

Group Presentation



***BNL Group** is a Swiss private industrial group. Based on our proprietary **zero emission zero waste BNL Clean Technologies** we provide certified, standardised, environmentally-friendly and sustainable **BNL Clean Solutions** for commercial, industrial and municipal sustainable development.*

***BNL Group** develops, manufactures, operates and supports **zero emission zero waste BNL Clean Technologies** for **BNL Clean Energy, BNL Clean Infrastructure** and **BNL Clean Utility** solutions worldwide.*

*Our game-changing **zero emission zero waste BNL Clean Technologies**, with modular design, provide ready-to-use certified standardised turn-key equipment, plants and installations for fast implementation of your sustainable projects.*

*Essentially, we provide **BNL Clean Technologies** for easy, fast and cost-effective implementation of emission-free, CO₂-free, climate-friendly and sustainable solutions for tomorrow's clean green society!*





Mikael Rüdlinger

**Inventor
President of the Board**

Mr. Mikael Rüdlinger is an "experienced industrial engineer and plant designer". He holds a MSc in Mechanical Engineering and Naval Architecture from Chalmers University of Technology in Gothenburg, Sweden.

He grew up with waste incineration, energy and power generation, since his father was a commissioning engineer in these fields.

For the past 40 years Mr. Mikael Rüdlinger has gained experience in process engineering, technical advisory, industrial commissioning and optimisation, risk evaluation and management at renowned Swiss and international companies.

Thanks to his extensive technical experience he was able to identify the challenge for a new clean energy process, which resulted in the zero emission clean energy plant suitable for serial production.



Walter Villiger

**Investor
Member of the Board**

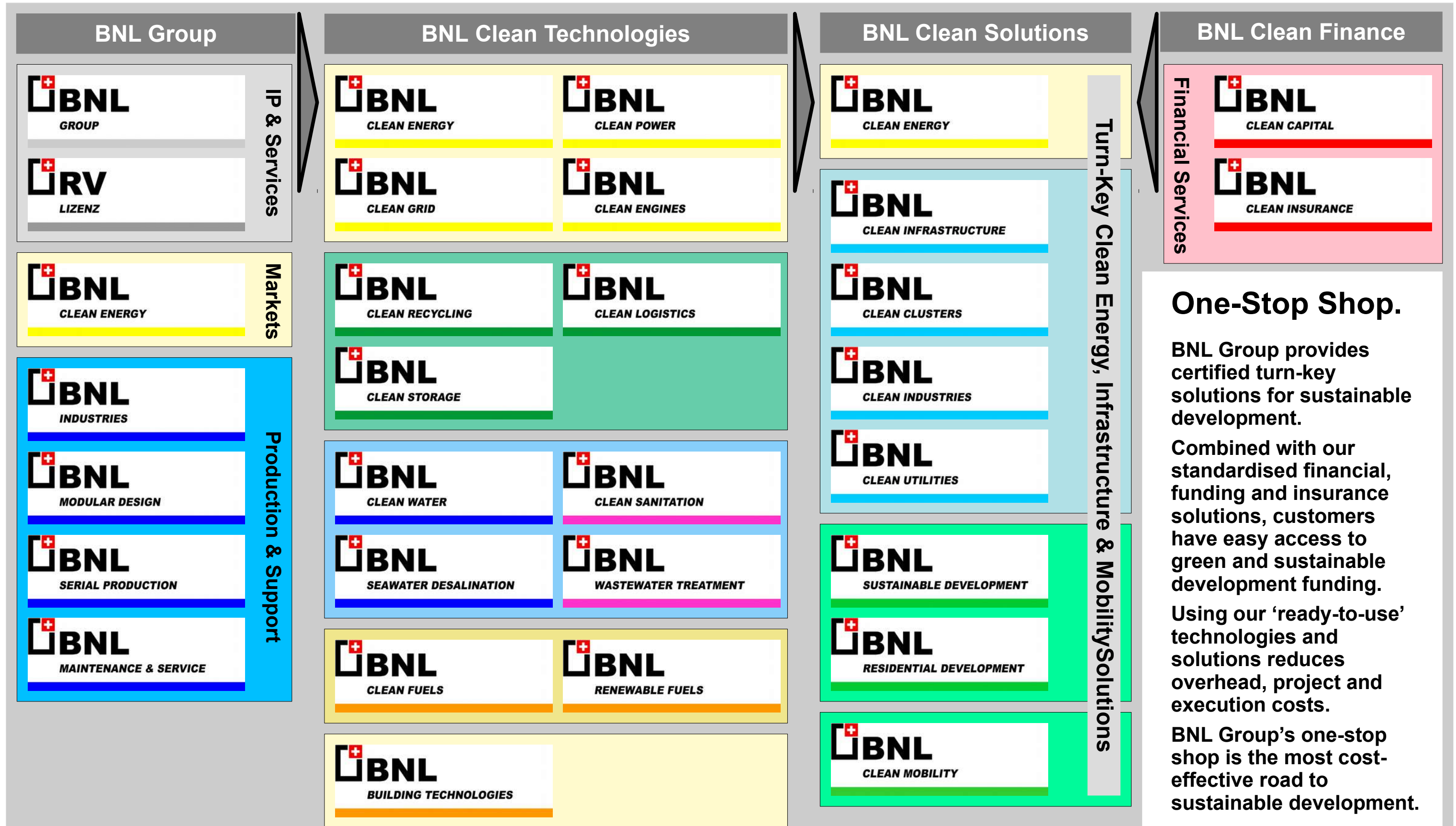
Mr. Walter Villiger is a "seasoned industrial controller and investor". He worked as Chief Financial Officer (CFO) with Dr. Stephan Schmidheiny at Anova Holding, building the group to become a leading Swiss industrial and financial developer.

For the past 20 years he has been managing investments and projects on his own. Mr. Walter Villiger is a long term investor with key interests in medtech, biotech, financial holdings and cleantech. He has been an associate judge of the Commercial Court of St. Gallen.

Apart from running his business, Mr. Walter Villiger supports local activities in his home county of Rapperswil-Jona and has been the President of its local ice hockey team, the Rapperswil-Jona Lakers.

BNL Group - Structure

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development

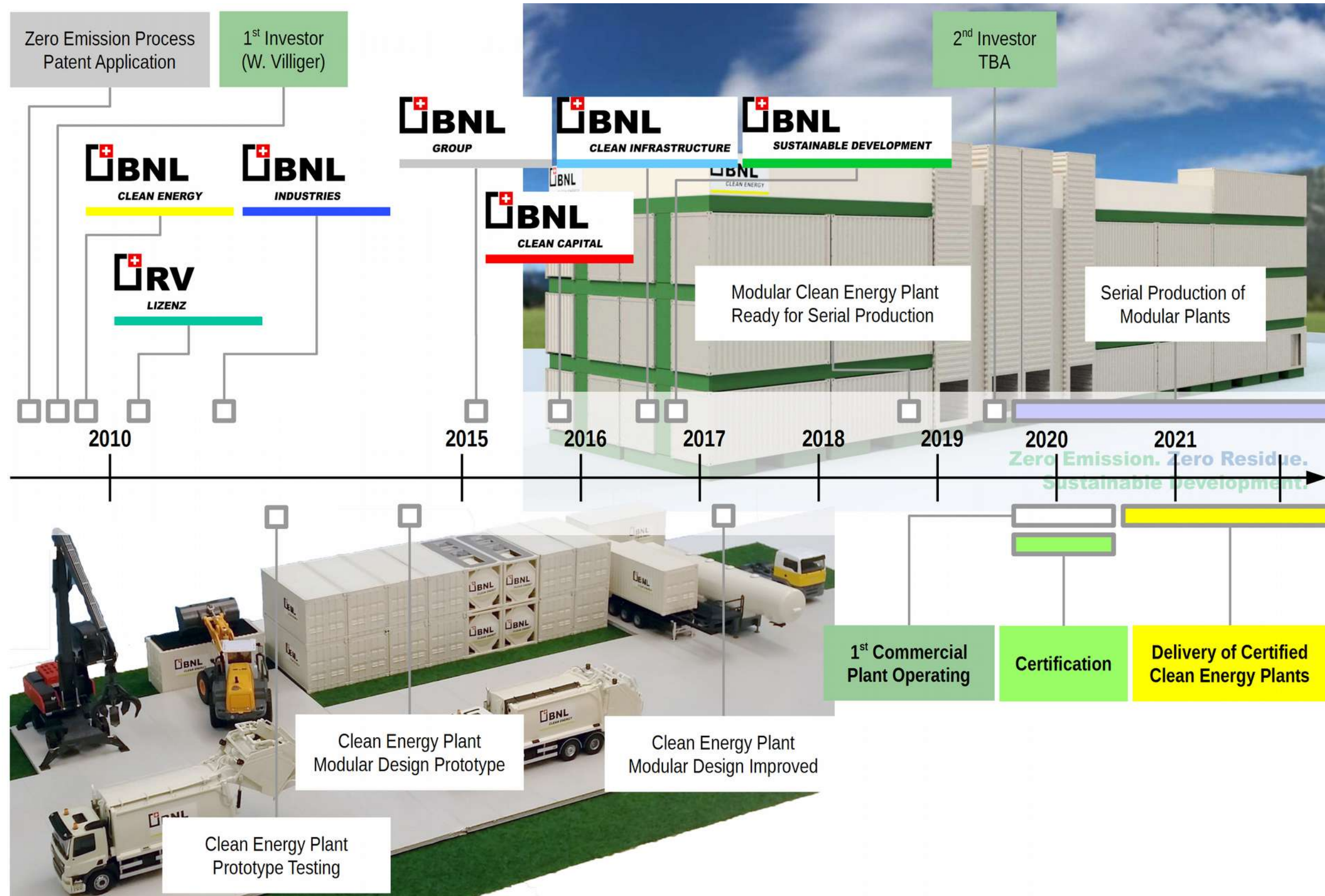


Our **zero emission zero waste** BNL Clean Technologies and BNL Clean Solutions provide certified, ready-to-use equipment, plants and solutions for achieving the UN Sustainable Development Goals (SDGs)... **BNL Sustainable Development!**



BNL Group - Timeline

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development



Our main markets are EU and USA, where customers prefer to purchase their clean energy and clean infrastructure as a service (Equipment-as-a-Service; EaaS), which is reflected by our organisation:

BNL Group - Research, intellectual property, marketing, project management, supply chain, serial production, operation, maintenance and support of our equipment, our **BNL Clean Technologies** (Equipment Provider)

