# THE NUCLEAR ENERGY SECTOR CREATES **POSITIVE IMPACTS**

Each gigawatt of installed nuclear capacity generates positive macroeconomic impacts totalling EUR 4.3 billion in the EU GDP. The JEK 2 project with an installed capacity of 1,100 MW, which is one of the three versions examined in the Prefeasibility Study, would yield an annual production of low-carbon electricity ranging from 8.8 to 12.8 TWh.

JEK 2 is a much-needed, feasible and economically sound project.

The GEN Management was expanded to two members in Augus 2019 and is now made up of the General Director, Martin Novšak (left), and Business Director, Danijel Levičar (right

The GEN Group closed a highly successful business year in 2019; in fact, it was a record-high year in terms of operating and business results. We generated more than EUR 2.2 billion in revenue, which puts us in second place among Slovenia's largest business groups and ranks us among the country's strongest business groups in investment terms.

Our central development project JEK 2 is poised to bring numerous positive impacts - both in terms of the economy and the climate – and strengthen the reliability of self-sufficient electricity supply.

We generated 3,672 GWh of electricity in 2019, exceeding our projected targets. All our production units operated failure-free, which is a remarkable achievement

NEK's operation was stable and safe and at full capacity for most of the year. It generated 5,533 GWh of electricity (half of which, 2,766 GWh, is the property of GEN, or effectively the Republic of Slovenia). In recognition of its performance, the nuclear power plant received the highest score in an international WANO review - this is only achieved by one-tenth of the world's top-performing power plants, and it sets NEK's good practices as examples for nuclear power organizations around the world to follow. The hydroelectric power plants on the river Sava operated reliably and successfully despite subnormal hydrology and generated a combined total of 876 GWh, of which 610 GWh went to the GEN Group. Brestanica Thermal Power Plant recorded 8 reliable start-ups for the purpose of balancing the national power grid and also operated to help satisfy market demand, which was possible thanks to favourable prices of natural gas.

As much as 99.1% of all the electricity generated by the GEN Group's power plants comes from low-carbon sustainable and **renewable sources** – nuclear and hydro. This is an energy mix which - according to economic, environmental, climate and social indicators - is proving to be the right combination for shaping a sustainable energy future for Slovenia.

In the **trading and sales sphere**, GEN-I was successful in adapting to dynamic market conditions and made an essential contribution to cost-effective risk management. Through its trading operations, the company provided effective safeguards against production and price fluctuations. With a well-thought-out approach to electricity sales in futures markets we have established a strong foothold also for 2020.

Our safe, reliable and environmentally friendly production is the result of ongoing investments in knowledge and equipment. Our outlay for **R&D**. capital expenditures and investments aimed at securing long-term stability was EUR 92 million this past year. Our core strategic development challenge is the JEK 2 project, which – on account of its benefits in terms of meeting the goals of reliability and competitiveness of supply and climate goals is now already overdue. In this project, we are counting on wider international or regional cooperation, with which Slovenia – as a stable country in energy security terms – will further strengthen its reputation in the EU.

The GEN Group generated EUR 2.2 billion in revenue, with a net profit amounting to EUR 48.5 million, which is 28% over the target. Added value per employee was EUR 149 thousand. The parent company generated EUR 209 million in revenue, with a net profit of EUR 27.4 million. By achieving such strong results, we have lived up to the expectations of our owner.

We help create a sustainable future with our 1,418 employees, of which more than 64% have at least higher education quali**fications**. The expansion of the company's management to two members has further consolidated the strategic, forward-looking position of the GEN Group. With our experience, expertise, commitment, diligence and motivation, we are fulfilling our goals and building a sustainable future not only for the GEN Group but also for all the people of Slovenia, who benefit from our secure and reliable supply of low-carbon electricity at affordable prices.

