



Energy for E-Bikes





HISTORICAL
BACKGROUND



E-MOBILITY –
PROBLEMS



BIKE-ENERGY –
THE FUTURE OF
CHARGING



REGIONAL
PRESTIGIOUS
PROJECTS



Excursus – Automobile Market & Sales

- Europe 1920s - 4 M Autos
 - Millions of potential buyers
 - Fear of „empty tank“
 - Larger tanks did not generate more sales
- USA 1925 - 35 M Autos
 - 10x more sales
 - Gas stations > Tank capacity

The key to success was the nationwide gas station infrastructures!!





Excursus – Winter tourism in the Alps

Past: 1960/70s


- Very few ski vacationers
- No ski lifts and slopes!

Today: Winter-Tourism

- Supporting pillar of the Alpine economy



The key to the biggest success story in the Alps was the development of ski lifts and ski slopes infrastructures!!



Now is the time to revolutionize summer tourism!

Advantage of an e-bike charging infrastructure:

- 18 % of Germans ski
- 88 % are cyclists

A photograph of a grey e-bike charging station with three numbered charging ports. The text 'E-BIKE LADE STATION' is printed in large white letters on the station's surface. Each port has a white cover with a black charging cable and a red 'GEBRAUCH' (use) label.

E-BIKE LADE STATION

What was the argument against a charging infrastructure UNTIL NOW?

- So-called “charging stations” are only power connections!
- Charger must not be used outdoors (according to the manufacturer)!
- High costs and high risk for operators!



What was the argument against a charging infrastructure UNTIL NOW?

- Clutter and tripping hazards due to tangled cables!
- Risk of theft: unsecured charging!
- Home charger had to be taken along!





bike-energy – worldwide outstanding charging technology



E-bikes were invented for outdoor use, but outdoor charging was not permitted until now.

bike-energy has changed that!

Charge easily, conveniently and safely with the revolutionary bike-energy charging cable.



Connection for e-bike batteries with plug socket: BOSCH, YAMAHA, Shimano, etc



Safety magnetic coupling to *bike-energy* charging station



Ride off without
hesitation and enjoy
beautiful tours,
regardless whether the
battery is full or not!






E-Bike Ladestation

Simply dock / fast-charge / ride on wherever e-bikers linger. Whether at leisure facilities, restaurants or cafés.



Advantage, Benefit & Profit

- No batteries and chargers lying around.
- Charges faster than home chargers.
- Extends the battery life.



For E-biker:

- Leave your own charger at home
- **Safe** – can charge outdoors
- **No loss of warranty!**
- Safe – battery stays locked to the bike!
- **Almost endless range**



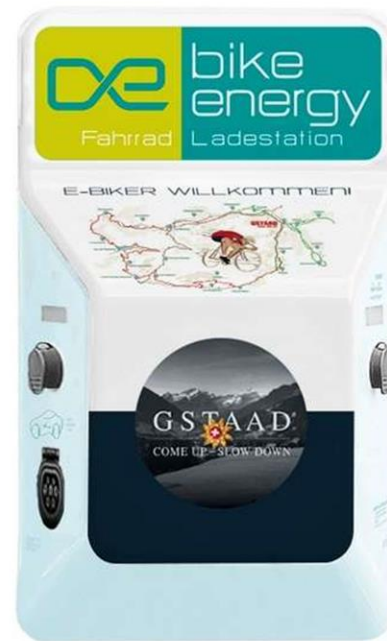
For Guesthouses and Businesses:

- *bike-energy attracts guests and customers*
- Upgrading as an excursion and shopping destination
- Business premises gain parking space
- Healthy and active employees



For Cities / Communal

- Upgrading through modern mobility concept
- Upgrading as a tourist destination
- Traffic relief and free parking spaces
- Real added value for citizens