BNL Clean Capital - Cluster, site, installation and equipment financing, funding and insurance solutions, our **BNL Clean Finance** (Equipment Financier)

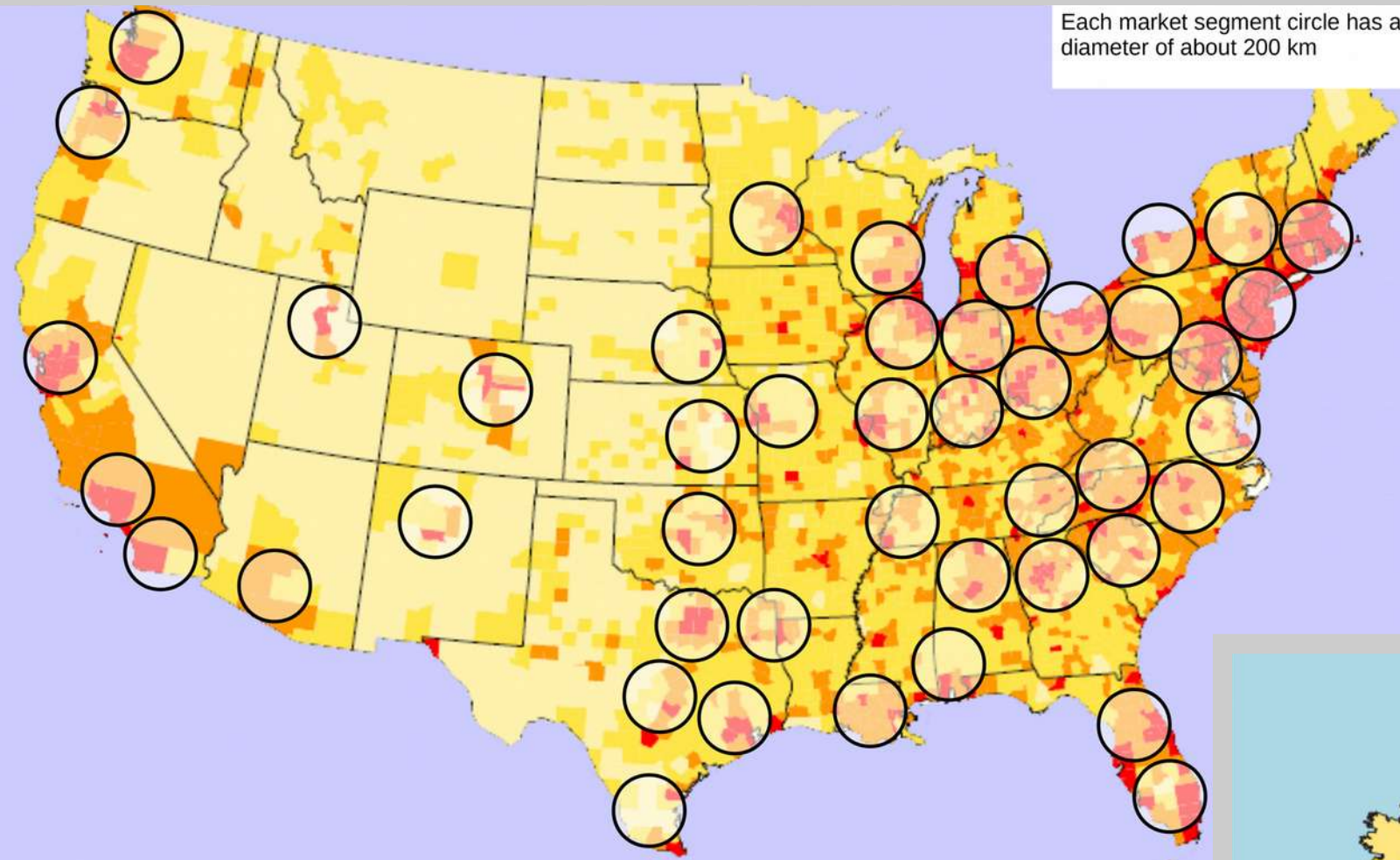
«Supplier Side»

«Customer/Owner/Operator Side»

BNL Clean Infrastructure - Turn-key project, site and installation development; Site and equipment operation; Equipment maintenance, service and support (Equipment Operator; Service Provider)

BNL Sustainable Development - Turn-key BOT (Build-Operate-Transfer) project development together with local investors, partners, governments, utilities and developers (Project Developer; Service Provider)

*Essentially, we develop, provide and operate turn-key sustainable BOT-projects, our **BNL Clean Solutions**, for our customers and partners.*



Main Markets.

BNL Group primarily focuses on developed energy, power and utility markets, mainly EU and USA. Recent estimates (2018: IEA) indicate global energy and utility investments to be some 1'800 billion USD annually, mainly in EU and USA.

With our certified, environmentally-friendly and climate-neutral products and services, the BNL Group is establishing BNL Clean Clusters in many densely populated areas to provide regional customer support.

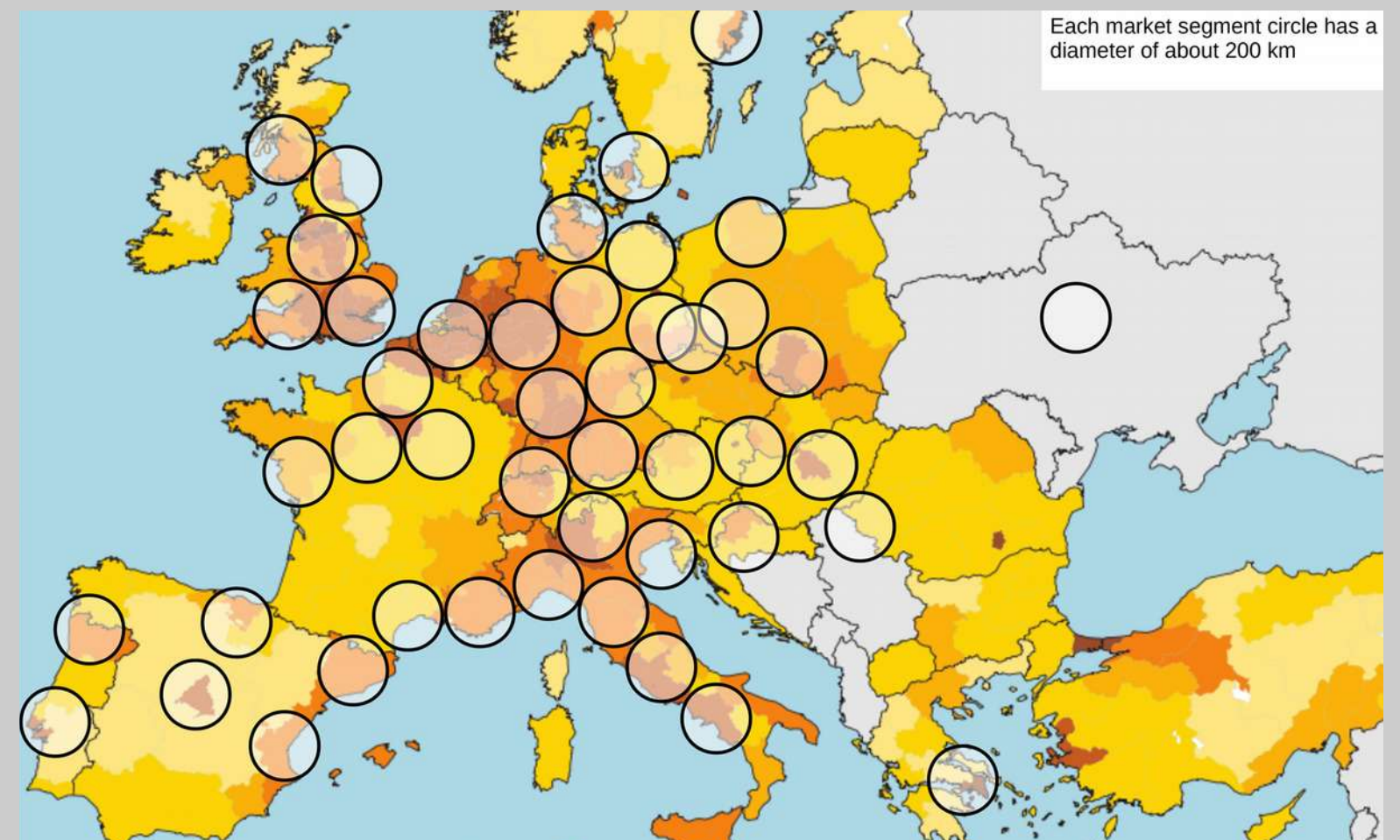
This means customer will have local access to operational services and support for their BNL Clean Solution.

BNL Clean Clusters.

BNL Group's market research and direct customer contacts have resulted in the development of the BNL Clean Cluster, a regional operations and services entity.

BNL Clean Clusters are regional groups of clean energy, clean infrastructure and clean utility installations with a centralised operations, services and support organisation.

The BNL Clean Cluster organisation ensures that all our equipment and installations within the cluster (region) are operated, serviced and supported to Swiss standards.



Multi-Level Patent Families.

BNL Group owns an extensive range of intellectual property rights, such as copyrights, designs, patents and trademarks, covering our BNL Clean Technologies and BNL Clean Solutions.

Our ongoing multi-level intellectual property filing program will ensure that the proven value of our proprietary BNL Clean Technologies can be preserved to the benefit of our partners.

National & International Standards.

BNL Group continuously certifies, tests and standardises its equipment, their performance and operation in an effort to set new national and international standards for **zero emission** **zero waste** clean technologies and sustainable development.

Our standardisation program simplify customer's access to our BNL Clean Technologies and BNL Clean Solutions.

IP-Group A Emission-Free Clean Energy Systems	BNL Clean Energy Process/Plants	BNL Clean Grid Distribution	BNL Clean Grid Integration
IP-Group B Clean Fuel Systems	BNL Clean Fuel Stations	BNL Clean Fuel "Virtual Oil Field"	
IP-Group C Emission-Free Clean Power Systems	BNL Clean Power Engines	BNL Clean Power Power Generation	
IP-Group D Emission-Free Clean Mobility Systems	BNL Clean Mobility Engines	BNL Clean Mobility Fuels Handling	BNL Clean Mobility CO2-Recovery
IP-Group E Clean Recycling & Storage Systems	BNL Clean Recycling Plants	BNL Clean Storage Systems	
IP-Group F Clean Water Systems	BNL Clean Water Production	BNL Clean Water Treatment	BNL Clean Water Desalination
IP-Group G Modular Plant Design Systems	BNL Industries Standardised Modular Industrial Plants		

Certification.

