



**Shell Hydrogen**

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# New Fuels



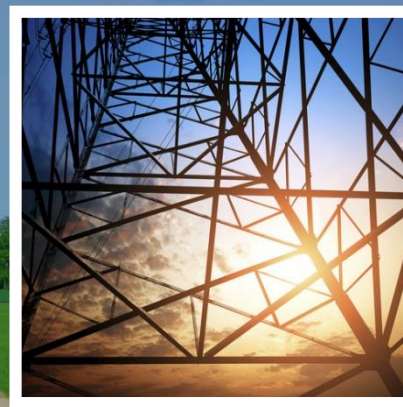
## Biofuels

Conventional & advanced biofuels



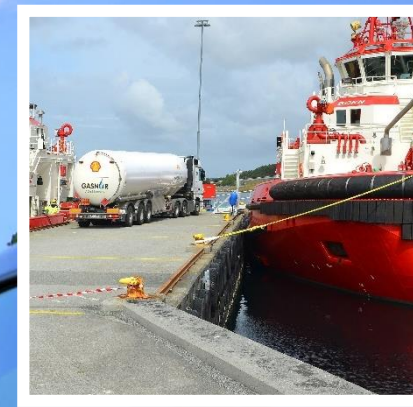
## Hydrogen

Active in hydrogen electric



## Electric Mobility

Exploring a role in the charging of EVs



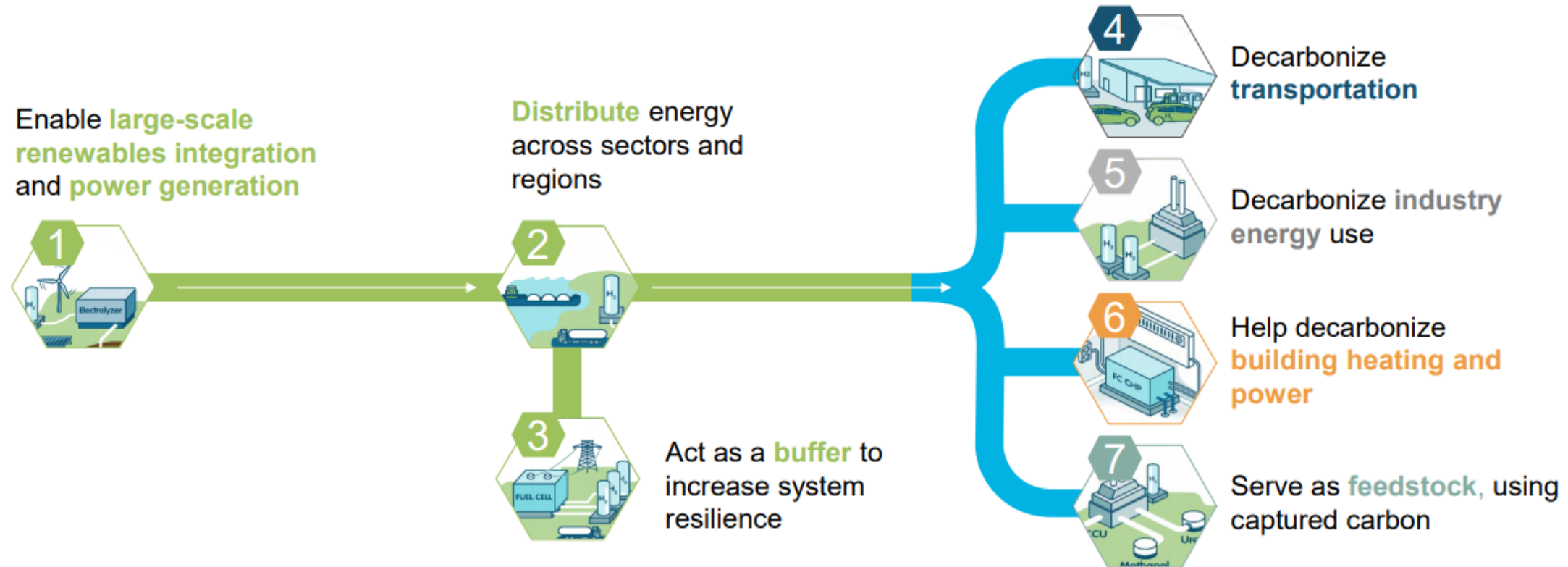
## Gas for transport

Offering gas to liquids (GTL) and liquefied natural gas (LNG)