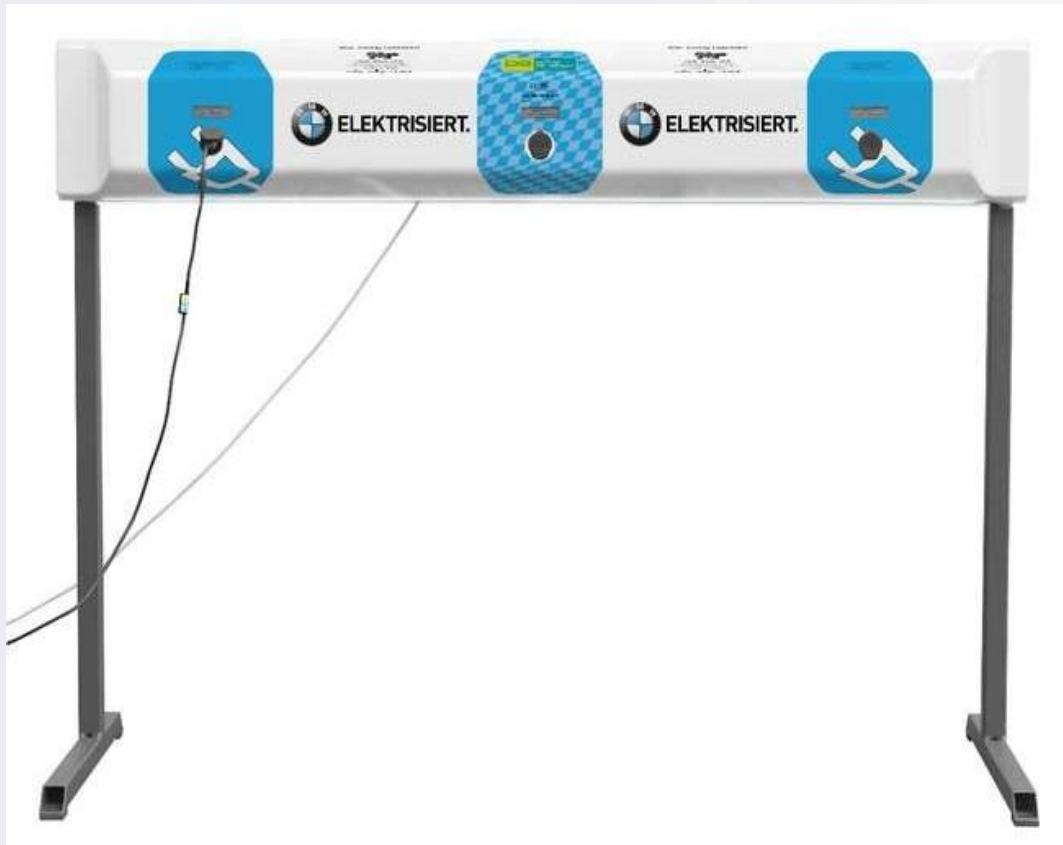
Foiling in company design included!

Model: POINT

(Wall-mount / free-standing)



Model: TOWER
(free-standing for any ground surface)



Model: LINE

(Wall-mount / freestanding)



Safe



Reliable

the new 4-bike parking system BIKE.IN - park your bike more securely

Space in our cities, towns and tourist regions is becoming increasingly scarce. Too many cars consume too much valuable space. The increased demand for high quality bike and e-bike infrastructure is also increasing the pressure from the public. Never before have so many people wanted to switch to bicycles for everyday and leisure activities and stop wasting valuable time in traffic jams and searching for parking spaces.

- Do you take the requests of your employees, customers, guests seriously?
- Do you want to save money on parking management?
- Do you want to offer high-quality bike and e-bike infrastructure?
- And thus take the actively mobile future into your own hands?

