

Bidirectional Charging Information Package.

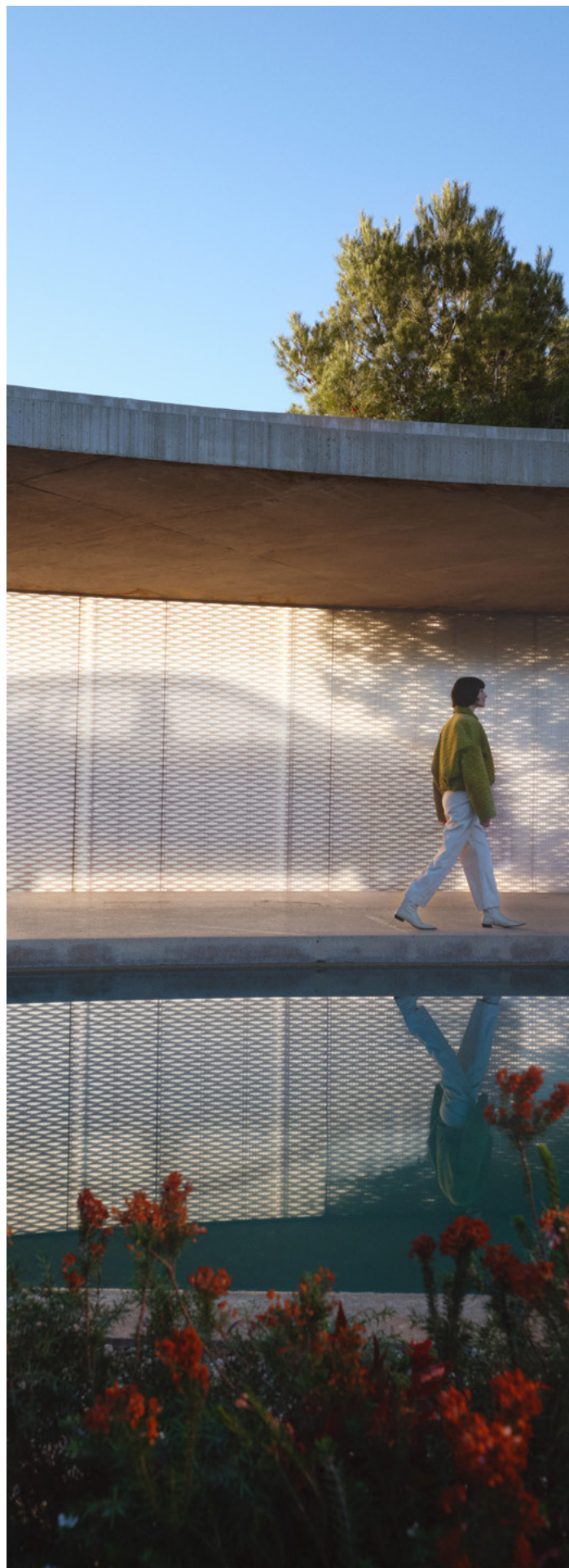


Information on operating principle,
setup and use.



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1. What is bidirectional charging?

Bidirectional charging means charging in two directions. Your BMW turns into a flexible energy storage device which can store energy but also release it: for example, into the home network using the Vehicle-to-Home (V2H) function or into the public power grid using the Vehicle-to-Grid (V2G) function.




Vehicle-to-Home (V2H).

Your BMW stores energy from your photovoltaic system for self-consumption.

Advantages of Vehicle-to-Home (V2H):

