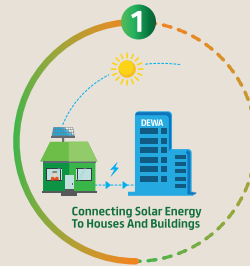
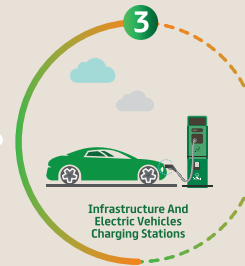
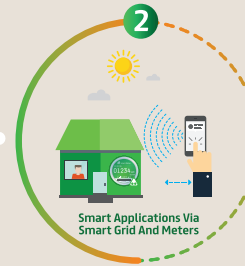




## 3 SMART INITIATIVES



شمس دبي  
Shams Dubai



الشاحن الأخضر  
GREEN CHARGER

For generations to come



DEWA SMART WORLD



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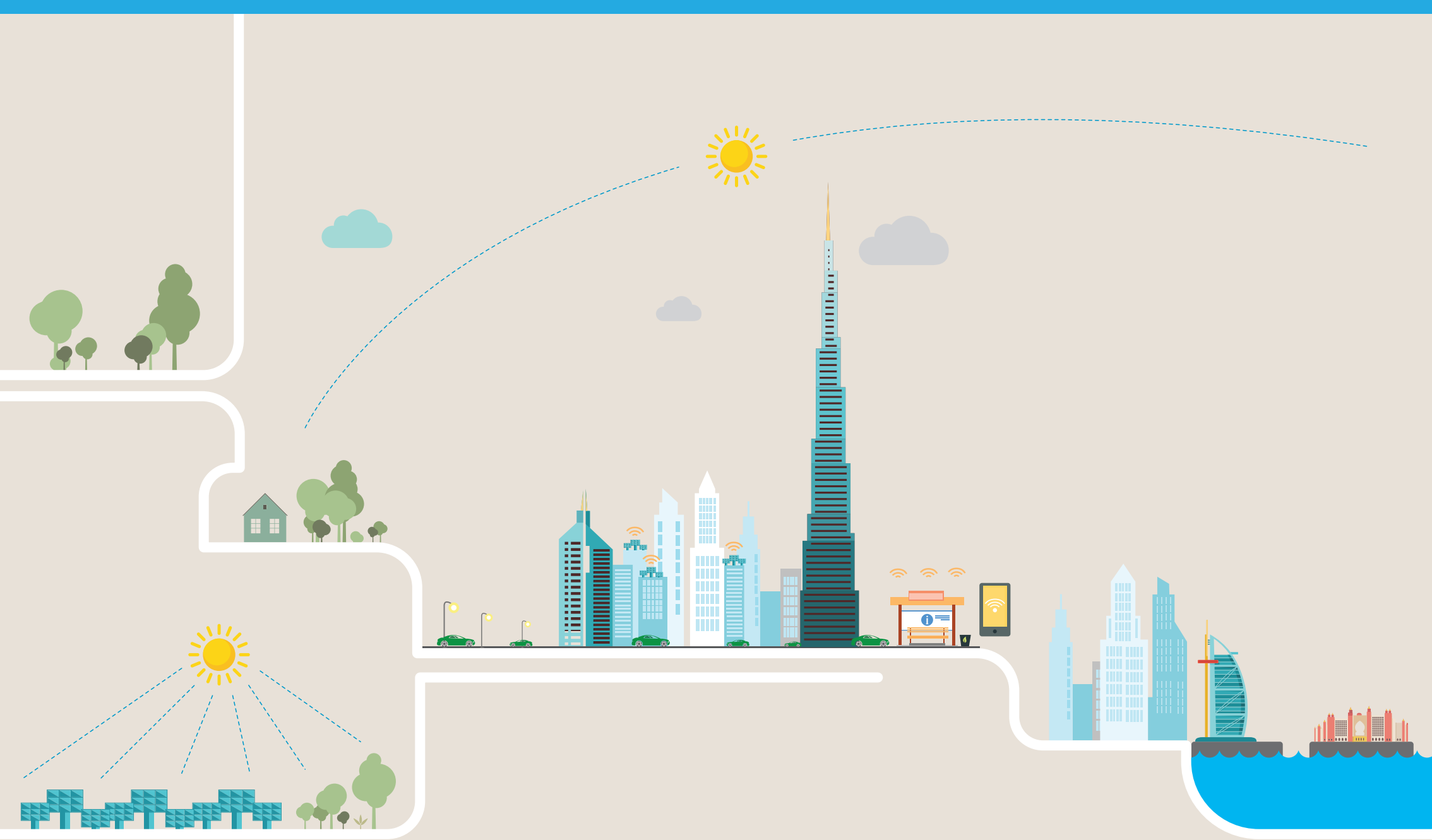
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[www.dewa.gov.ae](http://www.dewa.gov.ae)





