



HONDA

CLARITY
FUEL CELL



CLARITY
FUEL CELL

Stephen Ellis

Manager

Fuel Cell Vehicle Marketing

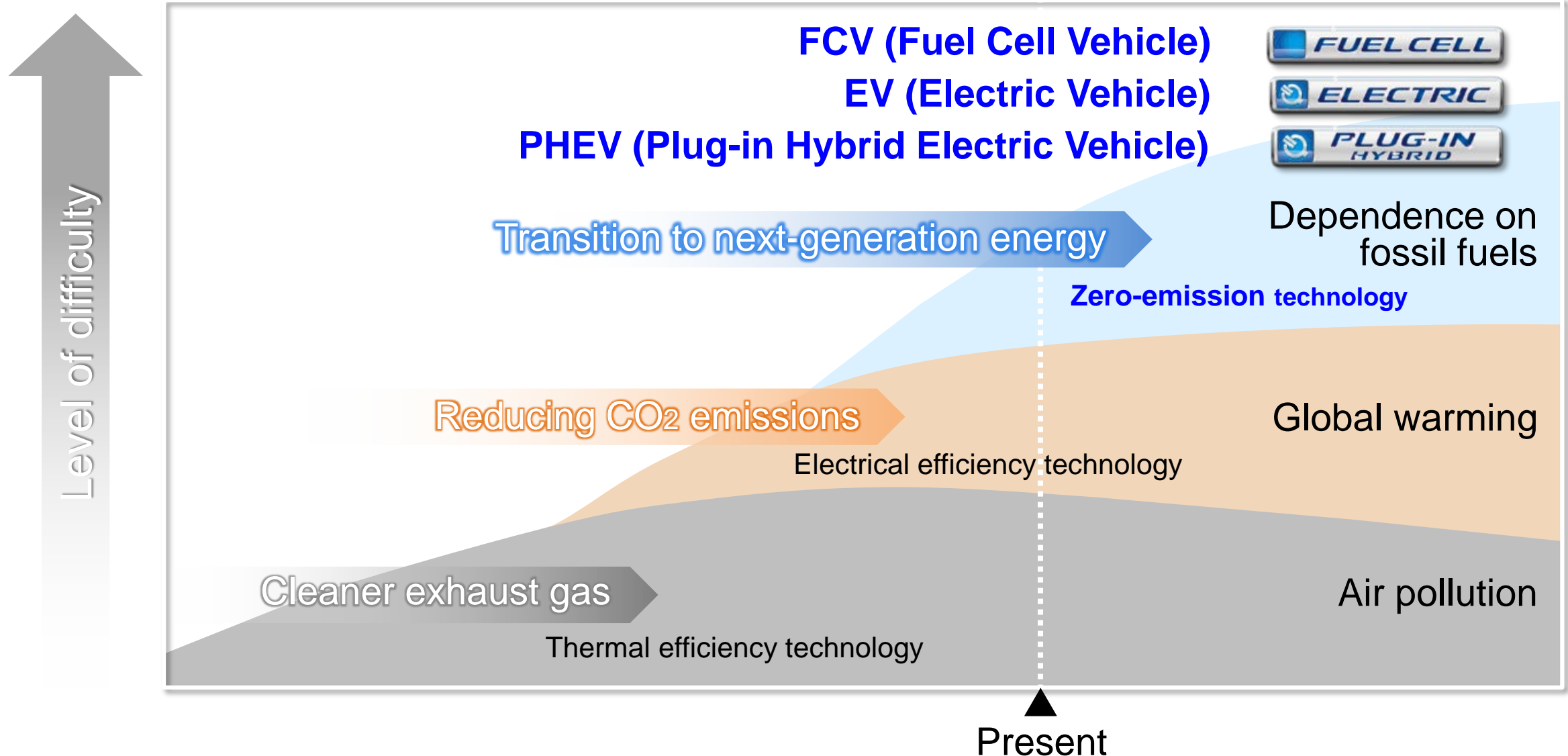
American Honda Motor Co., Inc.



Progress of Environmental Efforts



CLARITY
FUEL CELL



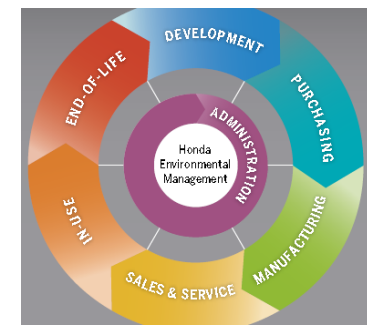
2017 North American Environmental Report

- CO2 reduction targets:
 - Reduce 30% by 2020
 - Reduce 50% by 2050
- 90% Design for Recyclability
- Landfill waste cut 87% from 2020

2017 North American Environmental Report



Honda Clarity Series: (L-R)
2018 Clarity Plug-in Hybrid, 2017 Clarity Electric
and 2017 Clarity Fuel Cell







Honda Electrification Initiative



Two-thirds of global auto sales to be electrified by 2030

Honda Fuel Cell Vehicle History



Steady Advance of Fuel Cell Vehicle Technology

Clarity Fuel Cell



CLARITY
FUEL CELL



1st Clarity Deliveries – Dec. 19, 2016



1st Bay Area Clarity Delivery – Feb. 6, 2017

Honda led the industry in leasing FCVs to individual customers

FCX Clarity customers' honest feedback and requests urged us to develop the all-new Clarity Fuel Cell

“Sedans should have five seats”

“Features are lacking”

“Cruising range is short”