### Our production units – power plants

- Nuclear power plant
- Hydroelectric power plant
- Thermal power plant
- Solar power plant

Our companies' presence in electricity markets and power exchanges

- Regional power exchange
- Electricity and natural gas
- Electricity







## Companies making up the GEN Group, by activity

GEN energija d.o.o. The holding company of the GEN Group www.gen-energija.si

#### PRODUCTION

Nuklearna elektrarna Krško d.o.o. Electricity generation at a nuclear power plant www.nek.si

Savske elektrarne Ljubljana d.o.o. Electricity generation at hydroelectric power plants www.sel.si

Termoelektrarna Brestanica d.o.o. Electricity generation at a thermal power plant, a standby energy source for the power grid www.teb.si

Hidroelektrarne na Spodnji Savi, d.o.o. Electricity generation at hydroelectric power plants www.he-ss.si

Srednjesavske elektrarne d.o.o. Electricity generation at hydroelectric power plants

:N energija d.o.o., Vrbina 17, 8270 Krško | Phone: 07 49 10 112 | Fax: 07 49 01 118 | info@gen-energija.si | www.gen-energija.si e Annual Report of the GEN Group is available online at: http://letnoporocilo.gen-energija.si

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### TRADING AND SALES

GEN-I, d.o.o. Electricity trading, sales and purchasing www.gen-i.si

ELEKTRO ENERGIJA d.o.o. Sales of electricity and natural gas to consumers and purchasing of electricity www.elektro-energija.s

DEVELOPMENT, RESEARCH, SERVICES, AND OTHER

ZEL-EN, razvojni center energetike d.o.o. Research and development for the energy industry www.zel-en.si

GEN-EL d.o.o. Investment managemen

The **GEN Group** is becoming the region's leading provider of

# RELIABLE, SAFE, COMPETITIVE **AND LOW-CARBON**

energy supply to consumers.



OVERVIEW OF THE GEN GROUP **SKUPINA** AND ITS RESULTS IN 2019

# THE GEN GROUP AT A GLANCE

### The GEN Group is one of the largest and strongest business groups in investment terms in Slovenia

We run an integrated electricity supply chain:

- we generate electricity from low-carbon sources: nuclear and
- we engage in electricity trading and sales in the domestic market and more than 20 retail and wholesale markets across Europe.
- we channel our capital into development and investments. primarily ongoing thorough maintenance of existing as well as responsible planning and construction of new, low-carbon production capacities for supporting the electricity supply in Slovenia