“Our ambition is for Smart Dubai to touch every individual in our country.”

**His Highness Sheikh Mohammed bin Rashid Al Maktoum**

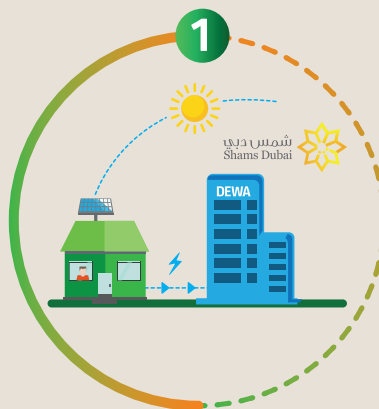
Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai

**SMART DUBAI INITIATIVE**

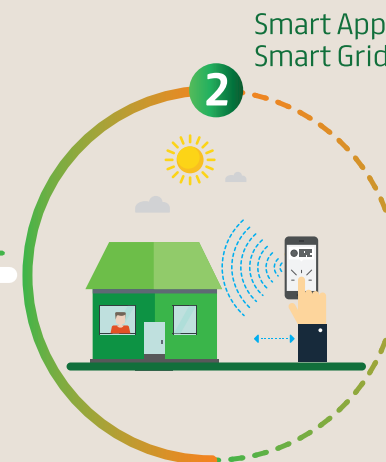
Smart Dubai initiative aims to transform Dubai into the smartest city in the world through 100 initiatives and 1000 smart services to enhance the quality of life in Dubai.

The initiative's plan is based on 6 main sectors which are centred around achieving smarter economy, smarter lifestyle, smarter transportation, smarter governance, smarter environment and smarter generations.

