

# **ADELE ENERGY GROUP**

## **Manufacturer of charging infrastructure**

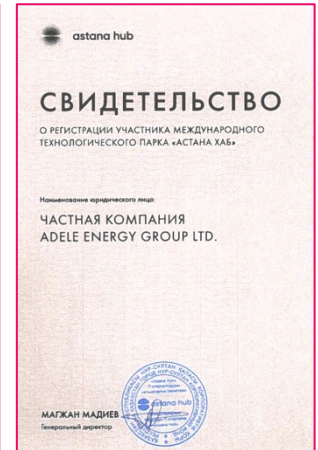
Brief information about the company

# ADELE ENERGY

## BIRTHPLACE

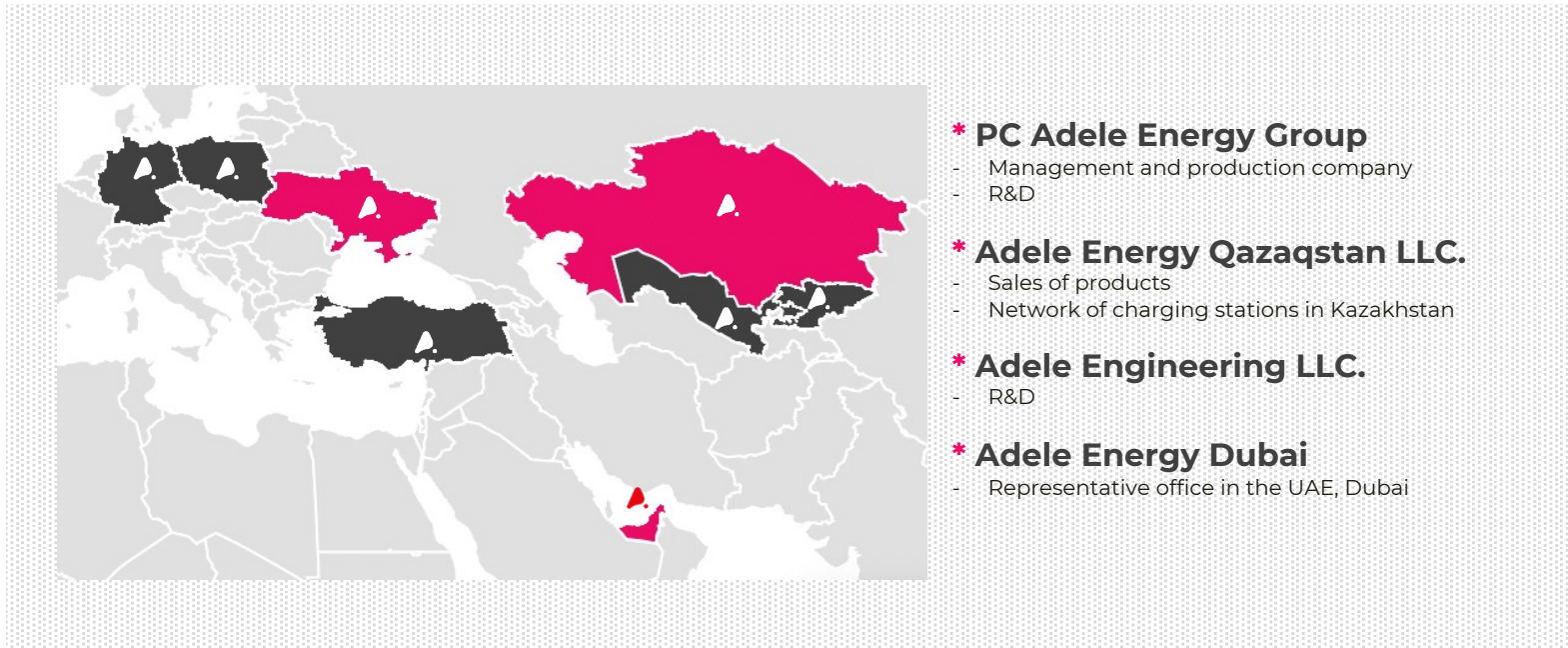
In 2013, the company was founded by a team of engineers. And in 2020, the Adele Energy Group continued its business by registering its Head Office in the perimeter of the AIFC, the city of Nur-Sultan.

