Industry 4.0
Smart Cities and Clean Energy Applications

Background and Experience
Developer and Manufacturer of Battery Electric Vehicle (EV) and Hydrogen Fuel Cell EV
North America Technical and Marketing Rep for Thunder Sky Winston Battery

ElektrikCar Current Battery EV, Hydrogen Fuel Cell EV and Li Ion Battery in USA, Indonesia and China

ElektrikCar Future Fuel Cell EV for World Wide Markets
Background and Experience
Deploy and Support Winston Battery Operations in the US, Canada and Mexico

Support Independent Electric Grids Development in the USA:
- Adak Island, AK
- Unalaska, AK
- Anchorage, AK
- California
- Florida
Background and Experience

Developer and Manufacturer of Clean Energy Technology for Automotive & Other Industries.

Developed Tucuxi Sports Electric Vehicle for 200+ miles Ranges in 2012

Developing Hydrogen Fuel Cell Electric Bus Technology for Chinese Markets


We are NA Winston Battery Rep Supporting Sales, Marketing and Technical Development

Developed Special Transport Utility Vehicles in Indonesia

Developing Decentralized Application (dApp) for Money Transfer using Blockchain Technologies

Start-Up Company with Zero Debt
What are Our Objectives Now?

- Expand Worldwide Manufacturing Battery EV and Hydrogen Fuel Cell EV
- Deploy Current Blockchain App for Money & Part Transfer
- Leverage Further Winston Batteries for Smart City Application

ElektrikCar-Elektrakka are Raising Fund via Angel, VC and/or Blockchain Security Token Offering (STO)
Why? Environmental Destruction Towards “Point-of-No-Return” (Y2030 IF no actions)

The better sky, air, water qualities, due to Covid-19, will be degraded when the economy restarts

Need Actions & Supports to Prolong the Point-of-No-Return

IPCC Report on Global Warming

Green House Gases from pre-Industrial to 2005

- Social Distancing
- Use of PPE (Face Mask, Gloves, Antibacterial)
- Ghost Towns & Lockdowns

Wuhan China after Covid-19

Cleaner, greener and more responsible way to conduct our daily lives
Why? The rise of new digital industrial technology, Industry 4.0 (I.4)

I.1: Hand to machine 1760-1820, 1840
I.2: Railroad, telegraph, electricity (the technological revolution) 1870-1914
I.3: Digital revolution, end of 20\textsuperscript{th} century

**Smart Cities**
Integrated deployment of EVs, EV charging, FCEV & renewable power generation on blockchain platform

**Smart Factory**
Clean & green w/ small footprint of decentralized but integrated factories

**Industrial IoT**
Integrated networks of autonomous EV & FCEV run on decentralized blockchain App

Adapt and Survive with I.4

Source: BCG analysis
So What Industries are Needed after Covid-19 (Acceleration of I-4)

Eco-Friendlier Industries (Hydrogen Economies)

- Hydrogen Fuel Cell and Electric Vehicles Production
- Solar-Wind-Battery Electric Power Generation
- Deployment of Decentralized Blockchain Application

ElektrikCar and Elektrikka are positioned well for the demand of Cleaner Industries and Industry 4.0
Smart Cities Application: Clean Renewable Power Generation

- Renewable Energies (Hydrogen, Solar, Wind)
- EVs and FCEVs (Buses, Passenger Cars, Electric Motorcycles...)
- Battery – Electric Power Plant
- Smart Factory
- Decentralized Blockchain Applications
- Industrial IoT (Autonomous vehicle, Integrated EV-Charging Network)

ElektrikCar and Partner (Thunder Sky Winston Group) Develop Business in These Areas
Clean Renewable Power Generation

Clean renewable energies are sources of energy derived and harvested from environmentally friendly sources, during energy collection and/or mining process. Its energy application should not cause any green house gases emission into the environment.

Hydrogen economies are economic activities based on the use of hydrogen gases (common & abundant gases on earth) for power generation, transport and other applications for human activities. Hydrogen gas should be harvested with methods that do not increase any GHG release.

