

# INVESTING WISELY IN A RELIABLE ENERGY FUTURE



# **Reliable, low-carbon, competitive** – and focused on the development of Slovenian society



The GEN Group provides consumers with a secure supply of electricity from sustainable and renewable sources – nuclear and hydro energy – at competitive prices. We meet our key targets and successfully manage the key operating and business risks thanks to our knowledge and experience. We record good business results despite the persistently low electricity prices and tough conditions in the markets – still, we are pleased to see signs of increasing economic growth.

## Krško Nuclear Power Plant (NEK) and the hydroelectric power plants boast high operational efficiency rates: we generate more than 3,200 GWh of electricity per year

A significant contribution to our good production results is made by NEK, whose operation is safe and stable; its electricity generation output ranges between 5,000 and 6,000 GWh, of which one-half goes to GEN energija. In this past year we have passed a resolution to grant the extension of NEK's service life, which is a very important and positive decision – not only for NEK and GEN but also for electricity consumers around the country.

Hydrological conditions have a major impact on the operational efficiency of our hydroelectric power plants. SEL and HESS hydroelectric power plants generate a combined

total of around 500 GWh of electricity annually. TEB, with its impeccable start-up track record, plays a vital role in maintaining the stability of the national power grid.

## We make investments intensely yet wisely: our projects bring considerable benefits to consumers

Our Group records strong investment activity despite tough market conditions and low prices of fuel products. We invest in the construction of Brežice HPP, safety upgrades at NEK, preparations to replace the gas turbine units at TEB, and the acquisition of additional equity interests in the trading & sales division of the GEN Group.

The trading we engage in through the company GEN-I and the GEN-I Group is becoming an ever more important activity of the GEN Group alongside electricity generation. By strengthening our competitive position we provide residential and commercial consumers with innovative solutions in the home and numerous foreign markets.

Our GEN Control Centre directly remotely operates the hydroelectric power plants on the lower course of the River Sava. This allows us to streamline the production, optimize the operating costs and be more flexible in responding to the market conditions.

## Educating and raising awareness: we bring energy technologies closer to people

By running guided tours and project activities in the World of Energy, which records around 7 thousand visitors every year since it was launched in 2011, we promote the knowledge and raise awareness of the importance of fulfilling our mission.

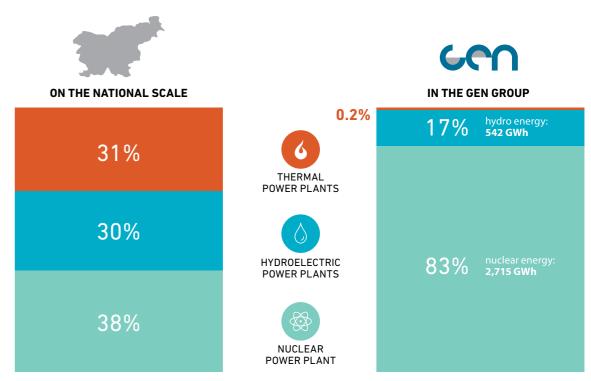
## GEN Group employees: with experience, expertise and motivation

We recognize that the future of the GEN Group is up to our employees, whose knowledge, hard work and commitment help create the present and future results. This is the only way we are able to meet – in a well-balanced, sustainable way – our goals of providing a reliable supply of low-carbon and environment-friendly energy at economically competitive prices and in tune with all the social levels of Slovenia's society.

Martin Novšak, General Director, GEN energija d.o.o.

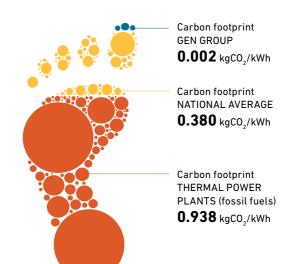
## **Portfolio of energy sources**

## **BREAKDOWN OF ELECTRICITY GENERATION SOURCES FOR 2016**



We generate electricity from nuclear and hydro energy.

## COMPARISON OF CO. EMISSIONS PER KWH GENERATED IN 2016



## OUR STRONG POINT – LOW CARBON EMISSIONS

In terms of CO<sub>2</sub> emissions, the GEN Group's production portfolio, compared with the national portfolio, is environmentally acceptable and oriented towards sustainability. The average CO<sub>2</sub> emissions per kWh generated by the companies making up the GEN Group is a mere 2 g CO<sub>2</sub>/kWh (national average: 380 g, fossil fuel-fired thermal power plants: 938 g CO<sub>2</sub>/kWh).

## **Vision**

Building a safe, reliable, sustainable and competitive energy future for Slovenia.

## **Mission**

Providing a reliable supply of low-carbon electricity from sustainable and renewable sources at competitive prices. Generating value added for our stakeholders by controlling the entire power supply cycle:

- generating electricity in an environmentally responsible, safe and reliable way,
- · efficiently engaging in electricity trading and sales, and
- systematically developing and investing in the maintenance of existing production capacities and their expansion.