Located in the international technopark of AstanaHab, the company received a number of advantages.



# ADELE ENERGY

## COMPANY STRUCTURE



The company is working on launching the assembly in Hamburg (Germany) and opening representative offices: Warsaw (Poland), Antalya (Turkey), Bishkek (Kyrgyzstan), Tashkent (Uzbekistan).

# Products company

AN ELEGANT INFRASTRUCTURE SOLUTION

## Nova - AC Station

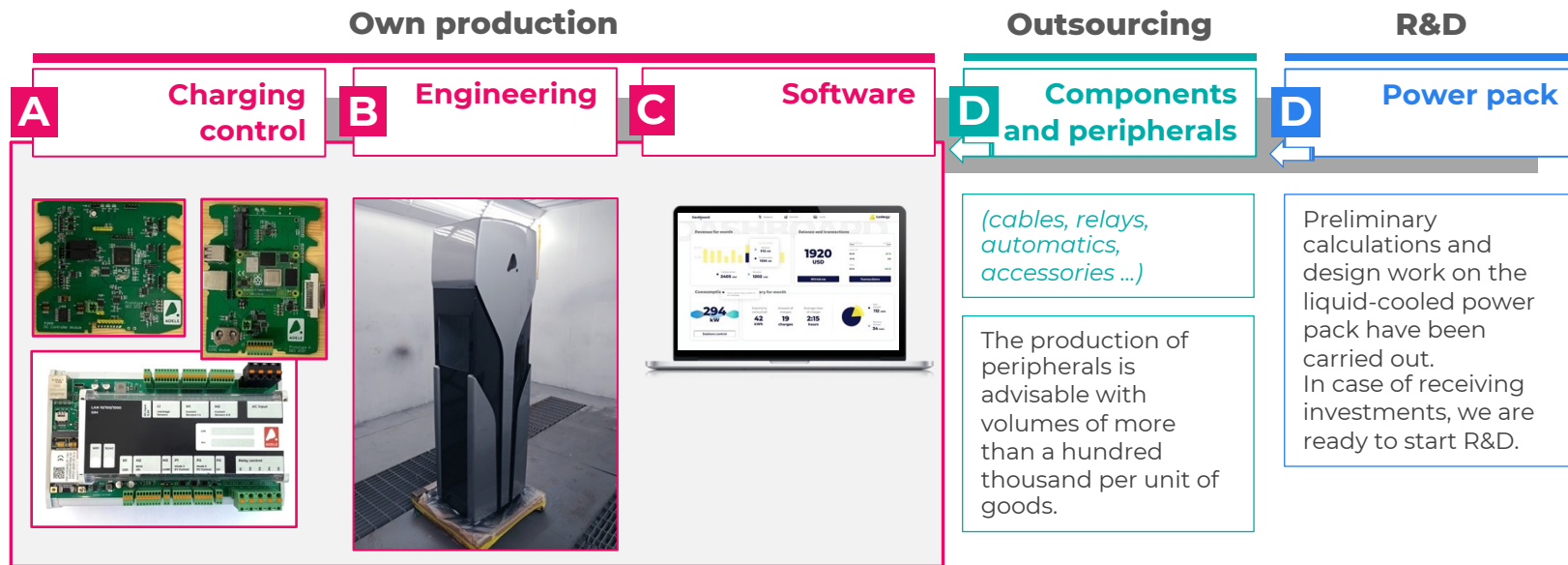


## Foton - DC Station

The flexible system of Adele Energy charging stations provides the smartest, fastest and safest solution for charging electric vehicles, and high-quality materials provide additional reliability, increased safety and protection.

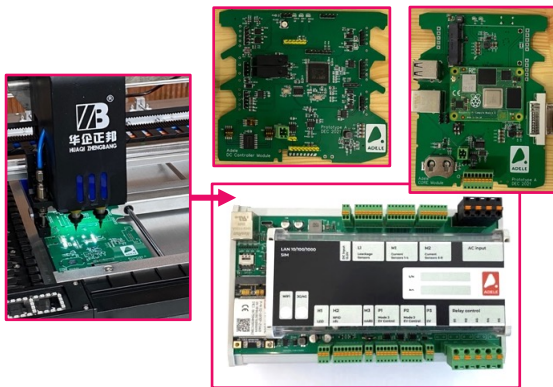
A modular system with support for all charging protocols will allow you to charge any electric vehicle in the world.