No Compromise Packaging



CLARITY
FUEL CELL

Comfortable sedan package design focused on space for people



Fuel Cell powertrain under the hood

Comfortable 5-passenger sedan packaging

Top-class cargo space for FCV sedan

HONDA
The Power of Dreams

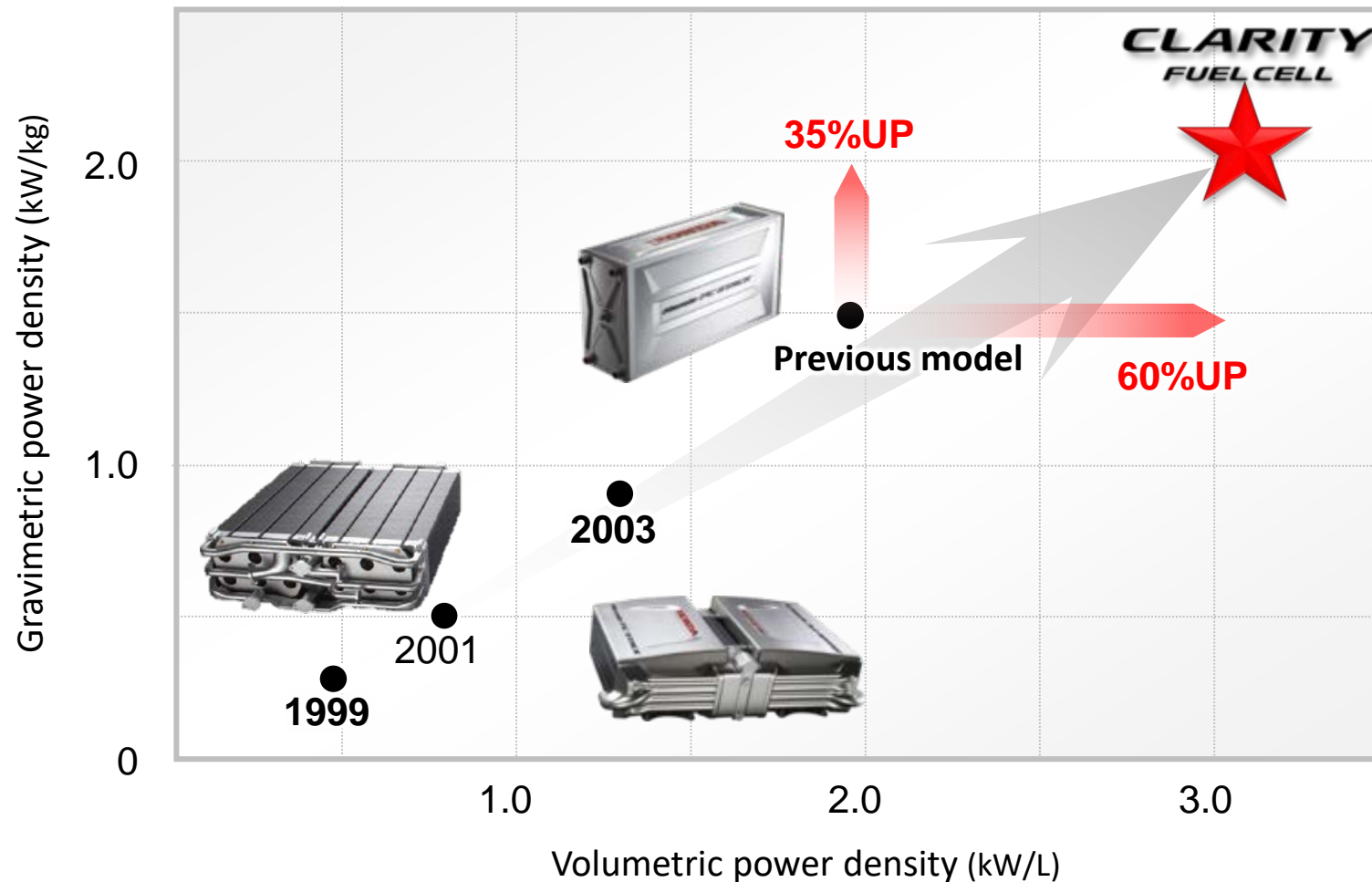
Compact Fuel Cell Powertrain



CLARITY
FUEL CELL

➤ Evolution of downsizing fuel-cell stack

33% smaller (vs. FCX Clarity)



Reduction in size enables stack to be positioned under the hood

“Having everything expected of a sedan”

“more compact machine for people”
Man maximum Machine minimum



Previous Model

Length
Wheelbase
Height
Width



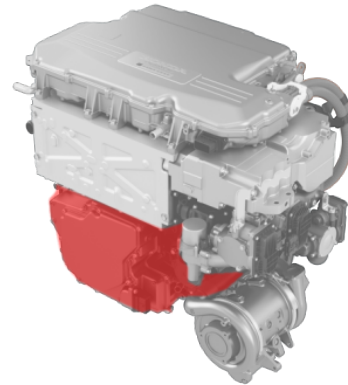
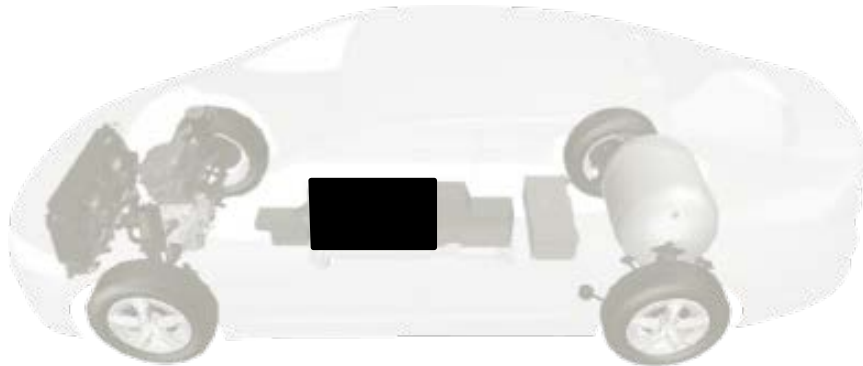
New Model

