Chairman

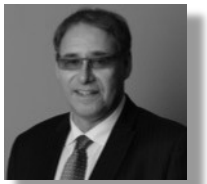
Jim Payne
President & CEO



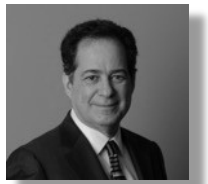
Jean-Pierre Colin
Director

Richard Lu
Director

Robert K. Maier
COO, Chief Engineer



Ron Perry
Director



Elliot Strashin
Director

LEADERSHIP | GUIDANCE | COUNSEL

CAPITAL STRUCTURE

256M	9.4M	22M	TSXV	DYA
Shares Issued & Outstanding	Warrants	Stock Options	Stock Exchange	Ticker Symbol

Nancy Massicotte
Investor Relations

INVESTOR RELATIONS

IR PRO COMMUNICATIONS
+1 416 766 9691 ext. 1
nancy@irprocommunications.com

Transfer Agent: Equity Financial
Auditor: Ernst & Young LLP
Legal Counsel: Law Offices of Brian Illion; & TingleMerret LLP

ABOUT HYDRAGEN™

Product Overview

The *HydraGEN™* is an advanced intelligent onboard electrolysis system, which produces and supplies hydrogen (H_2) and oxygen (O_2) on-demand to the air intake of diesel combustion engines for improving fuel efficiency and lowering emissions.

Just Add distilled Water

All that is required is distilled water. Water consumption is approximately 5 litres per 4,800 Km (3,000 miles) at an average speed of 70 km/hr (44mph)

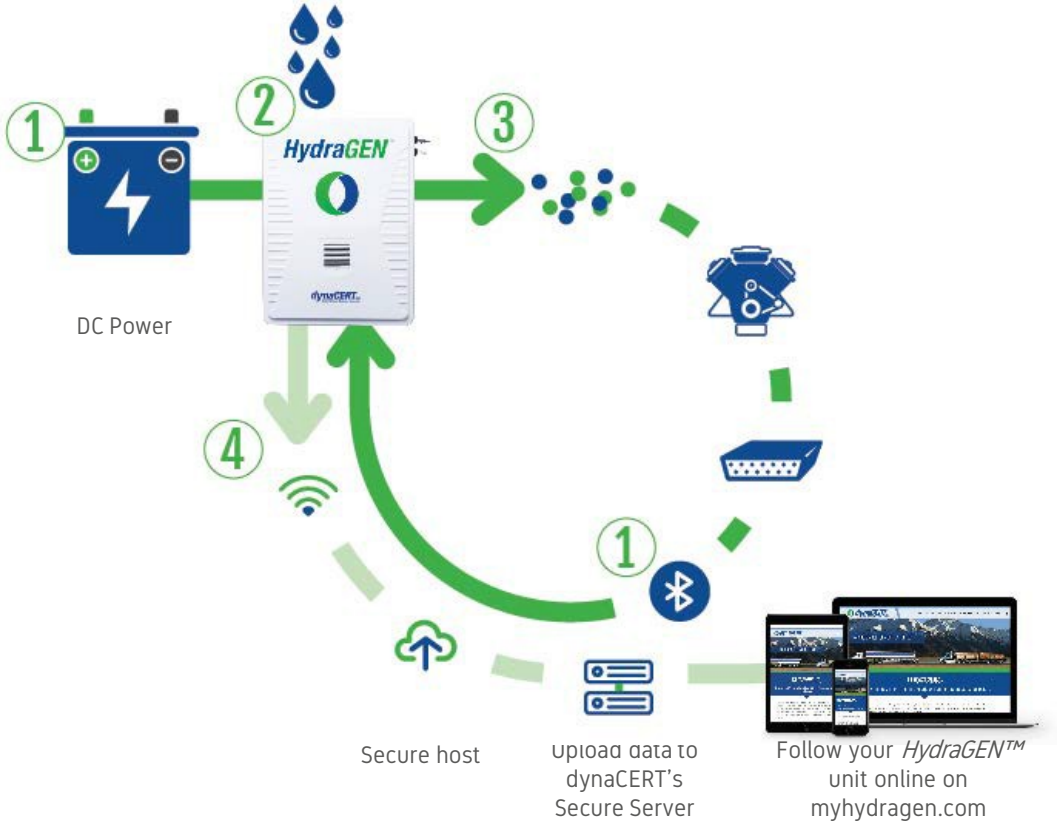
Water Electrolysis

Electrolysis splits water (H_2O) into its principle elements H_2 & O_2 by passing an electrical current through it.

