



Sustainable Factory-built Net Zero Energy Buildings

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BUSINESS OVERVIEW



SOLUTION

Sustainable manufacturing of net zero energy technology residential buildings to save time, money, and the environment.



TARGET MARKET

The global low-rise residential construction market was \$1.6 trillion in 2020, with a 7.9% CAGR from 2020 to 2025, and a market value of \$2.3 trillion by 2025.



KEY TECHNOLOGIES

Robotic construction and fast assembly of sustainable factory-built net zero houses with high-tech ecosystems for healthy and environmentally friendly living.



NET ZERO TECHNOLOGY HOUSE MANUFACTURER

Designed in New York and delivering globally.





THE GLOBAL ENERGY CRISIS

ENERGY PROBLEMS

- **EXPENSIVE ELECTRICITY:** One in five people worldwide does not have access to electricity. 01 About 3 billion people depend on traditional biomass, such as wood or plant materials, for energy, cooking, and heating. United Nations Goal 7 (UN).
- **INEFFICIENT ENERGY STORAGE** is one of the key issues for the entire global energy sector. 02 Modern technologies can provide sufficient generation levels, but the lack of cost-effective storage technologies remains, limiting the opportunities for transformation in the sector. World Energy Council (WEC).
- GREENHOUSE GAS EMISSIONS: Energy is the dominant driver of climate change, 03 accounting for about 60% of total global greenhouse gas emissions. In 2019, CO2 emissions increased to 9.95 Gt per year, with 38% of emissions coming from the construction industry's energy sector. United Nations Goal 13 (UN).
- AIR POLLUTION from the use of combustible fuels for cooking and heating has claimed 4.3 04 million lives. More than half of the world's urban population breathes air 2.5 times higher than safe standards. World Health Organization (WHO).
- **ENERGY CONSUMPTION FOR WATER SUPPLY:** The amount of energy consumed by water 05 systems worldwide is more than 26 quadrillion kWh, accounting for 7% of total global consumption. Electricity consumption in this sector is projected to grow 23% in 2022 from 2000 and 63% in 2050. Congressional Research Service (CRS).
- **ELECTRICITY WASTED FOR HEATING:** Heating costs in residential buildings in Russia 06 amount to 350–380 kWh /sq.m per year (5–7 times higher than in Germany and other EU countries), and in some types of buildings, they reach 680 kWh / sq.m per year. International Energy Agency (IEA).
- 07 UNBALANCED INCREASE IN ENERGY CONSUMPTION is due to an increase in the world population, to reach 9.7 billion by 2050. Higher living standards lead to increased energy consumption. United Nations (UN).



OUR SOLUTION

SUSTAINABLE FACTORY-BUILT NET ZERO ENERGY BUILDINGS

- 01 AFFORDABLE AND CLEAN ENERGY: Akchurin net zero energy homes do not require a connection to traditional energy sources. They use energy from renewable sources and produce 50% more energy per year than they consume-homes without electricity bills.
- RELIABLE ENERGY STORAGE FOR RENEWABLE ENERGY: Lithium-ion batteries built-in 02 the Akchurin floor slabs guarantee autonomous use for seven months in the absence of electricity sources.
- 03 FAST GREEN CONSTRUCTION TECHNOLOGY: 97% of the building materials used in Akchurin structures are recyclable. Also, due to fast (1-3 months) and clean assembly, the amount of construction debris is greatly reduced, significantly decreasing the environmental impact and CO2 emissions.
- CLEAN AIR: Innovative air purification and bottom-up air exchange technology ensure high 04 quality, clean air with minimal energy costs, ensuring Akchurin homes remain safe in the event of future pandemics.
- ENERGY-SAVING AUTONOMOUS WATER SUPPLY: Akchurin's innovative air conditioning and 05 condensate collection system generate 100,000 liters of water per year using geothermal energy. Akchurin houses use an energy-efficient system to collect, store, and biologically self-purify rainwater - NO water bills.
- HEAT ENERGY SAVINGS: Ecosystem engineering and ground source heat pumps reduce 06 energy demands for heating, ventilation, air conditioning, and water heating by up to 60% compared to traditional energy sources.
- 07 SMART ENERGY CONSUMPTION: The intelligent automation system (Smart Home) is based on artificial intelligence (AI) and saves up to 65% of the house's electricity.