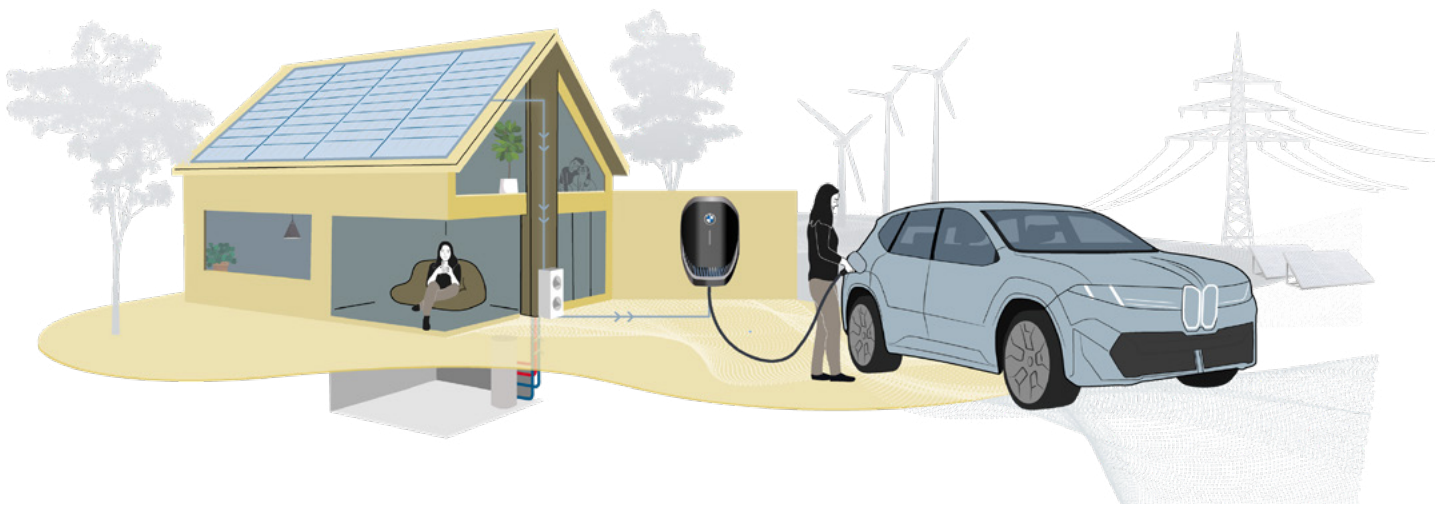
- More flexibility and autonomy in using solar energy
- Reduces household and vehicle energy bills by up to EUR 530 per year*
- Your BMW enhances or replaces a home storage device



💡 Save up to EUR **530 per year*** using Vehicle-to-Home (V2H).

*The increase in the level of self-sufficiency by 30 percentage points and the potential savings of up to EUR 530 correspond to the additional savings made through using Vehicle-to-Home (V2H) in comparison to using an electric vehicle and a PV system without optimised charging processes. The calculation is based on the new BMW iX3 with an annual mileage of approx. 23,000 km (14,300 miles), a corresponding vehicle presence profile, a household energy consumption of approx. 4,000 kWh (excluding the electric vehicle), a PV system with a peak output of 12 kW, an electricity tariff of 32 ct/kWh and a feed-in tariff of 8 ct/kWh. The potential savings are based on simulated calculations using representative real-time data for household energy consumption, PV systems and vehicle presence profiles in Germany. In practice, the actual savings achieved may differ.

2. How does Vehicle-to-Home (V2H) work?



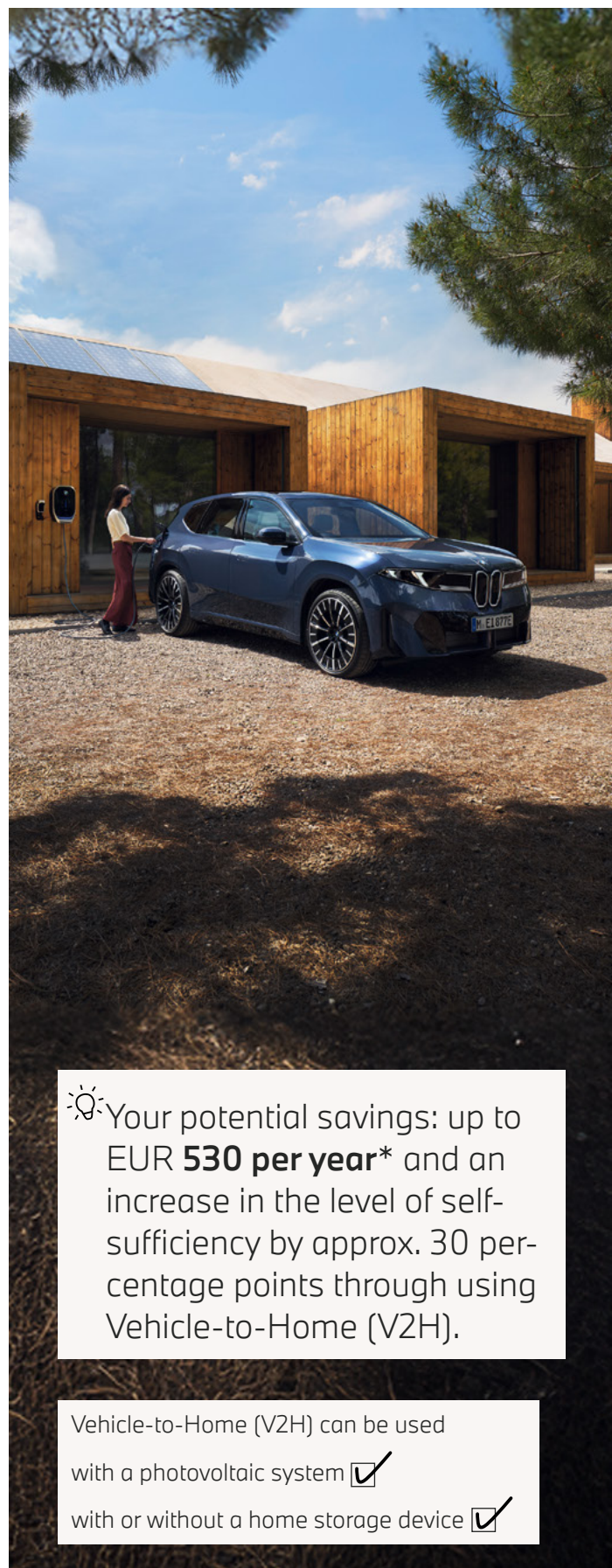
With Vehicle-to-Home (V2H), you are using your BMW as an intelligent energy storage device for your home.