$$2H_2O \longrightarrow 2H_2 + O_2$$

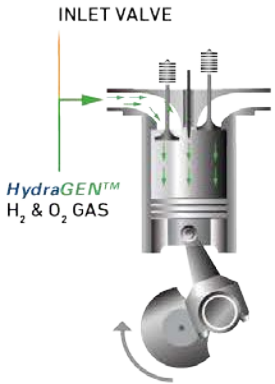
HOW HYDRAGEN™ WORKS – OVERVIEW

1. Engine's on-board diagnostics (OBD) data is transmitted to *HydraGEN™*'s ECU via Bluetooth in a continues feedback
2. *HydraGEN™*'s ECU processes / monitors engine data & determines:
   - The amount of H_2 & O_2 to produce
   - The optimal ratio of H_2 & O_2 to deliver to the engine's air-fuel mixture
3. H_2 & O_2 gases are delivered to engine for enhanced combustion.
4. Engine's fuel efficiency data and emissions data are uploaded to dynaCERT's secure server wirelessly, ready to be accessed by vehicle owner via mobile or desktop app.



HOW HYDRAGEN™ WORKS – IN DEPTH

INTAKE STROKE

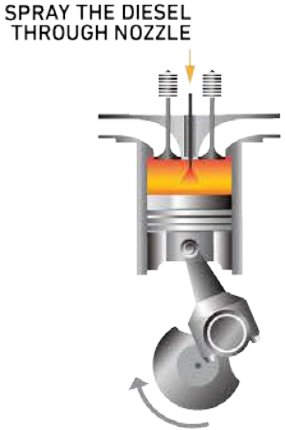


HydraGEN™ delivers the optimal ratio of H_2 and O_2 to the engine's air intake port during the intake stroke.

COMPRESSION STROKE

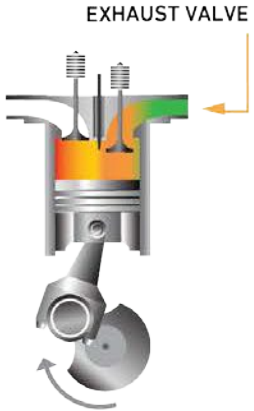
Diesel fuel is injected and mixes with the air and H_2 mixture. H_2 & O_2 mixture helps initiate the combustion sooner, just before the end of compression stroke.

POWER STROKE



Combustion is sped up and lasts for a much shorter duration of the power stroke. In that duration, the fuel is consumed, a greater amount of work is generated, power stroke ends up being cooler and overall fuel efficiency is better.