# Main technologies in production ECS\*



\*ECS – electric charging station

## Own development



Own development of controllers

### CHARGING CONTROL CONTROLLER

Adele Energy engineers develop, test and produce their own control board (controller) of the charging station using the best and advanced technologies.



Designing

Prototyping and  
Production

### DESIGN SOLUTION FOR THE PRODUCTION OF A CHARGING STATION

Developments are carried out by industrial designers and engineers in the Fusion 360 program, where mechanical, temperature and other loads are simulated.

## Cooperation and win-win ability

Supply Chain System – Adele Energy has built up a complete supply chain system, and established good partnership with world first-class suppliers



# Certificates

**EAC**

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ  
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ

**Заявитель:** Частная компания Adele Energy Group Ltd (ИНН: 210240900314); ИНН 210240900314  
Место нахождения: РЕСПУБЛИКА КАЗАХСТАН, город Нур-Султан, район Есиль, проспект Мангиляк Ел, 55/23, блок С4.4, офис 245; телефон: + 7 777 0611350; электронная почта: [ruslan.dubonov@adele.energy](mailto:ruslan.dubonov@adele.energy)  
в лице: Генеральный директор Дюссенов Руслан Тельманович  
заявляет, что Зарядная станция для электромобилей, модель Foton, Торговая марка ADELE ТНВЭД 8504405500, Серийный выпуск: -  
Продукция изготовлена в соответствии с ИД изготовителя  
Изготовитель: Частная компания Adele Energy Group Ltd, РЕСПУБЛИКА КАЗАХСТАН, город Нур-Султан, район Есиль, проспект Мангиляк Ел, 55/23, блок С4.4, офис 245

**Соответствует требованиям:** Технического регламента Таможенного союза "О безопасности автомобильного оборудования" (ТР ТС 004/2011), Технического регламента Таможенного союза "Электромагнитная совместимость технических средств" (ТР ТС 020/2011)

**Декларация о соответствии принята на основании:** Протокол испытаний № ГЭК-1369/21 от 11.06.2021 выданного Испытательная лаборатория ООО «Транс Качество», аттестат аккредитации: РОСС RU.32001.04НВФ1.Н.030; Схема декларирования: ИД

**Дополнительная информация:** ГОСТ ВЕС 60335-2-29-2019; ГОСТ МЭК 60204-1-2007 (IEC 60204-1:1997); ГОСТ ВЕС 41000-6-1-2016; ГОСТ ВЕС 431000-6-2-2016; ГОСТ 30804.6.2-2013; ГОСТ 30804.6.4-2013; ГОСТ 61851-2013; ГОСТ ВЕС 60204-1-2007 (IEC 60204-1:1997). Условия хранения продукции в соответствии с ГОСТ 15150-69. Условия хранения конкретного изделия, срок хранения (службы) указывается в прилагаемой к продукции товарносервисной документации и/или эксплуатационной документации.

Декларация о соответствии действительна с даты регистрации по 11.06.2024г. включительно.

  
Дюссенов Руслан Тельманович  
(И.Д.И. заявитель)

Регистрационный номер декларации о соответствии: ЕАЭС КG417031 Д.0002404  
Дата регистрации декларации о соответствии: 11.06.2021г.

**A. Nova AC station**

**EAC**

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ  
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ


**Заявитель:** Частная компания Adele Energy Group Ltd (ИНН: 210240900314); ИНН 210240900314  
Место нахождения: РЕСПУБЛИКА КАЗАХСТАН, город Нур-Султан, район Есиль, проспект Мангиляк Ел, 55/23, блок С4.4, офис 245; телефон: + 7 777 0611350; электронная почта: [ruslan.dubonov@adele.energy](mailto:ruslan.dubonov@adele.energy)  
в лице: Генеральный директор Дюссенов Руслан Тельманович  
заявляет, что Зарядная станция для электромобилей по бытового назначения, модель Nova, Торговая марка ADELE ТНВЭД 8504405500, Серийный выпуск: -  
Продукция изготовлена в соответствии с ИД изготовителя  
Изготовитель: Частная компания Adele Energy Group Ltd, РЕСПУБЛИКА КАЗАХСТАН, город Нур-Султан, район Есиль, проспект Мангиляк Ел, 55/23, блок С4.4, офис 245; ИНН: 210240900314, номер телефона: + 7 777 0611350, адрес электронной почты: [ruslan.dubonov@adele.energy](mailto:ruslan.dubonov@adele.energy)

