

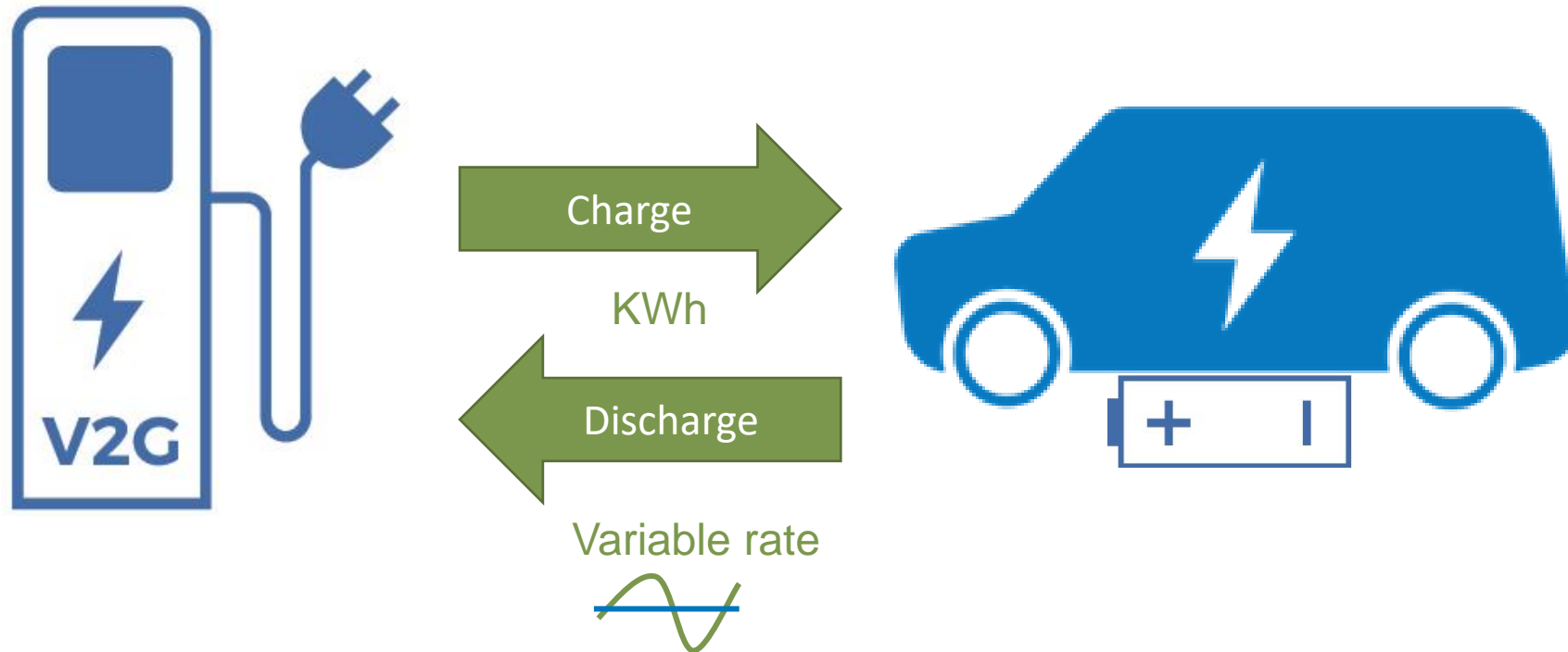
NUVE

We Make Electric Vehicles
affordable and greener



Bidirectional Charge and Discharge

Vehicle-to-Grid (V2G)