EXHAUST STROKE

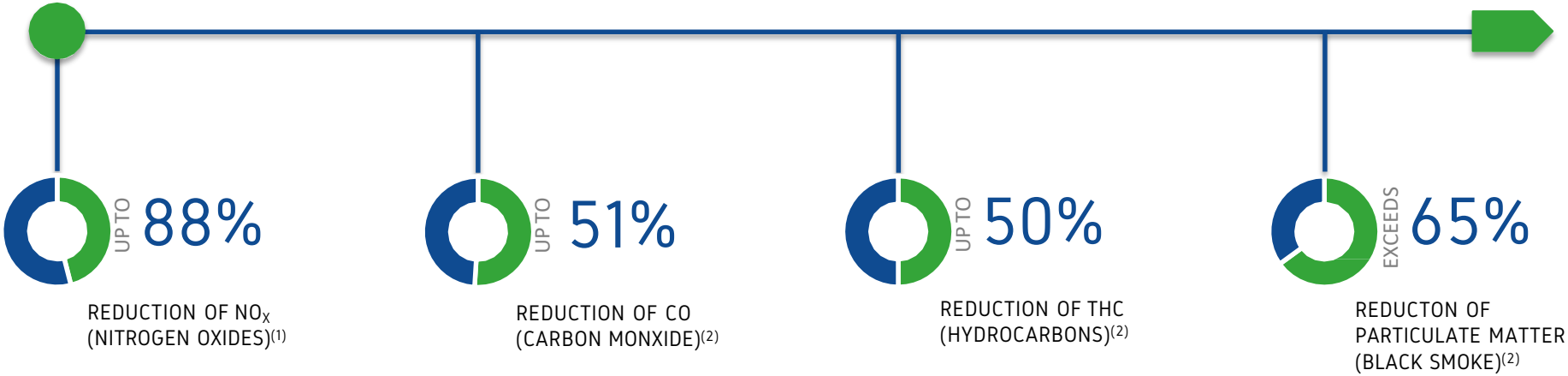


Thermal efficiency is improved. Exhaust is cooler. Generated emissions are reduced – less CO_2, CO, NO_X and particulate matter.

EMISSION BENEFITS

HydraGEN™ Lowers Emissions Substantially

The following results have been acquired from accredited third party verification performed by PIT Group in Montreal, Quebec and performance testing at Continental EMITEC, Germany.

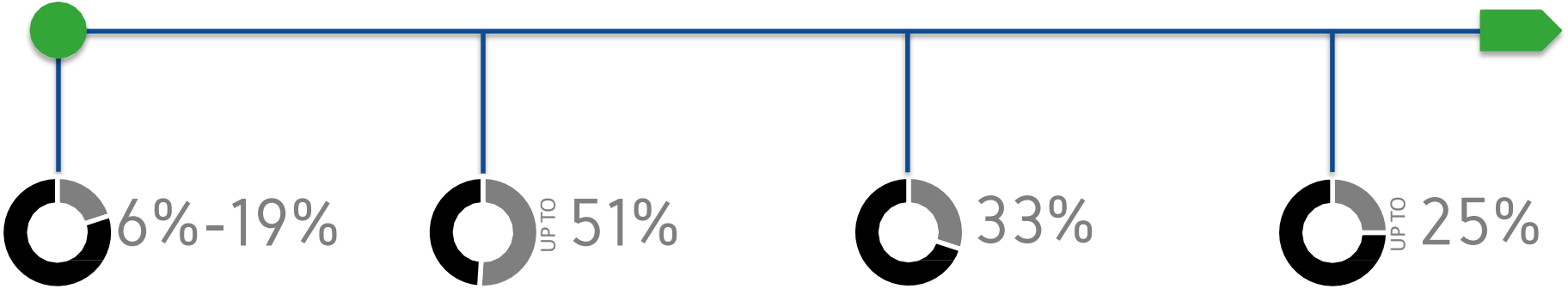


(1)Multiple values gathered from EMITEC Testing and PIT Group Verification. (2)Verified by PIT. Actual results may vary depending on engine load and use.

