Hyundai Fuel Cell

NEXO Introduction

January, 2017

Hyundai Motor America
Fuel Cell Development Overview

Hyundai has been developing fuel cell technology for nearly 20 years

### Past
- **1998** Development of concept car
- **2005** In-house stack development

### Present
- 80kW Stack [Carbon bipolar plates]
- 100kW Stack

#### Fuel cell system
- Stack / BOP all packaged under the hood

### NEXT
- 100kW Stack [Metal bipolar plates]

#### Fuel cell system
- Common use of HEV/EV components
- Durability & power density comparable to ICE

- Leased to US consumers from 2014
- Shared platform with Tucson ICE
- 700 bar / -4 °F cold start
- 265 mile range / 50 mpge comb.

- Higher system efficiency
- Improved driving range and fuel economy
- Improved interior packaging
- Dedicated vehicle platform

- Fuel cell technology verification
- 350 bar / 14 °F cold start
NEXO

Germanic for “water spirit”

• Build on a dedicated platform
• Quicker, larger, more efficient than the Tucson Fuel Cell
• Exterior features include: horizontal DLR, Flush door handles, D-pillar air intake
NEXO
Germanic for “water spirit”

- Advanced safety and infotainment technology
- Positioned as Hyundai’s technology leader
  - Blind-spot View Monitor (BVM)
  - Lane Follow Assist (LFA)
  - Highway Driving Assist (HDA)
  - Remote Start Parking Assist (RSPA)
  - Pedestrian Avoidance
Hyundai is positioning NEXO as the brands technology flagship
Designed to compete in the hottest segment in the industry—compact SUVs

Larger than the Hyundai Tucson, NEXO offers great passenger and cargo space along with the best driving range of any fuel cell vehicle.

<table>
<thead>
<tr>
<th></th>
<th>Tucson Fuel Cell</th>
<th>NEXO</th>
<th>Tucson ICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (in.)</td>
<td>173.6</td>
<td>183.8</td>
<td>176.2</td>
</tr>
<tr>
<td>Width (in.)</td>
<td>71.7</td>
<td>73.2</td>
<td>72.8</td>
</tr>
<tr>
<td>Height (in.)</td>
<td>65.2</td>
<td>64.0</td>
<td>64.8</td>
</tr>
<tr>
<td>Wheelbase (in.)</td>
<td>103.9</td>
<td>108.9</td>
<td>105.1</td>
</tr>
<tr>
<td>Motor Power (hp)</td>
<td>134</td>
<td>161</td>
<td>164</td>
</tr>
<tr>
<td>Motor Torque (lbft)</td>
<td>221</td>
<td>291</td>
<td>151</td>
</tr>
<tr>
<td>0-60 mph (sec)</td>
<td>12.5</td>
<td>9.5</td>
<td>8.3</td>
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<tr>
<td>Driving Range</td>
<td>265</td>
<td>370 (est.)</td>
<td>430</td>
</tr>
<tr>
<td>Fuel Economy (comb mpg)</td>
<td>50</td>
<td>&gt; 56</td>
<td>27</td>
</tr>
</tbody>
</table>

EPA Estimated Range

- **1st Gen Fuel Cell**: 191 mi
- **Tucson Fuel Cell**: 265 mi (+39%)
- **NEXO**: 370 mi (+40%)

2004, 2013, 2018
At CES we introduced NEXO, Hyundai’s next generation fuel cell and technology flagship

Received strong media coverage and very positive reviews for both the technology and design
NEXO joins Hyundai’s growing line of zero emission vehicles in the second half of 2018

Provide a broad range of zero emission vehicles that meet the diverse needs of our consumers

Passenger Car Range

- **Sonata** HEV & PHEV
- **Ioniq** HEV, PHEV, BEV
  - Most fuel efficient **HEV** in America: 58 mpg
  - Most efficient **BEV** in America: 138 mpge
  - PHEV with 29 mile all electric range

NEW SUV Range

Two SUVs to meet different market needs:
- **NEXO**: compact, long range, quick fueling
- **New Electric**: smaller, shorter range, home charging

Battery Electric

Fuel Cell Electric