Surplus energy from your photovoltaic system is temporarily stored in the vehicle's high-voltage battery. When no energy is generated in the evening or at night, your BMW feeds the stored energy back into the home network if required. This allows you to optimally use your self-generated solar energy and to reduce the power consumption from the public grid.

Always stay mobile by selecting your individual charging target.

You can set a charging target in the My BMW App or in the vehicle. With this setting, you determine the amount of energy that can be fed back from your BMW into the home network as well as the amount that must remain in the vehicle. The BMW Wallbox Professional then automatically controls the energy flow between vehicle and home in the background.

The Vehicle-to-Home (V2H) function charges the high-voltage battery of your BMW with surplus energy from your photovoltaic system. If there is insufficient sunlight, the charging process is paused. If there is not enough solar power available to meet the charging target by the departure time, power from the grid is used.



 Your potential savings: up to **EUR 530 per year*** and an increase in the level of self-sufficiency by approx. 30 percentage points through using Vehicle-to-Home (V2H).

Vehicle-to-Home (V2H) can be used
with a photovoltaic system
with or without a home storage device

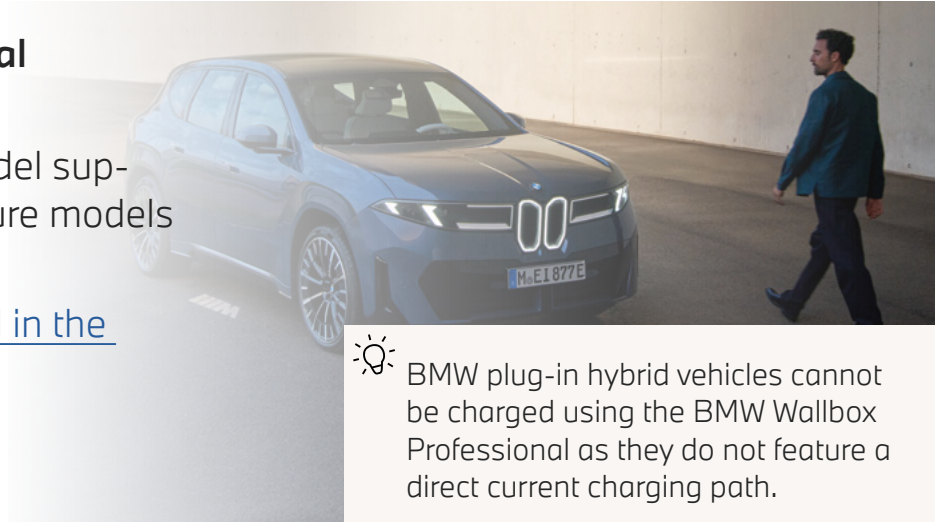
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3. What are the requirements for bidirectional charging?

Which vehicles utilise bidirectional charging?

The BMW iX3 is the first BMW model supporting bidirectional charging. Future models will also feature this function.

➤ [Further information can be found in the FAQ](#)



💡 BMW plug-in hybrid vehicles cannot be charged using the BMW Wallbox Professional as they do not feature a direct current charging path.

Which charging stations support bidirectional charging?

Bidirectional charging is only possible with the BMW Wallbox Professional as the central component.