BNL Group only provides proven and certified equipment and solutions to our customers.

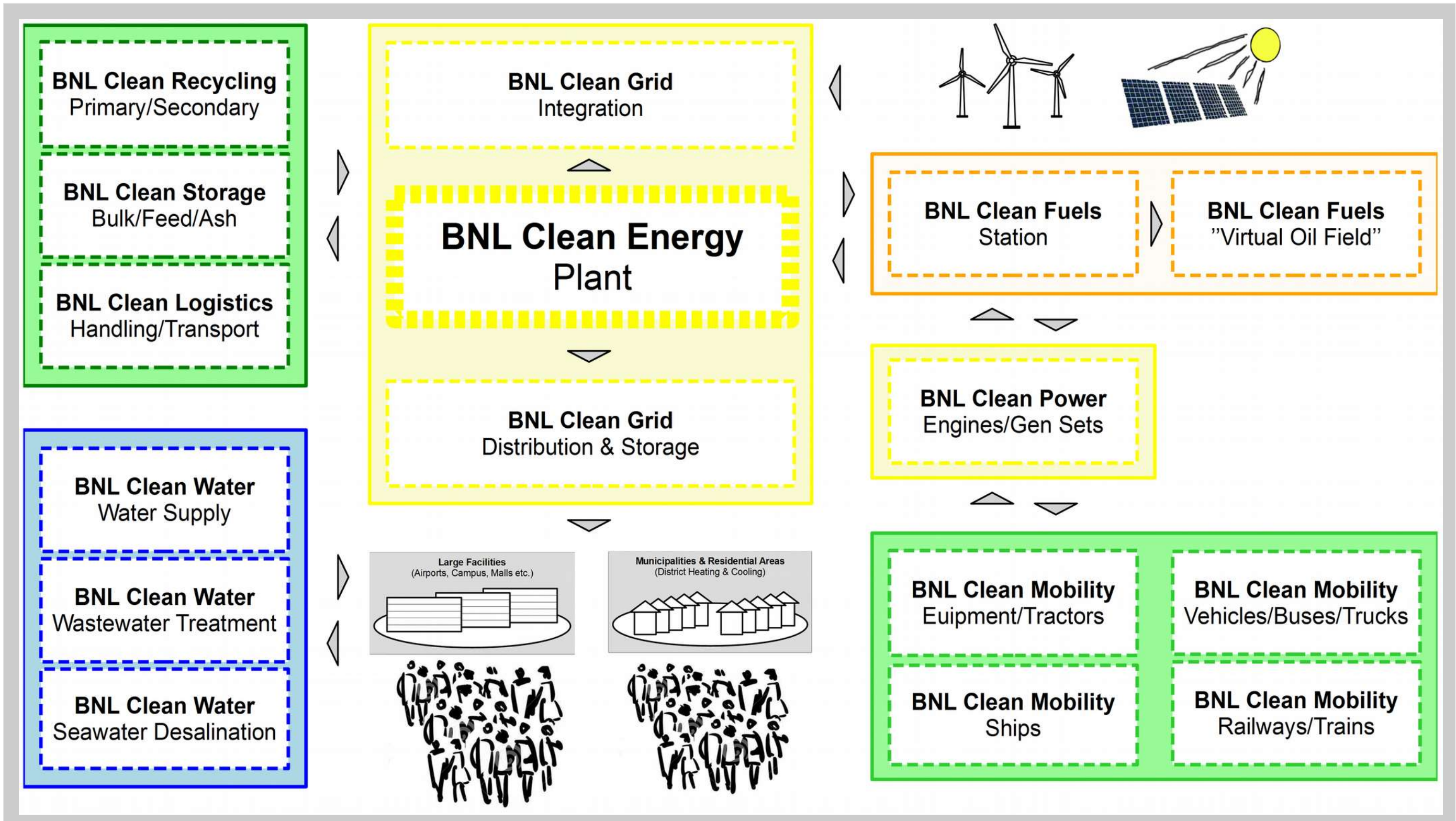
Our certification program, together with our in-house quality control, minimises customer risks involved in procuring and purchasing new zero emission zero waste clean energy and clean infrastructure solutions.

In addition, our certification program provides easy access to government and institutional funding programs, with standardised application and due-diligence procedures.

*We develop, manufacture, operate and support equipment, plants, installations and solutions based on our proprietary **BNL Clean Technologies**, including:*

- **Zero Emission** BNL Clean Energy & Clean Power Plants;
Zero Emission BNL Clean Grid Systems
- **Zero Waste** BNL Clean Recycling, BNL Clean Storage &
BNL Clean Logistic Systems
- BNL Clean Water, BNL Clean Seawater Desalination &
BNL Clean Wastewater Treatment Plants
- BNL Clean Synthetic Fuels Plants & Distribution Systems
- **Zero Emission** BNL Clean Mobility Systems
- BNL Modular Plant Design; Serial Production; Certified Equipment;
30 Years Guarantee; EaaS (Equipment-as-a-Service)

*Our Vision: **Zero Emission** **Zero Waste** Clean Technologies*





BNL Clean Energy

BNL Clean Energy Solutions provides emission-free (zero emission) clean energy and power plants for combustible feedstock, from small biomass and waste-to-energy plants to large coal and lignite power plants.

BNL Clean Energy solutions generate zero emission clean energy and power as well as produces synthetic fuels (instead of smoke). BNL Clean Grid Solutions distribute, integrate and store clean energy, including solar and wind energy, for state-of-arts continuous and efficient clean energy supply.



BNL Clean Grid

BNL Clean Grid provides efficient and emissionfree clean energy distribution, as well as integration and storage of renewable energy sources.

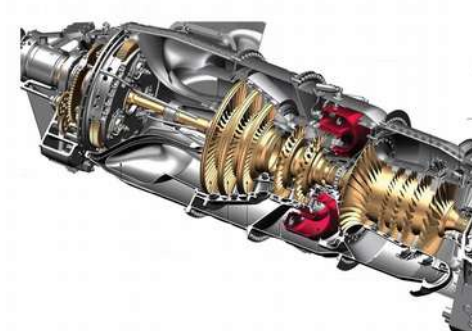
BNL Clean Grid Solutions compensate for peak loads, integrates and stores renewable energy and provides district heating and cooling.



BNL Clean Power & Fuels

from Coal, Lignite, Oil Shale & Fossil Fuels

BNL Clean Energy Solutions, Power Series (300-600 MW; / 100-200 MWe), provide zero emission (emissionfree) clean power for feeding high-voltage grids (>110 kV). BNL Clean Power Plants generate zero emission electricity and produce synthetic fuels from coal, lignite, oil shale, oil sands and other fossil fuels.



BNL Clean Engines

BNL Clean Engines are zero emission engines, power and propulsion units for equipment, ships, trains and vehicles based on our patented zero emission clean engine technology.

BNL Clean Engines operate in a closed energy system using synthetic fuels as energy carrier. Combustion gases are collected and completely recycled by our BNL Clean Energy Plants to produce new synthetic fuels.



BNL Clean Fuels

BNL Clean Fuels produced by our BNL Clean Energy Plants are synthetic hydrocarbons such as diesel, fuel oil, gas oil and kerosene, which can replace petroleum fuels.

BNL Clean Fuels are also new raw materials for the chemical industries and for producing renewable plastics.

BNL Clean Fuels have the same chemical characteristics as petroleum fuels, but cleaner, with less contaminants.



BNL Clean Water

BNL Clean Water provides solutions for clean water supply, wastewater treatment and seawater desalination to the highest Swiss/German/EU standards.

BNL Clean Water Plants are based on our patented clean water technologies, which can process industrial (toxic) as well as municipal (non-toxic) wastewater.

Wastewater sludge from our BNL Clean Water Plants are processed with zero residue in our BNL Clean Energy Plants.



BNL Clean Recycling

BNL Clean Recycling provides solutions for complete recycling of ash, residues and sludge from commercial, industrial and municipal sources.

BNL Clean Recycling Plants provide feedstock, process ash and residues form our BNL Clean Energy Plants.

Our **zero waste** guarantee ensures all fractions recycled fractions can be used as raw material by industries. No residues are deposited or landfilled.



BNL Clean Storage

BNL Clean Clean Storage provides semi-mobile bulk storage and handling systems for (dry) ash, biomass, residues and waste.

BNL Clean Storage Systems are used in BNL Clean Infrastructure and BNL Sustainable Development Solutions for temporary storage and handling of feedstock, ash and other dry bulk.



BNL Modular Plants

BNL Modular Plants for clean energy and clean infrastructure are based on our patented high-strength modular building system, which provides rapid deployment, simple road transportation and unlimited relocation possibilities.

BNL Modular Plants are manufactured in series, with standardised maintenance procedures, which ensures that all BNL Modular Plants worldwide has the same performance with Swiss quality services.

Your satisfaction is our reputation!