**Соответствует требованиям:** Технического регламента Таможенного союза "О безопасности автомобильного оборудования" (ТР ТС 004/2011), Технического регламента Таможенного союза "Электромагнитная совместимость технических средств" (ТР ТС 020/2011)

**Декларация о соответствии принята на основании:** Протокол испытаний № РУС-74/21 от 08.06.2021 выданного Испытательная лаборатория ООО «СТАИДАРТУС», аттестат аккредитации: № РОСС RU.32001.04НВФ1.Н.033 от 12.05.2021; Схема декларирования: ИД

**Дополнительная информация:** ГОСТ МЭК 60204-1-2007 (IEC 60204-1:1997); ГОСТ 30804.6.2-2013; ГОСТ 30804.6.4-2013. Условия хранения продукции в соответствии с ГОСТ 15150-69. Условия хранения конкретного изделия, срок хранения (службы) указывается в прилагаемой к продукции товарносервисной документации и/или эксплуатационной документации.

Декларация о соответствии действительна с даты регистрации по 08.06.2024г. включительно.

  
Дюссенов Руслан Тельманович  
(И.Д.И. заявитель)

Регистрационный номер декларации о соответствии: ЕАЭС КG417031 Д.0002303  
Дата регистрации декларации о соответствии: 08.06.2021г.

**A. Foton DC station**

  
**PORSCHE**

**Certificate**

Artem Rodin

has successfully attended a certification program by  
Dr. Ing. h.c. F. Porsche AG in February 2021

The programme included the **commissioning of the Porsche Charge Box (CBX)**:

- Set Up & Commissioning of the Hardware & Software
- Service & Maintenance during operations
- Support Cases & Handling of the products

  
Marcus Pazer, After Sales VAB2  
Stuttgart, 15.06.2021

Dr. Ing. h.c. F. Porsche Aktiengesellschaft, Stuttgart-Zuffenhausen



# WE HAVE INSTALLED MORE THAN 100 CHARGING STATIONS

## KAZAKHSTAN

- ▶ **Shopping centers** - Keruen City, MEGA Silk Way, Khan Shatyr, Astana Mall, Dostyk Plaza, Forum Almaty, Magnum, Maxima, Asia Park, Ramstore, SputnikMall, AlmatyMall, AtakentMall, Mega.
- ▶ **Business centers** – Congress Center, EXPO parking, Pyramid, Nursaulet, Atakent.
- ▶ **Hotels** - St. Regist, Wyndham Garden Burabay, Rixos Borovoe, Kazakhstan, Samal, Luxor.
- ▶ **Public institutions** - NQZ Airport, railway station NurlyZhol, Ice Skating Arena Alau, Barys Arena, Cinema and Concert Hall Kazakhstan, Congress Hall, Almaty Airport, Kok Tobe and others.
- ▶ **Residential complexes** – more than 7 residential properties.

# Infrastructure development

## Use cases



**Private sector.** Condominiums, residential complexes, smart neighborhoods, public parking.

*Mainly for AC charging stations with a **power of 7 kW and above.***



**Public places.** Shopping and entertainment centers, complex chains with cafes, restaurants.

*Installation of AC chargers with **power from 22 kW and above.***



**Commercial buildings.** Parking lots of business centers, fleet of companies, car dealerships, service centers.

*Installation of **DC and AC** chargers with a **power of 22 kW and above.***



**Government agencies.** Police, ambulance, emergency services and others.



**Company transport.** Fleets, logistics and supplies, taxi services, carsharing, bus fleets.



**Highways and roads.** Roadside establishments, operating gas stations.

*Installation of **DC and DC fast** chargers with **power from 120 kW and above.***