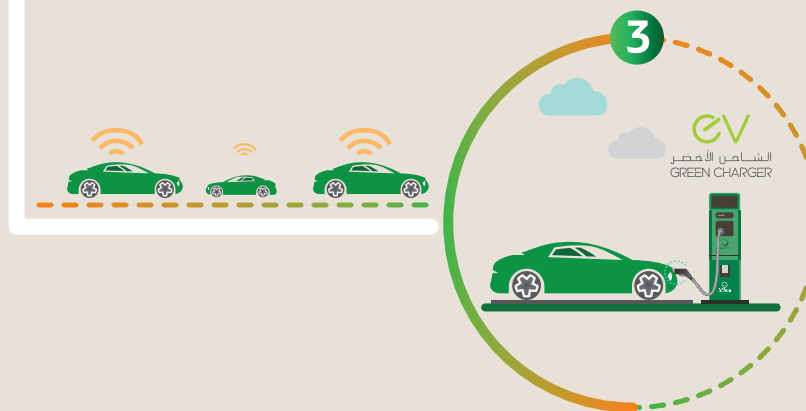
# 3 SMART INITIATIVES



Connecting Solar Energy  
To Houses And Buildings

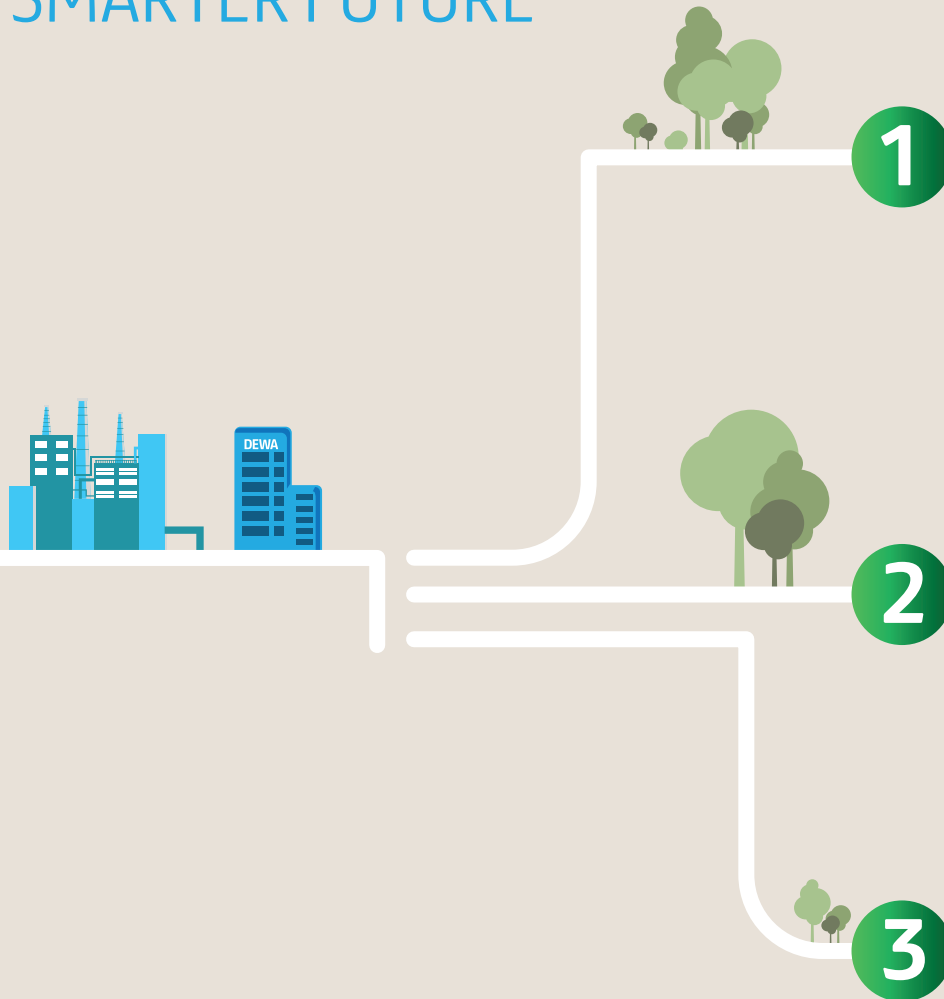


Smart Applications Via  
Smart Grid And Meters



Infrastructure And  
Electric Vehicles  
Charging Stations

# TOWARDS A SMARTER FUTURE



## "Hadhreen" At Your Service

In support of the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to make Dubai the Smartest City in the world, DEWA is offering 3 smart initiatives that support the sustainable development of Dubai.

These include:

### Shams Dubai (Connecting Solar Energy to Houses and Buildings)

Now you can install solar photovoltaic panels and generate electricity for your own consumption. Don't worry when the sun is shining and you don't need the power. Any surplus generation may be fed into the DEWA power distribution grid. By installing solar panels you will contribute to diversifying Dubai's energy sources and supporting the Green Economy and Sustainable Development of Dubai, which is in line with the Vision of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

### Smart Applications via Smart Grid and Meters

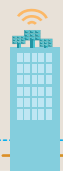
The deployment of smart meters in combination with making the electricity and water systems smarter will provide additional services, that will be available to you at your fingertips. Your computer or smart phone will allow you to monitor your electricity and water consumption and assist you in controlling your in-home systems to save energy.

### EV Green Charger (Infrastructure and Electric Vehicles Charging Station)

Get your electric vehicle and drive. Then when the battery needs a charge at your office parking, at your home or at the mall, the nearest electric vehicle charging station may be just around the corner. Plug in your electric vehicle and take a deep breath as you will be helping to improve the air quality. DEWA's commitment to deploy infrastructure and charging stations for electric vehicles is another area of sustainability in which Dubai is taking a leadership role.