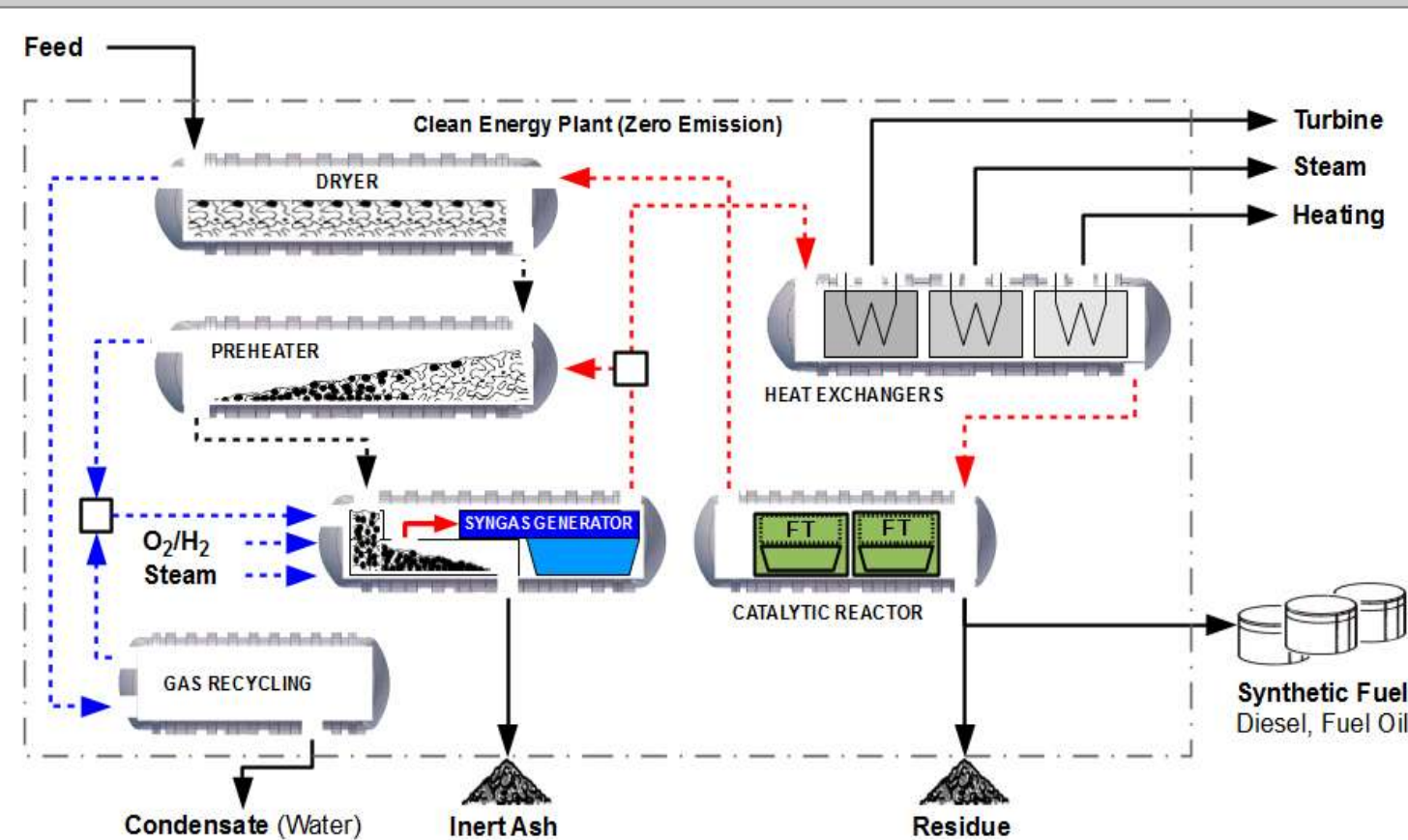


BNL Building Technologies

BNL Building Technologies provides complete environmentally-friendly, cost-effective and sustainable residential developments, mainly for government-funded affordable housing schedules.

By combining our BNL Clean Energy, BNL Clean Grid, BNL Clean Infrastructure and BNL Clean Water technologies with modern energy-efficient BNL Building Technologies we provide residential development, which need no external electric power supply, generates its own zero emission energy, processes residues, waste and wastewater on-site.

For 21st century sustainable urban developments!



Zero Emission Clean Energy Process

In 2009 Mr. Mikael Rüdlinger invented the zero emission thermo-chemical process for closed combustion systems, the BNL Clean Energy Process, which converts combustion gases ('smoke': CO₂) into liquid synthetic fuels (GTL-process). Based on the BNL Clean Energy Process we design and develop all our BNL Clean Energy and BNL Clean Power Plants.

Hence, our **zero emission** BNL Clean Energy Plant is clean, green and environmentally-friendly. It operates without any 'smoke', air pollution, CO₂-emission or climate-effects.

The Clean Green Energy Revolution

Serial Production. Additional Revenue.

BNL Clean Energy Plants can process most combustible feedstock, including biomass, coal, plastics, sludge and waste. This means that same kind of BNL Clean Energy Plant can be used for many different applications and operations.

This allows us to produce BNL Clean Energy Plants in series with professional quality control and short delivery times.

Customers/operators benefit from purchasing proven, certified and standardised **zero emission** BNL Clean Energy Plants at fixed price and, since they turn 'smoke' into new valuable commodities such as synthetic fuels, with additional revenue.

Lifetime CO₂-Emissions for Energy Plants.

BNL Clean Energy Plant

Wind

Hydro

Gas/Oil CHP

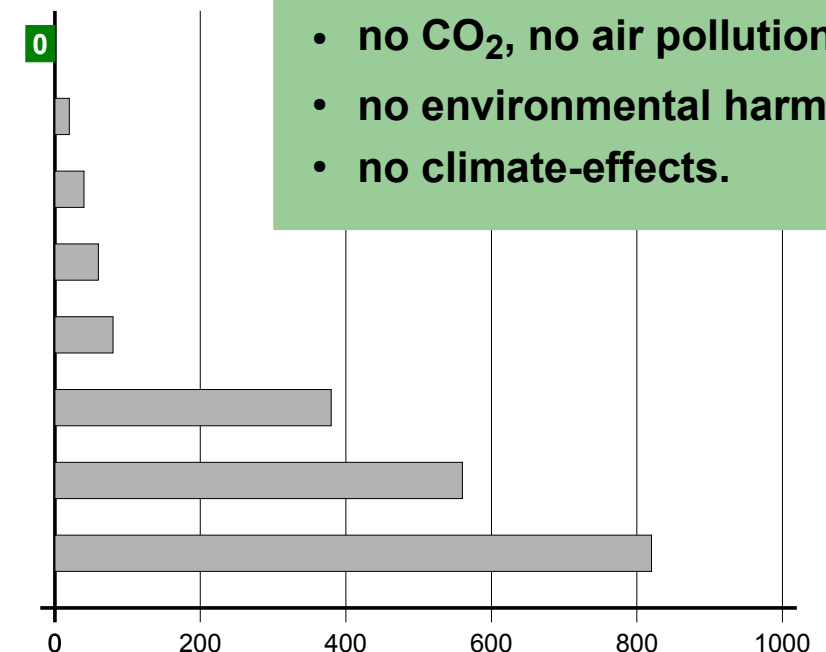
Biomass CHP

Gas/Oil Power

Waste Incineration

Coal Power

[kg/MWh]



At BNL Zero Emission means:

- no smoke, no flue gases
- no CO₂, no air pollution
- no environmental harm
- no climate-effects.

BNL Clean Energy Plant - **Advantages**

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development

Biomass



Used Tyres



Waste



Plastics



Biosolids/ Sludge



Multiple Feedstock.

BNL Clean Energy Plants can process many combustible substances, including biomass, packaging, plastics and waste, as well as mixtures thereof.

Multiple feedstock, from many different regional sources, allows for improved revenues and sustainable operation.

Fixed Costs. More Revenue.

BNL Clean Energy Plants can be leased or rented with fixed cost maintenance contract.

BNL Clean Energy Plants always generate more revenue from flexible feed sourcing, no emissions, clean fuels and no residues, than any other thermal energy system.

Compact. Automatic.

BNL Clean Energy Plants are compact and modular with a self-supporting structure. No buildings required. They operate fully automatically.

Zero Emission.

BNL Clean Energy Plants produce no smoke, no CO2-emission, no air pollution, no climate-effects and no environmental harm.

Flexible Clean Energy.

BNL Clean Energy Plants produce flexible zero emission clean energy. Its automatic operation adapts to the customer's current requirements.

Clean Fuels.

BNL Clean Energy Plants produce clean synthetic fuels, such as diesel, fuel and gas oil, in addition to the flexible clean energy.

Clean Fuels



Electricity



Hot Gases



Process Steam

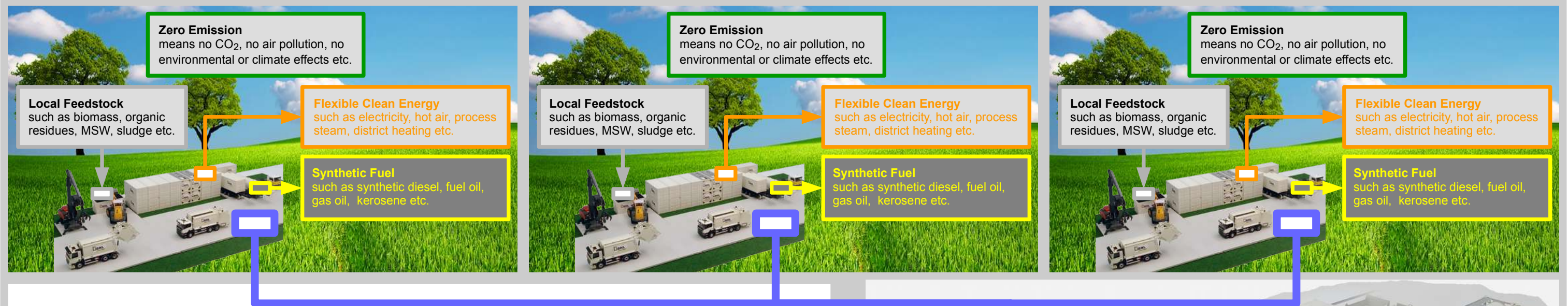


Heating & Cooling



Water Production





100% Recycling. Zero Waste.

A BNL Clean Energy Plant produces clean energy, power, fuels and residues, such as ash, inerts, metals and sludge, which are completely recycled by our BNL Clean Recycling Plants.

The BNL Clean Recycling Plant turns all recycled fractions into new raw materials for the industry. This means **zero waste**.

