



NIKOLA

3rd THERMAL-MECHANICAL-
CHEMICAL ENERGY STORAGE
WORKSHOP

AUGUST 2021

OVERVIEW

COMPANY OVERVIEW

- Founded in 2015
- Headquartered in **Phoenix, AZ**
- Manufacturing facility in **Coolidge, AZ**
- As of July 2021, **~680 employees**
- **+\$1.5B** of capital raised to-date
 - > Business combination completed with VectoIQ in June 2020

MARKET OPPORTUNITY

GLOBAL HEAVY DUTY TRUCK ECOSYSTEM⁽¹⁾

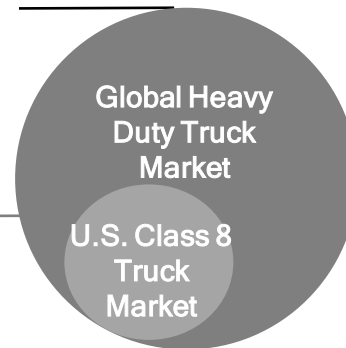
~7M Trucks in Service / ~\$600B TAM⁽²⁾

- TAM Breakdown: ~\$118B Truck, ~\$367B Fuel, ~\$112B Service

US CLASS 8 TRUCK ECOSYSTEM⁽¹⁾

~2M Trucks in Service / ~\$130B TAM⁽²⁾

- TAM Breakdown: ~\$37B Truck, ~\$63B Fuel, ~\$30B Service



EXECUTIVE TEAM



STRATEGIC AND SUPPLY CHAIN PARTNERS

Nikola seeks strategic collaborations that have strong fit and a shared vision in accelerating the future of clean energy

IVECO



BOSCH

Hanwha

RIG360
SERVICE NETWORK



OGE

¹⁾ Includes vehicle, fuel, and service & maintenance; based on proprietary research from ACT Research

²⁾ TAM - Total Addressable Market

WORLD-CLASS TEAM

TRUCKS

BEV



MICHAEL ERICKSON
BEV Business Head

POLARIS **Honeywell**



UMRAN ASHRAF
BEV Technical Head

TESLA **ROMEO**
POWER TECHNOLOGY

MANUFACTURING



MARK DUCHESNE
Global Head, Manufacturing

TOYOTA **TESLA**

FCEV



JASON ROYCHT
FCEV Business Head

BOSCH



CHRISTIAN APPEL
FCEV Technical Head

BOSCH

PRODUCT STRATEGY



MO WAZIR
Global Head, Product Strategy

Stanford University **gm**

ENERGY

ENERGY



PABLO KOZINER
President, Energy & Commercial

CATERPILLAR **PAUL HASTINGS**

ENERGY SUPPLY & TRADING



ERIK MASON
Group Head

bp **RBC**

TECH. & PRODUCT DEVELOPMENT



BERNHARD WINKELMANN
Group Head

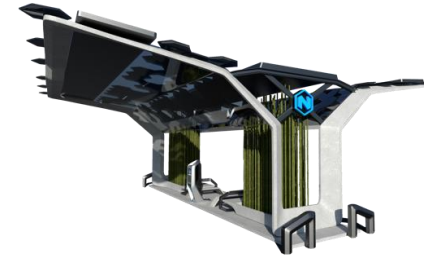
Solar Turbines **MAN** **GEC ALSTHOM**

WHAT WE DO



ELECTRIC TRUCKS

Design and manufacture battery-electric and fuel-cell hydrogen-electric vehicles



ENERGY

Hydrogen production & filling stations. Battery charging solutions. Public and at customer depot. Power generation and Energy storage solutions.

