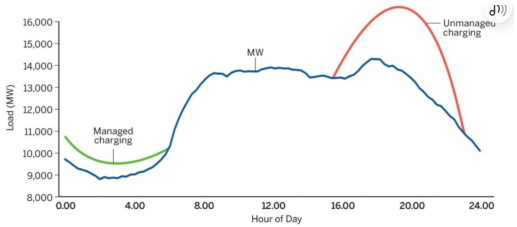
NIKOLA

Fast transition to **NET ZERO CITY**.

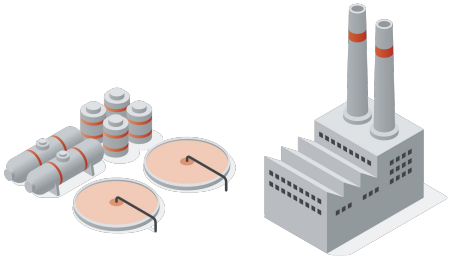
Problem

There are **115** future **“Net zero Cities”** in EU that are challenged with the impossible task to become **net zero by 2030**.

Lack of EV charging infrastructure and need of 10 million EV chargers in EU alone.



Energy fluctuations can deteriorate the grid, Increased electricity consumption will put grid to the test.

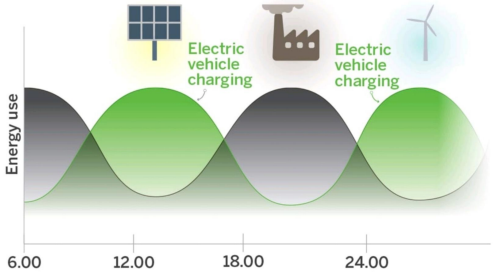


Increased consumption of energy from **non-renewable sources** is negating EVs carbon neutrality.

Solution

Net zero cities can deploy thousands of **NIIKOLA** chargers **in a month time**. Helping them to **fast transition to a net zero goal**.

EV charging infrastructure **in every lamppost**.



Microgrid - multiple **chargers with batteries** help manage energy fluctuations.

Increase the mix of **renewable energy** to charge EVs and improving carbon neutrality

EV Market Investments

Enormous potential with **1000 billion € invested** in EU only **by 2050**.

TAM

Charging infrastructure investment calculated to be at **1.000 billion**.

SAM

300 billion US will be invested into EV charging infrastructure.

SOM

EU is **obtainable market** in size of 50 billion US.

Grid stabilization market

City needs to regulate an **uneven electricity consumption**. **We are ready for V2G support**.

103.4

USD Billion
2026-p

43.1

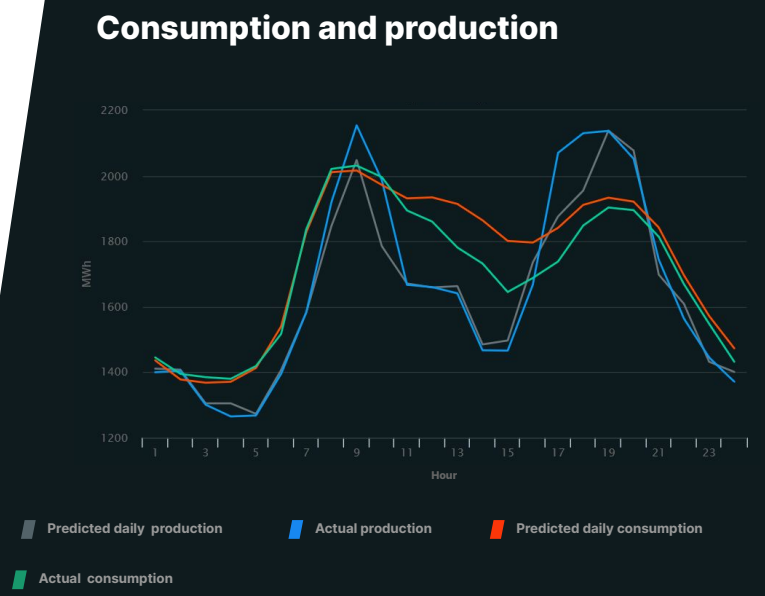
USD Billion
2021-e

CAGR of
19.1%

The smart grid market is projected to reach USD 103.4 billion by 2026. Growing at a CAGR of 19.1% from 2021 to 2026.