Qualitative

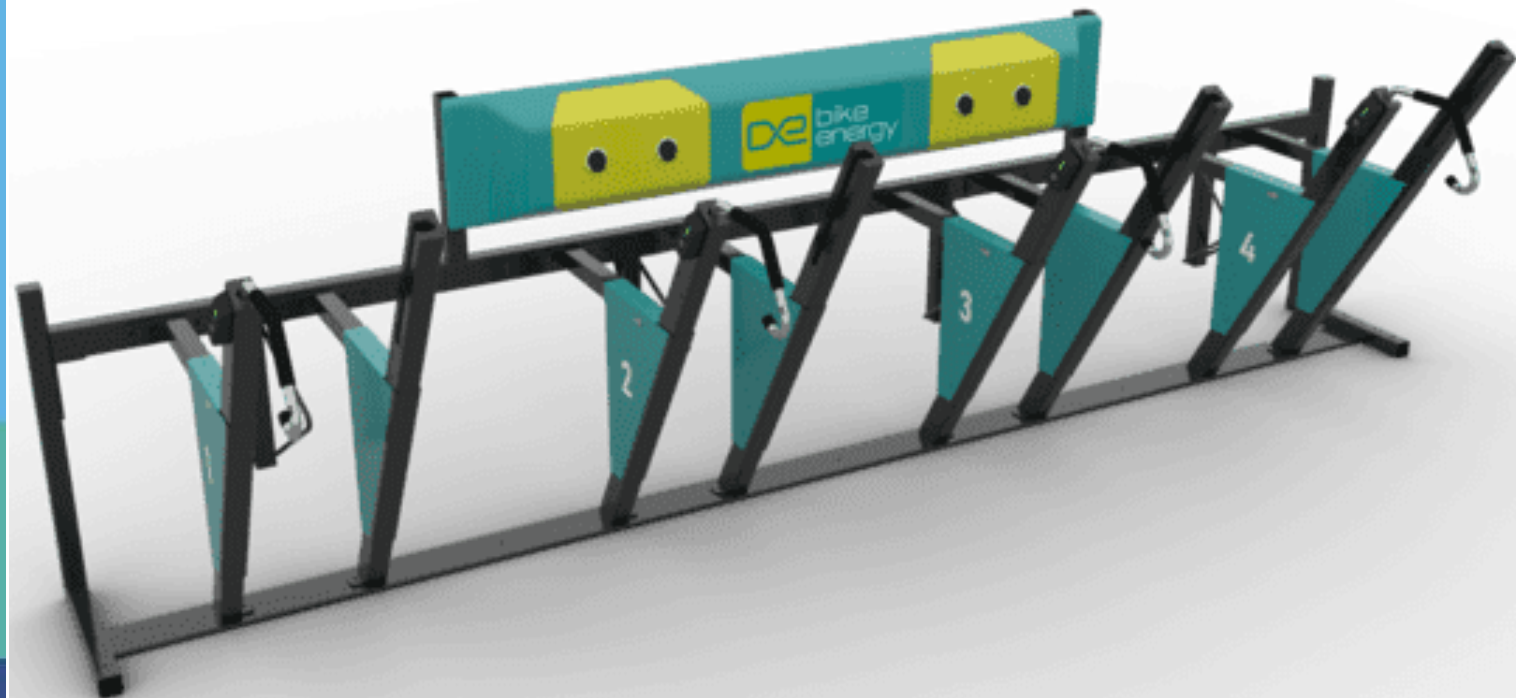
Safely locked, without your own lock

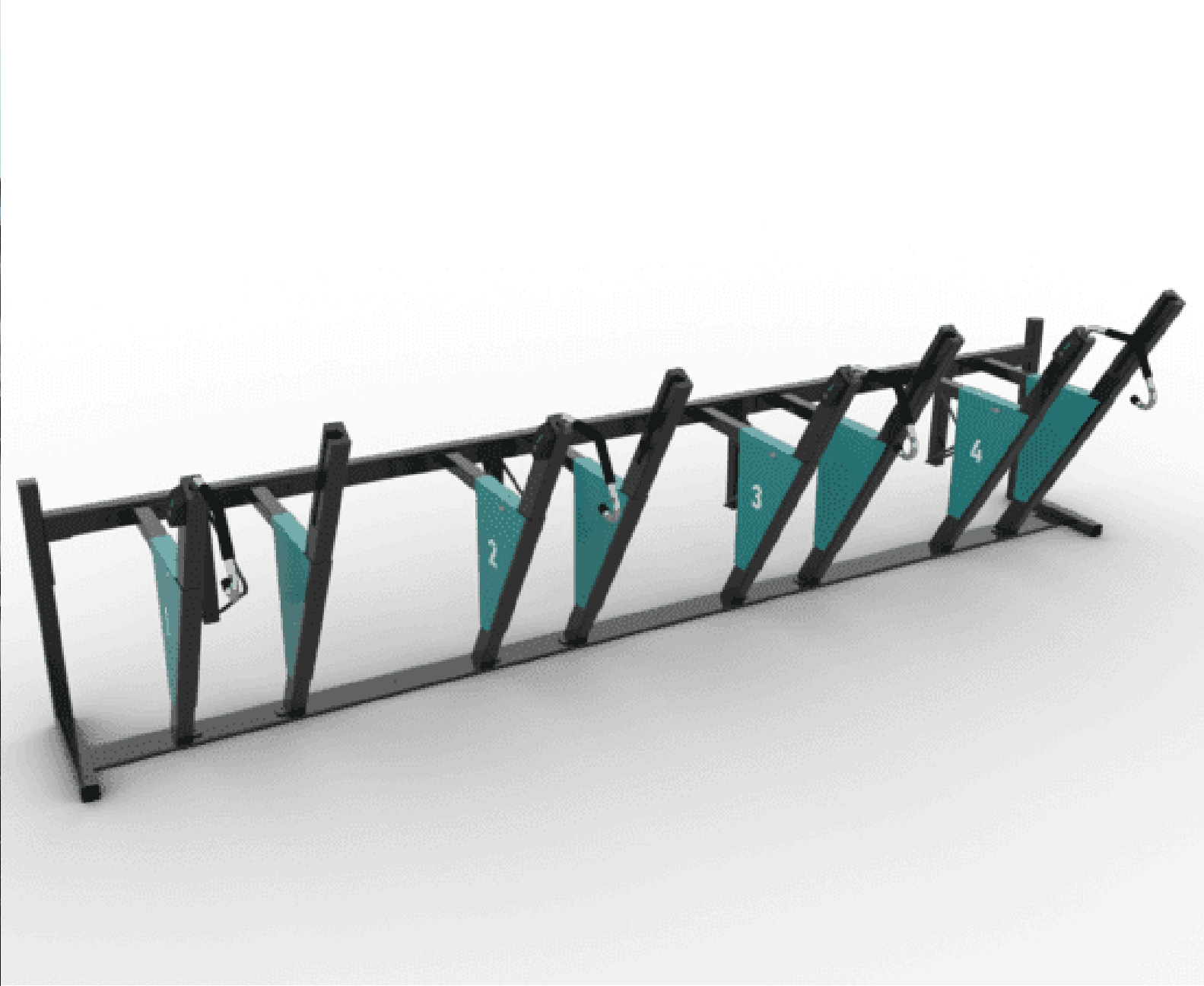
BIKE.IN 2.0 allows quick, easy and safe parking of bicycles and e-bikes without their own lock. The frame is secured by a high-strength metal bracket, and we ourselves were involved in the development of the locking mechanism. A card with "near field communication" - NFC function is enough to operate the locking mechanism. Nevertheless, the parking system does not take up more space than conventional systems.



Available on request with (e-)nergy supplied by a charging station

The stylish and secure BIKE.IN parking facilities come with charging infrastructure for all common e-bike systems on request. After the e-bike is safely locked, simply dock the appropriate charging cable from the charging cabinet into the station and the battery is charged. After your appointment, outing, stop for refreshments or workday, a fully charged e-bike is waiting, having been safely locked up the whole time. There are no longer many reasons not to ride your e-bike.





Standard cost-sharing model

Term 60 months (5 years)

bike-energy LINE

for 3 E-bikes (L3B)

Charging cable-Sortiment LKS12

Free-standing stand LA10

Bike rack FS09

€6.385,-

(€818,-)

(€328,-)

(€618,-)

Cost allocation to 3 partners

Example: $\frac{1}{3}$ City / Communal

$\frac{1}{3}$ Tourism Association

$\frac{1}{3}$ Business / Guesthouse

Monthly per company approx. € 45,-²⁾

²⁾ Calculation model:
complete sum / 60 months / 3 partners = ca. € 45,-



Region will benefit. Bike-energy promotes e-mobility

Gastronomy / Hotels / Companies
Practical e-mobility functionality
Free parking spaces, reduced traffic congestion