Barcelona, Spain



EVS32 Lyon, France



Culver City, CA



London, UK



UCSD, San Diego CA



Newark, Delaware



Corsica, France

V2G / VGI



Torrance, CA



El Cajon, San Diego CA



Manila, Philippines



Nagoya, Japan



CDG Airport, Paris



Windhoek, Namibia



White Plains, NY

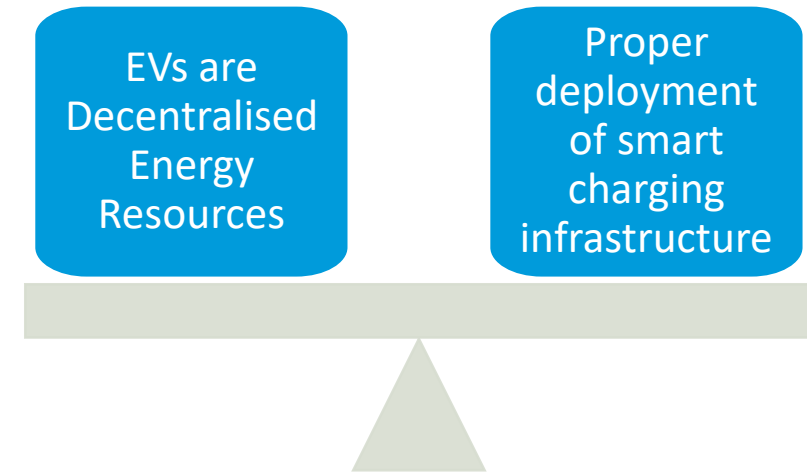
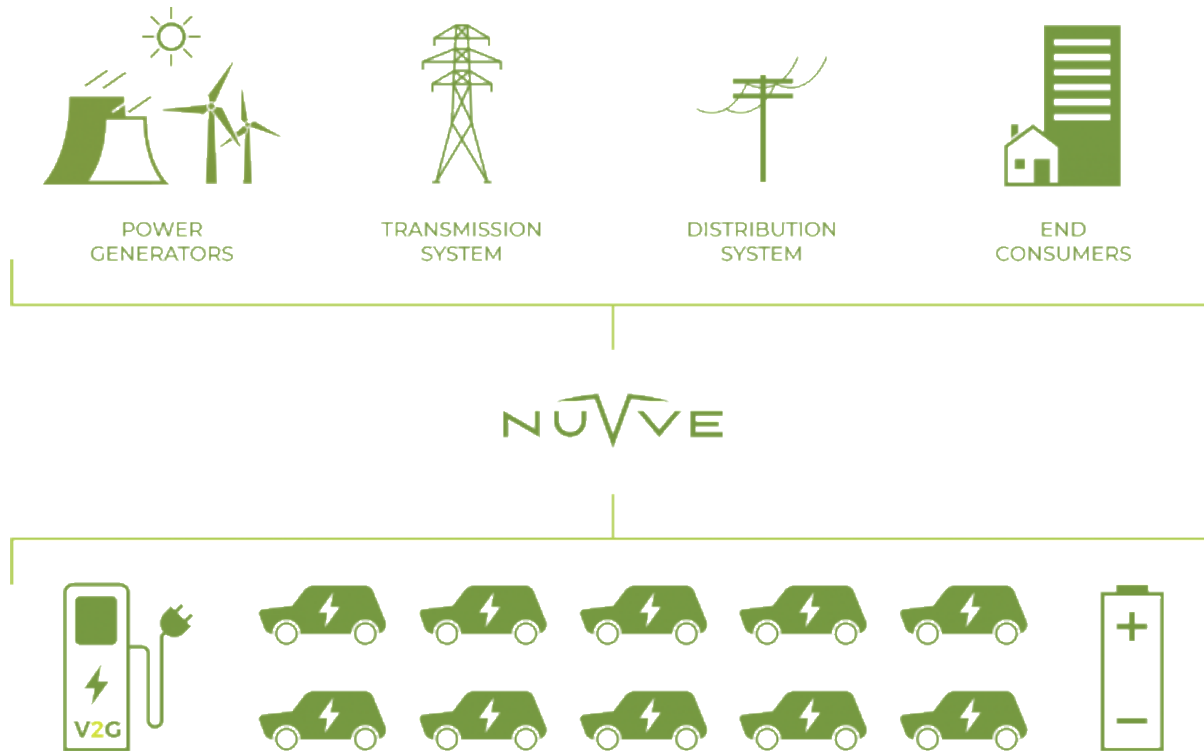