Length
Wheelbase
Height
Width

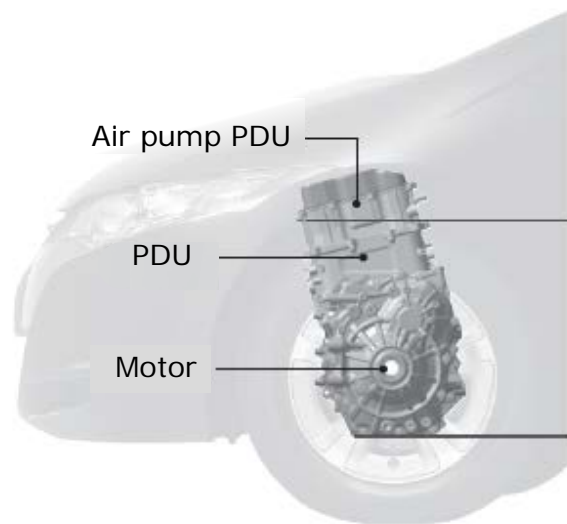


➔ Downsizing drive unit: reduction in height

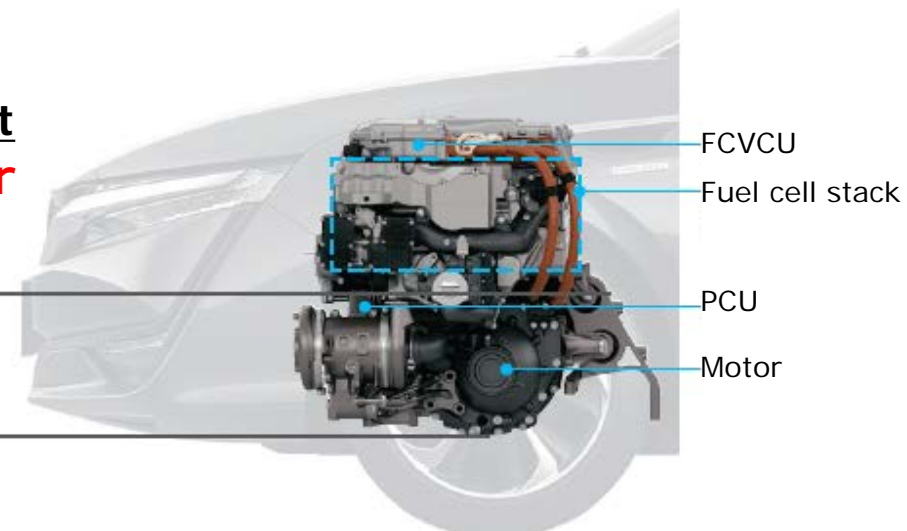
FCX Clarity (previous)



Clarity Fuel Cell (new)

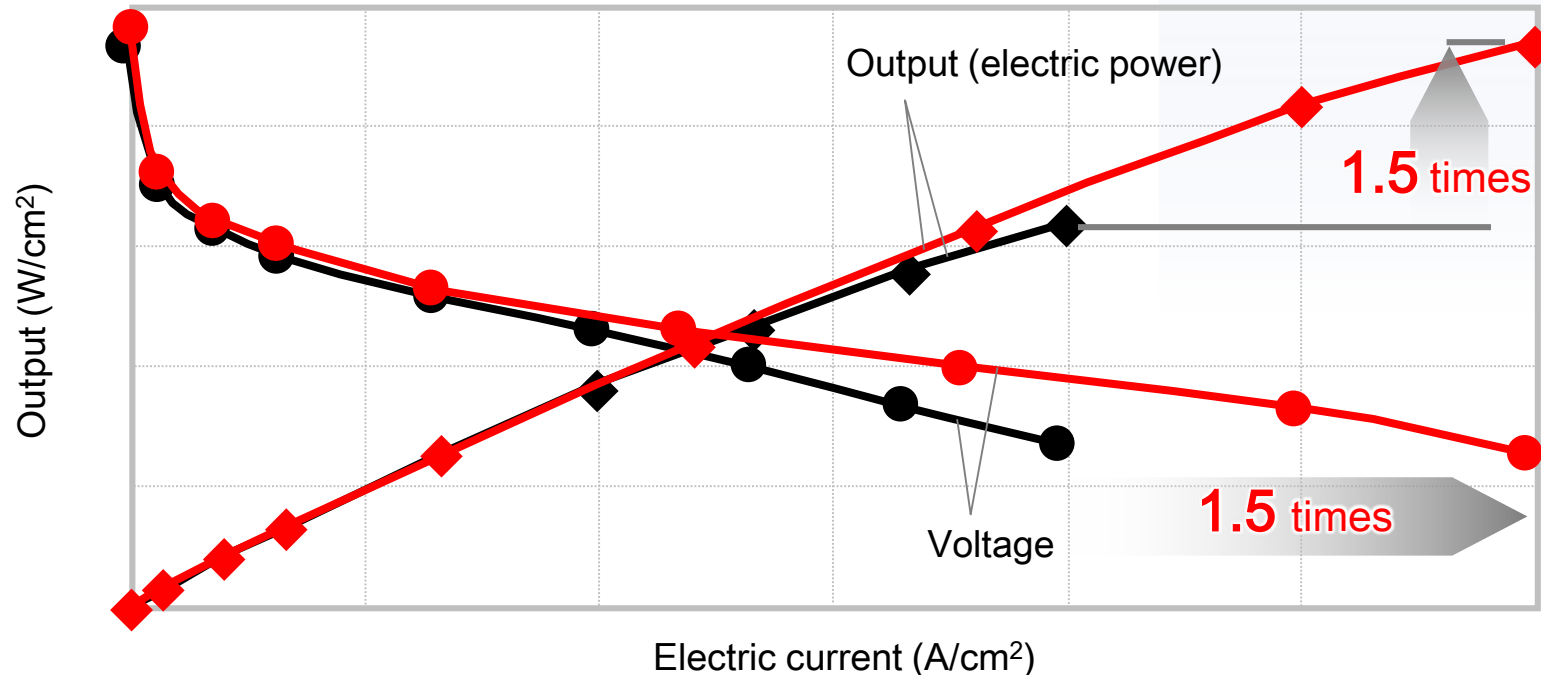


**Motor height
34% lower**



Downsizing fuel-cell stack: output per cell (electric power)

Generation performance of each cell: 1.5 times ⇒ **No. of cells: Reduced by 30%**



Cell voltage (V)

— **New model**
— **Previous model**

World's first FC powertrain installed under sedan hood

System configuration



Newly-developed FC powertrain (FCVPU)

Steps up to 100V
Drives the FC stack.
Small but high power because of a SiC power module.