# 6.300-6.800 GWh

AVERAGE ANNUAL ELECTRICITY PRODUCTION OUTPUT OF OUR POWER PLANTS

more than 99%

OF THE ELECTRICITY WE GENERATE COMES FROM LOW-CARBON NUCLEAR AND HYDRO ENERGY

# 30%

21

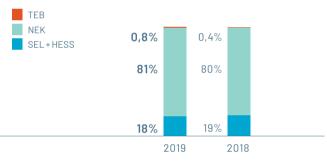
SHARE OF THE COUNTRY'S TOTAL ELECTRICITY PRODUCTION

EUROPEAN MARKETS IN WHICH WE ARE PRESENT THROUGH TRADING AND SALES ACTIVITIES

COMPOSITION OF ELECTRICITY GENERATION SOURCES IN SLOVENIA



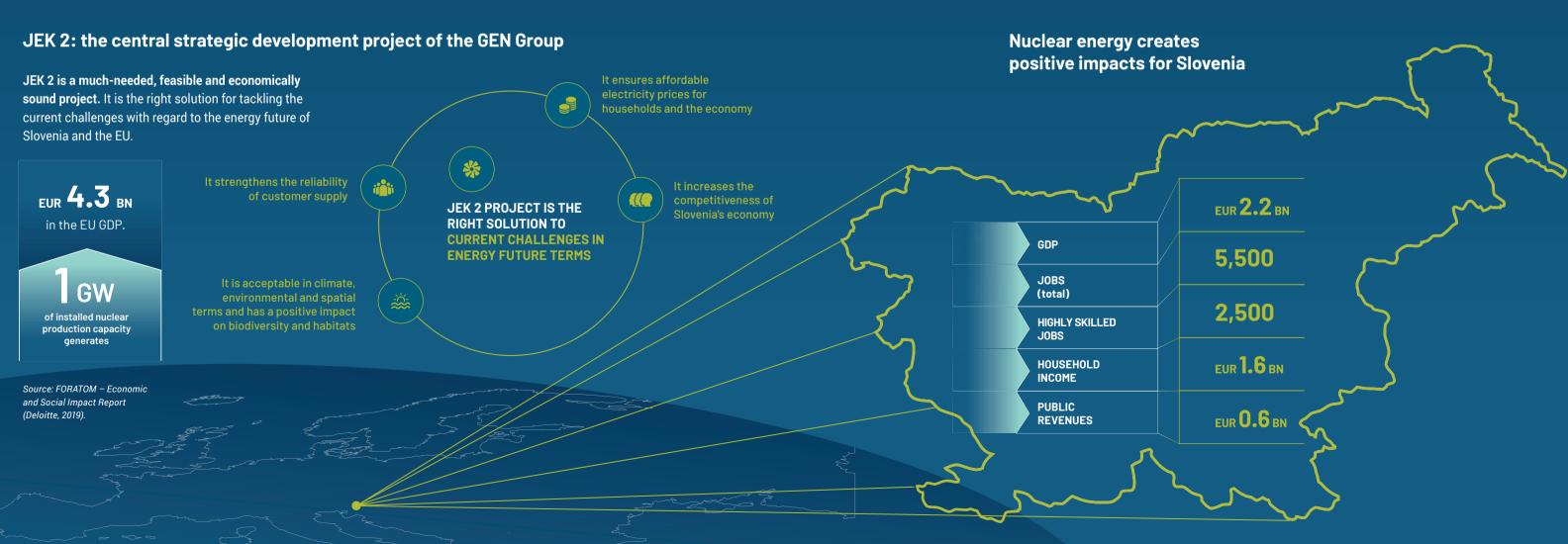
#### COMPOSITION OF ELECTRICITY GENERATION SOURCES IN THE GEN GROUP COMPANIES



		GROUP		COMPANY		
Our results		2019	2018	2019	2018	
Revenue	in EUR thousand	2,246,180	2,376,085	208,726	203,815	
EBIT	in EUR thousand	63,399	50,208	31,051	27,589	
EBITDA	in EUR thousand	102,369	86,834	31,907	28,326	
Net profit	in EUR thousand	48,488	40,661	27,383	24,505	
Assets	in EUR thousand	1,158,886	1,157,012	589,639	561,879	
Equity	in EUR thousand	859,836	818,695	486,731	466,408	
Debt	in EUR thousand	179,658	166,710	13,069	13,075	
Investments	in EUR thousand	57,381	60,424	901	1,741	
Electricity generated	in GWh	3,672	3,699			
Electricity sold	in GWh	41,375	47,153	3,975	4,275	
Number of employees at year-end		1,104	1,028	60	57	

## **Capitals of the GEN Group**





## Results of the GEN Group in 2019

Production output of NEK: 5.533 GWh

Low-carbon portfolio of and hydro):

99.1%

Implementing the action plan for **optimizing** business operations

**64**%

with at least higher education

Advanced services for towards green transformation

Production output of HPPs: 876 GWh (of which 610 GWh for the GEN Group)

EUR 48.5 million

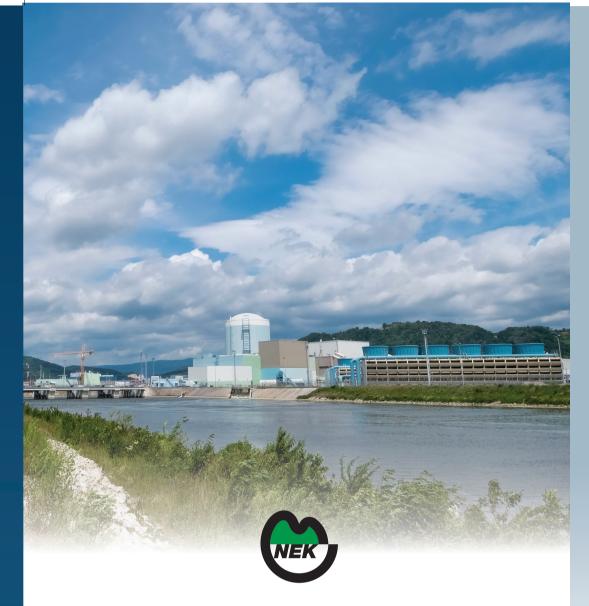
Preparation of research studies for the JEK 2 project