- Bidirectional charging and discharging with up to 11 kW, depending on the vehicle and infrastructure
- Controlled via the My BMW App
- Easy and low-cost installation through certified specialist companies, supported by the Wallbox Installation app

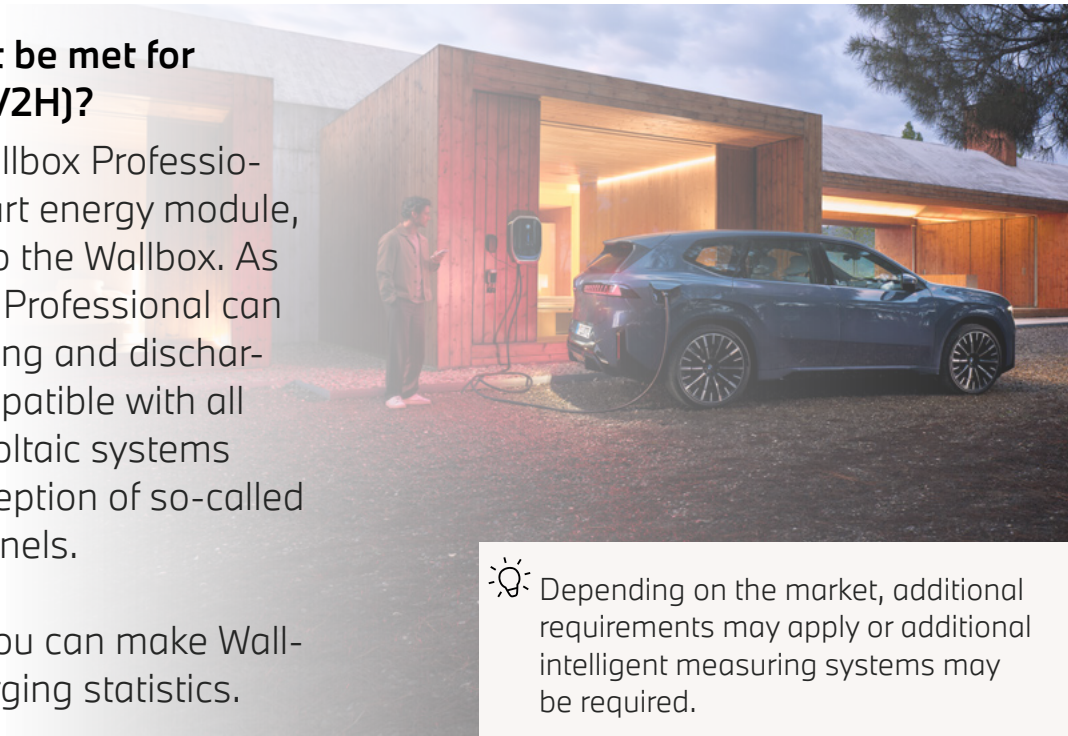


💡 In order to use the bidirectional functions and the My BMW App, the BMW Wallbox Professional requires an internet connection.

Which requirements must be met for using Vehicle-to-Home (V2H)?

In addition to the BMW Wallbox Professional, you also require a smart energy module, which is to be connected to the Wallbox. As a result, the BMW Wallbox Professional can precisely control the charging and discharging processes and is compatible with all generally available photovoltaic systems and inverters, with the exception of so-called plug-in or balcony solar panels.

Using the My BMW App, you can make Wallbox settings and view charging statistics.



💡 Depending on the market, additional requirements may apply or additional intelligent measuring systems may be required.

4. What are the advantages of the BMW Wallbox Professional?

With this Wallbox, your BMW iX3 and future BMW models turn into a powerful and intelligent energy storage device for your home through bidirectional charging. The Wallbox supports Vehicle-to-Home (V2H) and is Vehicle-to-Grid (V2G) ready. In addition, it is equipped with an integrated inverter which converts the direct current from the vehicle battery to alternating current for the home network and power grid.

Advantages at a glance:

- Bidirectional charging with up to 11 kW – including Vehicle-to-Home (V2H) and Vehicle-to-Grid (V2G)
- Easy to use and integrated cable management: 6 metre cable with stainless steel holder and connector holder
- Access control through automatic vehicle detection or charging card
- Easy and low-cost installation through certified specialist companies
- Installation is supported by the Wallbox Installation app in every market
- Robust and weatherproof, suitable for indoor and outdoor use
- Controlled via the My BMW App
- Regular software updates thanks to the internet connection

Supported charging functions at a glance:

- ✓ Immediate charging
- ✓ Solar-optimised charging
- ✓ Load-optimised charging
- ✓ Charging within a specific time frame
- ✓ Vehicle-to-Home (V2H) with photovoltaic system
- ✓ Vehicle-to-Home (V2H) with home storage device
- ✓ Vehicle-to-Grid (V2G) ready



Safety and service.

- Components certified in accordance with international standards
- High degree of safety due to integrated protective mechanisms
- Installation must be carried out by a certified electrician
- Customer service via the BMW ConnectedDrive call centre

Technical data at a glance.