Slovenia winter day consumption and production

When **majority transportation in country** is electric, the **consumption could rise by 500MW** - Night consumption could reach current day peak consumption.



How it works

Installation possible to **any existing lamp post in the same day**.

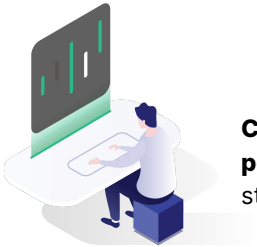
NET ZERO CITIES

This is B2G solution for cities that need deal with quick to transition to EV mobility - Netzero cities.

OCPP

Ocpp 1.6 support for charging applications.

Using lamppost for charging infrastructure.



Custom panel for strategic positioning for microgrid stabilization.

Safe, scalable, smart

We developed battery powered charging units to power electrification **anytime, anywhere**. Through **modular product** design, **our technology** can support all of your energy storage challenges, no matter the complexity. Every **NIIKOLA charging unit** comes with our product promise guarantee: safe, scalable, smart technology.

Safe

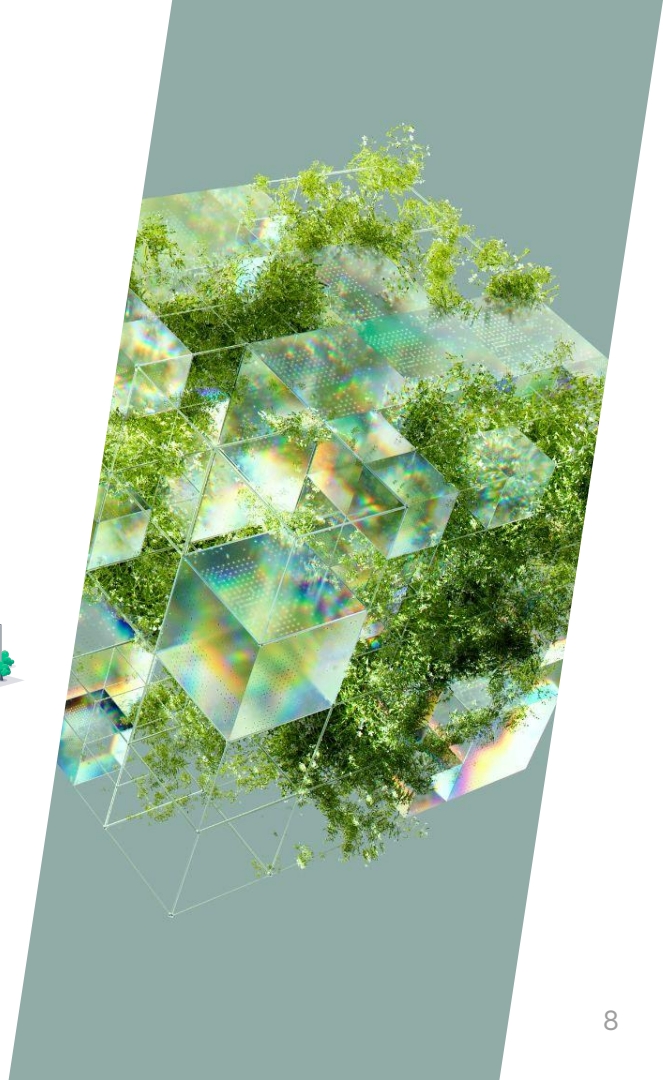
Our products are built with A-grade Lithium Iron Phosphate cell technology.

Scalable

Modular solutions from 10 kwh units to multiple stacks of charging units in small space.

Smart

Smart tech that can connect, interface and communicate with existing infrastructure.



Future-proof features

Our **battery powered** charging units are designed as **all-in-one solutions**. Combining scalable performance characteristics and engineering, you can deploy your **NIIKOLA charger at any location**.

Peak shaving
Increase available power by enhancing available grid connections.