Nice, France



Frederiksberg, Denmark

Win-win bidirectional benefits

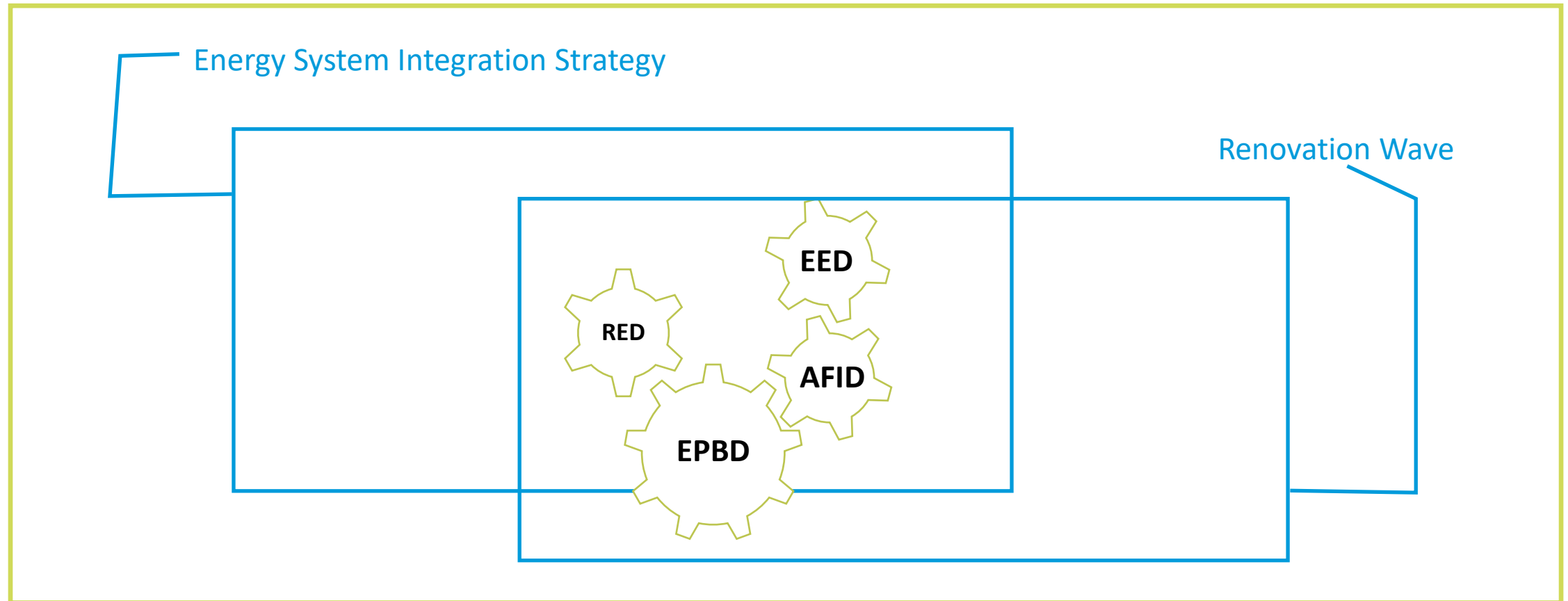


Twofold benefits:

- for the grid : Electric vehicles are a buffer for power variability
- for EVs : driving on decarbonised energy