ECONOMIC BENEFITS

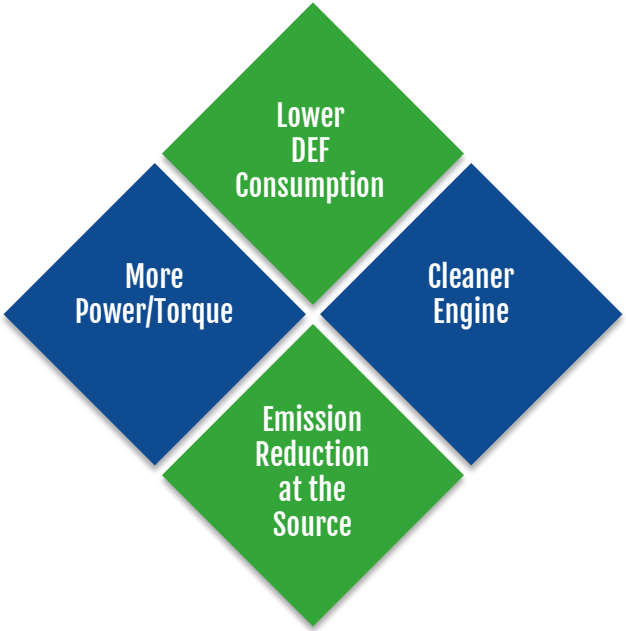
Lower Consumption and Maintenance

The following results have been acquired from accredited third party verification performed by PIT Group in Montreal, Quebec and performance testing at Continental EMITEC, Germany.