Hydrogen supply system

Air supply system

Electric turbocharger-type air compressor

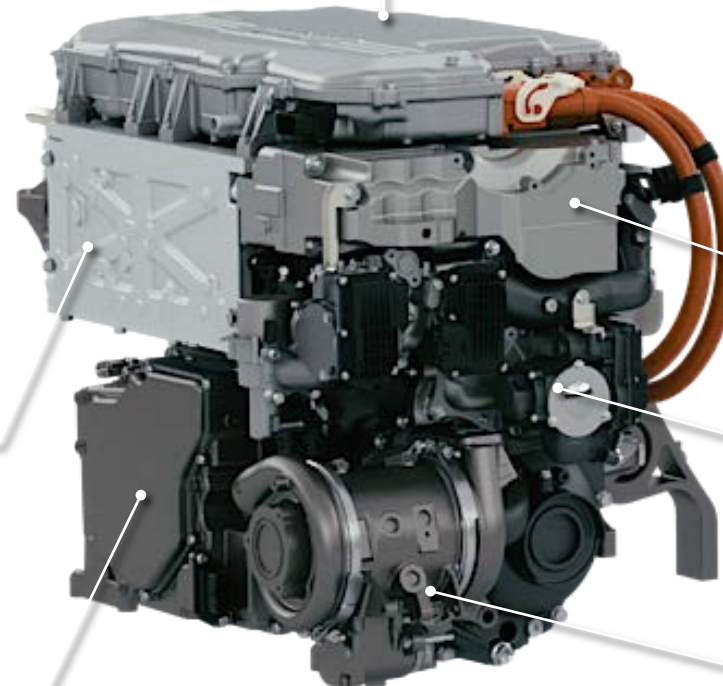
Air supply pressure: 1.7 times compared to previous model

Fuel cell stack

33% more compact

Drive unit

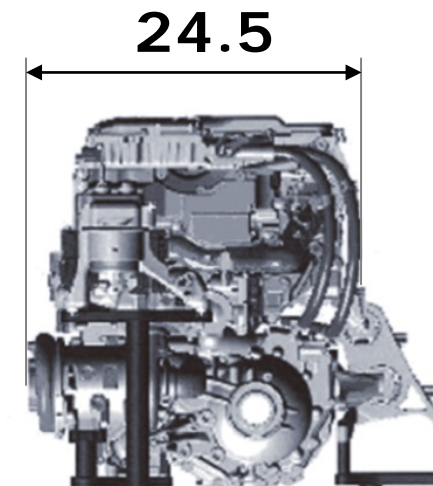
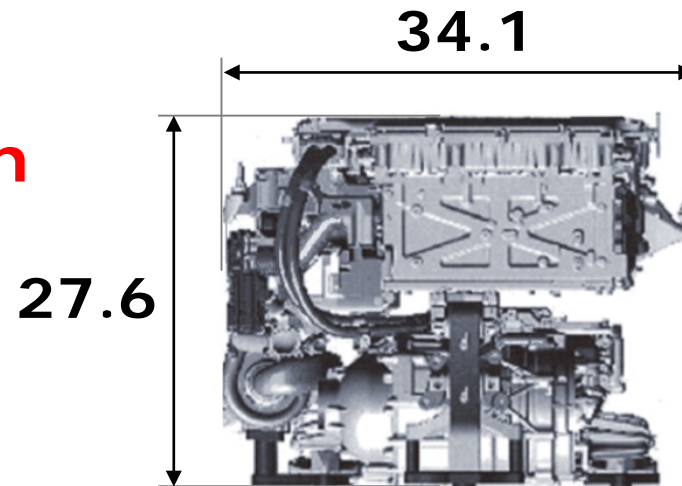
Drive motor, gear box, power control unit-integrated system



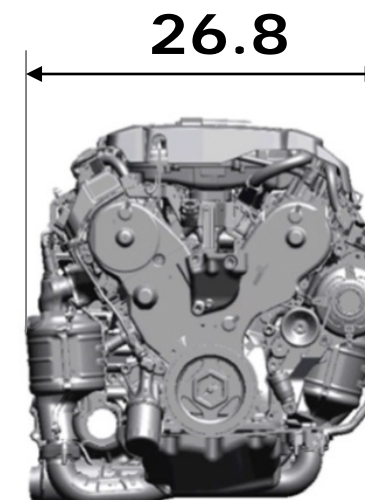
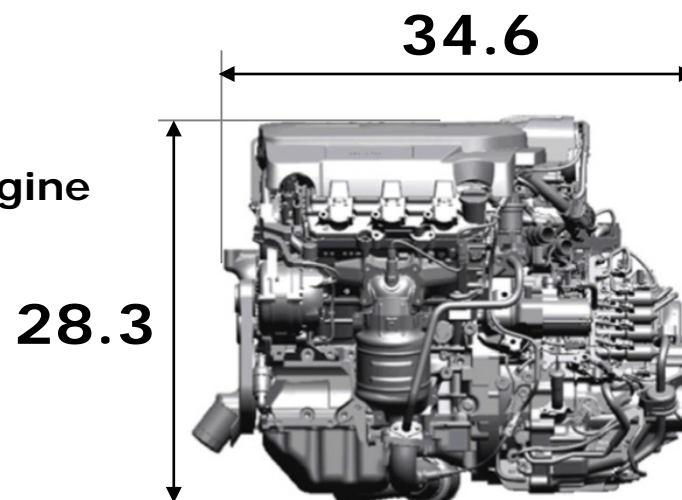
Compact powertrain → equivalent to V-6 powertrain

Size comparison

Fuel cell powertrain



V-6 powertrain
*Honda 3.5-liter gasoline engine



(in inches)