OUR VISION

Be the leader in zero-emission commercial transportation, by building and managing the next generation truck and fueling ecosystem

CLASS 8 TRUCKS



SHORT-MEDIUM HAUL

EXP. DELIVERIES: Q4 2021



MEDIUM HAUL

EXP. DELIVERIES: 2H 2023



LONG HAUL

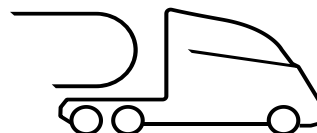
EXP. DELIVERIES: 2H 2024

H₂ FUELING ECOSYSTEM EXP. LAUNCH STATIONS OPERATIONAL: 1H 2023

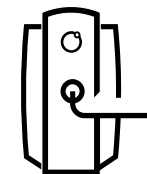
PRODUCTION



H2 DISTRIBUTION

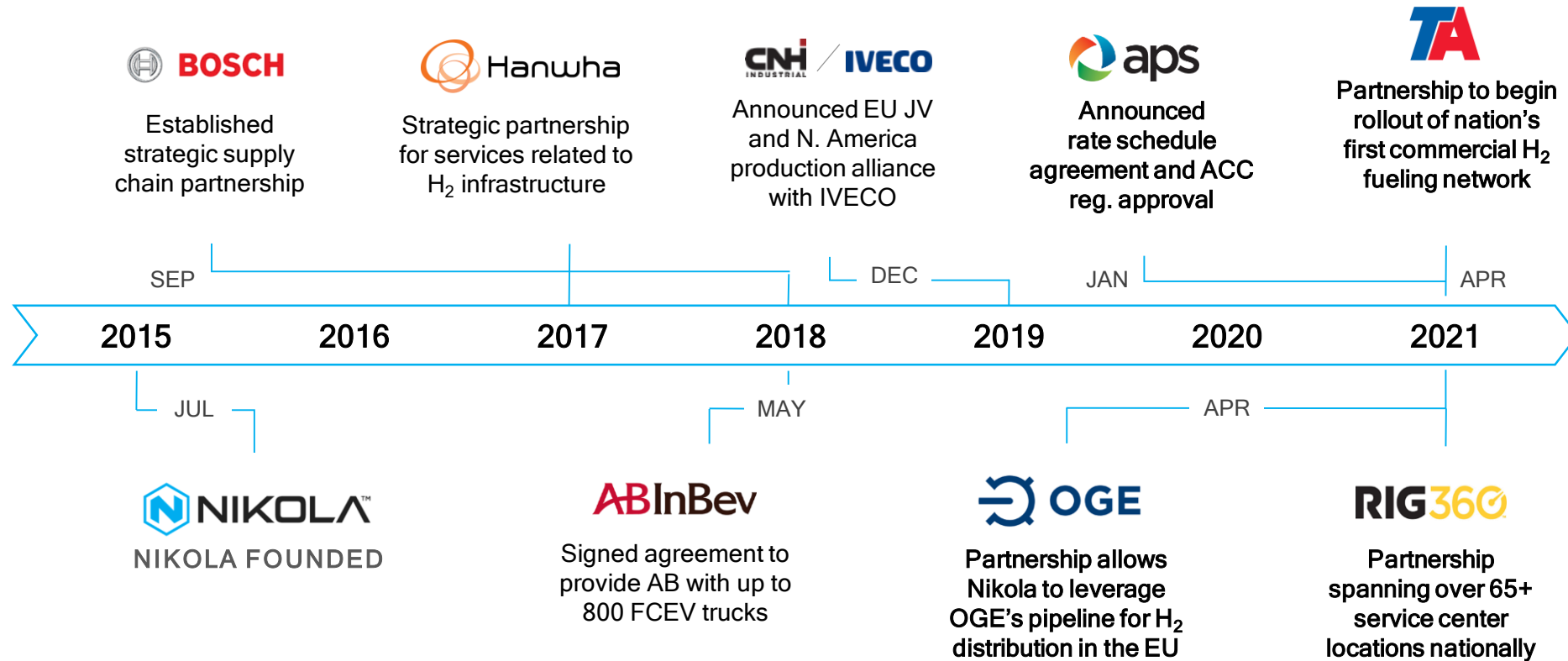


CHARGING & DISPENSING



STRONG PARTNER ECOSYSTEM

Nikola's vision to decarbonize heavy-duty transportation is supported by strong ecosystem of partners



