JESSE SCHNEIDER
EXECUTIVE VICE PRESIDENT,
HYDROGEN & FUEL CELL TECHNOLOGIES

ZERO COMPROMISE,
ZERO EMISSIONS,
FUEL CELL TRUCKING
NIKOLA MOTOR

ZERO EMISSION TRUCKING + LOW CARBON H₂:

- LONG RANGE (HEAVY DUTY CLASS 8, 40 TON COMMERCIAL VEHICLE)
- HIGH TORQUE & HORSEPOWER
- ZERO TAILPIPE EMISSIONS AND VERY LOW WTW

FUEL CELL TRUCKS

HYDROGEN STATION

- FAST FUELING
- ON-SITE HYDROGEN GENERATION FROM GRID WITH SUPPLEMENTED RENEWABLE ENERGY
- ONSITE STORAGE
- HEAVY DUTY & LIGHT DUTY FUELING

HYDROGEN + FUEL CELL HEAVY DUTY TRUCKS
ZERO COMPROMISE
• 240 kW FUEL CELL POWER
• 125kW-250 kWh BATTERY
• Four Wheel Independent E-DRIVE
  • 1,000 HORSEPOWER
  • 2,000 FT. LBS TORQUE
• 600+ MILES OF RANGE
• AUTONOMOUS CAPABILITIES
• OVER 14,000+ TRUCKS ON ORDER
• 800 TRUCK ORDERS FROM ANHEUSER-BUSCH INBEV
• TRUCKS ARE T.C.O. LEASED ACCORDING TO MILEAGE WITH ALL FUEL & MAINTENENCE INCLUDED
NIKOLA’S FIRST H₂ STATION AT NEW HEADQUARTERS:
LARGEST GASEOUS H₂ VEHICLE STATION IN USA – 1T STORAGE
CLEAN FUEL, ZERO EMISSION, NO COMPROMISE

HYDROGEN GENERATION WITH RENEWABLES & GRID WITH LOW COST ELECTRICITY

< $0.04 / kWh
@ Cost of electricity

ALKALINE ELECTROLYSIS + ASME STORAGE “TRIED AND TRUE” TECHNOLOGY

70 MPA HYDROGEN FUELING FOR HEAVY DUTY APPLICATIONS

< $6.00 / kg
Sale price of hydrogen

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8T/DAY STANDARD H2 STATION
GREEN POWER + ELECTROLYSIS = GREEN HYDROGEN

70MPA HEAVY DUTY & LIGHT DUTY
8T/DAY STATION, FIRST IN PHOENIX IN 2021

ONSITE RENEWABLE POWER GENERATION → ONSITE CONVERSION OF ELECTRICITY TO HYDROGEN VIA ELECTROLYSIS → ONSITE HYDROGEN STORAGE SUPPLY → FAST 70 MPA FUELING STATION → FAST 70 MPA HYDROGEN DISPENSER → HYDROGEN FUEL CELL VEHICLE
• 8 TON/DAY HYDROGEN GENERATION & FUELING USING NEL TECH.
• FIRST NIKOLA HYDROGEN STATION IN CALIFORNIA IN 2021
• PLANNING 10 H2 STATIONS, SOON THEREAFTER
• STATIONS SCALABLE UP TO 32 TON/DAY H2 FOR TRUCK DEPOT
DIESEL PARITY: FAST FUELING/ HIGH RANGE HYDROGEN FUELING DEVELOPING IN ARIZONA

70 MPa
HIGH FLOW

15 MIN
HD FUELING

60-80 kg
HYDROGEN STORAGE

600 MILES
RANGE
8 T / DAY HYDROGEN DEVELOPMENT STATION
FOR FUEL CELL TRUCK FLEET TESTING

MOST ADVANCED HD FUEL CELL LAB
20+ FUEL CELL & BATTERY TEST STANDS

EXTREME ENVIRONMENTAL CHAMBERS (-40F +120F):
FUEL CELL SYSTEMS BATTERY & FULL VEHICLE DYNAMOMETER
HEAVY DUTY FUELING EQUIPMENT DEVELOPMENT

DEVELOP & TEST NEW FUELING HARDWARE FOR HEAVY DUTY FUEL CELL TRUCK STANDARDS

NIKOLA™  nel  Air Liquide

HYUNDAI  SHELL  TOYOTA

Project is fully funded by the partners. HD hardware prototypes will be tested in 2020 in lab/field.

- HD H70HF Fueling Nozzle
- Receptacle
- Hose
- Breakaway
CLASS 8 ON ROAD DELIVERY

11/2019 FIRST ZERO EMISSIONS BEER DELIVERY FOR ANHEUSER-BUSCH WITH NIKOLA TWO FUEL CELL
NIKOLA TRE BEV ANNOUNCED

LATER FOLLOWED BY FUEL CELL VERSION 600 MILE RANGE

STAY TUNED...