



SMALL UPGRADE MAJOR IMPACT

THE UNIQUE AFTERMARKET SOFTWARE SOLUTION

UPGRADE YOUR BEV (BATTERY ELECTRIC VEHICLE)

THE FIRST BIDIRECTIONAL RETROFIT KIT

one of
the biggest
challenges in the
automotive
industry

as we know it

outdated



UPGRADE

the MANDRILL future

innovation retrofit

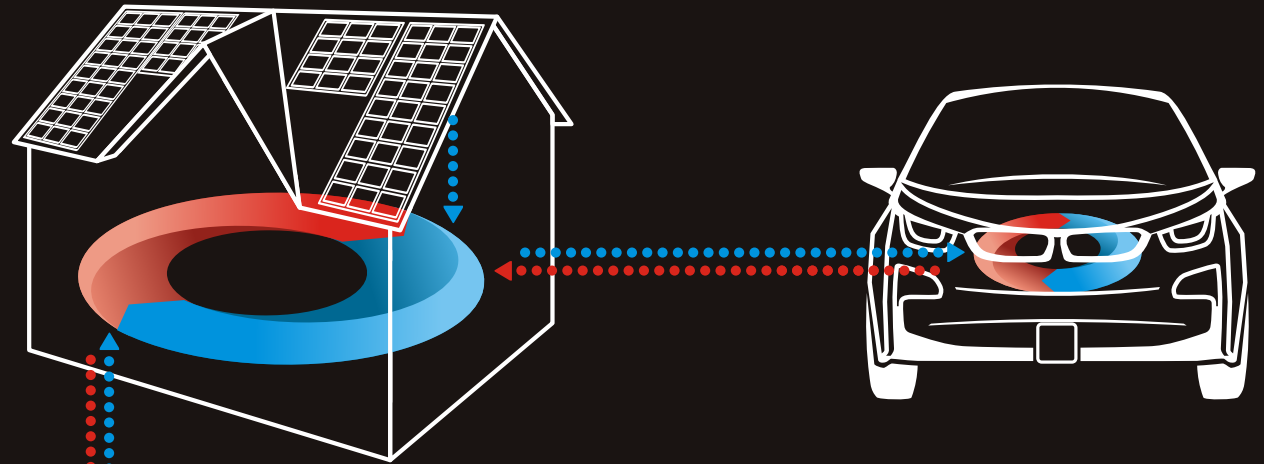
to the latest
bidirectional-charging technology

ENJOY ENERGY INDEPENDENCE AND MORE

BEYOND CHARGING: AFTER OUR UPDATE YOUR BEV
IS VEHICLE-TO-HOME (V2H) AND VEHICLE-TO-GRID (V2G) CAPABLE

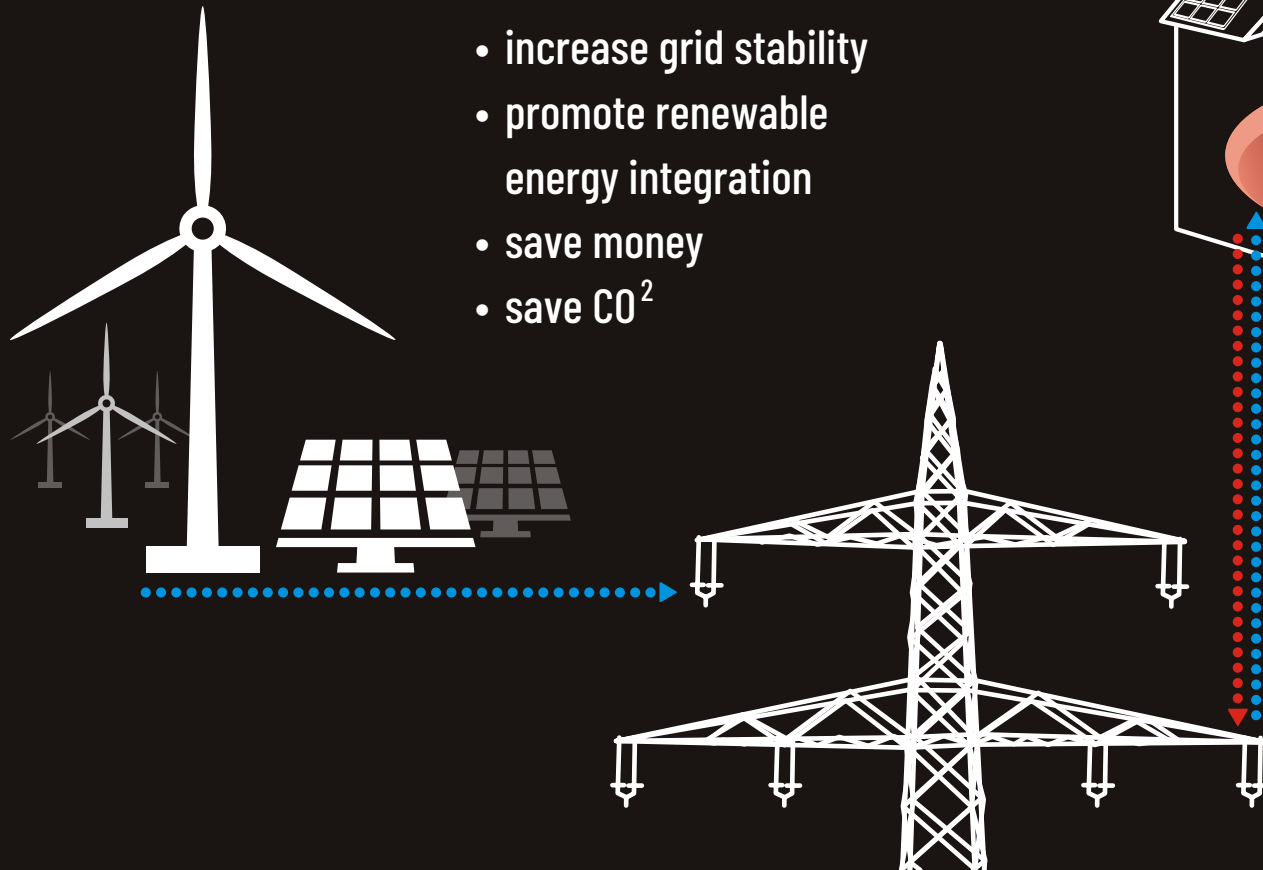
less than
5 % of BEV
vehicles
can act as
energy
storage