# History (Main events)

2017	2018	2019	2020	2021
<ul style="list-style-type: none"> <li>✓ Participation in the development of the program for the development of the national network of electric charging stations in the Republic of Kazakhstan</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Installation of more than 100 charging stations</b> at the largest urban facilities of Almaty and Nur-Sultan</li> </ul>	<ul style="list-style-type: none"> <li>✓ Organization of the <b>"transfer" of 100 electric buses</b> from the Kostanay plant "Saryarkaavtoprom" to the city of Nur-Sultan</li> <li>✓ Organization of <b>the first electro-marathon in Kazakhstan</b> together with IGTIC</li> <li>✓ Included in the initiated Project of the President of the Republic of <b>Uzbekistan "Program for the development of the automotive industry in the Republic of Uzbekistan"</b>.</li> <li>✓ Consultation of Tesla representatives in Kazakhstan</li> <li>✓ Top 4 out of 134 as the best EV charging infrastructure solutions by StartUp Insing</li> </ul>	<ul style="list-style-type: none"> <li>✓ Rebranding of ADELE ENERGY</li> <li>✓ Development of an AC and DC charging station with the involvement of designers from the automotive industry and shipbuilding.</li> <li>✓ Launch of production of charging stations in Kazakhstan.</li> <li>✓ Signing of a contract for the modernization of the charging station network with installation AC board of the company "Adele Energy".</li> <li>✓ A cooperation agreement was signed with the CATL company</li> </ul>	<ul style="list-style-type: none"> <li>✓ Obtaining <b>"EAC" certificates</b> for all ADELE products</li> <li>✓ <b>Participation in EXPO DUBAI 2020</b>, in the Kazakhstan Pavilion (to date)</li> <li>✓ Obtaining <b>a certificate from Porsche</b></li> <li>✓ Connection and configuration of a 350kW Porsche high-speed charging station in Almaty</li> <li>✓ Development of a new generation ECS control board for AC charging.</li> </ul>



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## ADDITIONAL INFORMATION

# Own software



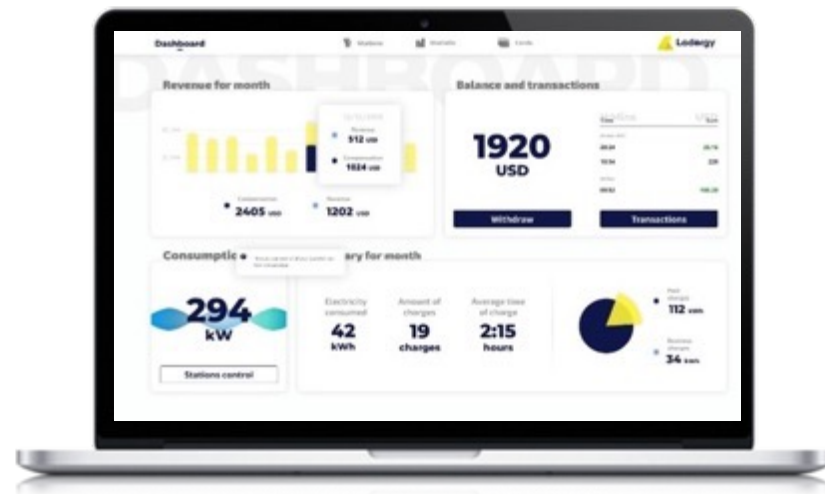
- Provides a hybrid CPMS (Charge Point Management System) system that allows you to organize own charging station networks;
- Real-time technical monitoring of the entire network;
- SmartGrid - intelligent grid load balancing that efficiently distributes available power across all electric vehicles being charged;
- A unique system of direct QR payments (payment and accrual without registration);
- Flexible setting of tariffs for each station and the entire network;
- The software allows to manage all existing charging stations with OCPP (Open Charge Point Protocol) protocol.