**PARTNERSHIP
PHILOSOPHY**

Minimizes
Execution Risk

Improves Speed
to Market

Reduces overall CAPEX / OpEx
required to execute

HYDROGEN PRODUCTION

Nikola to produce / procure H₂ based on safest, most reliable, and most economical solution available at each location. H₂ production partners to help offset CAPEX requirements

H₂ PRODUCTION MODELS

- Nikola will leverage multiple H₂ production models, tailored to each site:

1) ONSITE PRODUCTION

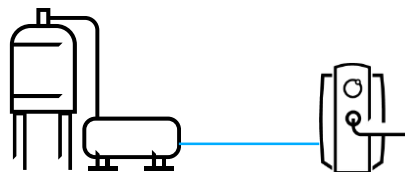
2) HUB-AND-SPOKE MODEL

3) OTHER ALTERNATIVES

- Nikola plans to produce / procure the lowest carbon contented H₂ possible while balancing safety, reliability and cost targets

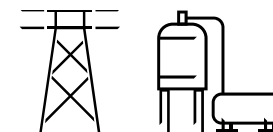
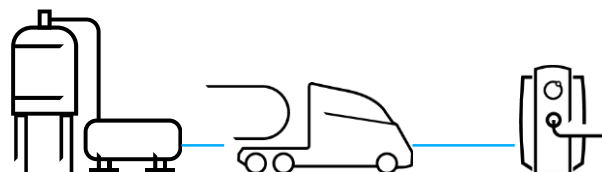
ONSITE PRODUCTION

H₂ is produced and dispensed onsite



HUB AND SPOKE MODEL

H₂ produced or purchased from 3rd parties at a centralized "hub" and distributed to dispensing stations



ENERGY PROVIDER /
H₂ PRODUCTION



DISTRIBUTION



STORAGE /
DISPENSING

HYDROGEN DISTRIBUTION

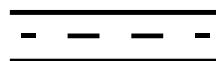
H₂ distribution will be put in place where Nikola implements a hub-and-spoke model where various cost-effective models could be leveraged

H₂ DISTRIBUTION

- Will be put in place where a hub-and-spoke model is leveraged
- H₂ can be distributed and stored either as a compressed gas or liquid
- Nikola to evaluate the most cost-efficient model of H₂ distribution for each use case

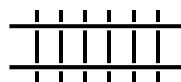
ROAD

Dedicated road trailers, including Liquid and Compressed Gas



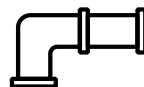
RAIL

Leverage existing rail transportation systems throughout NA



PIPELINES

Leverage existing pipeline infrastructure



ENERGY PROVIDER /
H₂ PRODUCTION



DISTRIBUTION



STORAGE /
DISPENSING

H₂ STORAGE & DISPENSING

Nikola plans to partner with existing truck station operators to optimize the speed to market and significantly reduce CAPEX

H₂ FUELING STATION

- Nikola will leverage partnerships like:



CONSTRUCTION

- Depending on location characteristics, Nikola's infrastructure network will be tailored to incorporate 1) **Onsite**, 2) **Hub-and-Spoke** or 3) **Other** models of H₂ production and distribution (i.e., the purchase of 3rd party H₂)
- The first two stations will be constructed at existing TA-Petro locations in California and are targeted to be commercially operational by Q1 2023

OPERATIONS

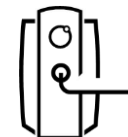
- Nikola to partner with existing travel center operators to leverage infrastructure and optimize speed to market
- May also develop greenfield H₂ dispensing stations