# Why Hydrogen in the energy system?

Enable the renewable energy system —————> Decarbonize end uses —————



# Hydrogen as a transport fuel

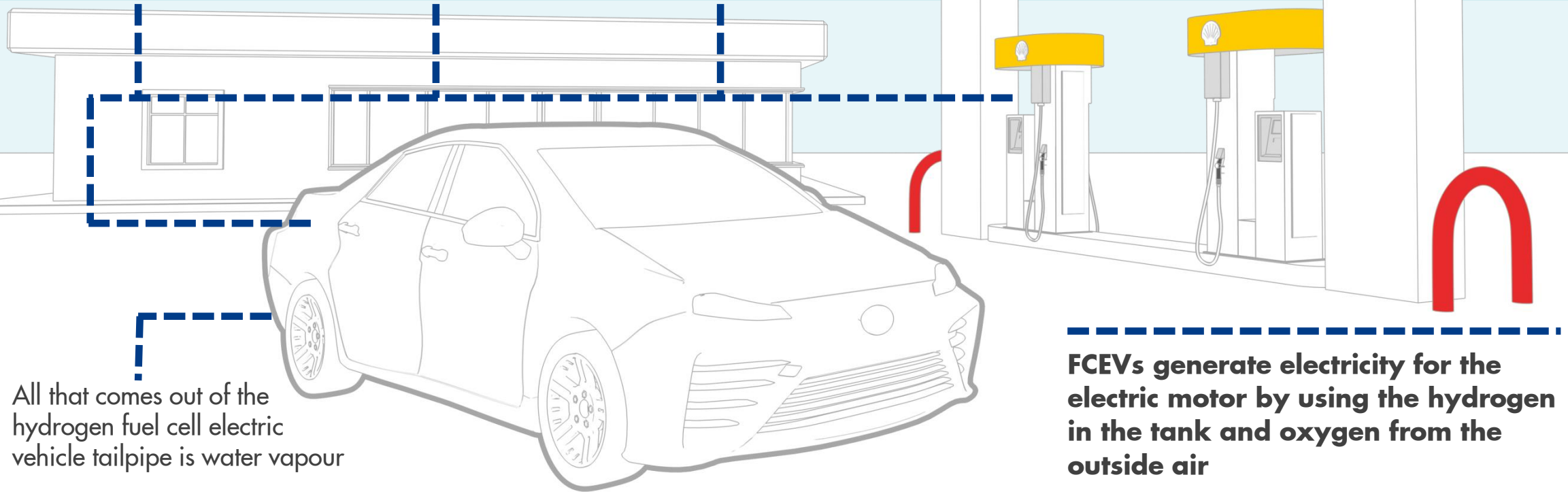
Clean and convenient

Energy easily stored, in the form of compressed hydrogen fuel

High range – can drive up to 700 km per refill

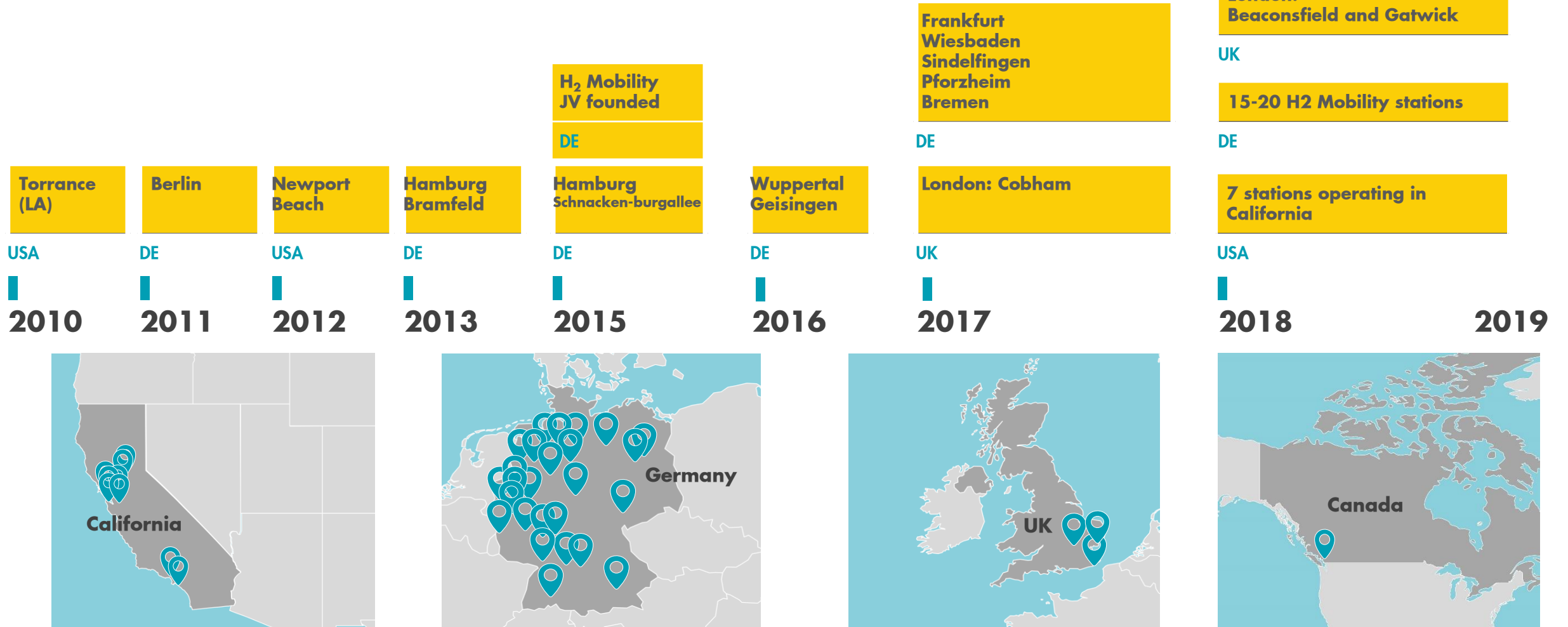
Takes only a couple of minutes to refuel

**Fuel cell electric vehicles (FCEVs) offer the performance, acceleration and range of conventional automobiles and the quiet driving experience of battery electric vehicles**



# The Shell hydrogen journey

Hydrogen stations opening – currently 40 at Shell locations



# Collaboration is key for H<sub>2</sub> success

H<sub>2</sub> Mobility Germany: 50 Open Today. 100 stations mid 2019, 400 by 2023



## H<sub>2</sub> Mobility Germany

- Foundation of Joint Venture company by the six shareholders in January 2015
- Example of industry partnership that shares the risks across the value chain, supported by Government funds (Germany & EU)
- Hydrogen refueling stations network to grow to 400 stations by 2023
- Overall investment of €350mln