Power Charging/discharging	Up to 7.4 kW (single-phase, market-dependent)	Up to 11 kW (three-phase, market-dependent)
Dimensions in mm	470 x 300 x 165	520 x 330 x 190
Weight in kg	approx. 22	approx. 29
Cable length in m	6	6
Ingress protection (indoors/outdoors)	IP55	IP55
Impact protection	IK09	IK09
Noise level	<= 45 dB at full power	<=45 dB at full power
Noise level in Silent Mode	<= 35 dB (temperature-dependent, may result in limited power)	<= 35 dB (temperature-dependent, may result in limited power)



The use of Vehicle-to-Home (V2H) in combination with Vehicle-to-Grid (V2G) will not be possible from the outset.

Home storage mode allows the combined use of Vehicle-to-Home (V2H) and an existing home storage device in the domestic installation. Compatibility with all home storage devices available on the market as well as effective interaction between these systems cannot be guaranteed in all cases.

Compatibility with selected home energy management systems (HEMS) will be facilitated at a later date.

In order to use Vehicle-to-Home (V2H), solar-optimised charging and load-optimised charging, a separately available smart energy module (smart meter) is required, which must be installed by a certified specialist company.

5. How do you set up bidirectional charging at home?

1



A certified specialist electrical company carries out the installation of the **BMW Wallbox Professional** and connects the **Wallbox to the internet via the home's Wi-Fi/LAN**. For Vehicle-to-Home (V2H), an additional smart energy module is required, which must be installed in the fuse box.

2



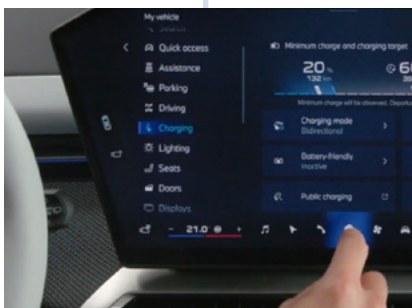
First, connect your BMW to the **My BMW App**. To do this, open the app and log in using your BMW ID account. In the main menu, select the "Add vehicle" or "My vehicle" section and add your BMW.

3



Next, also connect your **BMW Wallbox Professional to the My BMW App**. To do this, select "BMW Wallbox" in the charging settings. Then, scan the QR code which was provided together with your Wallbox.

4



As soon as the **BMW Wallbox Professional is connected to the vehicle for the first time, the "Bidirectional" charging mode becomes available**. You can now select this charging mode in the vehicle or in the My BMW App and also specify additional settings in the My BMW App, such as Vehicle-to-Home (V2H), minimum charge, departure times and charging targets. The charging process is controlled in the background.



In order to use the bidirectional functions and the My BMW App, the BMW Wallbox Professional requires an internet connection.

6. How do you activate bidirectional charging in your BMW?

- 1 The function for bidirectional charging will only be activated and displayed in your vehicle and the My BMW App after your vehicle has been connected to the BMW Wallbox Professional for the first time.