E-bike Retailers
Upgrade any e-bike with revolutionary charging cable

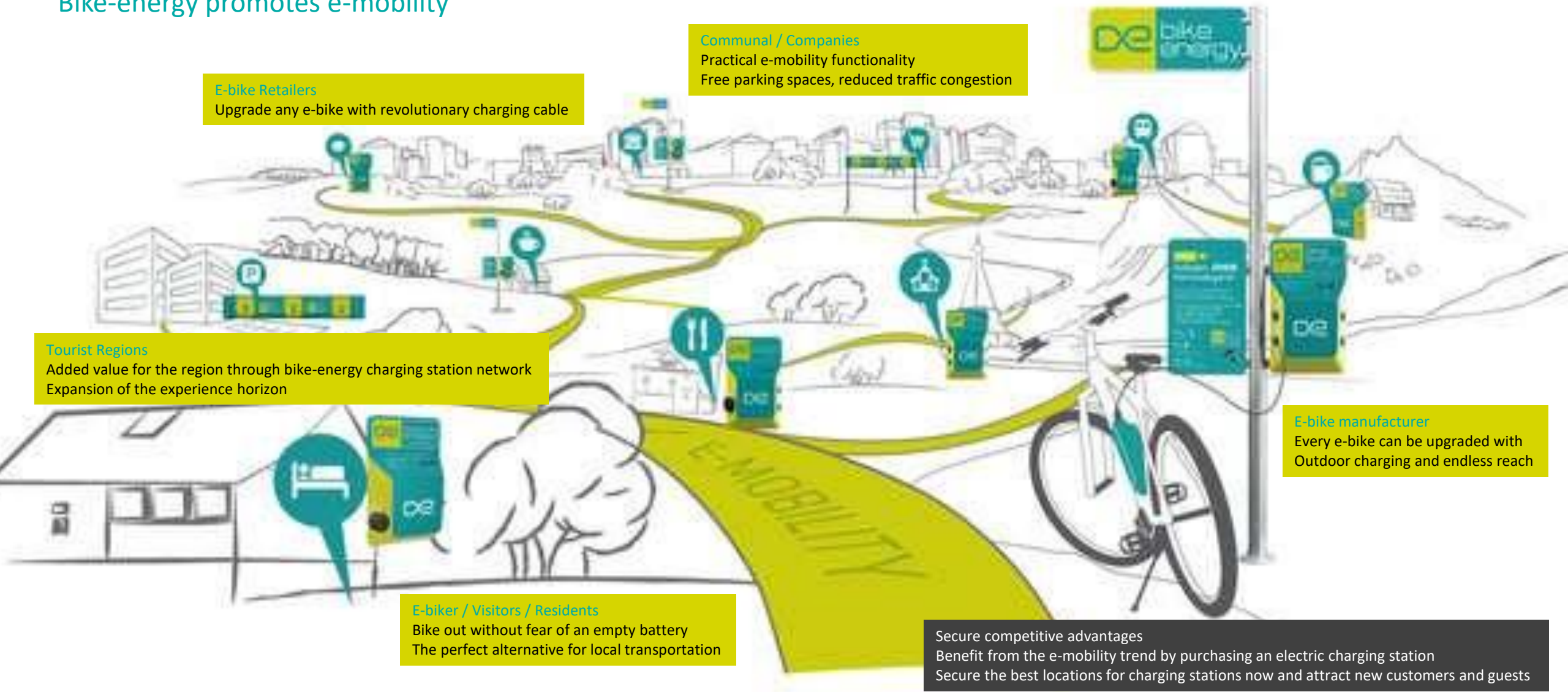
Communal / Companies
Practical e-mobility functionality
Free parking spaces, reduced traffic congestion

Tourist Regions
Added value for the region through bike-energy charging station network
Expansion of the experience horizon

E-bike manufacturer
Every e-bike can be upgraded with
Outdoor charging and endless reach

E-biker / Visitors / Residents
Bike out without fear of an empty battery
The perfect alternative for local transportation