## Founding Partners



## Associated Partners



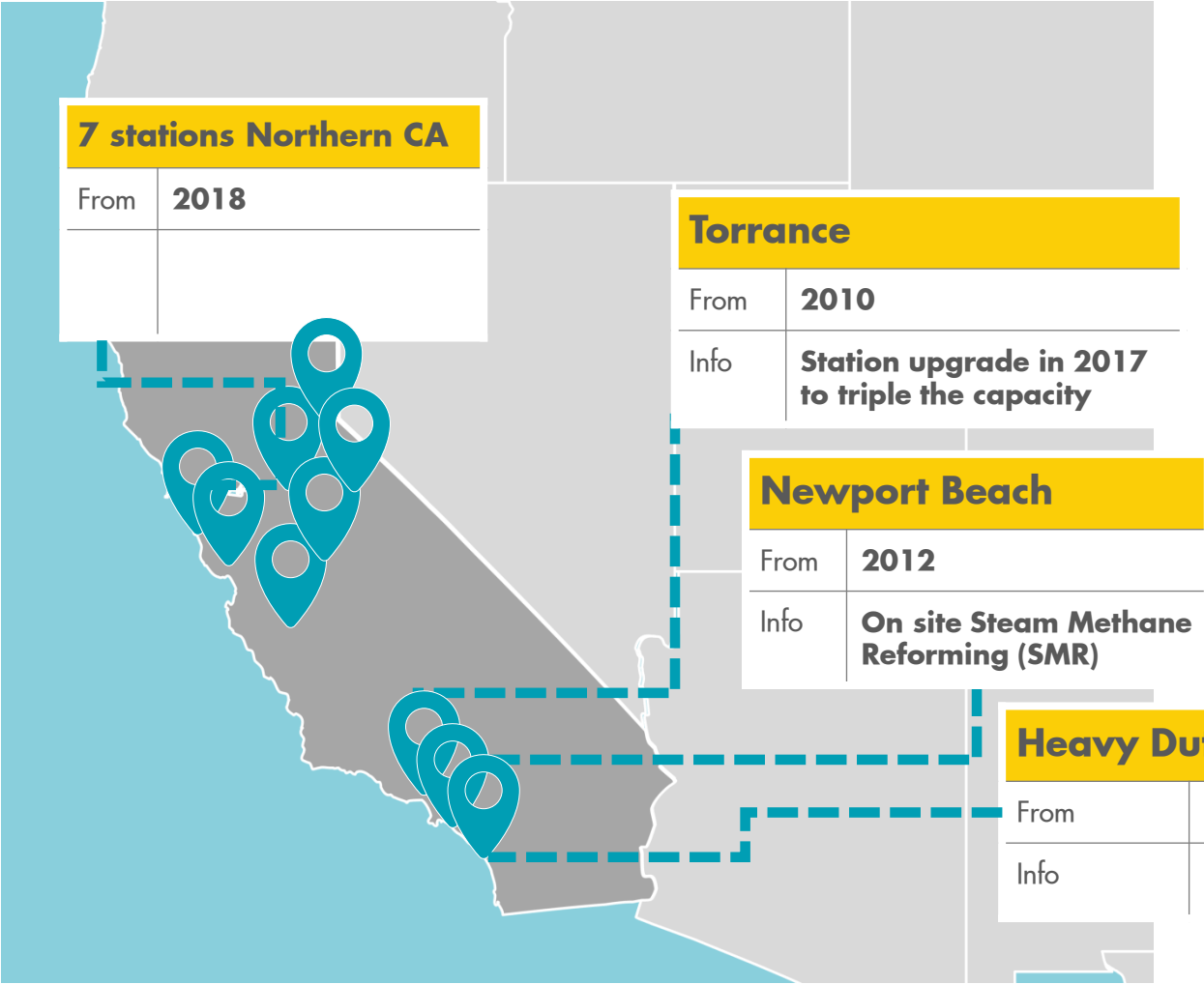
Knowing where to fuel H<sub>2</sub>

[www.H2.live](http://www.H2.live)



# The Shell hydrogen journey

Locations – California USA – 12 Hydrogen Refuel Stations



**Heavy Duty – Port of Long Beach, LA**

From	2020
Info	3 x Heavy Duty Truck refueling stations