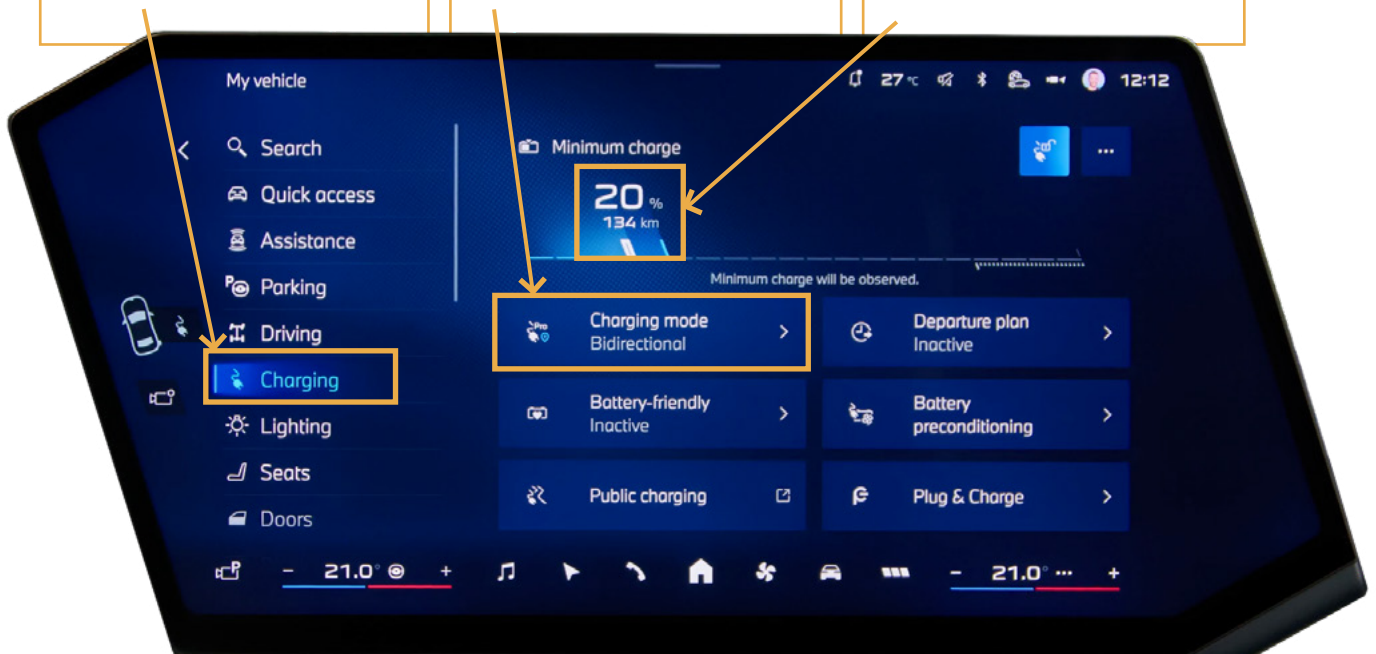


- 2 Set a minimum charge to ensure your mobility at all times.

To do this, open the charging settings in your BMW or in the My BMW App.

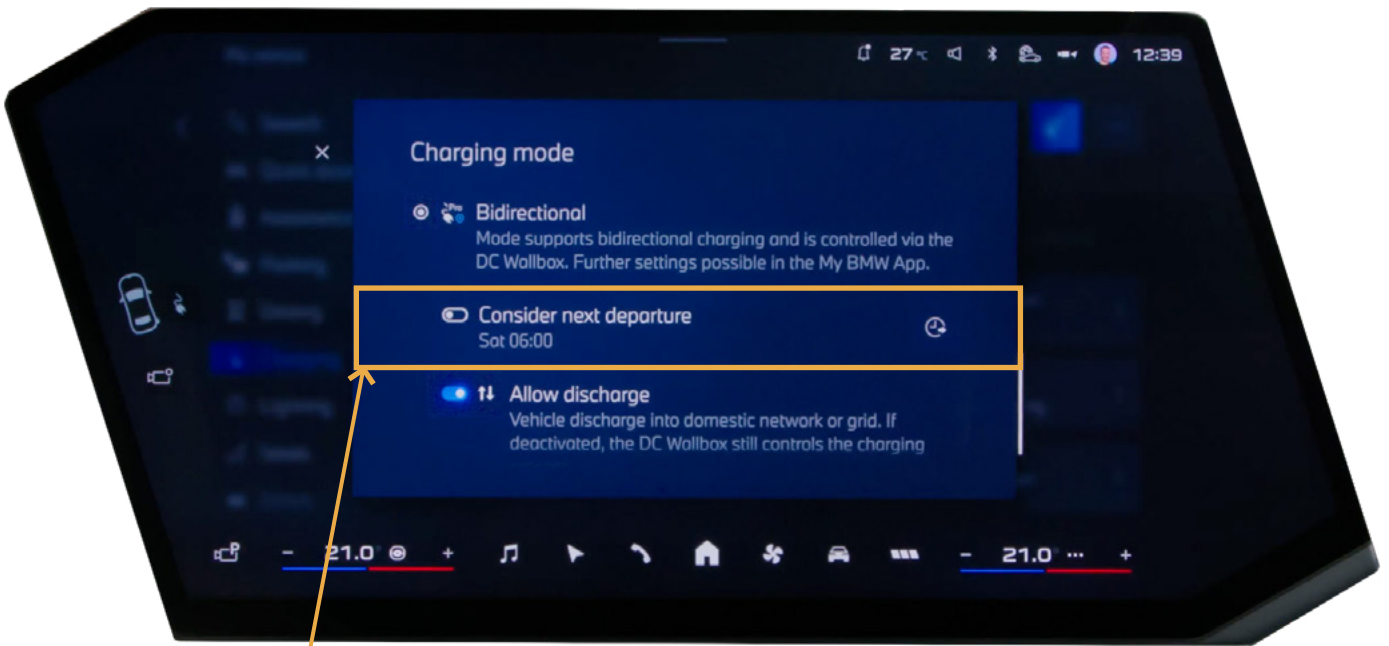
Under Charging mode, select "Bidirectional" and activate "Allow discharge".