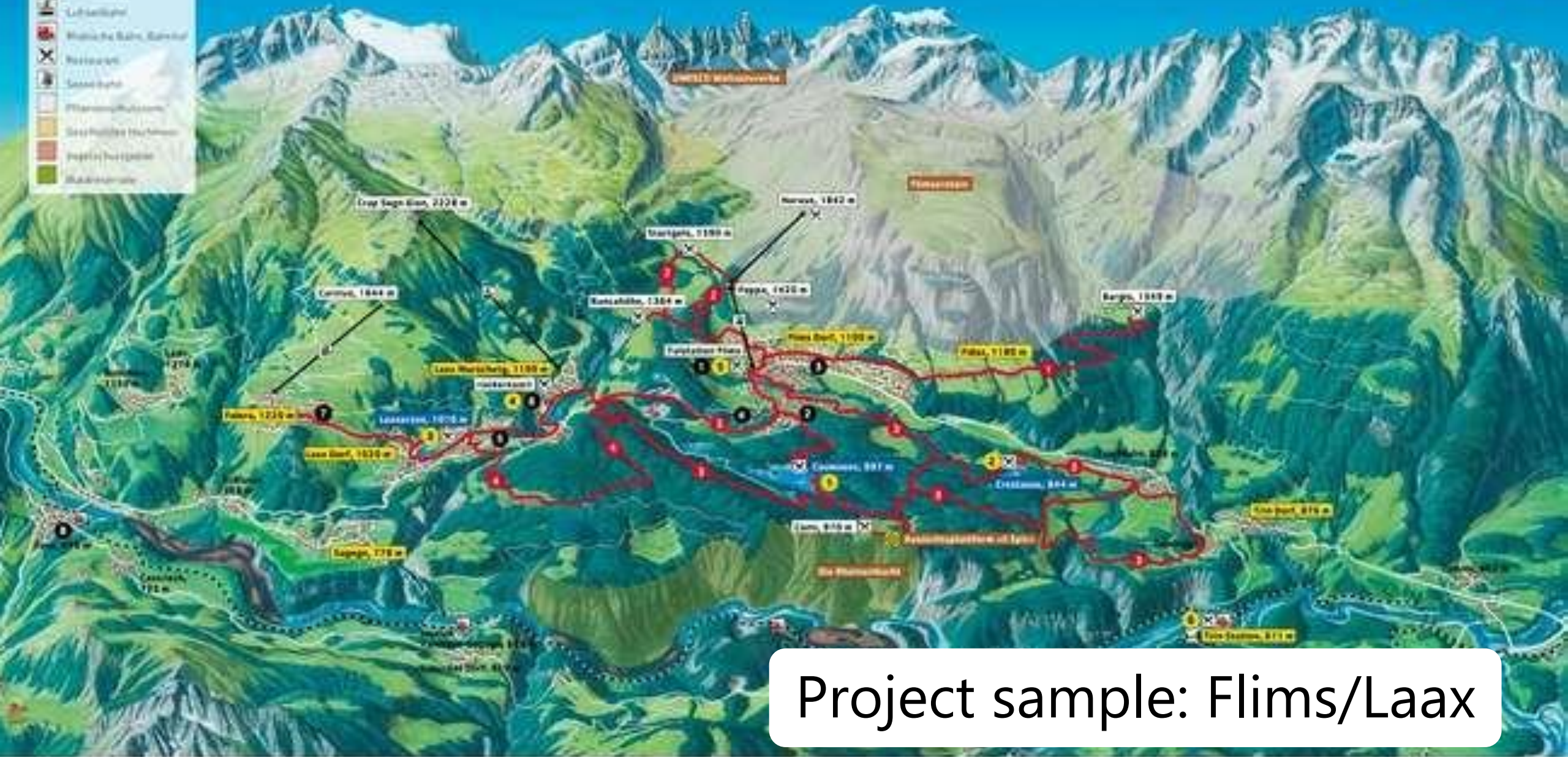
Secure competitive advantages
Benefit from the e-mobility trend by purchasing an electric charging station
Secure the best locations for charging stations now and attract new customers and guests



E-Mobility and E-Bike Tourism increases with charging infrastructure

LEGENDE

- Aussonnigter Punkt
- Windmühle
- Liftstation
- Kabelfahrer, Seilbahn
- Restaurant
- Seilbahn
- Windmühle
- Windmühle
- Windmühle
- Windmühle



Project sample: Flims/Laax

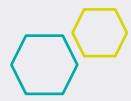
...satisfied customers!

Follow us for more!



PORSCHE





bike-energy protects the battery and extends its service life!



The charging electronics from *bike-energy* were developed in cooperation with leading international experts in battery technology, with the aim of providing maximum battery protection! Several factors are taken into account to protect the battery during charging:

bike-energy provides maximum protection for the battery during charging. Each docked battery is charged exactly according to the original charging protocol.