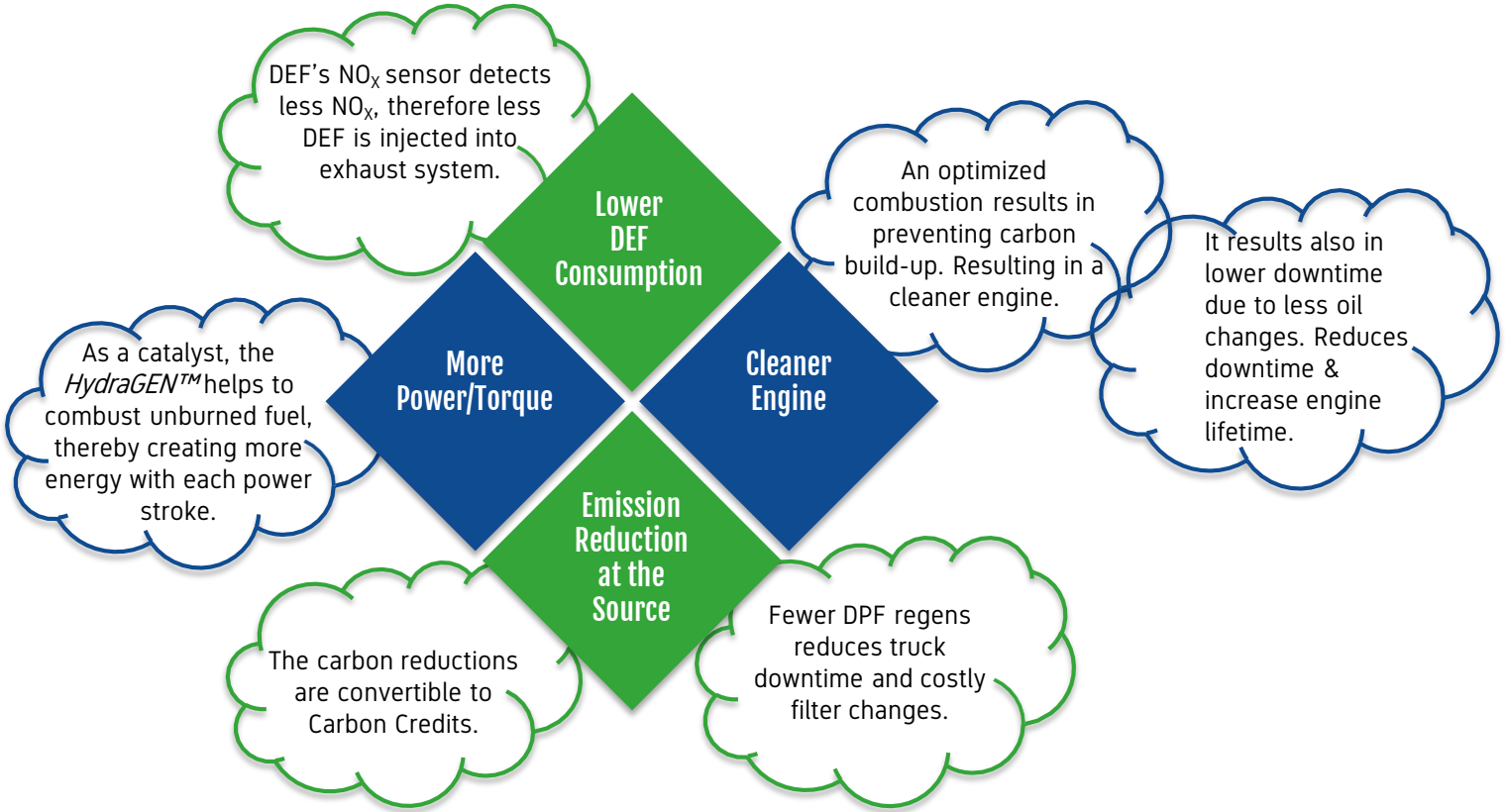


(1)Multiple values gathered from PIT Verification, EMITEC testing and other testing. (2)Verified by PIT. (3)Assumption based on Reduction in fuel consumption and reduction in DEF. Actual results may vary depending on engine load and use.

ADDITIONAL BENEFITS



ADDITIONAL BENEFITS



WHY HYDRAGEN™ WORKS

Technology Validation

Using hydrogen as a combustion enhancer has been acknowledged and validated to improve the thermodynamics of internal combustion engines by numerous research bodies, including the following (Just to mention a few):

- ✓ NASA & JPL (Jet Propulsion Labs)
- ✓ California Institute of Technology
- ✓ G.A. Karim, University of Calgary
- ✓ Argonne National Laboratory
- ✓ ETH Swiss Federal Institute of Technology, Zurich
- ✓ American Hydrogen Association Newsletter
- ✓ Fisita World Automotive Congress, Barcelona
- ✓ PIT Group, Montreal, QC, Canada

WHY HYDROGEN WORKS

Why Hydrogen?

The hydrogen produced from the *HydraGEN™* system does not replace or displace diesel fuel. Instead, it is used as a CATALYST to improve the thermal efficiency of the combustion of the diesel fuel by supplying a small percentage of hydrogen (H_2) to the air mixture.

Hydrogen (H_2) gas is an ideal catalyst for improving the thermodynamics of internal combustion engines, especially diesel-powered engines because of its unique characteristics:

Carbon-Free, Petroleum-Free and Non-Fossil

High Flame Speed Propagation

Higher Combustion Temperature

Low Temperature / Energy Ignition

Easy To Produce by Water Electrolysis

Non-Toxic & Non-Poisonous

A CATALYST speeds up a chemical reaction by lowering the amount of energy you need to get a reaction started. In most cases, you only need just a tiny amount of catalyst to make a difference. At its heart, a catalyst is a way to save energy.

Source: Louis Lerner, Argonne National Laboratory, 2011

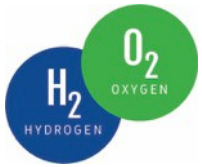
WHY HYDRAGEN™ WORKS BETTER

Taking Hydrogen To a Whole New Level

dynaCERT's *HydraGEN™* is a dramatic departure from what has been attempted before with similar hydrogen on-demand generation systems. Therefore, it should not be confused or even put in the same category as those systems. The only thing similar is the use of hydrogen.

The *HydraGEN™* is a product of several years of R&D in internal combustion technology, electrochemical, electrical and computer engineering and millions of kilometers of on-road testing.

The *HydraGEN™* is far superior to anything previously attempted with an on-demand hydrogen injection for the following reasons:



Proprietary H_2 & O_2 Gas Management System

Patent pending system for separating gases. Enables optimal mixture of H_2 & O_2.