Set the minimum charge to the desired value between 10% and 50%.



⚡ Until the minimum charge is reached, charging is performed at maximum speed, regardless of the current source. Above this threshold, the battery can be charged up to a maximum of 80% and discharged, if a surplus of solar power is available in the case of Vehicle-to-Home (V2H).

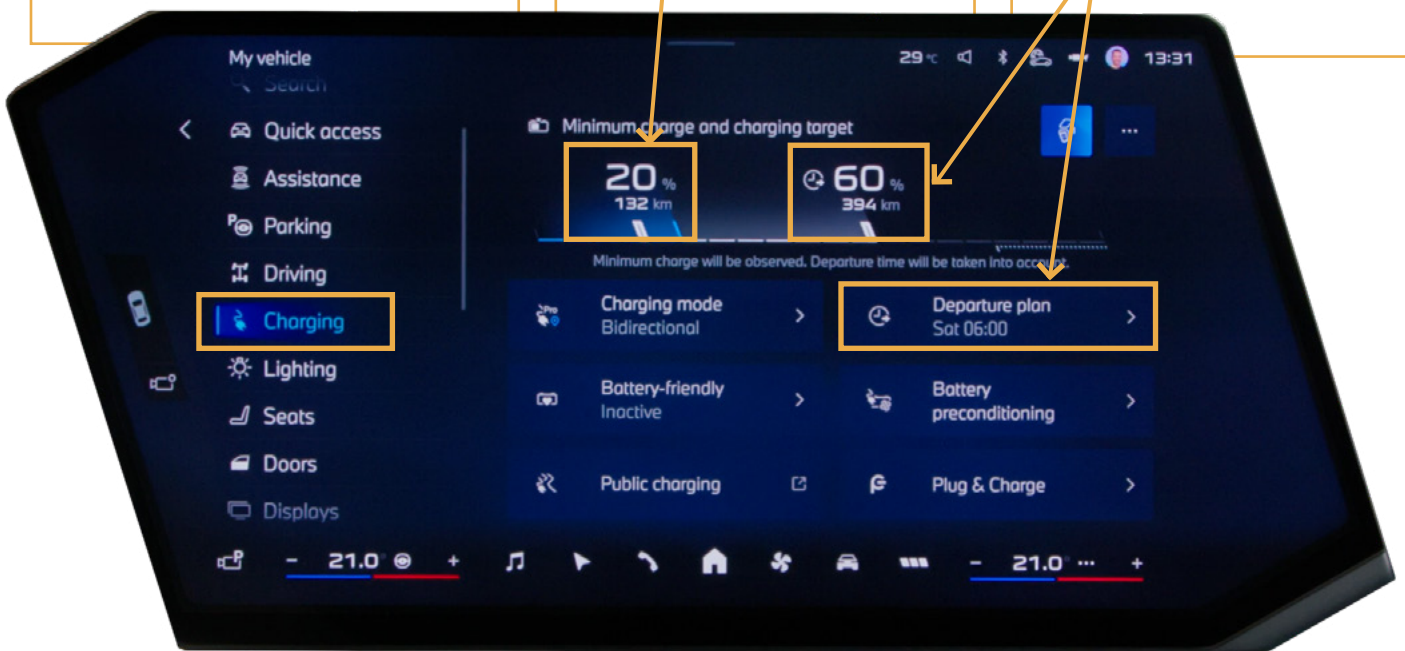
3 In order to also ensure your mobility for longer journeys, simply set an additional charging target for a planned departure time.



Under the 'Bidirectional' charging mode, select the „Consider next departure“ option.

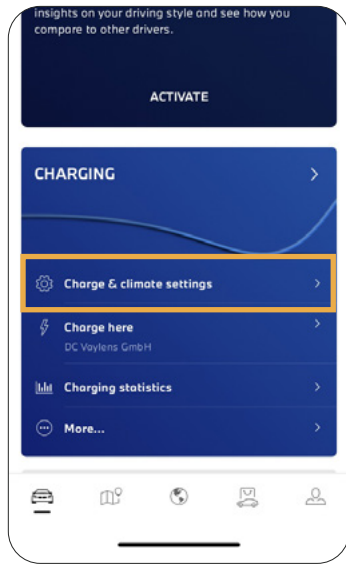
First, set your minimum charge up to which charging is performed at maximum speed.

Now, set your charging target and the desired departure time.