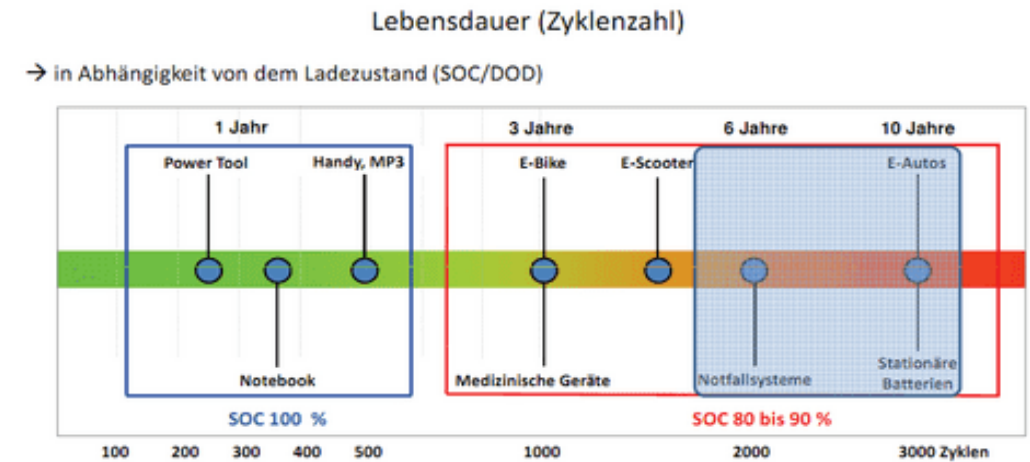
bike-energy charges ultra-slowly in the first phase. This protects the battery as much as possible.

bike-energy uses the most intelligent and powerful electronics for maximum battery conservation.

bike-energy charges batteries faster. Only applies to batteries that are made for fast charging!

bike-energy reduces the feed-in rapidly in the last charging process, the feed-in decreases rapidly.

Conclusion: The battery is protected to the maximum and the service life is increased.



- je höher SOC, desto geringer Zyklenzahl
 - in manchen Applikationen 100 % SOC erforderlich
- je niedriger SOC, desto höher Zyklenzahl
 - in manchen Applikationen hohe Lebensdauer erforderlich
 - niedrigerer SOC auf Kosten der Kapazität

Answers to frequently asked questions

Financing

Due to the current low interest rate structure, municipalities, cities, energy suppliers or tourism associations finance the systems via a leasing package (sale and lease back), i.e. the system is sold to the bank (so that the investment amount is immediately returned) and then leased from the bank, with the system returning to the investor with the final leasing amount.

Charging cable

The charging cable is available from specialist sports retailers or in the bike-energy online store. Many restaurateurs and businesses use the charging cable as a guest magnet. They buy an assortment (= 5 pcs.) of the most common charging cables and lend them to guests and customers. Charging is offered as a FREE service, as a battery charge is only about 4 cents anyway. During the charging time, customers come into the restaurant and consume.

Battery / Charging Technology

Battery manufacturers recommend: To ensure that modern lithium-ion batteries last a long time, they should be charged as often as possible with small amounts of electricity. bike-energy is ideal for this, because wherever eBikers stay, they can also be charged.

Batteries have a long range

Cars also travel 1000 km on 1 tank of gas. Nevertheless, there are filling stations everywhere. Similarly, eBikers want a charging infrastructure that allows them to charge anywhere. Spontaneous rides or longer tours are then possible - even if the battery is not fully charged. bike-energy stations see themselves primarily as providers for the road. That is why they are also located at businesses where eBikers linger.

Which model?

bike-energy TOWER is purchased most frequently. Reasons: The high signal value! Guests can see from afar where they can rest and recharge. The high mobility! If necessary, the station can simply be moved to another location. bike-energy POINT is used wherever there is no space for a TOWER. Advantage: Less expensive. Disadvantage: Less easily recognizable, bikes lean against the wall. bike-energy LINE can be extended endlessly and is used for large bike parking facilities or existing bike racks.

Further costs / Warranty

Power connection: 230V 10A is sufficient for e-bikes. Electricity costs: One battery charge costs only approx. 4 - 5 cents. All bike-energy systems come with a 2-year full warranty. bike-energy stations are extremely robust and largely maintenance-free. The prescribed annual inspection can be carried out by any certified electrician. Support: bike-energy systems are equipped with an open standard. This ensures ongoing adaptation to new standards and new drives coming onto the market. A support and service agreement is concluded to ensure that every charging station is up to date.

References:

bike-energy is recommended and operated by leading tourism regions, energy suppliers and battery manufacturers. e.g: Salzburgerland, Laax-Flims CH, N-ERGIE Nürnberg, Illkraftwerke Vorarlberg, Reutte Energie Werke, BMZ batteries, etc. bike-energy stations have been in continuous use in cities, tourist regions and in the high mountains since 2011.



Energy for
E-bikes

Thank you!

www.bike-energy.com