Proprietary Smart Electronic Control Unit (ECU)

Patent pending state-of-the-art digital processing hardware & software

Advanced Proprietary Water Electrolysis System

Patent pending high output, low energy electrolysis system

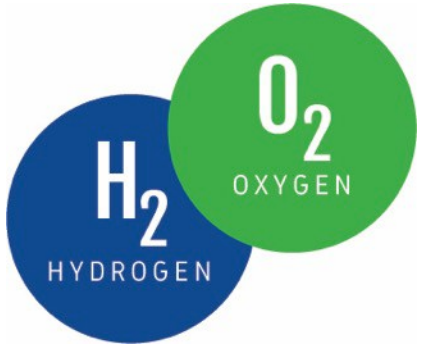
Accredited Third Party & On-Road Validation

Results validated through both on-road & accredited 3rd party testing

WHY HYDRAGEN™ WORKS BETTER

Proprietary H_2 & O_2 Gas Management System

- The fundamental difference between the *HydraGEN™* and other typical hydrogen on-demand generation systems is its patent pending method for separating H_2 and O_2 gases.
- Under ideal combustion conditions, the ignition energy of hydrogen is about ten times less than that of diesel-air mixture. Separating H_2 and O_2 after electrolysis allows the ratio of gases to be varied to achieve optimal conditions.
- Typical hydrogen on-demand generation systems only deliver a 2:1 ratio of hydrogen to oxygen molecules, in the form of Brown's Gas, or HHO gas. If you have any prior experience with hydrogen on-demand systems it is important to make this distinction.
- The flowrates of H_2 and O_2 for optimal combustion conditions is managed by the *HydraGEN™*'s Smart Electronic Control Unit (ECU).



HydraGEN™

WHY HYDRAGEN™ WORKS BETTER

Proprietary Smart Electronic Control Unit

- *HydraGEN™* 's true ingenuity begins with the brains of the system, its Smart Electronic Control Unit (ECU). Its patent pending technology combines the latest state-of-the-art digital processing hardware with sophisticated software algorithms.
- Controls and monitors the production of gases (H_2 and O_2).
- Uses sophisticated algorithms to determine the optimal ratio and flowrates of H_2 and O_2 for optimal engine performance.
- Manages power requirements for water electrolysis.
- Monitors the system's health and performance.
- Monitors, stores, logs, reports & transmits real-time engine fuel efficiency and emissions data to dynaCERT's secure servers for remote access by the customer.

HydraGEN™

WHY HYDRAGEN™ WORKS BETTER

Advanced Proprietary Water Electrolysis System

- Proprietary High Output, Low Energy Electrolysis System
- Hydrogen is used as an enhancer to improve the combustion efficiency of the primary fuel – diesel. Only a very small amount of H_2 relative to the fuel content is required to be effective.
- The improvement in fuel efficiency and reduction in emissions are far more significant than the amount of energy required for electrolysis. At maximum output, power consumption is approximately 300 watts, or .40 hp (1 hp = 745.7 watts)
- The system produces gas on demand, only consuming engine power when producing gas and never consuming battery power.

HydraGEN™

WHY HYDRAGEN™ WORKS BETTER

Accredited Third Party Testing

In addition to millions of kilometers of on-road testing, The *HydraGEN™* is one of the few to have its effectiveness be tested and verified by an accredited 3rd party:

- The PIT Group in Montreal, QC, Canada recently completed the testing to the TMC fuel consumption test procedure type II, RP1102A protocol.

HydraGEN™

HYDRAGEN™ – ADDITIONAL FEATURES

Additional Features

- Quick ROI
- Lightweight and energy efficient
- Patent pending intelligent ECU
- Low operating and maintenance costs
- Requires only distilled water
- In-line & tank water heaters
- Remote data logging to online server via GPRS, Wi-Fi
- Mobile access to real-time fleet and individual vehicle fuel efficiency, emissions, system data
- Cleaner, longer engine oil life

THE HG1 FAMILY

HG145 – Polymer Case

HG145R – Steel Rugged Case

HG145B – Black Rugged Case

DURABLE | WEATHERPROOF | DAMPENED | LIGHT WEIGHT

THE HG1 CABINET FAMILY

HG145-4C (4 HG1-45 units inside)

HG145-6C (6 HG1-45 units inside)

DURABLE | WEATHERPROOF

THE FUTURE – HYDRAGEN™ HG2

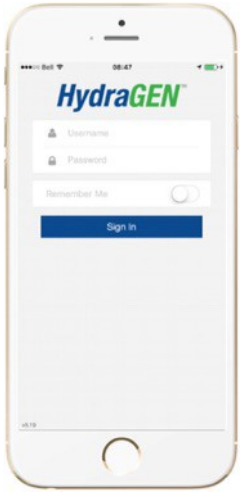
- The HG2 unit currently in development is 1/3 of the size of the *HydraGEN™* HG1 model.
- The smaller size will allow for new applications on Class 2-5 trucks, as well as refrigerated trailers.
- The market size for the HG2 is 20 million trucks and trailers in North America. Market size for each of Europe and Asia would be roughly the same.