This is the Cleanest Hydrogen-Electric Production Process
Current and Future ElektrikCar EVs and FCEVs

- Passenger Cars and 3-Wheeler (R3EV)
- Leaning Three Wheeler
- Battery Electric and Fuel Cell Electric
- 3KWh, 25KWh-100KWh Battery Pack
- 100Km-500Km (60-320 Mile) Range
- Built in Indonesia/China for NA, Ina, China and EU

$1000-1500 USD

Carbon Fiber/Carbon Composite Body

$27,500-45,000 USD
Current and Future ElektrikCar Battery & Fuel Cell Buses

- Public transport buses as EV and Hydrogen FCEV
- Dual Battery Electric and Fuel Cell Electric Capabilities
- 140KWh, 340Wh Battery Packs
- 30KW and 60KW Fuel Cell Power Modules
- 200km – 1000km (120-1609 mile) Range
- Can be built and deployed anywhere
- Bus body can be sourced locally
- City or inter-city buses or airport transport
- Carbon Fiber/Carbon Composite Body
Decentralized network of computers/servers/nodes that records ledger transactions and published them by the largest number of node consensus which are connected/chained together into blocks (hence the term of blockchain).

The electronic ledger transactions are recorded cryptographically and being valued using cryptographic currency or token (here the lingo of cryptocurrency and token are derived).

Each blockchain network has its own native currency or commonly known as cryptocurrencies such as Bitcoin, Bitcoin Cash, Ethereum, Neos, XRP, Tezos, DAI and etc.

Bitcoin is originally intended as fund transfer electronic tool to provide free access, unrestricted and borderless money transfer. Contrary to many people believe, blockchain network is always regulated by the network creators. Mostly on how to charge transfer fees (gas money) and to award public network/nodes/servers that record transaction and solve the cryptic math problems (mining).

Some blockchain platforms attract other project to collaborate on to their platforms. These outside projects are normally allowed to organize their activities using contracts that smartly record all transactions (smart contracts), issuing tokens, or organizing their decentralized autonomous organization (DAO) or even develop their unique decentralized application (DApp).
Elektrikka Blockchain Network
To Develop Decentralized App (dApp) & Platform for Money and Part Transfer
Conduct Security Token Offering (STO) Now

Token (Money/Part) Transfer Diagram

Ethereum BlockChain
Smart Contract
Payment Service
Token Issue
Purchase and Lease
Warranty Issue

High Cost Process

Bank ↔ eWallet ↔ Token

Current Cryptocurrency Transfer Process

Elektrikka Streamlined Process
Elektrikka Blockchain Network
To Develop Decentralized App (dApp) & Platform for Money and Part Transfer
Conduct Security Token Offering (STO) Now

Elektrikka Smart Contract on Ethereum Network

Elektrikka Money & Part Transfer Layout

Smart Contract Controls dApp

Instant Transfer

Token

Elektrikka Smart Contract on
Ethereum Network

rinkeby.etherscan.io
Fuel Cell and Electric Vehicles Market

Electric & plug-in electric vehicles 4 millions end of August 2018. 5 million EV by mid 2019 (including FCEV)

Electric & Plug-In Electric Vehicle: 4M in 2018
5M in 2019

Electric Motorcycle: 250M in 2017 (Mostly in China)
95% of Chinese Motorcycles are electric
$19.3B USD with 7.8% growth (2018)

Electric Three-Wheeler: 50M in 2017 (Mostly in China)

Total Cumulative Electric Vehicle Milestones (Courtesy of Bloomberg NEF)

TARGETS

EV30@30 (30% EVs in 2030): 228M EV (Excluding Two- & Three-Wheeler)
EV30@30: 585M Electric Two- & Three-Wheeler

ElektrikCar-Elektrikka aims at 5-10% of This Market
Business Opportunities:

- Part Manufacturer or Assembler (Indonesian Manufacturing Basis are Ready)
- Control and System Developer (Software Developer)
- Fuel Cell Module (Catalyst Membrane, Integrator etc.)
- Battery Technologies Manufacturer (Company Relocation, Tech Transfer, Part Producer …… )
- Blockchain Developer (Money Transfer Gateway, Part Supply Chain Developer)
- Smart Cities and IoT
Seminar Takeouts (Our Challenge)

- **R&D**
  - We Transfer Technologies
  - Joint Product Development

- **Teaching Factory**
  - Student Jobs
  - University Product

- **Joint Production**
  - Product Marketing
  - New Product Development

- **Joint Production**
  - We Transfer Technologies
  - Factory Production

- **Sales & Marketing**
  - Leverage Overseas Network
  - Market Expansion

- **New Development**
  - New Product Development
  - Factory Relocation