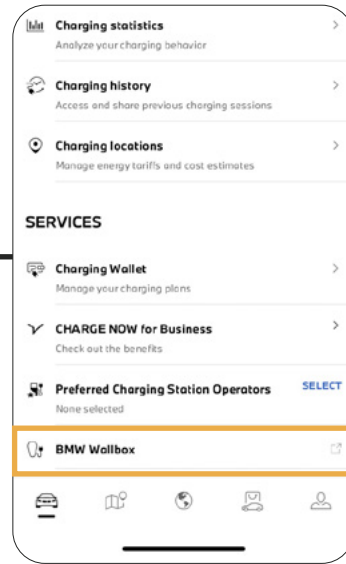


💡 For Vehicle-to-Home (V2H): Up to the charging target, the battery is only charged using surplus solar power, without discharging. After the charging target has been reached (e.g. 60%), surplus solar power is temporarily stored to a maximum of 80% and only this portion of surplus energy can also be discharged. For charging targets $\geq 80\%$, no discharging is performed during the entire charging process to reach the target with solar power if possible and conserve the battery.

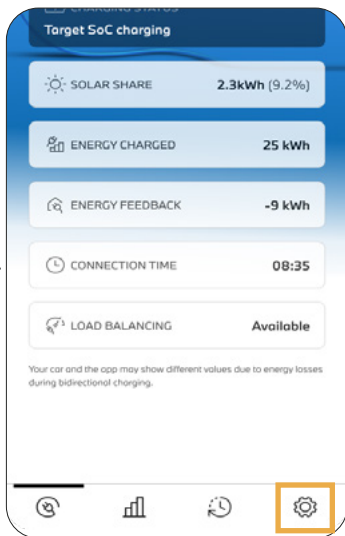
7. How do you activate Vehicle-to-Home (V2H) in the Wallbox section of the My BMW App?



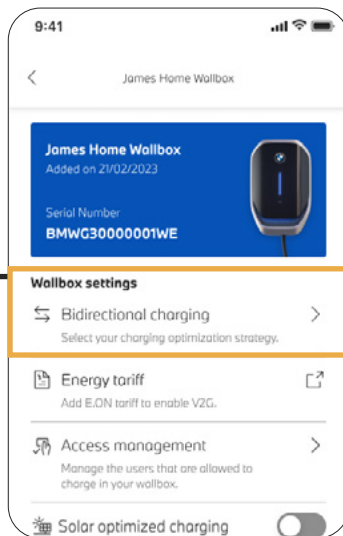
Open your My BMW App and go to Charge & climate settings.



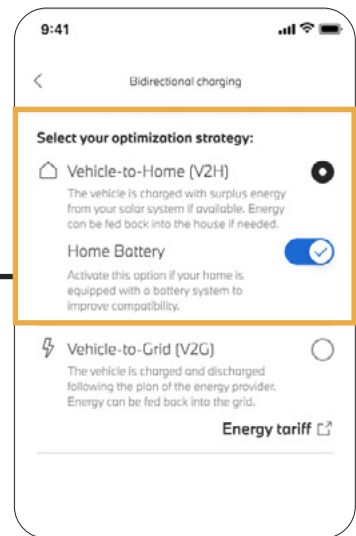
Tap "BMW Wallbox".




Tap the settings icon at the bottom right.



Navigate to "Bidirectional charging".




Now, you can select Vehicle-to-Home (V2H).


 The settings need to be set only once and are saved for the specified location – based on the location-based charging settings.


8. How can you optimally utilise Vehicle-to-Home (V2H)?


To utilise the full potential of Vehicle-to-Home (V2H), we recommend the following:




 Keep your vehicle connected to the BMW Wallbox Professional as long and often as possible, ideally also overnight. Utilise sunny periods to store surplus solar energy. This way, stored solar power is available for supplying the home network.

 Only set a minimum charge of between 10% and 50% for daily journeys. Above this value, the battery is available for Vehicle-to-Home (V2H) and can be charged and discharged using surplus solar energy. In this case, the battery is charged to a maximum of 80%.

 Setting an additional charging target with departure time is only advisable for longer journeys. Up to the charging target, the battery is charged using surplus solar energy, but without discharging. Even above this target, the battery is automatically charged using surplus solar energy up to a maximum of 80%. Only this portion of surplus energy can be used for discharging.

 For charging targets $\geq 80\%$, no discharging is performed during the entire charging process to reach your charging target with solar energy if possible and conserve the battery.

 The My BMW App provides a clear overview via charging and discharging statistics to help you optimise your usage behaviour.

For answers to all other questions relating to the use of bidirectional charging, please refer to the [BMW FAQs](#) and the BMW how-to videos.

QR code for Vehicle-to-Home (V2H) how-to video 