## LADERGY

for managing charging stations, payment acceptance system

## ADELE CLOUD

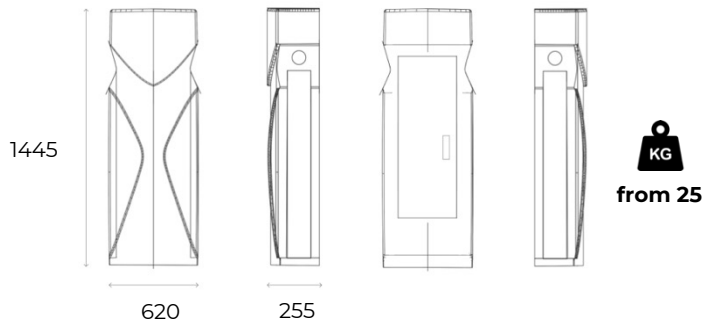
Technical monitoring and station updates in real time



# Nova AC station

## TECHNICAL DATA SHEET

Model Configurations			
Nova AC	Sockets	Cable	
Rated power (kW)	44	29	44
Type 1		✓	
Type 2	✓	✓	✓
RFID / NFC	✓	✓	✓
Options			
Connection	Modem 4G or 5G, LTE		
CPMS	OCPP 1.6j		
Measurement	Current transformers or MID meter		



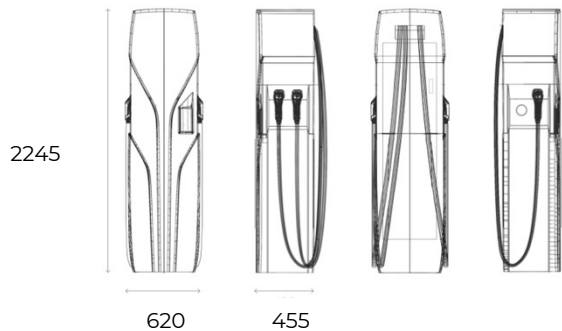
Product Information	
Charging type	Level 2 (mode 3)
Voltage	3-phase AC, 400V±20%, 50/60Hz
AC output power and current	Type1 - 7kW (1x32A 230VAC) Type2 - 22kW (3x32A)
AC connectors	2 x Type 2 or Type1, Mode 3 Socket or cable (Optional)
Protection	Overvoltage, Undervoltage, Overheating, Overcurrent.
General	
Hull protection	IP54 / IK10
Operating temperature range	-30C / +60C (the speed may decrease)
Storage temperature range	-40C / +60C
Dimensions H x W x D	1445 x 620* x 255* mm
User Interface	
HMI	Address LED Strip
User authentication	RFID, NFC Reader, App or web resource
CPMS	OCPP 1.6j
Connection	Ethernet, Wi-Fi, 4G LTE, RS485, TCP/IP (connecting to a local controller)
Standards	IEC 62196-2, IEC 61851-1, National standards

# Foton DC station

## TECHNICAL DATA SHEET

Product Information	
DC connectors	3 high-speed ports to choose from DC: CHAdeMO; CCS Type1/2 GB/t DC
Voltage	3-phase AC, 400V±20%, 50/60Hz
Output power	DC 60 / 90 / 120 / 150/ 180 (Depends on the configuration)
AC connectors	Type2 socket (optional)
Protection	Overvoltage, Undervoltage, Overheating, Overcurrent.
DC output voltage	150-1000 VDC
Operating humidity	30 % ... 95 % (Non condensing)

General	
Hull protection	IP54 / IK10
Operating temperature range	-30C / +60C (the speed may decrease)
Storage temperature range	-40C / +60C
Dimensions H x W x D	2245 x 620* x 455* mm
User Interface	
Interface	LED Display
User authentication	RFID, NFC Reader, App or web resource
CPMS	OCPP 1.6j
Connection	Ethernet, Wi-Fi, 4G LTE, RS485, TCP/IP (connecting to a local controller)
Standards	IEC61851, IEC62196, IEC62763, SAEJ1772, ISO15118 / DIN70121, National standards