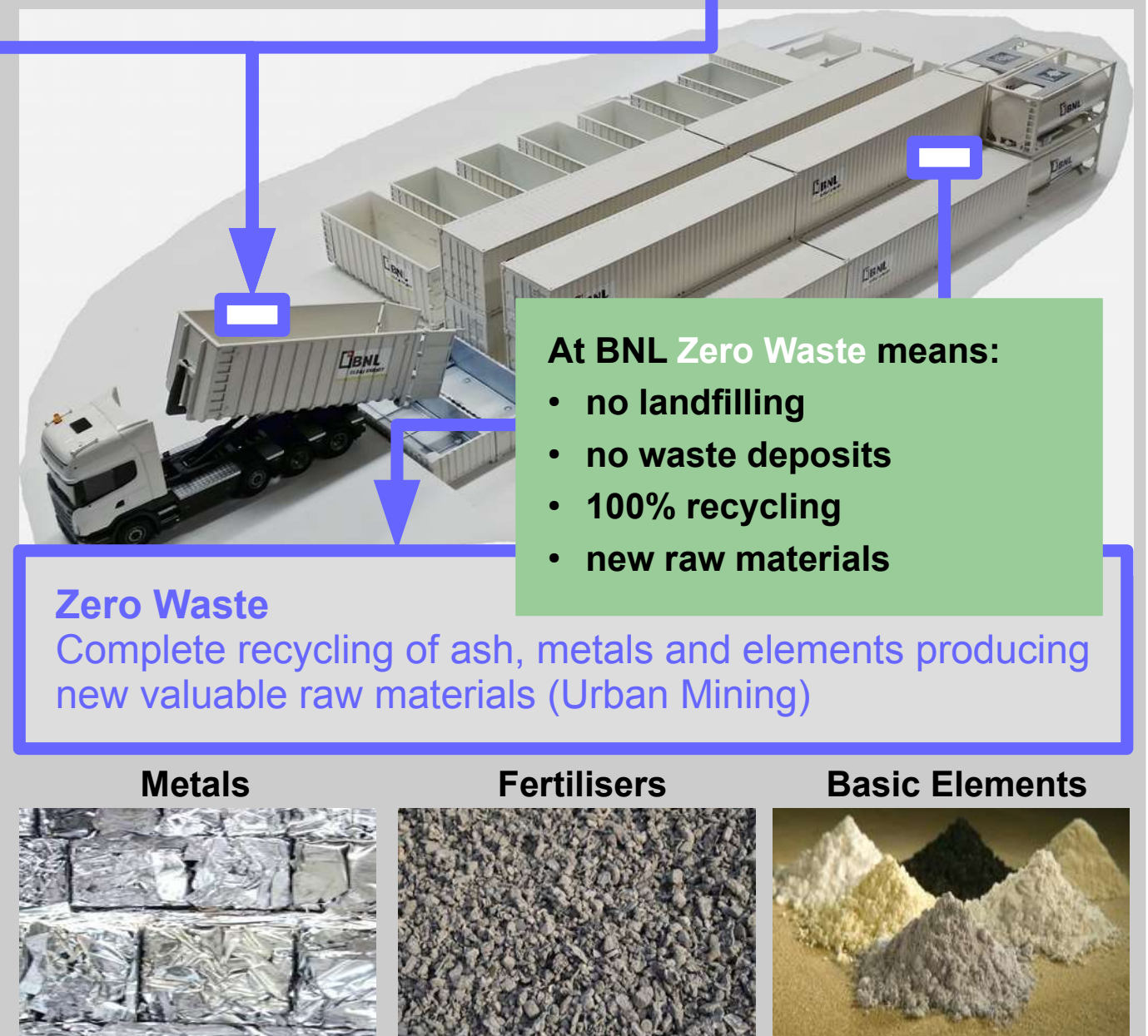
BNL Clean Clusters. Urban Mining.

A developed region usually requires several (independent) clean energy, clean infrastructure and clean utility installations. The BNL Group has developed an operational system for this, called the BNL Clean Cluster.

BNL Clean Energy, BNL Clean Infrastructure and BNL Clean Utility Installations within a region are operated, maintained, serviced and supported by a central BNL Clean Cluster Organisation.

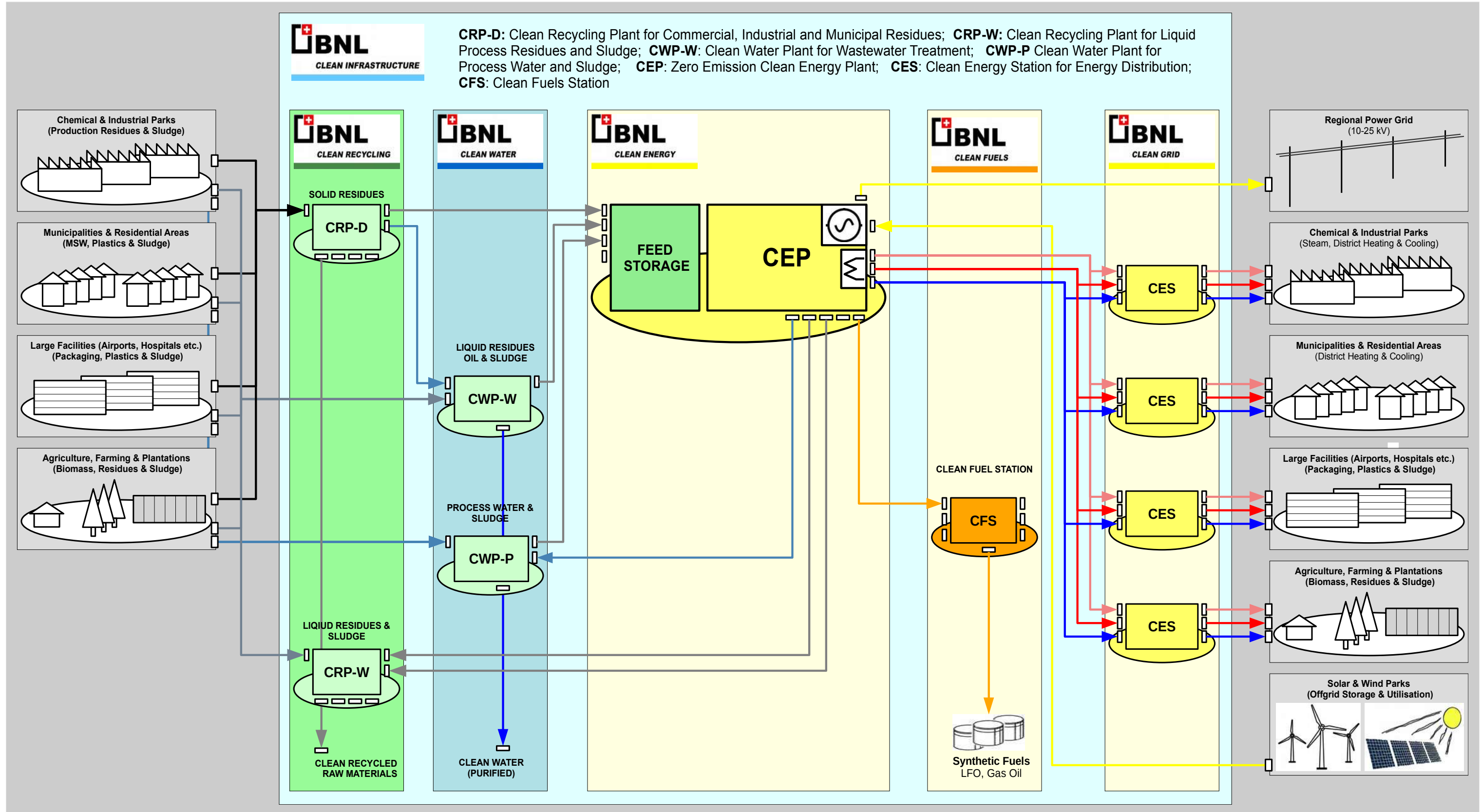
Within a BNL Clean Cluster all residues are recycled into new raw materials, which is also known as Urban Mining.

Clean Green Sustainable Development with Added Value.



Zero Emission BNL Clean Energy Zero Waste BNL Clean Infrastructure

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development





Modular Plants. Commercial Scalability.

An additional advantage of our proprietary BNL Clean Energy Process is the high-pressure processing, which allows for designing very compact modular plants.

At our test facility, we developed a full range of standardised containerised utility plants, including BNL Clean Energy, BNL Clean Recycling, BNL Clean Storage, BNL Clean Fuel and BNL Clean Water Plants, ready for serial production.

The enormous commercial advantages of providing certified, modular and standardised utility plants will be a game-changer in the utility market.

It allows the BNL Group to access different markets and customers at the same time with a scalability beyond imagination.

Fast Deployment. Relocate if Required.

The BNL Modular Plants concept allows for fast deployment of our standardised BNL Clean Infrastructure and BNL Clean Utility Solutions: Purchase suitable BNL Modular Plants; Ship to You Site; Install (like LEGO), Connect and Operate.

Very often the environment and requirements for energy, infrastructure and utility installation change over time. Then the BNL Modular Plants offers many benefits: Extend, Add or Reduce Capacity, Add Functionality or Relocate at any time.

To enhance customer and operator benefits and flexibility, the BNL Group will operate a second-hand market for all its BNL Modular Plants.