ENERGY PROVIDER /
H₂ PRODUCTION



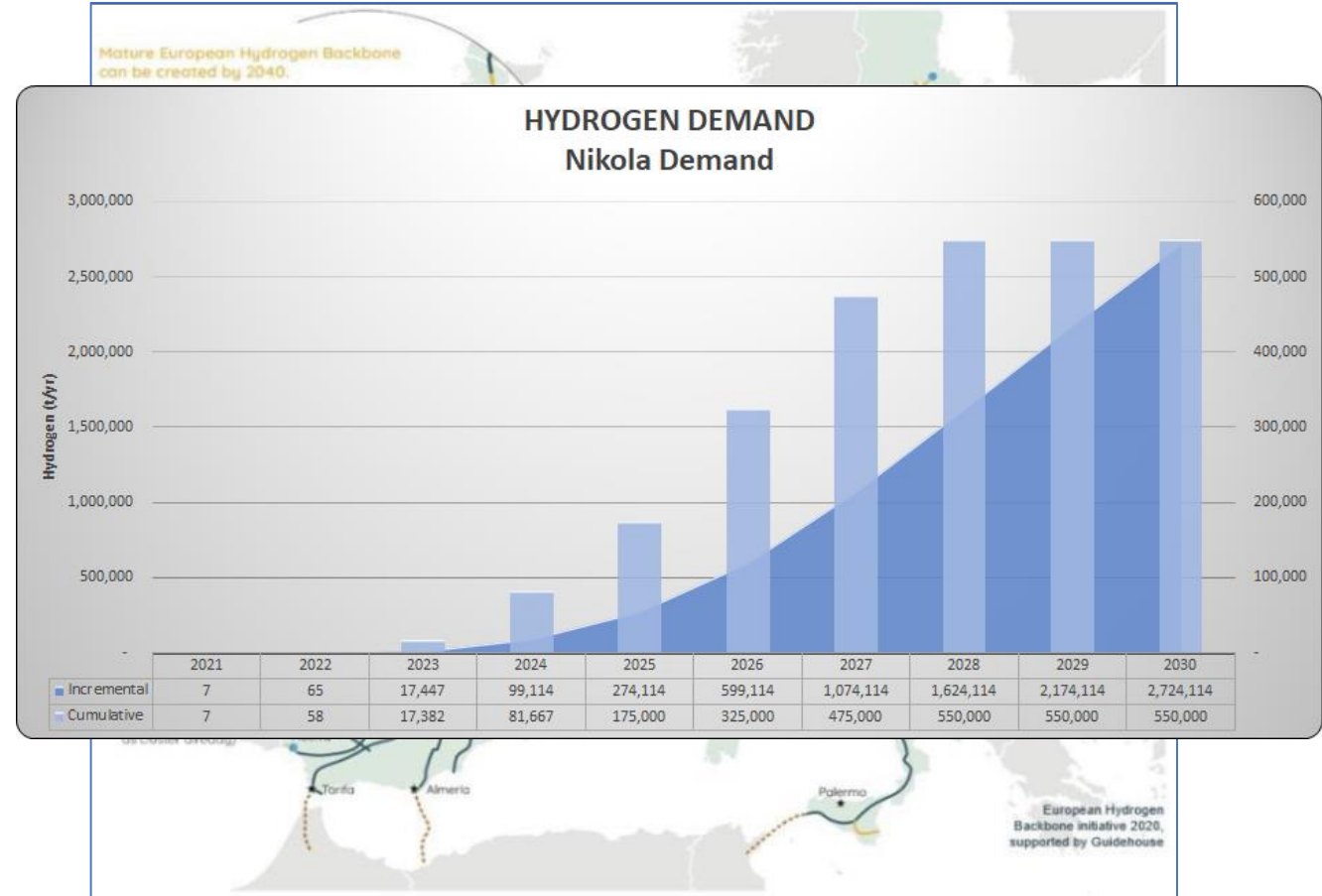
DISTRIBUTION



STORAGE /
DISPENSING

CHALLENGES & OPPORTUNITIES

- H2 as Energy Storage
 - At production side
 - During distribution
 - At refueling location
- Scaling Up Production and Distribution
- US Differs from EU (pipeline and highway network)
- Capital Needs to Build Infrastructure
 - Government incentives are needed to kick-start transition
- Nikola Energy as Power Generation and Energy Storage Company





*TRANSPORTING THE FUTURE **TO NOW***