 **KG**  
from 190

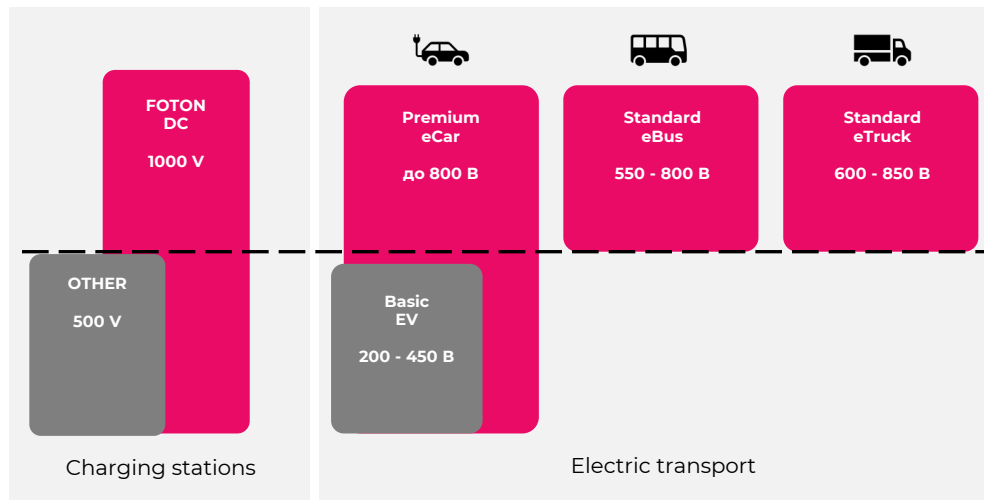
# Foton DC station

## DC CHARGING

**Foton DC** - Supports all existing fast charging standards: CCS, CHAdeMO, IGBT DC. A wide range of loads from 150V to 920V, makes it possible to charge passenger and heavy vehicles (buses).

Traditional car batteries are usually designed for charging with a voltage of 400 V DC, so many standard charging systems do not exceed 500 V DC.

However, some new cars may have rechargeable batteries whose voltage exceeds 400 V DC, and often operate in the range of 600 to 800 V DC.



Some batteries for electric vehicles, for example, intended for use in a bus fleet, can only be charged at a high rated voltage, which requires a charging infrastructure capable of providing power adapted to high-voltage batteries.

FotonDC chargers from ADELE ENERGY are designed for electric vehicle voltages up to 920 V to provide charging for a wider range of modern and future electric vehicles.

All chargers come with built-in connected services that allow remote monitoring, diagnostics, statistics and software updates.



# Comparative technical analysis

## Charging stations

Model	Socket	Cable	
NOVA	AC44	AC29	AC44

- In this comparative table of manufacturers of public charging stations, examples of floor-mounted charging stations with 2 cables with a European Type 2 connector are given.
- If the manufacturer does not have a floor-mounted station, in this case 2 wall stations + a rack for their installation are indicated.
- The total power for two cables is 44 kW (2x22 kW). Installation type of the station: Outdoor. Number of connectors: 2 units.
- The table shows manufacturers with their own electronics only.

Trademark	Country	Cable (socket) Manufacturer	Vandal-proof housing	Type of station*	Complete set with sockets	Complete set with cables	Standard support GB/t	Remote maintenance
<b>ADELE ENERGY</b>	Kazakhstan	Germany	Yes	A	Yes	Yes	Yes	Yes
Mennekes	Germany	Germany	Yes	A	Yes	No	No	
Schneider Electric	France	Germany	Yes	A	Yes	No	No	
Enel X	Italy	Germany	Yes	A	Yes	No	No	
SETEC Power	China	China	Yes	A	Yes	No	Yes	No
Circontrol	Spain	Germany	Yes	A	Yes	Yes	No	No
Efacec	Portugal	Germany	Yes	A	Yes	Yes	No	No
KEBA	Austria	Germany	No	B	Yes	Yes	No	
ABB	Switzerland	Germany	No	B	Yes	Yes	Yes	Yes
Wallbox	Spain	Germany	No	B	Yes	Yes	No	
ABL	Germany	Germany	No	B	Yes	Yes	No	

# Comparative technical analysis

## Charging stations

Model	Rated power		
FOTON	DC 60	DC 120	DC 180

- This table shows the models on 60 - 120 - 180 kW of power, complete with 2 CCS + CHAdeMO cables.
- If the manufacturer has only 50 kW, they are entered at a cost of 60 kW. Rounded up.
- The table shows manufacturers with their own electronics only.