KEY TECHNOLOGY ECOSYSTEMS

SUSTAINABLE NET ZERO ENERGY BUILDINGS









DOOR

LIGHT

Multifunctional door, an element of the smart home ecosystem and ventilation.

Energy-efficient lighting.



FLOOR UNIT / **INTERFLOOR UNIT**

Modular interstory floors with integrated engineering systems.



ROOF PANEL

Modular roof panels with integrated

wind generators, batteries, and a

rainwater collection and storage system that generates electricity.

hidden solar panels, reflecting mirrors,

AK AIRPLEX

An element of the ventilation and water condensation collection ecosystem.

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COLUMN SYSTEM

Load-bearing modular columns integrated with an energy-efficient glass facade system made of transparent solar panels.



SMART HOME UNIT

Intelligent automation system based on artificial intelligence for smart energy consumption.



MECHANICAL ROOM

Modular technical unit with integrated engineering systems for heating, ventilation, air purification, air conditioning, humidification and hot water supply.

KEY TECHNOLOGY ECOSYSTEMS



TECHNOLOGY EDGE

SUSTAINABLE FACTORY-BUILT NET ZERO ENERGY BUILDINGS

CONSTRUCTION TIME



WATER CONSUMPTION (liters - gallons/year)



ENERGY CONSUMPTION (kWh/year)

	Akchurin metho	Akchurin method								Geothermal Heat Pump			NET ZERO ENE	ERGY: N
	TRANSPARENT	SOLAR ROOF PANELS	WIND GENERATOR	ENERGY STORAGE	OTHER RENEWABLE	SMART HO	ME ENER	ENERGY-	ENERGY- EFFICIENT LIGHTING	HEATING - UNDERFLOOR HEATING -				ENER
	GLASS FACADE				ENERGY SOURCES	MANAGER	R APPLIA	ANCES		HOT WATER S	SUPPLY			ENE
Renewable Energy Production Energy Saving Traditional method														
APPLIANCES		ES	LIGHTING		VENTILA	VENTILATION		HOT WATER A		IR CONDITIONING	HEATING			
Akchurin House — 5000-6100 kWh (Depending on the region)														

Traditional House Finished

WATER PRODUCTION: 350 000 liters / 77 000 gallons

WATER SAVINGS: 160200 liters / 36700 gallons

APPLIANCES

Traditional House – 456250 liters / 61590 gallons

NO ENERGY BILLS

GY PRODUCTION: 30000-40000 kWh

RGY SAVINGS: 30000 - 50900 kWh

Traditional House - 35000-57000 kWh (Depending on the region)

NET ZERO TECHNOLOGY

SUSTAINABLE FACTORY-BUILT AKCHURIN BUILDINGS



ECONOMY OF CLIMATE TECHNOLOGY

SUSTAINABLE FACTORY-BUILT NET ZERO AKCHURIN BUILDINGS



ECONOMY

GREEN ECONOMY OPPORTUNITIES: SMART GREEN INFRASTRUCTURE

- Creates over 50,000 high-quality construction, engineering and manufacturing jobs
- Secures leadership in innovating, engineering and manufacturing clean technologies
- Builds smart green infrastructure with climate policies for a prosperous economy for all

CITIZENS

HUMAN WELL-BEING: CLEAN AIR AND NET ZERO TECHNOLOGY

- Improves indoor air quality with clean air technology for safety in the face of future pandemics
- Saves the consumers money with net zero energy technology
- Produces affordable and sustainable housing using robotic, factory-built quality manufacturing