Priority must be to integrate EVs & power system

Empowering end-users to achieve **system efficiency**



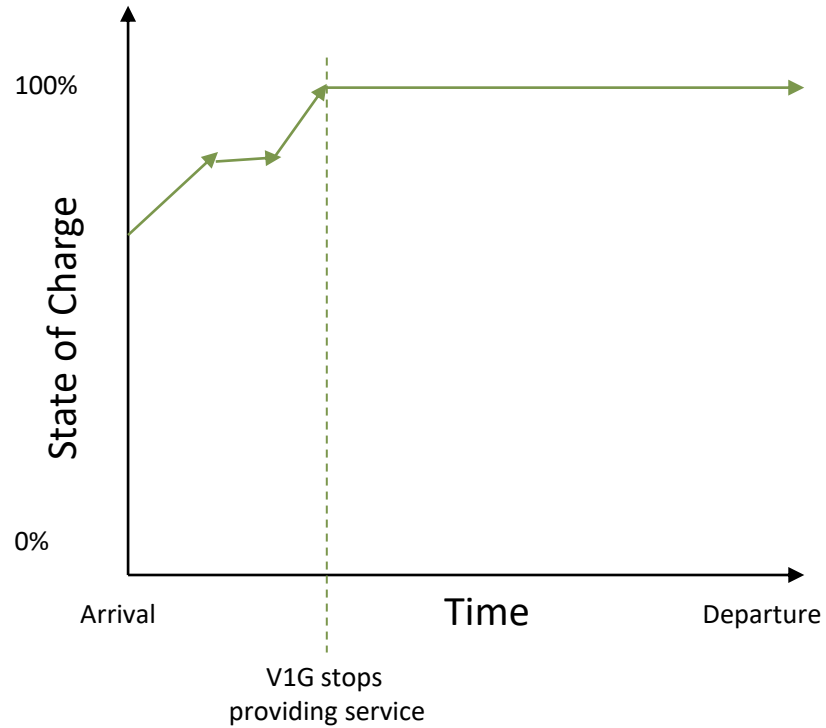
Implementation of the Electricity Market Design

Future Proof charging infrastructure

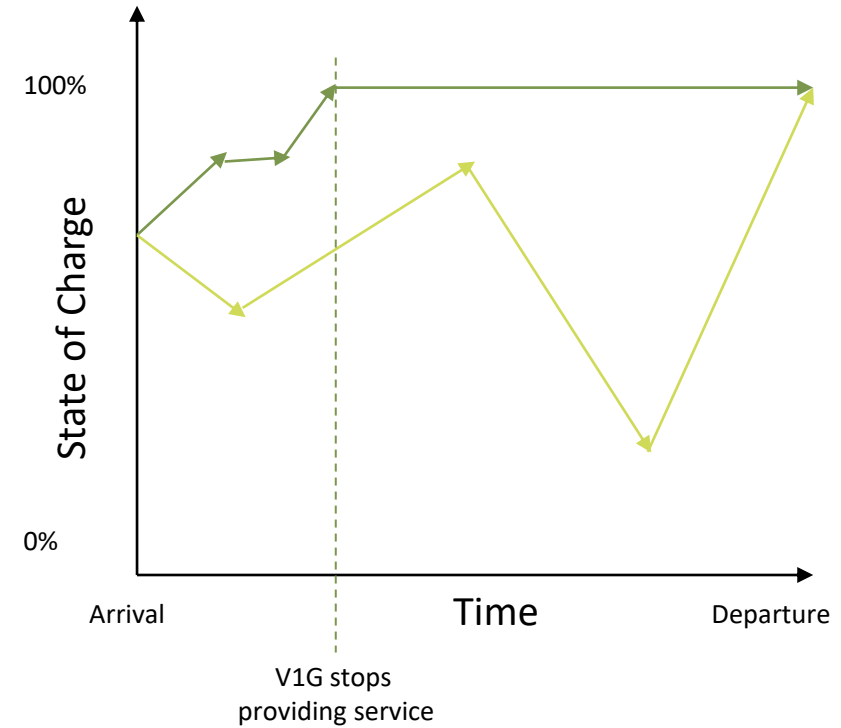
Infrastructure should enable the integration of all EVs in the power system as Decentralised Energy Resources