Aerodynamics



CLARITY
FUEL CELL



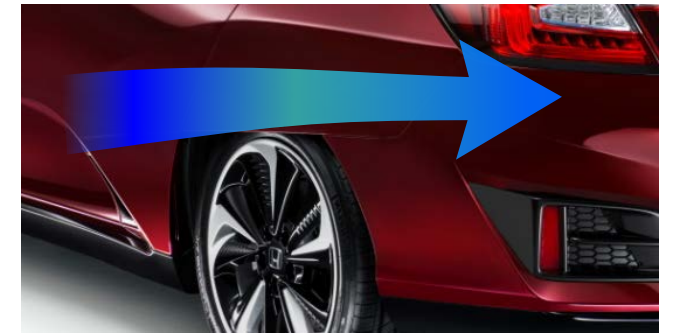
Front air curtain



Rear air curtain



Rear tire cover



***World's first vehicle with air curtain ducts on rear doors**

*Based on Honda research as of Feb. 2016

Continuous Linear Acceleration



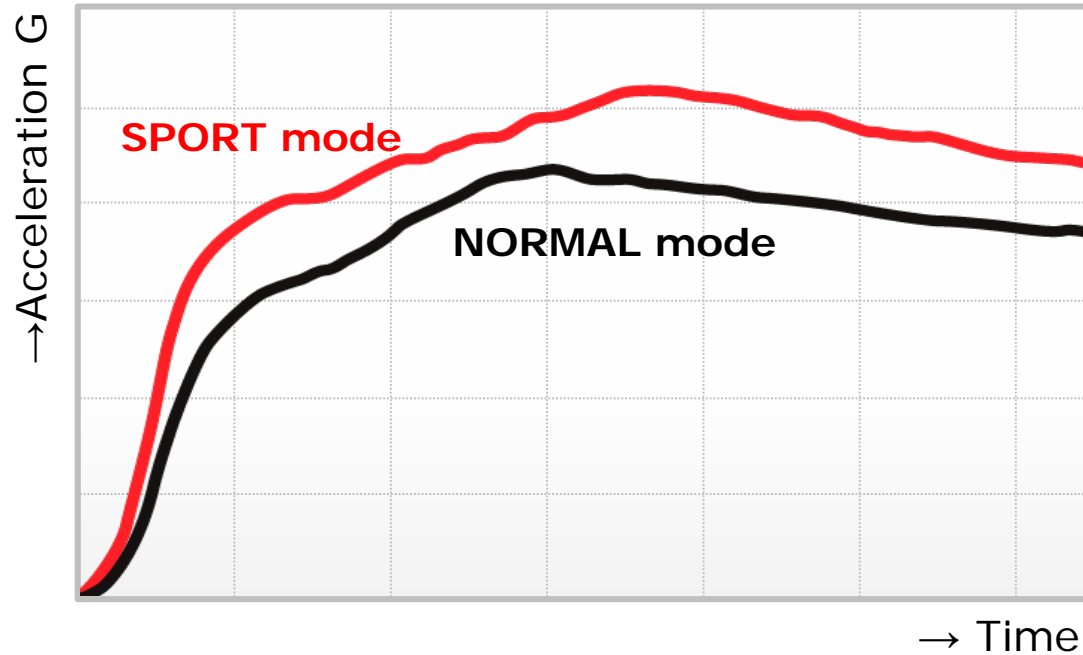
CLARITY
FUEL CELL



SPORT mode Direct feel, responsive acceleration

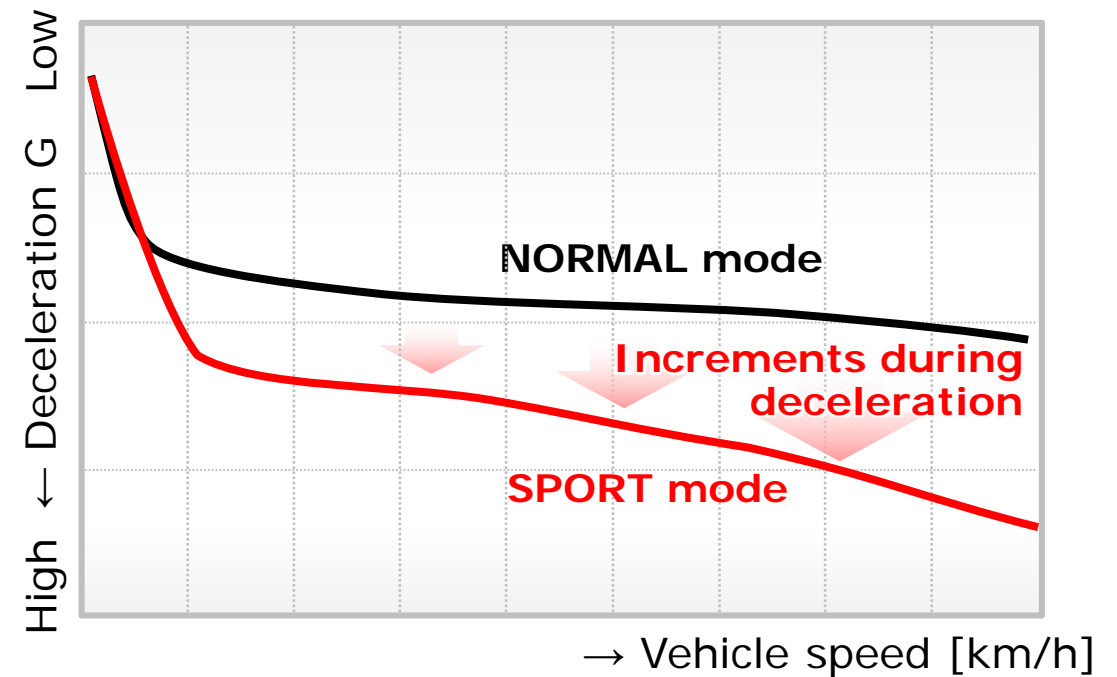
NORMAL mode Easy to use in daily driving

Acceleration G characteristic
(Accelerator opening angle 50%)



More direct and immediate response to pedal application

Deceleration G characteristic



Improved response during regenerative braking using motor after pedal is released

Marketing

CAMPAIGN THEME: “ALWAYS THINKING ABOUT TOMORROW”

At Honda we're always thinking about tomorrow. That's why we built not one, but three of our most advanced vehicles ever, to help set a clear path toward a more sustainable planet.



Billboard Marketing Competition – A World's First!