Trademark	Country	Cable (socket) Manufacturer	Линейка производства, кВт				
			60	90	120	150	180
<b>ADELE ENERGY</b>	Казахстан	Germany	Yes	Yes*	Yes	Yes*	Yes
Enel X	Italy	Germany	Yes	No	No	Yes	No
SETEC Power	China	China	Yes	No	Yes	No	Yes
Efacec	Portugal	Germany	Yes	Yes	Yes	No	Yes
Tritium	Australia	Germany	Yes	No	Yes	No	Yes
Circontrol	Spain	Germany	Yes	Yes	No	Yes	No
ABB	Switzerland	Germany	Yes	Yes	Yes	No	Yes

Trademark	Minimum voltage, V	Maximum voltage, V	Maximum current, A	Vandal-proof housing	Standard CCS	Standard j1772	Standard CHAdeMO	Standard GB/t	Remote maintenance
<b>ADELE ENERGY</b>	<b>150</b>	920	<b>300</b>	Yes	Yes	Yes	Yes	Yes	Yes
Enel X	200	920	200	Yes	Yes	Yes	Yes	No	
SETEC Power	200	920	200	Yes	Yes	Yes	Yes	Yes	
Efacec	200	920	200	Yes	Yes	Yes	Yes	No	
Tritium	200	920	200	Yes	Yes	No	Yes	No	
Circontrol	<b>150</b>	920	200	Yes	Yes	Yes	Yes	No	No
ABB	200	920	<b>300</b>	No	Yes	Yes	Yes	No	Yes

\* This capacity is produced for the project

## Our team



**Ruslan Dyussenov**  
CEO  
Co-Owner

[ruslan.dyussenov@adele.energy](mailto:ruslan.dyussenov@adele.energy)  
+7 777 00 11 350

Over 17 years of successful experience in business development. All of the ventures that had been undergone in both banking, logistics and energy markets bare robust results, with new market disruptive technologies being implemented resulting in various positive outcomes in the supply chain leading to higher revenues and lower operational costs.



**Ivan Trofimov**  
Business Development Director  
Co-Owner

[ivan.trofimov@adele.energy](mailto:ivan.trofimov@adele.energy)  
+7 705 52 00 001

Close to 20 years of experience in business development. Several prospering project in energy and logistics sector.

Vast experience in large-scale multi-level transnational projects (B2B, B2C).

Close to 5 years experience in work and operations of Government driven lobbying bodies and Government corporations.



**Artem Rodin**  
Technical Director  
Co-Owner

[artem@adele.energy](mailto:artem@adele.energy)

More than 7 years of experience heavily dedicated to the R&D of Charging Stations.

Separate focus being in the fields of e-mobility and renewable energy. Leading to a successful production and launch of new software as well as numerous optimizations and improvements of production processes.



**Olzhas Ukenov**  
Director Middle East

[olzhas.ukenov@adele.energy](mailto:olzhas.ukenov@adele.energy)  
+971 50 916 0818

Graduated from Moscow State University and holding MBA degree from Hult Business School.

Seasoned finance professional with more than 15 years of experience working in commercial banking, corporate finance, investment banking.

Olzhas has a broad network of PE/VC funds globally with the focus on fintech, EV and mobility sector.

At Adele Energy Olzhas is responsible for expanding the business in the Middle East Region together with fundraising and investor relations.



**Daurlet Assylbayev**  
Chief Operating Director

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About 25 years of work in various sectors of the economy, management of large industrial facilities, reengineering of business processes, introduction of new advanced working methods, building effective structures, structuring and business development.

Practical experience in attracting foreign direct investment, launching new production facilities.



**Ildar Massiev**  
Head of Construction

[ildar.massiev@adele.energy](mailto:ildar.massiev@adele.energy)

More than 6 years of experience in the field of building the infrastructure of electric charging stations, organization of electric transport logistics in Kazakhstan.

# The Future Is Now

As electric vehicle usage continues to climb, the time is now for future-focused companies to create the infrastructure and business models to leverage this growth. The data is there to make smart decisions about your next steps.

## Will you be first in line to reap the benefits?

**Ruslan Dyussenov**  
CEO

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Business Development Director

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**Daulet Assylbayev**  
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Mangilik El, 55/13, Nur-Sultan, Kazakhstan

**Olzhas Ukenov**  
Director Middle East

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