V2G yields much more than V1G



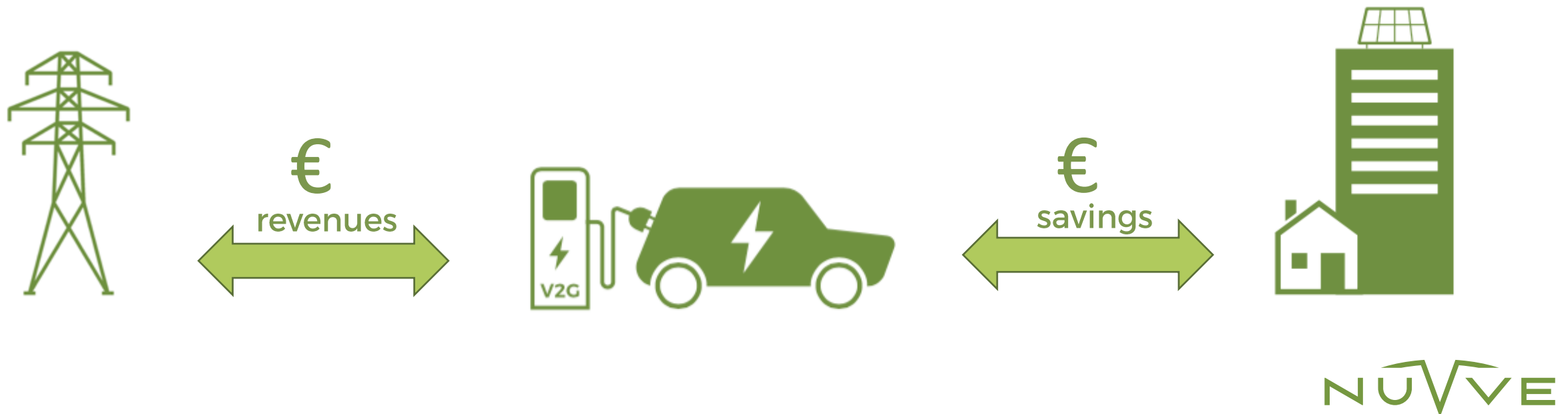
→ V1G: Unidirectionnal



→ V2G: Bidirectionnal

EV drivers should be enabled and rewarded for using their vehicles as a Decentralised Energy Resource

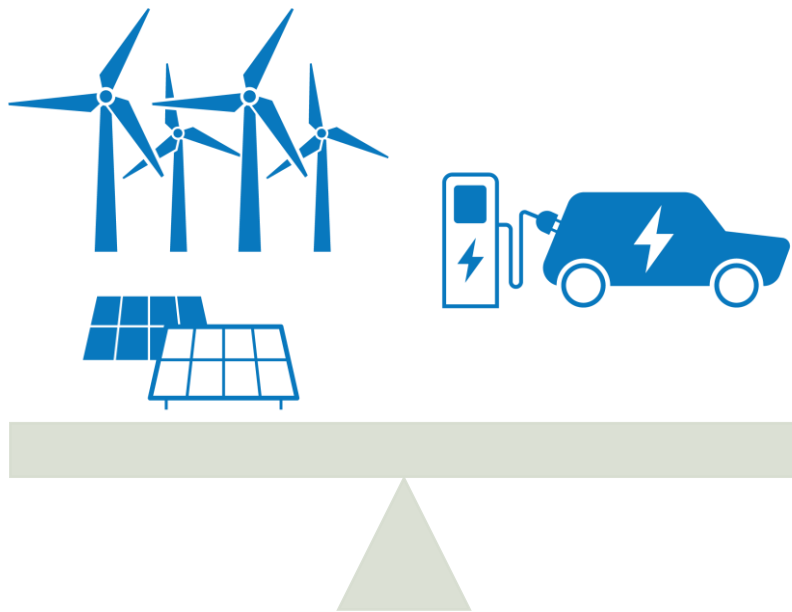
All EV owners should be offered an option to unleash the full flexibility of their EVs by 2030



AFID to support renewables in transport

National target

$$\frac{\text{Total installed smart charging power}}{\text{Peak capacity of installed RES}} \geq 60\%$$



Example: Country A

- 1 million smart chargers installed
 - 50% 7kW
 - 50% 22kW
- 300,000 EVs with 11kW on-board smart charging
- 30GWp of installed renewables

$$\frac{(50\% * 1m * 7kW) + (50\% * 1m * 22kW) + (0,3m * 11kW)}{30} = 59,33\%$$

Putting to use public vehicles

- 100% of electric vehicles owned by public entities should be V2G



A revised AFID must



- prioritize electricity



- Go beyond public fast charging



- Ensure only future-proof infrastructure is deployed



- Be coherent with revised EPBD and RED



- Set targets