Honda Clarity Billboard – 405 Fwy



Toyota Mirai Billboard – 405 Fwy

Customer Outreach: Ride-and-Drives = Sales & Waitlist



Clarity Fuel Cell Price and Features



CLARITY
FUEL CELL

PRICING AND DETAILS

\$369/mo

Lease Payment
(\$2,868 Due at Signing)

20,000

Miles per Year

\$15,000

Fuel Allowance

21 Days

Luxury Car Rental

\$5k

State CA Rebate

FEATURES

- Smart Start and Entry
- Remote Start
- Navigation w/ H2 station info
- HUD
- 12-speaker Premium Audio
- Dual-zone Auto A/C
- Large 8.0" Display Audio
- Bluetooth
- 2- USB Audio Interface
- Pandora/SMS Capability
- XM and HD Radio
- Heated Front Seats
- Backup Camera
- Steering wheel audio controls
- Cruise control
- HomeLink
- TFT Gauge Cluster



SAFETY

- Honda Sensing™
- LaneWatch™
- VSA
- Side Curtain Airbags
- Side SRS
- Knee Airbags

EXTERIOR

- 18" Alloy Wheels
- LED Headlamps and DRL
- Auto On/Off Headlamps
- Chrome Door Handles
- Auto Wipers
- LED Tail Lamps
- Security w/ Remote Keyless
- Heated Side Mirrors
- Variable Intermittent Wipers
- Black Contrasting Roof

INTERIOR

- Leather Seats
- 8-way Power Driver Seat w/ Memory
- 4-way Power Passenger Seat
- Leather-wrapped Steering wheel
- Electronic Parking Brake
- Rear A/C Vents
- Auto Dimming Rearview mirror
- Ultra suede interior accents
- Soft Touch IP and Doors Panels
- Floor Mats
- Sunglasses holder
- All Windows Auto Up/Down

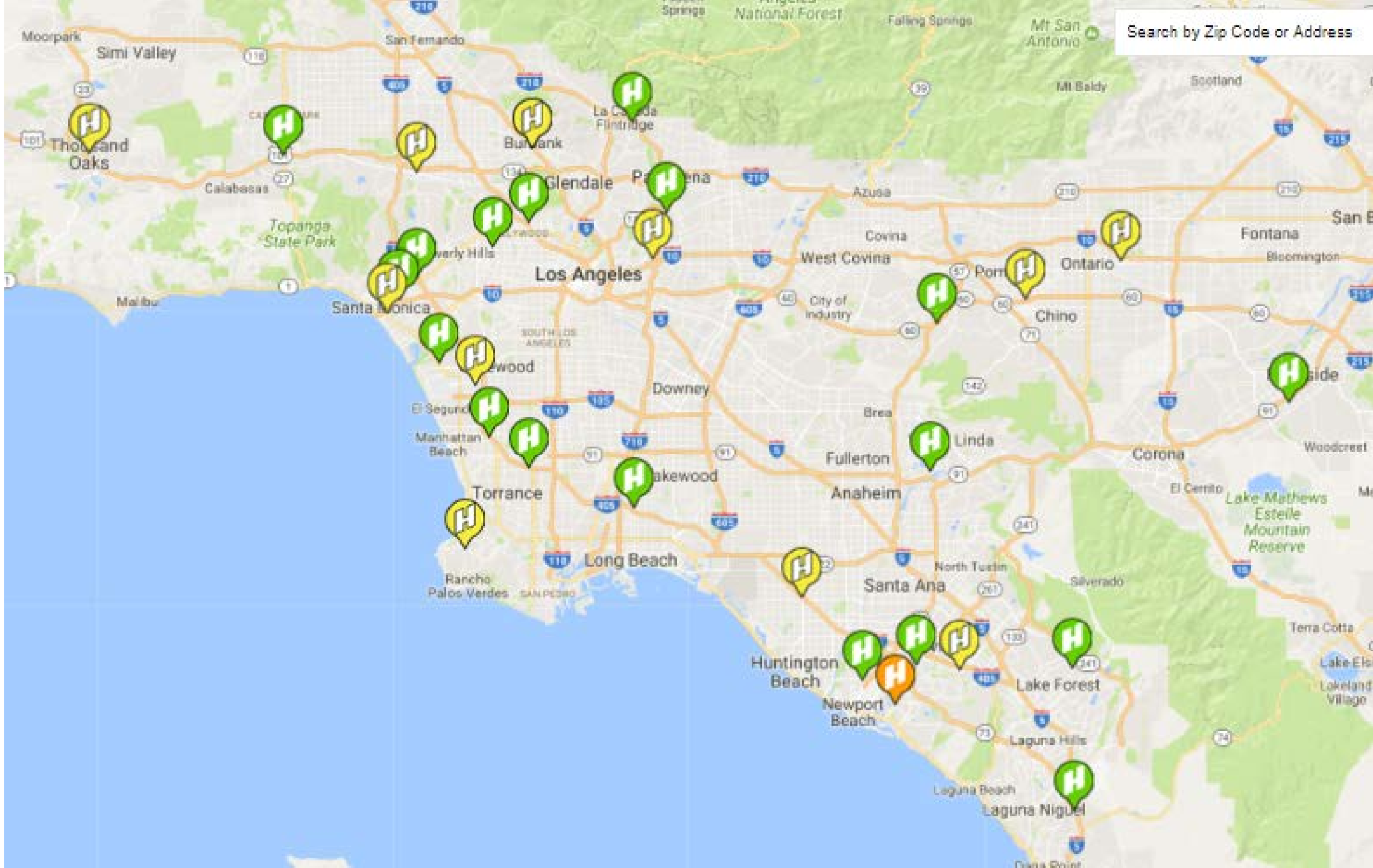
Supporting Growth of Hydrogen Infrastructure



Refueling Stations



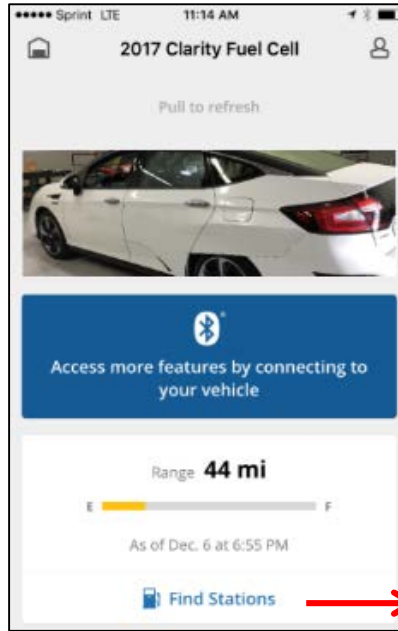
Search by Zip Code or Address



FCV Hydrogen Fuel Station Search

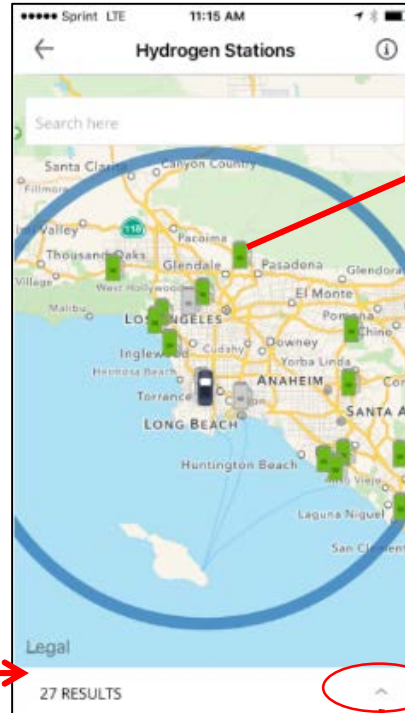
User can search station location and status