DURABLE | WEATHERPROOF | DAMPENED | LIGHT WEIGHT

HYDRAGEN™ APP

HydraGEN™ – Remote App

- Mobile & desktop app enables remote access to all end user emissions and fuel data
- Input historical fuel consumption records
- Track and monitor individual vehicle or fleet data
- Track and report all Carbon Credits per install
- View all single or multi installs in single web interface or mobile
- Report per install or by truck type, engine type, location etc.
- View all data & notifications in real-time dashboards
- Trend and report fuel efficiencies in real-time
- Receive notification of service required i.e. low water level
- Request service or maintenance on unit directly to dynaCERT Inc.

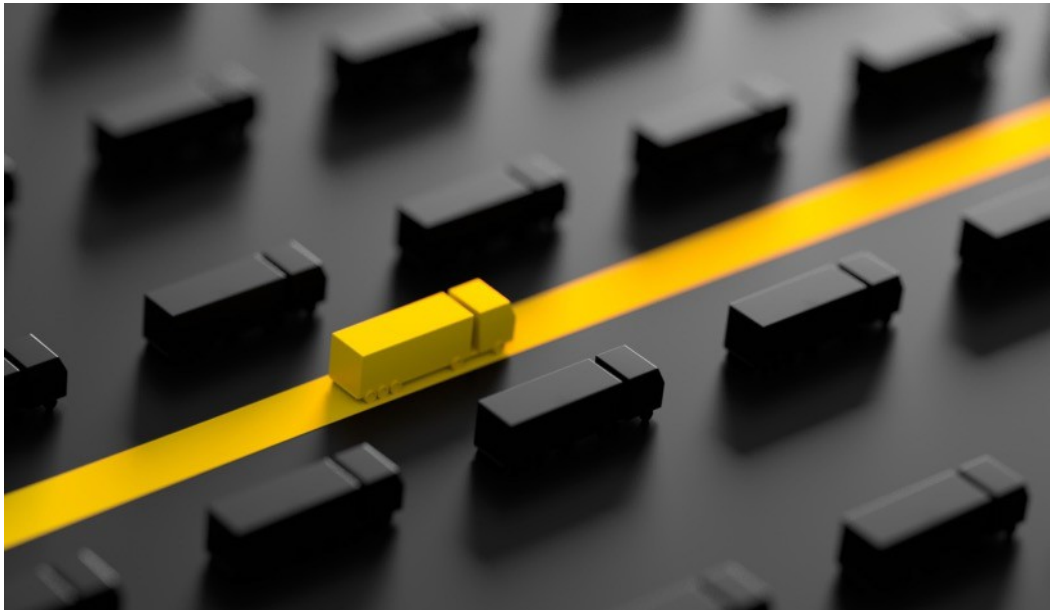


ANDROID APP ON Google play

Available on the App Store

DYNACERT – LIABILITY INSURANCE

- ✓ DOWNTIME INSURANCE
- ✓ ENGINE REPAIR
- ✓ LOSS OF REVENUE



DYNACERT – LIABILITY INSURANCE

Downtime Insurance

The general liability policy will cover claims where dynaCERT Inc.'s *HydraGEN™* unit caused physical damage to the end-user's engine.

The general liability policy would reimburse the end-user's auto insurer for the damages caused to their truck engine, and it would also pay for the loss of revenue that was incurred by the end-user as a result of their vehicle being out of use.

The policy is restricted with respect to specific countries which are presently under trade and economic sanctions or embargo by Canada or the United States.