## Our values and the GEN Group's key investment projects in 2016



## **SAFETY**

at the heart of our operations at every level: safety of employees, the population and the environment, and safe operation of the technologies employed across our production facilities



## **ENVIRONMENTAL ACCEPTABILITY**

adhering to environmental standards in our operations, not burdening the environment with emissions



## **RELIABILITY**

a reliable supply of electricity to consumers whenever they need it



## COMPETITIVENESS

trading in and selling affordable electricity to industrial and residential consumers



## **SUSTAINABILITY**

environmentally and socially responsible, operationally efficient and commercially excellent supply of electricity



## **INVESTMENT VALUE IN 2016**

**NEK:** Safety upgrade program

EUR **54.38** m

**HESS:** Construction of Brežice HPP and Mokrice HPP

EUR **44.82** m

**SEL:** Investments in SHPs

EUR **2.81** m

**TEB:** Replacement of gas turbine units

EUR **7.21** m

**GEN-I:** Strengthening of the market position

EUR **24.01** m

**GEN energija:** JEK 2 project planning

EUR **1.59** m

#### A LOOK AHEAD

We continue to plan and implement investments in sustainable and renewable energy sources – nuclear and hydro, which will allow us to carry out our mission also in the future. Our strategic development projects for the NEK safety upgrade, construction of a chain of hydroelectric power plants on the lower course of the Sava, replacement of gas turbine units at TEB and expansion of nuclear

generation capacities with the JEK 2 project are extremely demanding in technical and financial terms, particularly in the light of low electricity prices in the market. This is why the securing of financing sources is a major challenge for us – one we are facing prudently and systematically, depending on which development stage each particular project is in.

# Investing wisely in a reliable energy future

We plan and implement our strategic investments carefully and economically. We continuously keep track and effectively manage all associated risks and opportunities.

**Investments** in increasing low-carbon production capacities and further improving the efficiency of energy trading are **crucial to the success of our mission**: to provide commercial and residential consumers with a reliable supply of electricity from sustainable and renewable sources – nuclear and hydro – at competitive prices.

We take pride in our accomplishments to date but are focusing even more of our attention on future steps that will lead to the successful and comprehensive realization of our investments. The GEN Group's energy projects resulting from these investments play a central part in securing a brighter future for Slovenia's society, providing a **sound and solid footing for the country's economy and ensuring high quality of living for the country's entire population.** 



Learn more:

Annual report

of the company GEN

and the GEN Group for 2016,

pages 8-17.

www.letnoporocilo.gen-energija.si

With its safe and efficient operation, NEK provides

competitively priced supply of low-carbon electricity

generated from nuclear energy. NEK's technological

exemplary model of good practice around the world.

and safety upgrade program has been recognized as an

residential and industrial consumers with a reliable and



## NVIRONMENTAL ACCEPTABILIT

# **HESS:** Construction of Brežice HPP and Mokrice HPP

HESS is building a chain of hydroelectric power plants on the lower course of the River Sava, the largest hydropower project currently underway in the country.

The completion of the fifth (Brežice HPP) in a chain of six hydroelectric power plants on the lower course of the Sava will be followed by the project to build the last one; this will more than double the production output of base load and in part also peak load power generated on the Sava.



#### ELIABILITY

## **TEB:** Replacement of gas turbine units

TEB provides ancillary services and plays an important part in helping to ensure the stability of Slovenia's power grid. The most important and extensive investment and development project for TEB is the replacement of gas turbine units 1–3.



# GEN ENERGIJA: JEK 2 project planning

GEN energija is laying the groundwork for the JEK 2 project, which relevantly addresses all three principal focuses of the EU and Slovenia's energy policies: climate sustainability, reliability and competitiveness of the energy supply.

We have conducted expert studies that allow well-grounded, broader social and political discourse on the energy future of Slovenia and the future role of nuclear energy in electricity supply.



## COMPETITIVENESS

## GEN-I: Strengthening of market position

In line with the GEN Group's strategic focuses, GEN-I significantly upgrades its ownership and business relations in order to stay competitive on the market in the long run.

The acquisition of a 100% interest in the company Elektro energija allows us to strengthen our competitive position and to offer innovative solutions on Slovenia's domestic and foreign energy markets while benefiting commercial and residential consumers.