Fuel level getting low

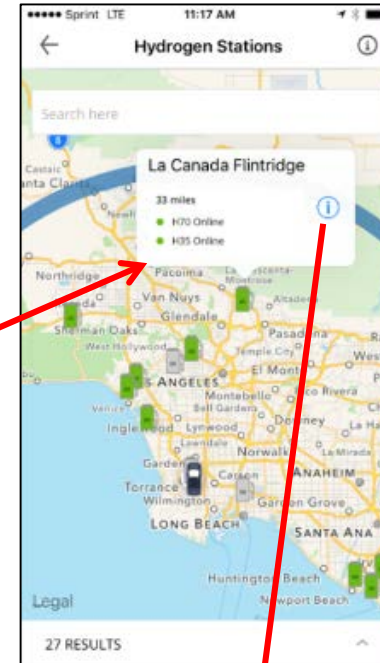
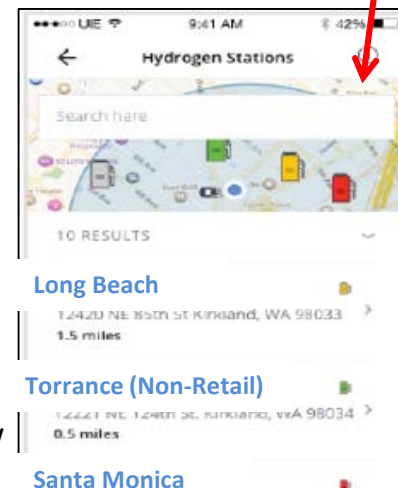