CLIMATE

CLIMATE-RESILIENT BUILDINGS

- Unites the next generation of eco-building materials with renewable energy and water
- Implements clean energy technologies for sustainable manufacturing and electric vehicle delivery
- Aligns with the United Nations Sustainable Development Goals

SUSTAINABLE TECHNOLOGY



NET ZERO ENERGY

Independence from the grid with renewable energy

SMART HOME Energy-saving intelligent automation system

TIME SAVINGS Turn-key house in 6-12 months

HEALTHY LIGHT Energy-efficient LED circadian light technology

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RENEWABLE ENERGY STORAGE

Built-in battery for seven months of autonomous use in the absence of electricity



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CLEAN AIR

Energy-saving technology to purify, disinfect, humidify, cool, and heat air

NET ZERO WATER Independence from a centralized water supply

SUSTAINABLE PRODUCTION Robotic factory-built quality with multi-level system control

ZERO GREENHOUSE GAS EMISSIONS Recyclable and renewable eco-building materials

EASY MAINTENANCE 100% access to all engineering systems without demolishing



BUSINESS MODELS

DEALERSHIP MODEL

Dealers maintain regional priority



REAL ESTATE DEVELOPMENT MODEL

Wholesale investment is only available for regions without existing dealerships





CUSTOMERS



CUSTOMERS

DEALER PARTNERSHIP PROCESS



EXCLUSIVE DEALER PRICE LIST

ROOM	COMMUNITY	TOWN		
	500	5,000		
	100	1,000		
	30%	50%		
00,000	\$2,730,000	\$1,950,000		
	\$5,652 per sq.m. \$525 per sq.ft.	\$4,037 per sq.m. \$375 per sq.ft.		
90,000	\$4,193,000 \$6,500 per sq.m. \$604 per sq.ft.	\$2,995,000 \$4,644 per sq.m. \$432 per sq.ft.		
wroom	\$25 million US dollars	\$250 million US dollars		
wro	om	om \$25 million US dollars		



CITY

50,000

10,000

70%

\$1,170,000

\$2,422 per sq.m. \$225 per sq.ft.

\$1,797,000

\$2,786 per sq.m. \$259 per sq.ft.

\$2.5 billion US dollars

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BUSINESS MODEL

FACTORY RESPONSIBILITIES

01 — Order Online / Dealer



DEALER RESPONSIBILITIES

01 – Build Sales



02 — Factory-built



03 – Green Delivery



03 — Warranties



02 — Technical Service



04 — Final Assembly



04 — Happy Customers



KEY FEATURES



AK500 SIGNATURE

5 Bedrooms, 6 Bathrooms 645 sq.m. (6,940 sq.ft.)

5 BEDROOOMS



LIVING AND DINING ROOM

- Spiral Staircase
 - Built-in Bookcase
 - Floor-to-Ceiling Windows
 - Eco-friendly Fireplace

6 BATHROOOMS



Freestanding Tub



Drop-in Spa Tub



Marble Vanities













KITCHEN

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- Wine Room / Pantry Room
- Laundry Room
- Marble Island with Downdraft Exhaust Fan

TECHNOLOGY





14

GLOBAL COMPETITORS

FAST Assembly 1-3 months
LOW COST 35% Lower than Conventional
HIGH QUALITY Factory Guaranteed

HIGH QUALITY

DEALER PARTNERSHIP ROADMAP

GLOBAL PARTNERSHIPS

Low-rise residential construction market in 2020

Low-rise residential construction market by 2025

Sources: Deloitte, Ernst & Young, Statista.com

\$ 2.3 trilli	ON	\$ 325.1 billion	\$ 147.5 billion	\$ 154.8 billion	\$ 110.4 bil
Global Mar	ket	USA	China	Europe	India
CAGR 2021-2030	▲ +7.9%	▲ +7.4%	▲ +11.5%	▲ +5.8%	