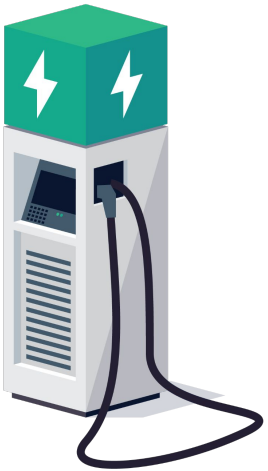
Peak shifting
Advance or delay large energy loads to match network capacity and improve utilisation of infrastructure.

Off-grid power supply
Connect local renewables generation and electricity demand in a powerful micro-grid.

Back-up mode
Guarantee a electricity supply during outages or network failures.

Technical specs

Street **lamppost EV charger** with **grid stabilization capability**.



NIIKOLA Charger

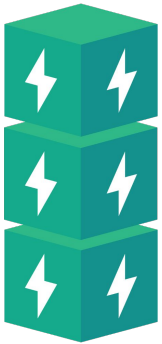
max 11 kWh (3 phase, 3×16Amp)

Single phase/triple phase:
1 phase: 1 × 16Amp - 1×32 Amp (3,7kW - 7,4kW charging speed)
3 phase (3 × 8 Amp – 3 × 16 Amp (5,5kW – 11kW charging speed)

Communication module
5G SIM card

API support
Chargemap, Plugshare & other supported charged by available apps

Conformity
CE, IEC6247, IEC62485, IEC61000



NIIKOLA Battery

Modular design
1× 10 kWh 51V
2× 10 kWh 51V

Cell chemistry: LiFePO4 (LFP)
Cycle life: 5000 (at 90 proc DOD)
Operating temperature : -25 deg C to +45 deg C
Integrated BMS

Battery charger
Max power: 10kW

Inverter - hybrid type
Off grid max 11 kW AC 220V
Grid tie (grid feed) max 11kW AC 220V

Roadmap

Ready for pilots with electricity distributors and government clients.

September 2022
Patent application filed

October 2022
MVP Prototype

September 2023
Certification and conformity

October 2023
Slovenian electricity distributors pilots

April 2024
Mass production start
300 units/month, at low
cost under 4000 Eur

May 2024
EU cities pilots

Competition

There are **no other companies** incorporating the **three solutions in one**, or following the same structure.

EV chargers that provide lamppost EV charging
EnelX
Ubitricity

Increase renewable energy mix
Renewable energy suppliers

Dual life batteries and **Grid stabilization**
EnelX
Renault
Porsche group

Our Team

Diverse team with **huge international experience**.

Metod Podkriznik
CEO

Investments lawyer who has worked across different counties building legal governance structures and decided to focus the last two years on building sustainable mobility solutions for cities and companies.

Luka Bredasko
CTO

Ph.D., Institut Jožef Stefan ML/AI research (knowledge acquisition, personal patterns detection, logical inference engine development, Geo-spatial clustering, personal patterns detection/prediction), Solvesall, Senior Dev at Bloomberg LP New York, Leading/Managing EU projects (WP leader)

Klemen Furlan
Advisor

Spent the last five years in mobility software. In his career, he founded several startups.Chicago mercantile exchange (CME) software designer with a fintech background. 3 years as the Editor of a leading Slovenian financial magazine (Alfa Financni trgi). He wrote over 500 published articles. Funded and managed quantitative fund, FT Quant.

Jure Repe
COO

Electronic product development, manufacturing, and sales with 12 years of international experience, working in Europe, the US, and Asia (mainly China). Experiences with creating multicultural R@D, logistics, and sales teams to prepare the company for big-scale growth

Dušan Žužek
CFO

Graduated first in his generation - he finished four semesters in one year - at the Faculty of Economics in Ljubljana. Career in NLB in Investment banking. Career in an international advisory company as a consultant. Six years as a member of the Management Board of a production company that has a group yearly turnover above 50 Mio EUR and more than 400 employees.

This where we honed our skills

OMV

Bloomberg

LUKA KOPER Port of Koper

FRAGMAT

CME Group

Jožef Stefan Institute

hse

ADRIA

ADRIA

NLB

XPAND 3D BEYOND IMAGINATION

KF Finance valuations & financial advisory

GoGiro

Thank you!

Metod Podkriznik
+386 41 234 567
metod@niikola.com