



## Shell Megawatt Charger

Showcasing Shell's first Megawatt Charging System (MCS) for both marine and heavy-duty road transport

### Shell's commitment to advancing sustainable transportation



#### Advanced technology demonstrator

Located at the Energy Transition Campus Amsterdam (ETCA) in the Netherlands, the Shell Megawatt Charger complies with the Megawatt Charging System (MCS) and Combined Charging System (CCS) standards, and facilitates end-to-end testing of use cases across the marine and road transport sectors.

#### Fast and flexible charging

The liquid-cooled connecting arm, featuring an MCS connector, supports the fast charging of batteries providing 1MW of power. The availability of a CCS connector provides additional flexibility.

#### Smart energy management

Shell Megawatt Charger supports smart charging capabilities and is integrated into a behind-the-meter microgrid to leverage a 1.2-MWp solar PV and battery storage for enhanced sustainability.

### Benefit from our expertise in providing bespoke, end-to-end electrification solutions

#### Marine

##### Efficiency

Vessels with 500KWh to 5MWh batteries can fully recharge within 2 hours\*.

##### Compatibility

Universal charging arm adheres to MCS standards, and features a second CCS adaptor, accommodating a wide range of vessel, vehicle and battery types.

##### Flexibility

System's automated selector switches between MCS and CCS output, guaranteeing efficient and versatile charging operations, supporting various vessels and vehicles, including barges, tugs, small ferries, port service boats, trucks and buses.

Rotatable and extendible charging arm provides docking position flexibility and shoreside maintenance for port operators.

#### Road Transport

##### Efficiency

eTrucks and eBuses with batteries up to 1 MWh can recharge within 2 hours\*

##### Compatibility

Universal charging arm adheres to MCS standards, and features a second CCS adaptor, accommodating a wide range of vessel, vehicle and battery types.

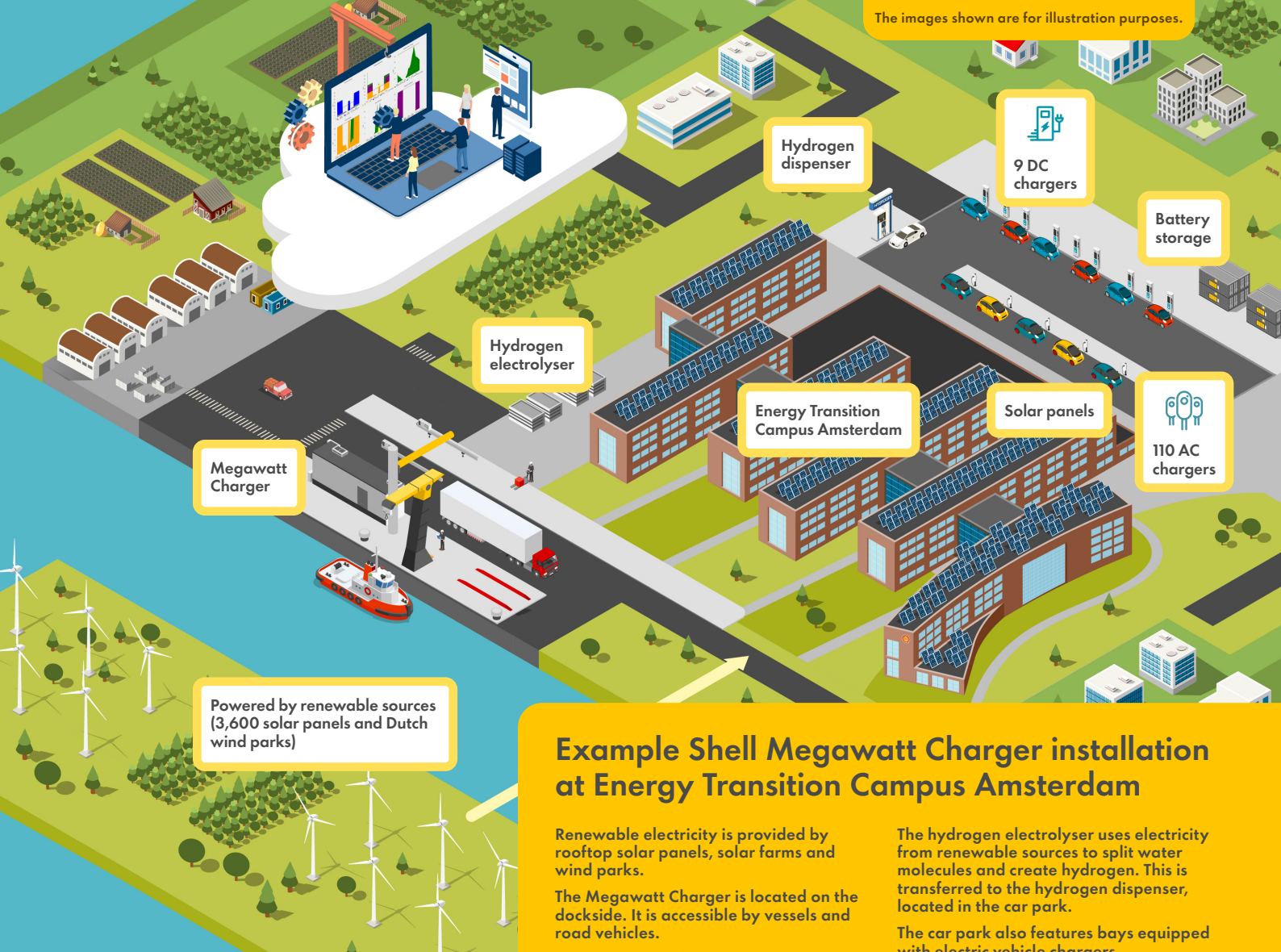
##### Flexibility

System's automated selector switches between MCS and CCS output, guaranteeing efficient and versatile charging operations, supporting various vessels and vehicles, including barges, tugs, small ferries, port service boats, trucks and buses.

Overhead cable system streamlines the charging of road vehicles and offers a space-saving alternative to ground mounted chargers.

\*When charged via the MCS connector; charging speeds can vary depending on factors like battery condition, ambient temperature, concurrent energy use and energy losses. Maximum continuous rating of the MCS connector is 3,000 Amps.

The images shown are for illustration purposes.



## Example Shell Megawatt Charger installation at Energy Transition Campus Amsterdam

Renewable electricity is provided by rooftop solar panels, solar farms and wind parks.

The Megawatt Charger is located on the dockside. It is accessible by vessels and road vehicles.

Battery storage facilities allow surplus electricity to be used when needed.

The hydrogen electrolyser uses electricity from renewable sources to split water molecules and create hydrogen. This is transferred to the hydrogen dispenser, located in the car park.

The car park also features bays equipped with electric vehicle chargers.

## An innovative integrated solution designed for complex urban environments

Integrated into ETCA's power and hydrogen value chain, the Shell Megawatt Charger provides a crucial additional charging facility for local operators, and facilitates end-to-end testing for high-power charging solutions across marine and road transport sectors. Integrated into a smart grid, it's also a good example of how innovative electrification solutions can be used to solve complex urban transport needs in grid-congested areas.



Shell has decades of fleet experience and expertise in designing, engineering and deploying custom eMobility solutions, that can expand in line with charging needs and integrate with existing site infrastructure and operations

To try charging your vehicle at our test site or learn more, please contact your Shell representative.



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Recharge

Shell Marine

Shell Commercial Road Transport

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