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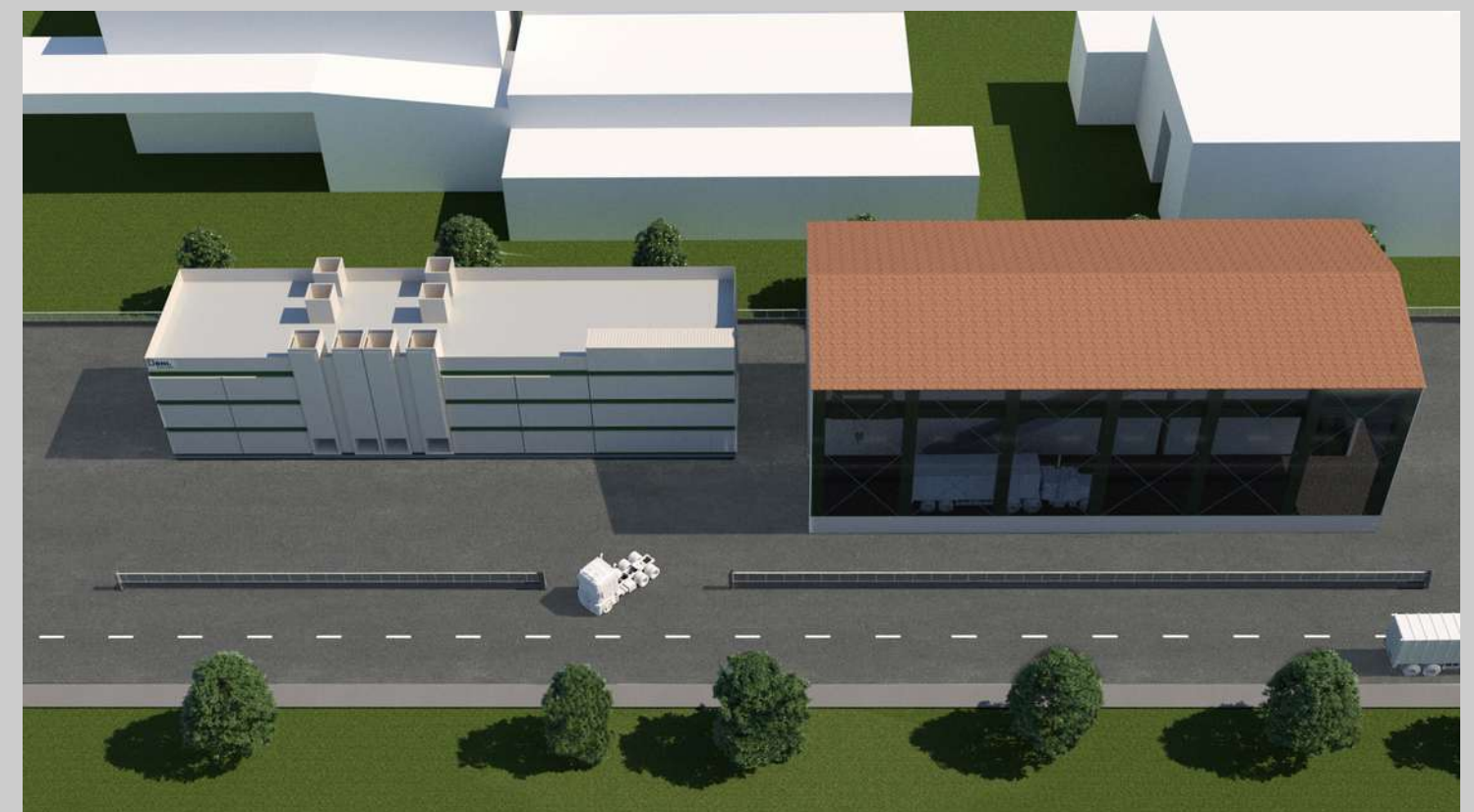
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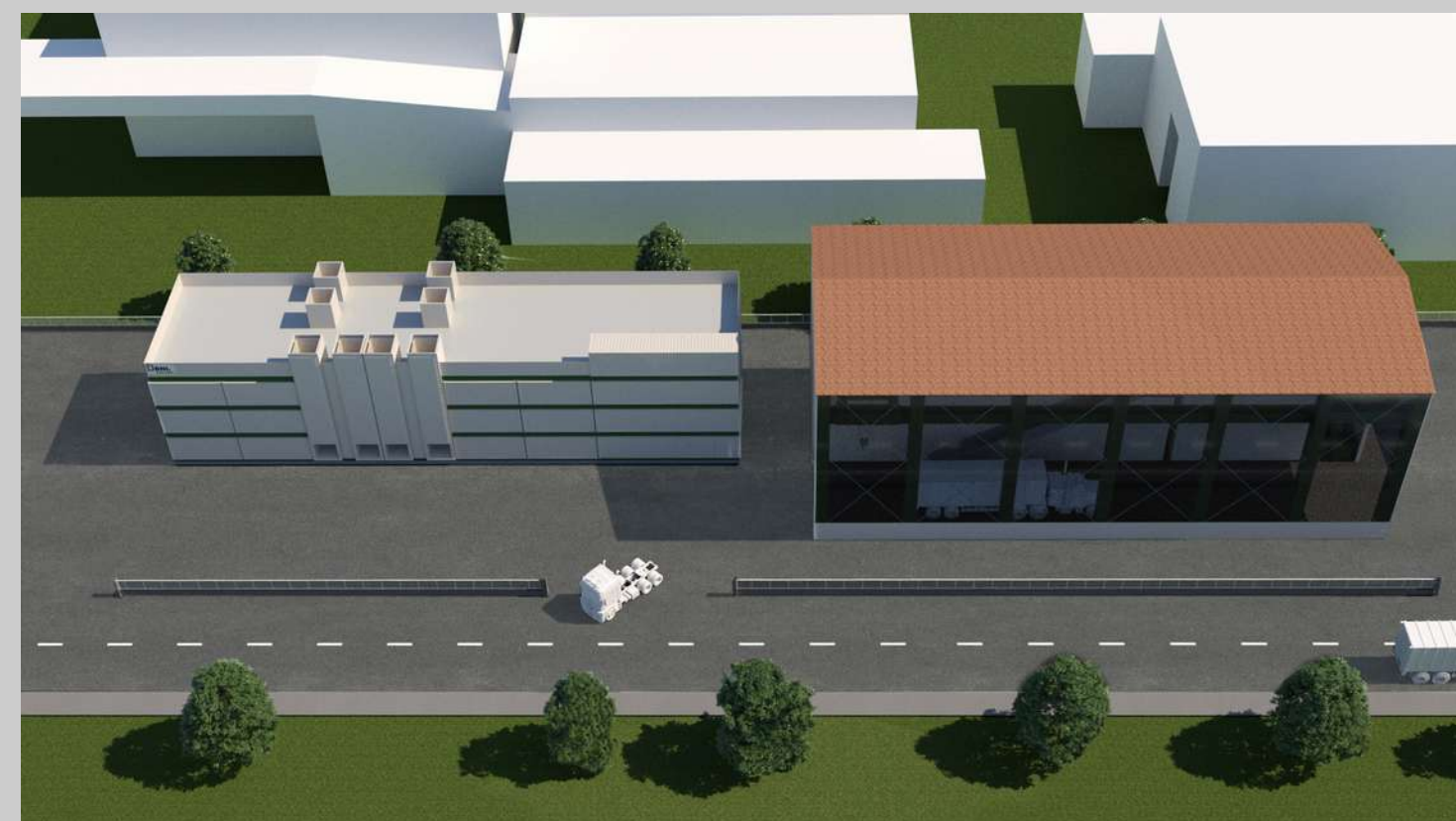
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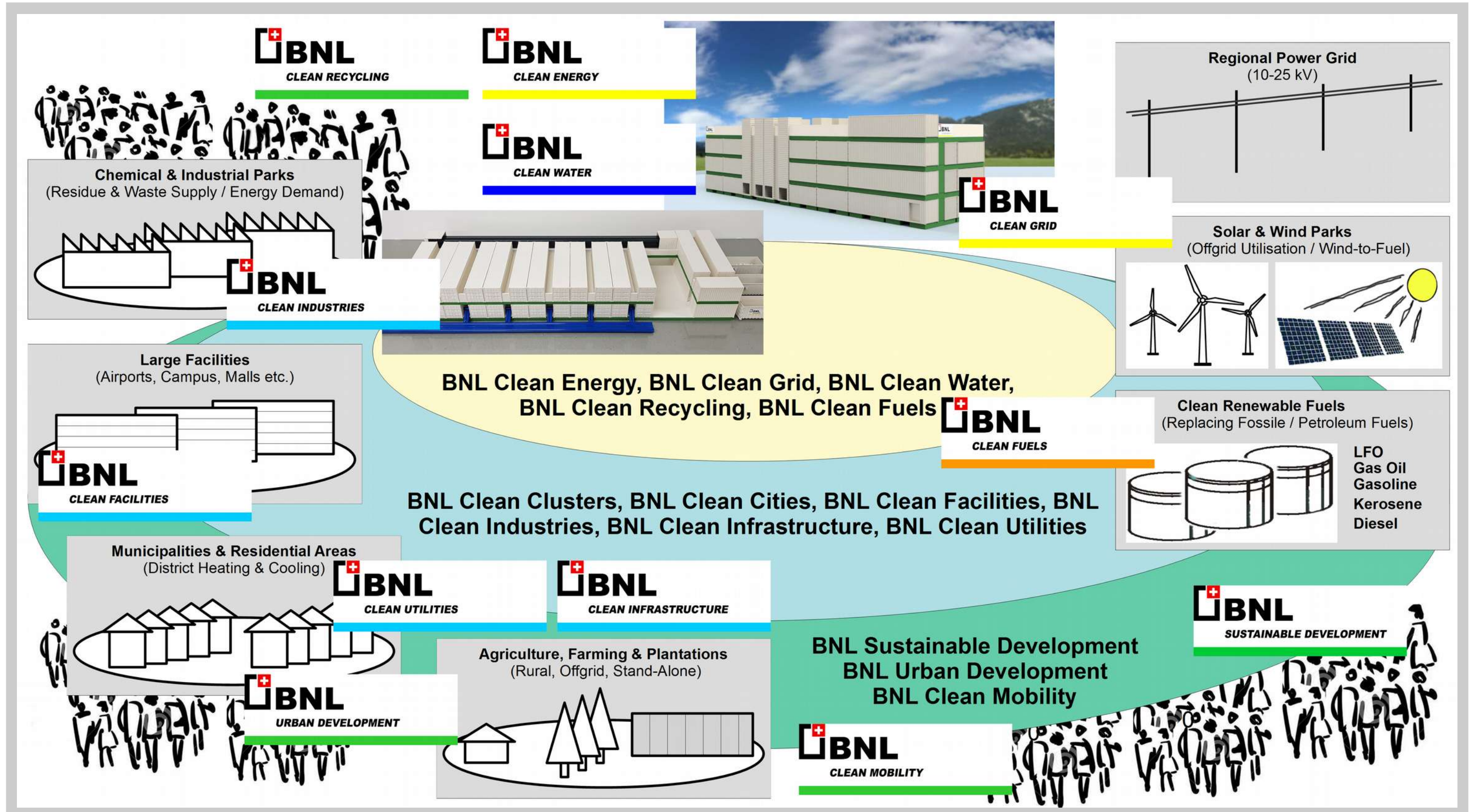


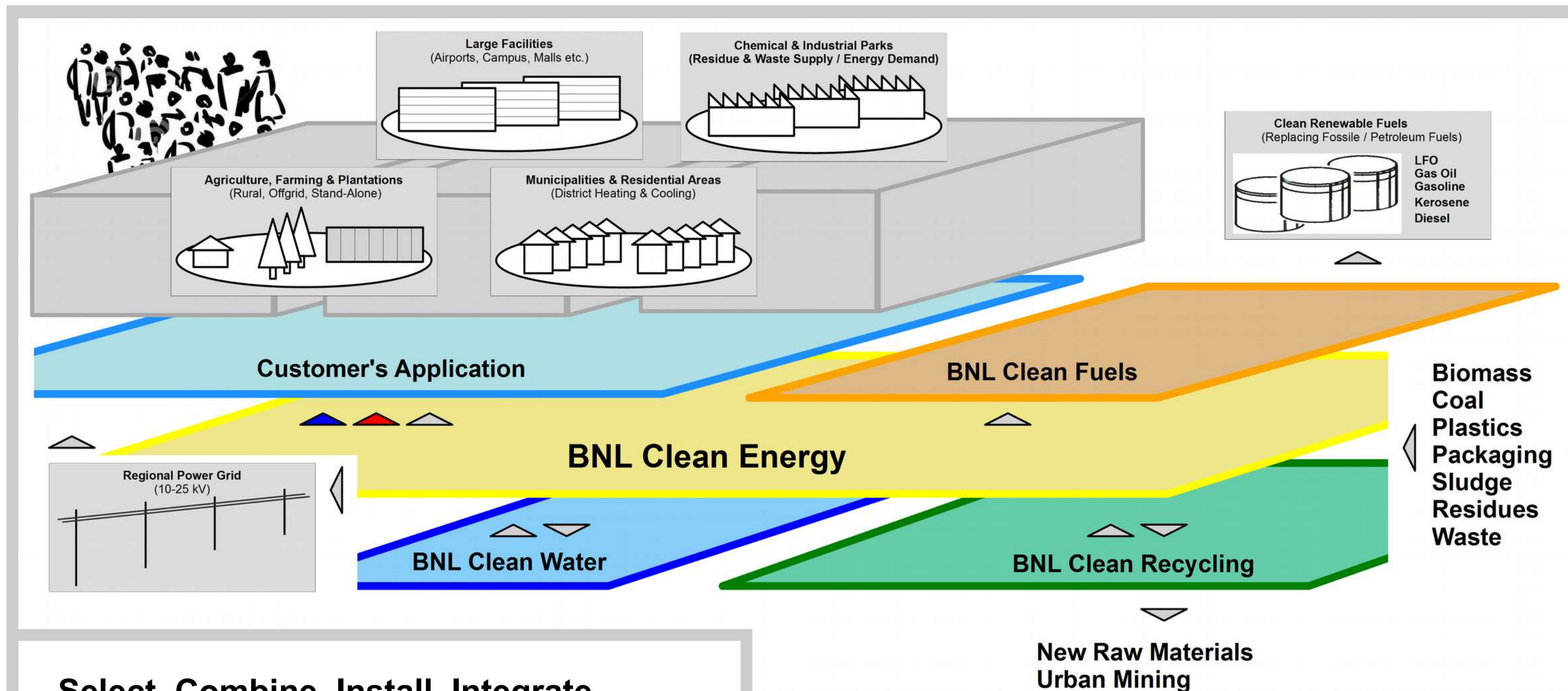
*Using our certified BNL Clean Technologies we provide clean, environmentally-friendly, modular, standardised and sustainable Build-Operate-Transfer (BOT) **BNL Clean Solutions**, including:*