# NEK: Safety upgrade program

## Our results in 2016

## Key information on the company GEN and the GEN Group for 2016 against 2015

	Company		Group	
Item	2016	2015	2016	2015
Assets in EUR million	513.17	519.93	1,070.78	810.75
Equity in EUR million	430.38	432.53	755.52	744.76
Revenues in EUR million	168.82	175.54	377.43	180.51
EBIT in EUR million	18.42	13.55	16.67	8.15
EBITDA in EUR million	19.34	14.68	49.12	51.63
Net profit in EUR million	17.87	12.84	31.89	11.06
Value added in EUR million	20.30	17.50	83.80	83.27
Return on assets	3.46%	2.46%	3.39%	1.84%
Return on equity	4.14%	2.99%	4.25%	1.49%

## **OPERATIONAL EFFICIENCY**

- total electricity output of the companies making up the GEN Group: 3,265 GWh (4% up from 2015)
- NEK: safe and stable operation, production output
   5,431 GWh (of which one-half, specifically 2.715 GWh, goes to GEN)
- good hydrological conditions impact the production output of our large hydroelectric power plants on the Sava: 542 GWh
- with an impeccable start-up track record, TEB fulfills its role in helping ensure power grid stability
- taking over of remote operation of the power plants on the lower course of the Sava (Boštanj and Arto - Blanca HPPs) from GEN Control Centre in Vrbina: optimization of production and operating costs

## **BUSINESS EXCELLENCE**

- NEK General Meeting approves the extension of NEK's service life from 40 to 60 years (until 2043) based on the confirmed economic viability study
- research and development, capital expenditures and investments: EUR 146.5 million
- continuing with the construction of Brežice HPP: 98% realization of the planned investment
- continuing with preparations to support decision-making regarding the JEK 2 project, which is poised to unlock economic, social, environmental and climate-related benefits for Slovenia
- added focus on consumers: strengthened chain from electricity generation to consumers through the merging of GEN-I and Elektro energija

- declining liquidity of the Group resulting from strong investment activity, ownership consolidation of the GEN-I Group and profits paid out to the founder (liquidity is successfully managed, but we are also actively looking for additional sources of financing)
- continued implementation of the action plan for optimizing the operations of the company GEN and the GEN Group

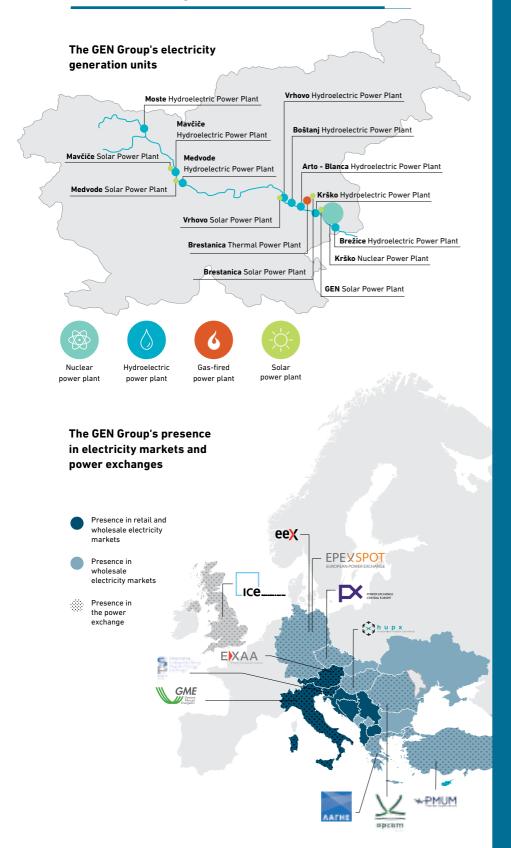
## **ENVIRONMENTAL RESPONSIBILITY**

- 99.8% of our electricity output comes from low-carbon sustainable and renewable energy sources: nuclear and hydro
- average CO<sub>2</sub> emissions per kWh generated: 0.002 kg (GEN); 0.380 kg (national average); 0.938 kg (average for thermal power plants burning fossil fuels)
- **nuclear safety and operational readiness** continue to be top operating priorities for NEK

## **CARING FOR SOCIETY**

- 1,230 employees, of which more than 62% with higher education qualifications
- raising interest in, and improving the perception of, topics associated with energy and the energy industry: more than 7 thousand visitors to The World of Energy, 11 Saturday workshops for nearly a thousand participants, more than 400 participants in the Technical Wizardry event
- management systems upgraded: ISO 9001, ISO 14001, OHSAS 18001

## The GEN Group in Slovenia and abroad





#### SKUPINA

## GEN energija d.o.o.

Vrbina 17, 8270 Krško, Slovenia Telephone: +386 07 49 10 112 Fax: +386 07 49 01 118 info@gen-energija.si www.gen-energija.si

## COMPANIES MAKING UP THE GEN GROUP, BY ACTIVITY

## **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 backup 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

## **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, purchasing of electricity www.elektro-energija.si

## Research, development, 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 management



Published by: GEN energija d.o.o., Vrbina 17, 8270 Krško, Slovenia Conceptual design and texts: GEN energija d.o.o. and Consensus d.o.o. Creative design, layout and production: KOFEIN dizajn Fotografije: Jaka Babnik, GEN photo archive Circulation: 500

Krško, July 2017