The present policy limit for liability is CAD 5,000,000 and the policy is subject to a CAD 2,500 deductible.

INDUSTRIES WE SERVE

- Trucks
- Tractors
- Reefer
- VAN‘s
- Glider Kits
- Buses

- Off Road
- Construction
- Pumps
- Compressors
- Light Stands

- Power Generation

- Ships
- Ferries
- Tugboats
- Fishing Vessels

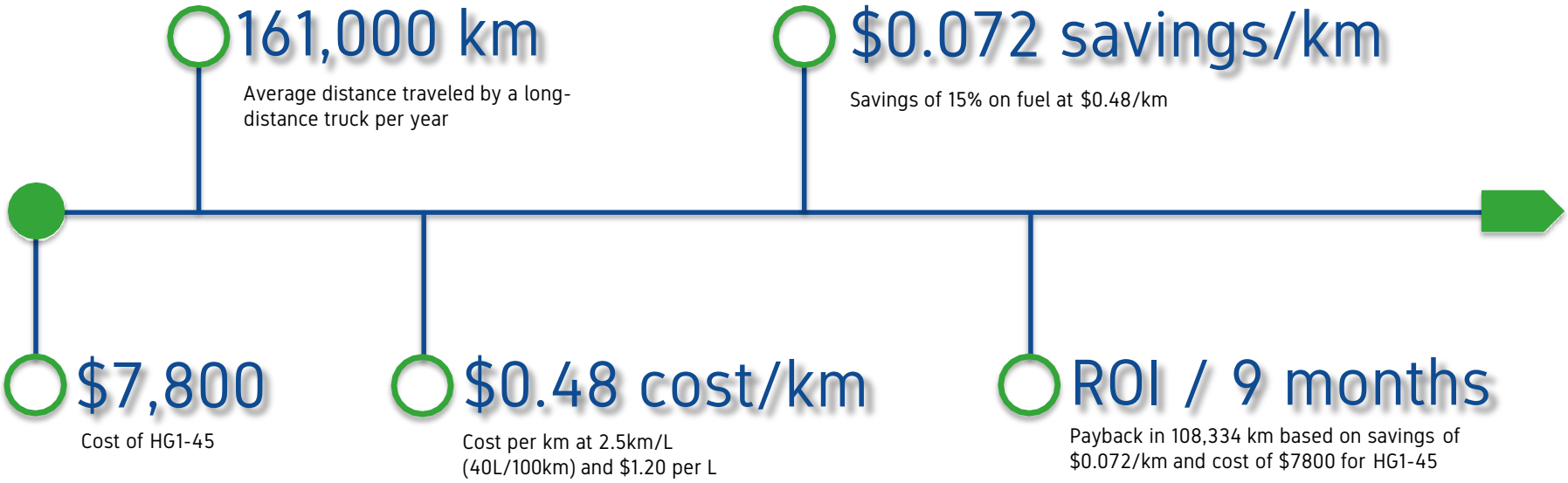
- Locomotives

OEM WARRANTY STATEMENT

Letter or communication received from the following OEMs supporting warranty exemptions when using an aftermarket part and/or additive:

- Caterpillar
- Cummins
- Detroit Diesel / Mercedes
- Electromotive Diesel
- John Deere
- Hitachi
- Komatsu America
- Navistar
- Volvo Trucks North America

RETURN ON INVESTMENT



**Payback model is only based on fuel savings. End users of HydraGEN™ Technology may also find cost savings from other areas such as reduction of DPF filters used, less DEF usage and less oil changes.*

CONTACT US

CORPORATE OFFICE:

101-501 Alliance Ave.
Toronto, Ontario, Canada
M6N 2J1

Phone: +1 416 766-9691
Email: info@dynacert.com
Web: www.dynacert.com

EUROPEAN OFFICE:

dynaCERT GmbH
Industriehof 6

DEPARTMENTS:

Sales: sales@dynacert.com
Warranty: warranty@dynacert.com
Service: service@dynacert.com