- increase grid stability
- promote renewable energy integration
- save money
- save CO²



by replace standard vehicle controller
with our mandrill bidirectional charging controller

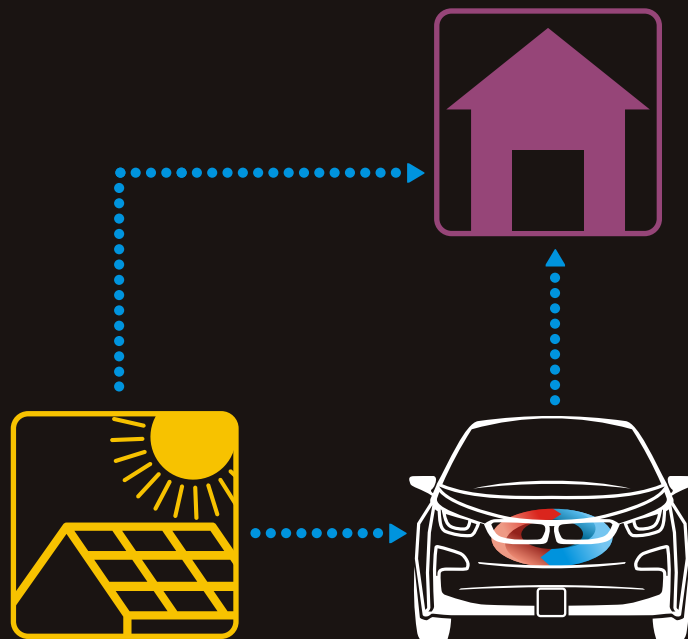
- enable vehicle-to-home energy storage
- enable vehicle-to-grid
- reduce reliance on electricity from the grid
- achieve energy independence at home



UNLOCK ENERGY FREEDOM (V2H)