ensuring long-term stability: EUR **91.97** million

Strengthening the understanding and knowledge of energy



ENERGY IN THE GEN GROUP'S TOTAL ELECTRICITY PRODUCTION OUTPUT



# **NEK'S EXCELLENT RESULTS** FORM THE FOUNDATION FOR **THE LONG-TERM HARNESSING OF NUCLEAR ENERGY**

2019 was again an outstanding year for Krško Nuclear Power Plant (NEK): remarkable operational stability, high level of nuclear and radiation safety, responsible attitude to the environment. We exceeded our production targets with 5.533 billion kilowatt-hours of low-carbon electricity and completed a complex scheduled overhaul in 28 days.

We also carried out an extensive safety upgrade and achieved the highest score in an international review conducted by the World Association of Nuclear Operators (WANO). Based on operational performance indicators, NEK ranks among the world's top 60 nuclear power plants in efficiency terms out of a total of 447 in operation worldwide today. This is a major accomplishment for our entire team.



Stane Rožman President of the Management Board, Nuklearna elektrarna Krško

TERMOELEKTRARNA BRESTANICA

WE ARE INCREASING **OPERATIONAL RELIABILITY AND AVAILABILITY BY INVESTING IN NEW GAS TURBINE UNITS** 

# 0

ACTIVATIONS FOR THE **RELIABLE PROVISION OF** ANCILLARY SERVICES

One of the main accomplishments of Brestanica Thermal Power Plant (TEB) in this past year was the start of the construction of an additional backup gas turbine unit PB 7. Once this project is completed, TEB will have wrapped up its development cycle of replacing its three old 23 MW gas turbine units and increased the power plant's operational reliability and availability, which are essential to providing ancillary services.



Director, Brestanica d.o.o





omislav Malgai Termoelektrarna



# **DIRECTING OUR KNOWLEDGE AND EXPERIENCE TOWARDS DEVELOPMENT** PROJECTS IN HYDRO ENERGY AND **OTHER RENEWABLE ENERGY SOURCES**



**Drago Polak** Director, Savske elektrarne Ljubljana d.o.o.

processes, timely investments in increasing the power plants' production output parameters, and the generating units' capability of providing ancillary services were manifested in 2019 in a production output that was above the target, the achieved maximum availability factor of the systems, and the net profit that exceeded projections. All this provides a sound footing for continuing with the planned investments in the years ahead – with an emphasis on building new large and small hydroelectric power plants on the river Sava and its tributaries.

Optimization of the organizational structure and



Bogdan Barbič Director. Hidroelektrarne na Spodnii Savi d.o.o.

HESS closed the year 2019 within the targets from the business plan – and this despite less--than-favourable hydrology for electricity generation and the delayed start of the construction of Mokrice HPP. With EUR 20 million in operating revenue and EUR 2.4 million in net profit at year-end, we have exceeded our targets. While putting in repeated and additional efforts for obtaining an Environmental Protection Approval for Mokrice HPP, we are also focusing our expertise and experience on new development projects to facilitate the production of additional electricity from renewable sources.

876 GWh



# gen-i

# SUCCESSFULLY ON COURSE FOR A LOW-CARBON FUTURE FOR GENERATIONS TO COME

The GEN-I Group is among the fastest-growing and most go-ahead and innovative players in the European energy market. We generated more than EUR 2.2 billion in revenue for a third consecutive year, and net profit exceeded EUR 15 million for the first time ever.

With our successful operations, development of new products, strong investment potential and well-thought-out strategy, we have built for ourselves a sound footing for the decade of sweeping technological and social change, which will impact the development of society and habits like never before. By tapping renewables, we will make our contribution to the green transformation of society and its transition to a low-carbon reality.



Robert Golob, PhD President of the Management Board, GEN-I, d.o.o.