# FIRST INITIATIVE

شمس دبي  
Shams Dubai



## Shams Dubai

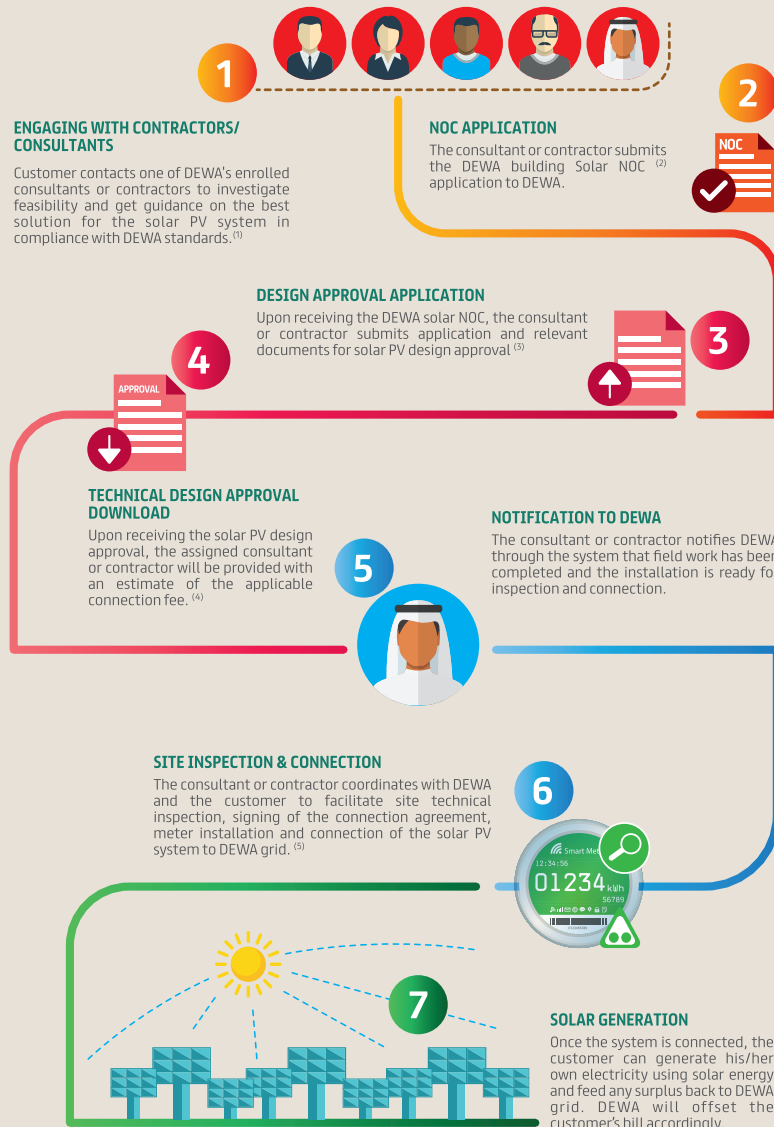
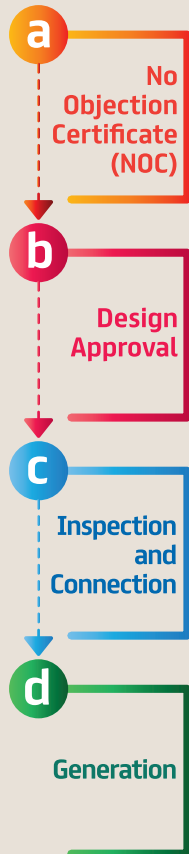
(Connecting Solar Energy to Houses and Buildings)

This leading initiative supports the vision of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to make Dubai the smartest city in the world. It also supports diversifying the energy mix by promoting the use of clean and renewable energy sources to build a sustainable future for the Emirate also in line with UAE Vision 2021 and with the Green Economy For Sustainable Development initiative. Launching the initiative implements council resolution number 46 of 2014, issued by HH Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Dubai Executive Council, to regulate the connection of solar energy to Dubai's power grid.

The initiative encourages household and building owners to install solar panels to generate electricity, and connect them to DEWA's grid. The electricity is used on site and the surplus is exported to DEWA's network.

Solar energy is a form of renewable energy, which is clean, secure and limitless. It produces no emissions and does not affect the environment. Using renewable energy reduces our reliance on diminishing traditional sources of energy such as gas, oil and coal, thus ensuring sustainability for future generations.