- **BNL Clean Energy Solutions** (Plastics & Waste-to-Clean Energy)
- **BNL Clean Fuels Solutions** (Virtual Oil Field; Wind-to-Clean Fuels)
- **BNL Clean Industry Solutions** (Clean Industrial Parks; Clean Refineries)
- **BNL Clean Infrastructure Solutions** (Clean Clusters; Clean Facilities)
- **BNL Clean Mobility Solutions** (Equipment; Buses; Trucks; Railways)
- **BNL Clean Power Stations** (Clean Power from Coal, Lignite & Petcoke)
- **BNL Clean Utility Solutions** (Clean Cities; Clean Municipalities)
- **BNL Clean Water Solutions** (Clean Water Supply & Treatment)

BNL Clean Solutions

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development





Select. Combine. Install. Integrate.

Our 'one-stop-shop' for utility operators!

BNL Group provides the complete range of technologies, equipment, systems and solutions for most clean energy, clean infrastructure and clean utility applications.

We call these our **BNL Clean Solutions**.

Cost-Effective. Flexible.

Customers focus on their core business. We provide, install, integrate and operate their clean energy, clean infrastructure and clean utility installation. A win-win situation for sustainable development!



BNL Clean Energy

BNL Clean Energy Solutions provides emission-free (zero emission) clean energy and power plants for combustible feedstock, from small biomass and waste-to-energy plants to large coal and lignite power plants.

BNL Clean Energy solutions generate zero emission clean energy and power as well as produces synthetic fuels (instead of smoke). BNL Clean Grid Solutions distribute, integrate and store clean energy, including solar and wind energy, for state-of-arts continuous and efficient clean energy supply.



BNL Clean Energy Plants

for Biomass, Residues & Waste

BNL Clean Energy Plants, M-Series (3-60 MW / 1-20 MWe), provide zero emission (emissionfree) clean energy and synthetic fuels from (combustible) feedstock such as biomass, packaging, plastics, oil sludge, residues and waste. BNL Clean Energy Plants, M-Series, can process up to 30 mt/h (720mt/d; 250'000 mt/a).



BNL Clean Energy & Fuels

from Bitumen, Petcoke, Plastics & Rubber

BNL Clean Energy Solutions, C-Series (60-180 MW / 20-60 MWe), provide zero emission (emissionfree) clean energy, power and synthetic fuels for chemical and petrochemical process industries.

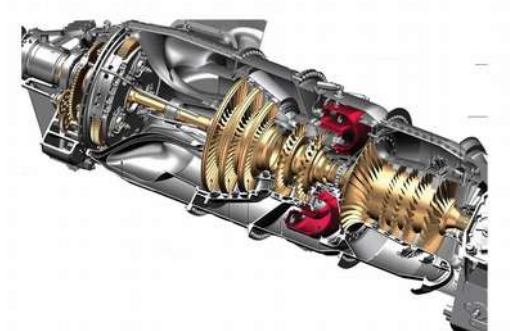
BNL Clean Energy Plants, C-Series, are designed for processing residues from chemical and petrochemical industries.



BNL Clean Power & Fuels

from Coal, Lignite, Oil Shale & Fossil Fuels

BNL Clean Energy Solutions, Power Series (300-600 MW / 100-200 MWe), provide zero emission (emissionfree) clean power for feeding high-voltage grids (>110 kV). BNL Clean Power Plants generate zero emission electricity and produce synthetic fuels from coal, lignite, oil shale, oil sands and other fossil fuels.



BNL Clean Engines

BNL Clean Engines are zero emission engines, power and propulsion units for equipment, ships, trains and vehicles based on our patented zero emission clean engine technology.

BNL Clean Engines operate in a closed energy system using synthetic fuels as energy carrier. Combustion gases are collected and completely recycled by our BNL Clean Energy Plants to produce new synthetic fuels.



BNL Clean Fuels

BNL Clean Fuels produced by our BNL Clean Energy Plants are synthetic hydrocarbons such as diesel, fuel oil, gas oil and kerosene, which can replace petroleum fuels.

BNL Clean Fuels are also new raw materials for the chemical industries and for producing renewable plastics.

BNL Clean Fuels have the same chemical characteristics as petroleum fuels, but cleaner, with less contaminants.



BNL Virtual Oil Field

BNL Virtual Oil Field is established by pooling the synthetic fuels production by BNL Clean Energy Plants within a cluster or region.

BNL Virtual Oil Field produces synthetic fuel oil at rates from 10'000 bbl(COE) per day, which can be used to replace crude oil or intermediary petroleum products in refineries.

BNL Virtual Oil Field has lower 'exploration and investment' costs than an offshore oil field with similar production capacity.



BNL Wind-to-Clean Fuels

BNL Wind-to-Clean Fuels Solutions integrate and stores (surplus) wind power with the BNL Clean Energy Plant for producing additional synthetic clean fuels within a cluster or region.

BNL Wind-to-Clean Fuels Solutions produce synthetic fuel oil at rates from 1'000 bbl(COE) per day, which can be stored or used to replace petroleum products in chemical industries or refineries.



BNL Clean Cement Plants

BNL Clean Cement Plants provide zero emission clean cement (clinker) production in a closed high-temp processing system. Hence, the massive CO₂-emissions from clinker burning can be completely eliminated.

BNL Clean Cement Solution consist of at least two parallel processing units, a BNL Clean Energy Plant and a BNL Clean Cement Plant, operating in conjunction to produce cement (clinker) and convert CO₂-emissions into new synthetic fuels.



BNL Clean Cities

BNL Clean Cities Solutions provides zero emission clean energy and clean energy distribution, clean water and clean wastewater treatment as well as zero waste clean recycling infrastructure for cities, municipalities and urban developments.

BNL Clean Cities Solutions integrates existing infrastructure as well as renewable energy sources such as solar and wind power for environmentally-friendly, self-supporting and sustainable city (urban) development.



BNL Clean Clusters

BNL Clean Clusters are regional zero emission clean energy and zero waste clean infrastructure operations on several sites spread over a specific region.

BNL Clean Clusters are flexible, cost-effective, self-supporting, independent and transparent (listed) operating entities, which providing clean energy, clean recycling and clean water services to industries, partners and users within the region.



BNL Clean Cool Logistics

BNL Clean Cool Logistics Solutions provide zero emission clean energy and zero waste clean infrastructure for sustainable chilled, cooled and refrigerated logistics and warehousing.

BNL Clean Cool Logistics Solutions utilises residues and waste from the logistics operation as well as integrates renewable energy, such as solar and wind power, to establish self-supporting and sustainable cool logistic solutions.



BNL Clean Facilities

BNL Clean Facilities Solutions provide zero emission clean energy and zero waste clean infrastructure solutions for environmentally-friendly sustainable operation of large facilities such as airports, amusement parks, campuses, hospitals and malls.

Residues and waste are used to produce clean energy for district heating and cooling of the facility. Non-combustible fractions become new raw materials for the industry.



BNL Clean Industries

BNL Clean Industries Solutions provide zero emission clean energy and zero waste clean infrastructure for sustainable development of chemical and industrial operations.

Exhaust and flare gases, residues and waste are used for zero emission clean energy generation and synthetic fuel production, which is used as a new raw material. BNL Clean Industries Solutions integrates solar and wind power, clean water and zero waste clean recycling for environmentally-friendly, self-supporting and sustainable industrial operations.



BNL Clean Infrastructure

BNL Clean Infrastructure Solutions are provided by combining certified and standardised BNL Clean Energy, BNL Clean Grid, BNL Clean Recycling and BNL Clean Water equipment and plants.

BNL Clean Infrastructure Solutions provide zero emission clean energy with integration of solar and wind power, clean water and zero waste clean recycling for environmentally-friendly, self-supporting and sustainable (urban) developments.



BNL Clean Refineries

BNL Clean Refineries Solutions provide zero emission clean energy and zero residue clean infrastructure for environmentally-friendly operation of state-of-arts clean refineries.

BNL Clean Refineries Solutions recovers carbon-containing gases, liquids and solid residues within the refinery for producing clean energy and synthetic fuels increasing the crude-to-product ratio.



BNL Clean Utilities

BNL Clean Utilities provide zero emission clean energy and zero waste clean infrastructure solutions for environmentally-friendly sustainable operation of utilities for cities, facilities, municipalities and resorts.

Residues and waste are used to produce clean energy for district heating and cooling of the facility. Non-combustible fractions become new raw materials for the industry.



BNL Waste-to-Clean Energy

BNL Waste-to-Clean Energy Solutions provide zero emission environmentally-friendly clean waste-to-energy solutions for commercial, industrial and municipal residues, sludge and waste.

BNL Waste-to-Clean Energy Solutions include the complete waste processing chain from feedstock preparation to ash recycling of ashes and residues for generating clean energy, power and fuels for environmentally-friendly sustainable energy supply.