1st time promo explains icon colors

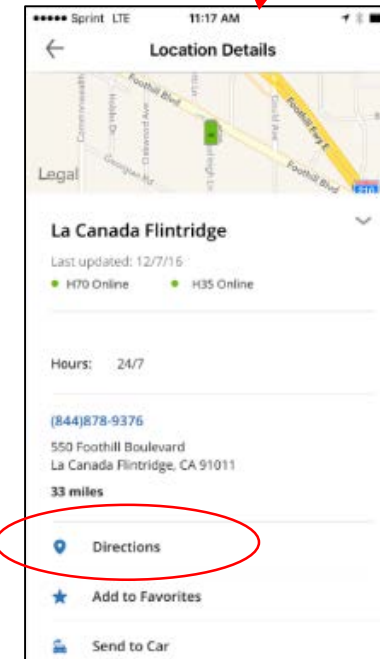
Map View



List View



Station Status

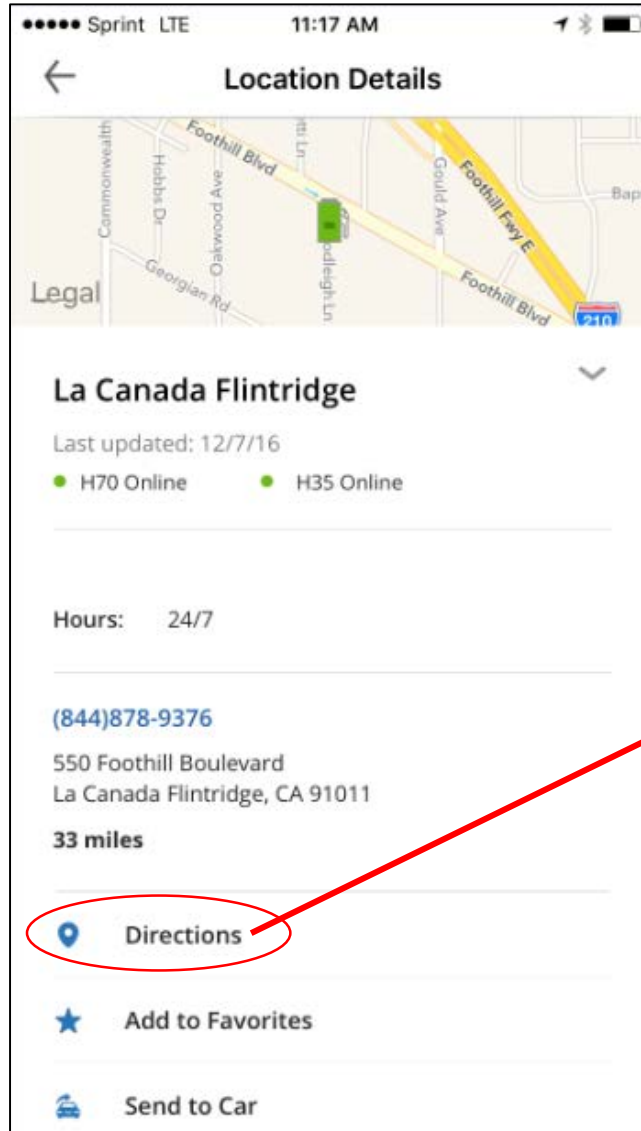


Station Detail

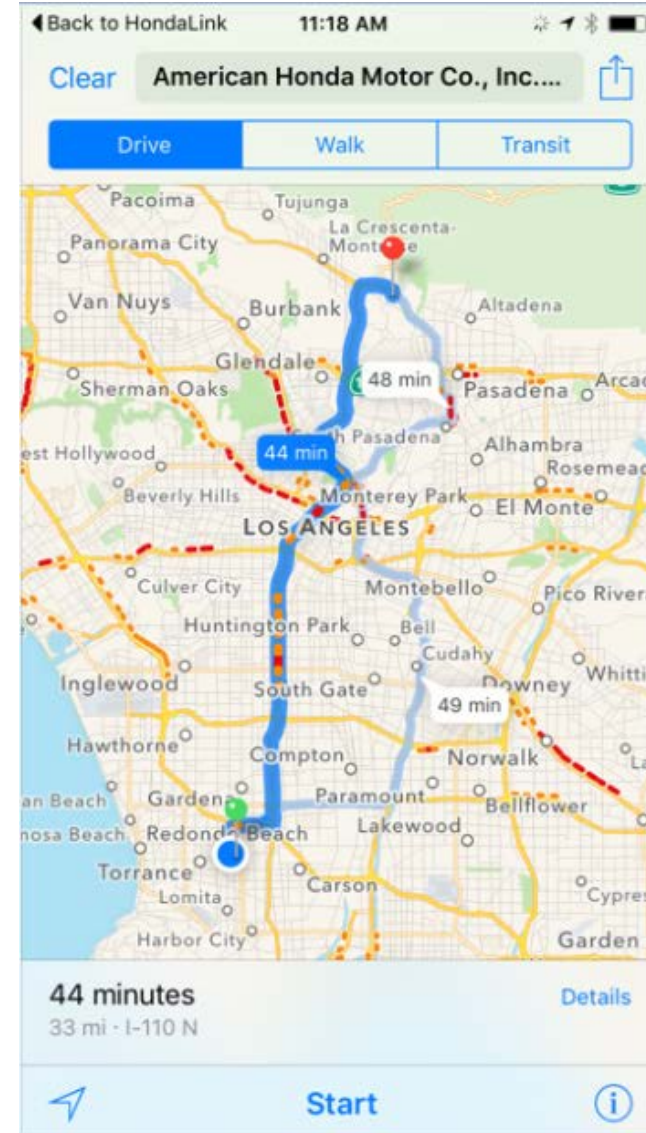
FCV Hydrogen Fuel Station Search

User can search station location, status and DIRECTIONS!!

Touch "Directions"

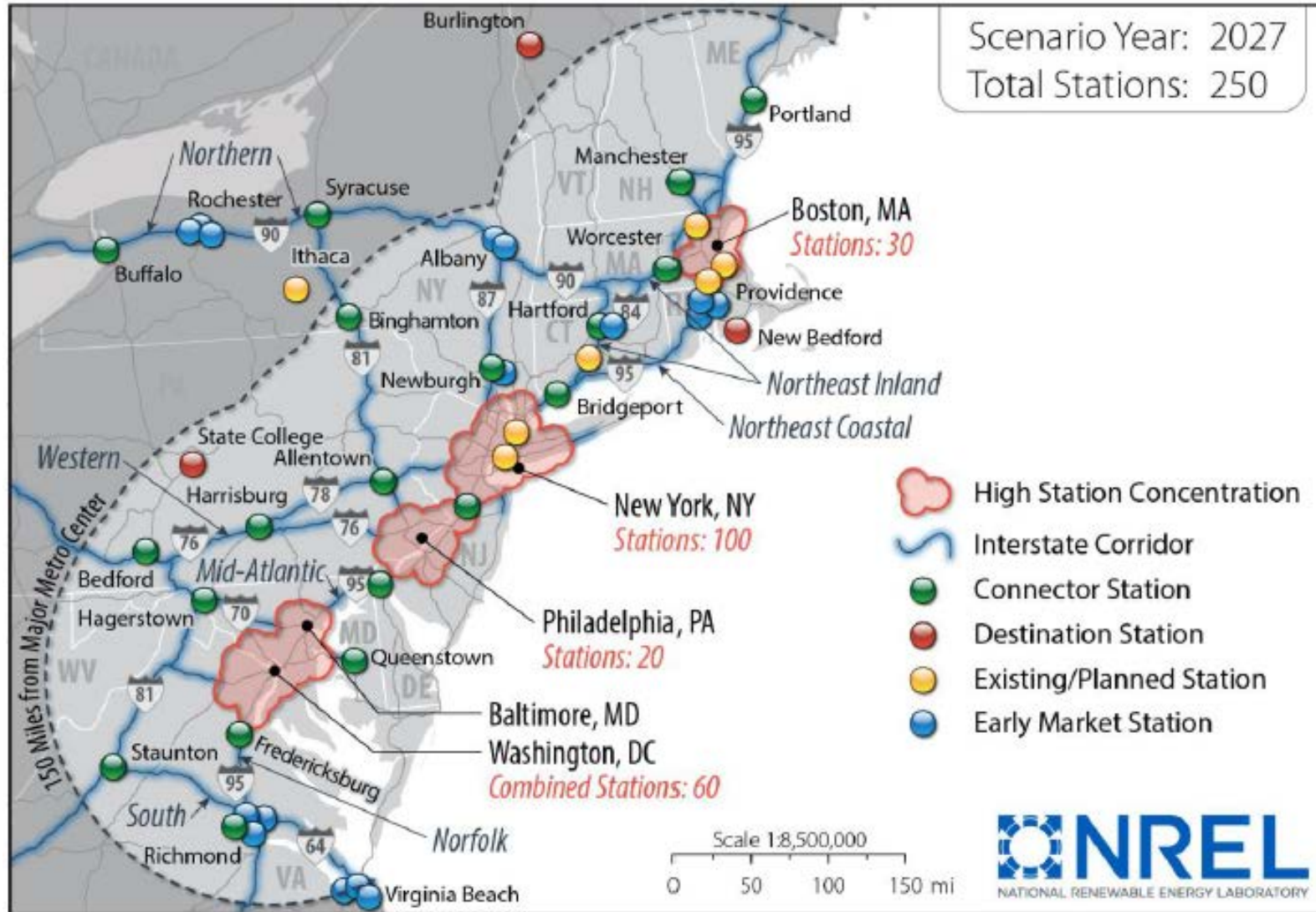


Driving Directions



H2USA Siting Refueling Stations in Northeast

Northeast Network "first 250" in 2027



Station Opening Events



CLARITY
FUEL CELL





HONDA

The Power of Dreams