**THE CONNECTION PROCEDURE CONSISTS OF 4 DIFFERENT STAGES:**



1. The consultant or contractor will act as your agent and will advise you on the best possible solution for your system.
2. As per the Terms and Conditions, the capacity installed cannot exceed the maximum load allowed at customer's premises. Moreover, DEWA may impose a lower threshold should it be justified by technical limitations related to the integration of your PV system into the power distribution grid.
3. A number of technical documents need to be submitted to DEWA, such as the site plans, system design plans and details of the proposed equipment, compliance with DEWA regulations.
4. For systems with an installed capacity of over 400KW, the cost of some dedicated equipment for grid integration might be added to the standard connection fee. A budgetary estimate of such cost can be provided in the early stages of application process upon request, if the consultant or contractor submits the required technical information.
5. For installations above 100 kW, plant performance test should previously be completed successfully.

\* Please visit [www.dewa.gov.ae/shamsdubai](http://www.dewa.gov.ae/shamsdubai) for all links and for a full list of enrolled contractors and consultants

# SECOND INITIATIVE SMART METER

## Smart Applications Via Smart Grid And Meters

By installing smart meters, DEWA will provide various benefits and new applications to its customers, including automatic and detailed readings (both current and historical). The data obtained through these readings will be available to customers to monitor actual consumption for a specific period of time to better understand and manage bills. Additionally, such data will help identify energy efficiency and will enable comparisons to be made with average norms. These smart meters will support renewable sources of energy in residential, commercial and industrial sectors by comparing energy supplies from consumption and generation sides.

### 1 FIRST STAGE

Deployment of smart meters all over Dubai connected to new advanced computerized systems and software.

### 2 SECOND STAGE

DEWA will install the remaining smart meters during the second stage. Enhancement of the system operations will be performed in conjunction with increasing the number of installed meters.

More than 1 million  
smart meters  
by the year 2020





# THIRD INITIATIVE EV GREEN CHARGER

## The Green Charger to establish the infrastructure and build electric vehicle charging stations

DEWA opened the first electric charging station in February 2015, by installing 12 stations at DEWA's offices, capable of charging 24 vehicles simultaneously. Electric vehicles operate on electricity as an alternative for fuel and contribute towards the preservation of the environment, sustainability, and energy conservation. DEWA successfully installed 100 electric charging stations in Q4 of 2015, in different areas in Dubai such as shopping malls, airports, commercial offices, residential complexes, gas stations, government offices and residential establishments, as part of the Green Charger initiative. DEWA aims to install more charging stations according to the number of vehicles, usage of already existing stations in Dubai, and as per number of applications submitted to install electric vehicle charging stations in residential areas in Dubai.



الشاحن الأخضر  
GREEN CHARGER

### 1 FIRST STAGE

Included installation of 100 charging stations in various areas of Dubai, like malls, airports, commercial buildings, residential complexes and petrol stations. This stage was started in the second quarter of 2014 and successfully completed by the end of 2015 in coordination with the concerned parties.

### 2 SECOND STAGE

Will start with installing more Electric Vehicle Charging points depending on the customer intake, usage and driving pattern.

### 3 THIRD STAGE

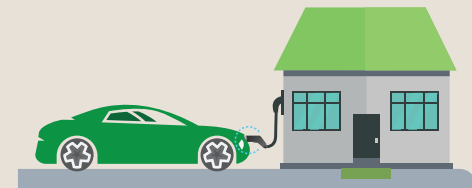
Will include adding final touches to the infrastructure and vehicles charging stations in several locations in Dubai. Time frame of this stage will be determined later on.

# TYPES OF CHARGING STATIONS

## WALL BOX

Single outlet

1



2-4 HOURS

## MEDIUM-PUBLIC

Malls, Parks,  
Offices etc  
Dual Outlet

2

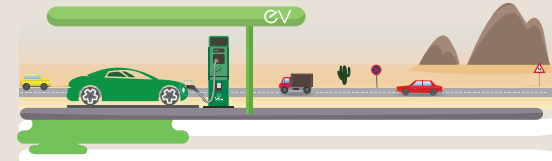


2-4 HOURS

## FAST

Highways and  
Gas stations  
Trio 2 DC 1 AC

3



20 to 40  
MINUTES

\* Actual charge time depends on battery depletion at start of the charging cycle, capacity of the battery, ambient conditions at the time of charging, technical restrictions by the charging system inside the car.