BNL RESIDENTIAL DEVELOPMENT

Zero Emission & Zero Waste Solutions for Affordable Housing Developments
www.bnlsd.com



BNL Affordable Housing

BNL Affordable Housing Solutions provides technologies, equipment and solutions for energy-efficient and -autarky clean infrastructure as well as building technologies for commercial and residential urban developments.

BNL Affordable Housing Solutions fulfil the highest environmental and low-energy consumption requirements whilst providing Swiss/German quality in buildings, insulation and operations.

BNL Affordable Housing Solutions is your partner for energy-efficient, highest-quality and affordable residential developments.

BNL SUSTAINABLE DEVELOPMENT

Zero Emission Clean Energy
Zero Waste Clean Infrastructure for Sustainable Desert Greening
www.bnlsd.com



BNL Desert Greening

BNL Desert Greening Solutions provide modular, certified equipment and systems for rapid deployment of desert greening projects, including clean energy and clean water supply as well as residue and waste processing.

BNL Desert Greening Solutions are mobile, can be rented, relocated and transferred to comfort changing desert greening requirements.

BNL SUSTAINABLE DEVELOPMENT

Zero Waste Landfill Cleanup for Sustainable Development
www.bnlsd.com



BNL Landfill Cleanup

BNL Landfill Cleanup Solutions provide zero emission certified and modular equipment and plants for reclaiming, recycling and processing waste, residues and drainage from existing landfills.

BNL Landfill Cleanup Solutions ensure that your landfill is completely cleaned up, recycled and processed with zero waste. If requested the entire landfill area can also be re-naturalised.

BNL MODULAR STADIUM

Self-Supporting Modular Stadium for Sustainable Development
www.bnlsd.com



BNL Modular Stadium

BNL Modular Stadium Solutions provide self-supporting (temporary) modular arenas and stadiums, including clean energy, clean recycling and clean water systems. BNL Modular Stadiums are available for 12'000 to 48'000 audience.

BNL Modular Stadium Solutions are cost- and energy-efficient, fulfil FIFA and IOC requirements as well as the highest comfort and safety standards for large events.

BNL SUSTAINABLE DEVELOPMENT

Zero Waste Solutions for Cleaning Up the Oceans
www.bnlsd.com



BNL Ocean Cleanup

BNL Ocean Cleanup Solutions provide modular, certified equipment and systems for rapid deployment of complete extraction, recycling and processing systems for cleaning up oceans and other waters.

BNL Ocean Cleanup Solutions are mobile, can be rented, relocated and transferred to comfort changing cleanup requirements.

BNL SUSTAINABLE DEVELOPMENT

Zero Emission Zero Waste Self-Supporting Clean Infrastructure Solutions for Temporary Refugee Camps
www.bnlsd.com



BNL Refugee Camps

BNL Refugee Camp Solutions provide equipment, plants and solutions for rapid deployment of complete refugee camps with housing, energy, water, waste and sanitary systems.

BNL Refugee Camp Solutions can be rented and scaled to comfort changing requirements. BNL Refugee Camps can be relocated or transferred into affordable housing programs.

BNL RENEWABLE PLASTICS

100% Renewable Plastics for Sustainable Development
www.bnlsd.com



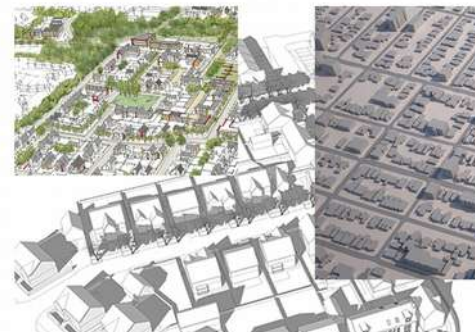
BNL Renewable Plastics

BNL Renewable Plastics provides solutions for 100% recycling of plastic waste by our BNL Clean Energy Plants into synthetic fuels, which is the raw material for producing new plastics. 100% Renewable Plastics!

BNL Renewable Plastic Solutions also provides solutions for cleaning up plastic waste in the oceans, on existing landfills and other waste dumps.

BNL RESIDENTIAL DEVELOPMENT

Zero Emission & Zero Waste Solutions for Sustainable Residential Development
www.bnlsd.com



BNL Residential Development

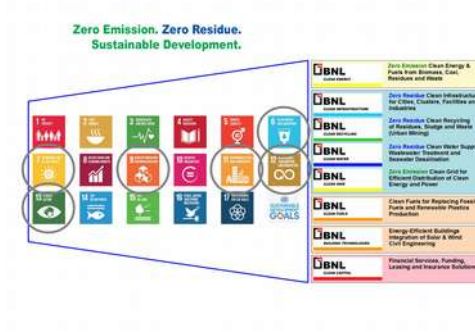
BNL Residential Development provides technologies, equipment and solutions for energy-efficient and -autarky clean infrastructure as well as building technologies for commercial and residential urban developments.

BNL Residential Development fulfil the highest environmental and low-energy consumption requirements whilst providing Swiss/German quality in buildings, insulation and operations.

BNL Residential Development is your partner for energy-efficient, highest-quality and affordable residential developments.

BNL SUSTAINABLE DEVELOPMENT

Zero Emission & Zero Waste Solutions for Sustainable Development
www.bnlsd.com



BNL Sustainable Development

BNL Sustainable Development Solutions provide technologies, equipment and solutions for achieving your sustainable development goals. Choosing and combining from our BNL Clean Technologies we have solutions for most sustainable development projects.

BNL Sustainable Development Solutions also provide standardised commercial and technical solutions for Cities/Municipalities/Utilities, Dairy/Farming/Plantations, Fresh Products Logistics and Commercial/Residential/Urban Developments.

BNL SUSTAINABLE FARMING

Zero Emission & Zero Waste Solutions for Sustainable Farming
www.bnlsd.com



BNL Sustainable Farming

BNL Sustainable Farming Solutions provide technologies, plants and systems for energy-efficient and self-supporting sustainable farming.

BNL Sustainable Farming Solutions processes agricultural residues and waste to produce clean energy, heating and cooling as well as clean water for sustainable farming operations.

BNL Sustainable Farming Solutions provide state-of-arts solutions, makes farming more cost-effective with increased revenues.

BNL Clean Solutions

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development



BNL Clean Water Supply

BNL Clean Water Supply Solutions provides drinking/potable water for commercial, industrial and residential consumers.

Our certified, modular and standardised BNL Clean Water Plants allows for fast and easy installation with 30 years operations guarantee.

BNL Clean Water Supply provides taste-less odor-free drinking water to the highest Swiss standards, worldwide!



BNL Industrial Wastewater

BNL Industrial Wastewater Solutions for processing (toxic) industrial wastewater to the highest Swiss/German/EU standards.

BNL Industrial Wastewater Solutions are based on our patented clean water technologies, which can process toxic as well as non-toxic wastewater.

Wastewater sludge from our BNL Clean Water Plants are processed with zero residue in our BNL Clean Energy Plants.



BNL Municipal Wastewater

BNL Municipal Wastewater Solutions for processing (non-toxic) municipal wastewater to the highest Swiss/German/EU standards. BNL Municipal Wastewater Solutions are based on our patented clean water technologies, which can process toxic as well as non-toxic wastewater.

Sludge from our BNL Clean Water Plants is processed with zero waste in our BNL Clean Energy Plants.



BNL Seawater Desalination

BNL Seawater Desalination Solutions for processing (non-toxic) municipal wastewater to the highest Swiss/German/EU standards. BNL Seawater Desalination Solutions are based on our patented clean water technologies, which can process toxic as well as non-toxic wastewater.

Sludge from our BNL Clean Water Plants is processed with zero waste in our BNL Clean Energy Plants.

Our BNL Clean Finance Solutions provide ready-to-use finance, funding and insurance solutions for BNL Clean Solutions and BNL Sustainable Development, including:

- **BNL Clean Capital Solutions** (Grants; Funding; Operations)
- **BNL Green Bond Solutions** (Certified Green Bonds)
- **BNL Clean Insurance Solutions** (CAR, Property, Liability, Credit Lines)
- **BNL Clean Reinsurance Solutions** (Credit Enhancement; Credit Servicing)

 <p>BNL Clean Capital</p> <p>BNL Clean Capital Solutions provide funding, financial and insurance solutions for our zero emission zero waste BNL Clean Energy, BNL Clean Infrastructure and BNL Sustainable Development projects worldwide.</p> <p>Based on our certified BNL Clean Technologies, our BNL Clean Solutions qualifies for clean, climate-improving, green, renewable and sustainable funding and grant programs worldwide. This is an essential advantage in obtaining low-cost funding for your clean and sustainable development projects.</p>	 <p>BNL Green Bonds</p> <p>BNL Green Bonds Solutions provide cost-effective funding for our zero emission zero waste BNL Clean Energy, BNL Clean Infrastructure and BNL Sustainable Development projects worldwide.</p> <p>Based on our certified BNL Clean Technologies, our BNL Clean Solutions qualifies for certified climate-neutral green bonds funding programs worldwide. This is an essential advantage in obtaining low-cost funding for your clean and sustainable development projects.</p>	 <p>BNL Clean Insurance</p> <p>BNL Clean Insurance Solutions provide insurance solutions for our zero emission zero waste BNL Clean Energy, BNL Clean Infrastructure and BNL Sustainable Development projects worldwide.</p> <p>Based on our certified BNL Clean Technologies, our BNL Clean Solutions qualifies for special arrangement and insurance solutions worldwide, an essential advantage in obtaining cost-effective insurance coverage for your clean and sustainable development projects.</p>	 <p>BNL Clean Reinsurance</p> <p>BNL Clean Insurance Solutions provide special credit, liability, natural disaster and political (re-)insurance solutions for our zero emission zero waste BNL Clean Energy, BNL Clean Infrastructure and BNL Sustainable Development projects worldwide.</p> <p>Based on our certified BNL Clean Technologies, our BNL Clean Solutions qualifies for special arrangement and reinsurance solutions worldwide, an essential advantage in obtaining (catastrophic) insurance coverage for your clean and sustainable development projects.</p>
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Meet With Us!

Zero Emission Clean Energy
Zero Waste Clean Infrastructure
for Sustainable Development



We cordially invite you to meet with us for more information.

Please contact the BNL Clean Energy Group +41-415 613 872 or info@bnlce.com.

*We present a full collection of our **zero emission zero waste** BNL Clean Technologies and BNL Clean Solutions, with scale models on display, at our large showrooms in Zurich, Switzerland.*

Welcome!

Our Mission: Zero Emission Zero Waste Clean Solutions