INCREASE AUTONOMY WITH VEHICLE-TO-HOME TECHNOLOGY

improve
your
power
supply



32 - 43 %



increase your
level of autarky

30 - 35 %



improving your
self-consumption

350 - 490 €/year

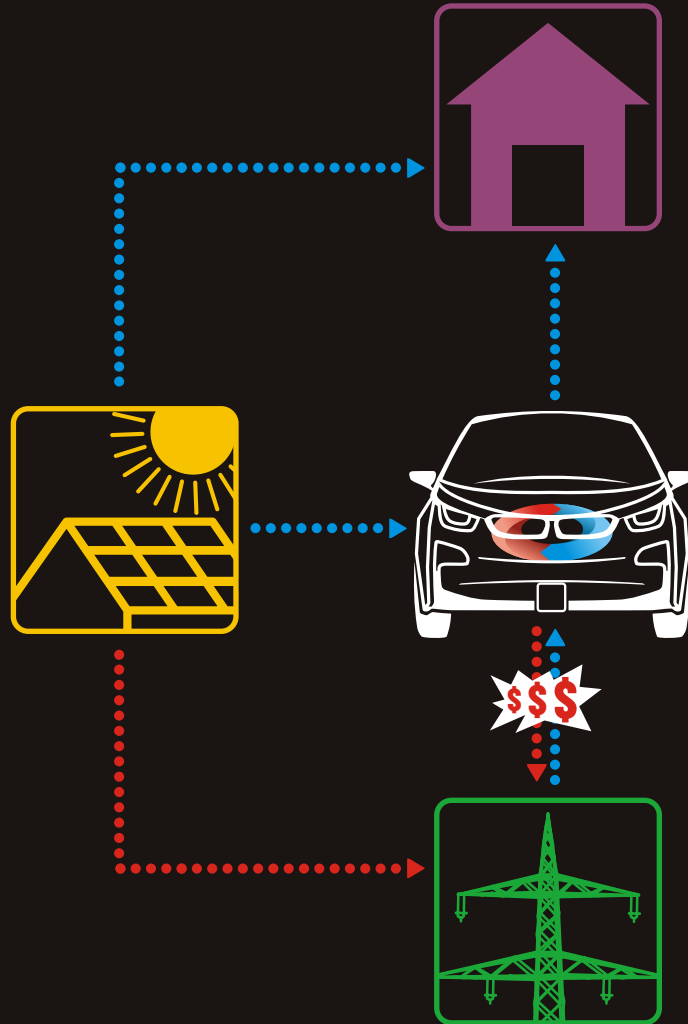


reduce your
electricity costs

BECOME YOUR OWN ELECTRICITY BROKER (V2G)

make
money
by investing
in a sustainable
future

MONETIZE YOUR VEHICLE'S ENERGY AND MAXIMIZE YOUR EARNINGS



14 - 46 %



increase your
level of autarky

42 - 70 %



improving your
self-consumption

500 - 2.100 €/year



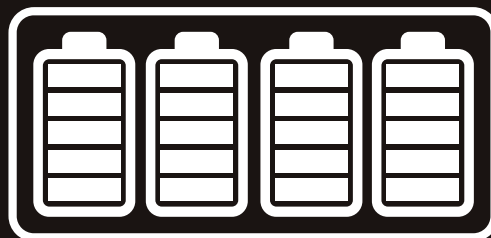
reduce your
electricity costs

WHY EVERYONE WANTS BIDIRECTIONAL CHARGING

YOUR BENEFITS: INDEPENDENCE, FLEXIBILITY, FREEDOM, SAVING MONEY

provide
your home
with self-sufficient
electricity for
up to one
week

as we know it



40 kWh home storage = **28.000 €**

(1 kWh = 700 €)

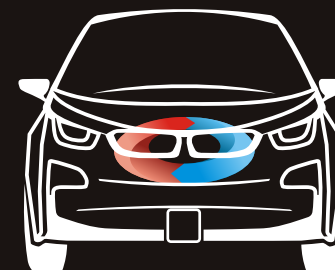
5 kWh home storage
= 3.500 € (1 kWh = 700 €)

bidirectional
DC wallbox ~ 3.800 €

MANDRILL bidirectional
charging kit ~ 2.500 €
42 kWh vehicle battery

47 kWh
home storage

~ **9.800 €**



the MANDRILL future

YOUR SMART WAY TO BIDIRECTIONAL CHARGING



current
project
example:
BMW i3

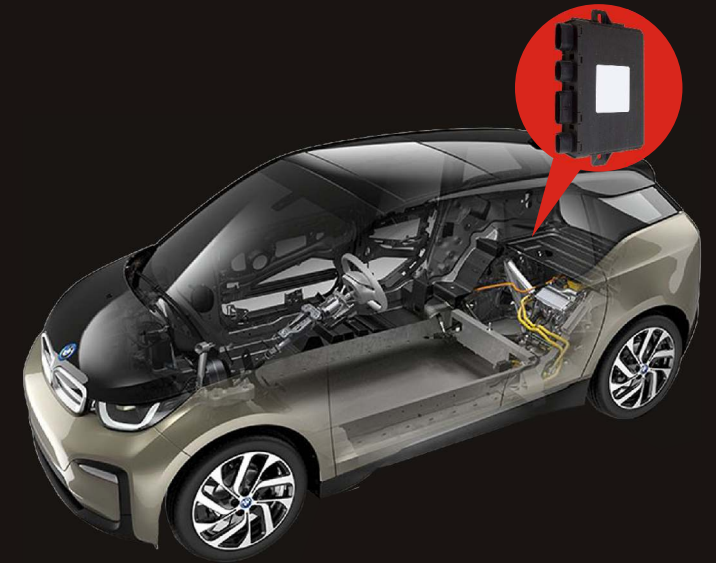
THE FIRST COMPLETE SOFTWARE SOLUTION FOR THE AFTERMARKET



mandrill charging controller
with vehicle specific software



vehicle specific adapter
wiring harness



replace OEM charging controller

POTENTIAL MARKET VOLUME FOR BIDIRECTIONAL CHARGE KIT

all
BEV
brands

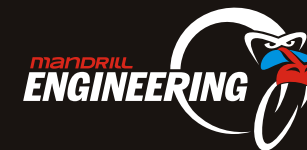
WORLDWIDE

vehicles:
~ 42.000.000

GERMANY

vehicles:
~ 1.500.000

UNLOCK POSSIBILITIES: LET'S CONNECT



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