



Energija iz narave za človeka in naravo. Za naslednja desetletja.
Energy from nature for humans and nature. For the coming decades.





Dravske elektrarne Maribor

Z osmimi velikimi hidroelektrarnami na reki Dravi (HE Dravograd, HE Vuzenica, HE Vuhred, HE Ožbalt, HE Fala, HE Mariborski otok, HE Zlatoličje in HE Formin), s petimi malimi hidroelektrarnami (MHE Ruše, MHE Melje, MHE Markovci, MHE Rogoznica in MHE Ceršak) ter štirimi sončnimi elektrarnami (SE Dravograd, SE OCV 3, SE Zlatoličje in SE Formin) **družba Dravske elektrarne Maribor, d. o. o.**, proizvede skoraj četrtino vseslovenske električne energije. Povprečna letna proizvodnja družbe, ki znaša 2.800 GWh, predstavlja 80 odstotkov slovenske električne energije, ki ustreza merilom obnovljivih virov in standardom mednarodno priznanega certifikata RECS (Renewable Energy Certificates System). Skupna moč na pragu elektrarn je skoraj 600 MW. Učinkovitost, zanesljivost, prilagodljivost, celovitost ter okoljska in družbena odgovornost so temeljne vrednote družbe, ki jim sledimo pri obstoječih zmogljivostih in tistih, ki jih še nameravamo zgraditi.

With eight large hydro power plants on the Drava River (Dravograd, Vuzenica, Vuhred, Ožbalt, Fala, Mariborski otok, Zlatoličje and Formin), with five small hydro power plants (Ruše, Melje, Markovci, Rogoznica and Ceršak) and four solar power plants (Dravograd, OCV 3, Zlatoličje and Formin), the company Dravske elektrarne Maribor, d. o. o. produces almost a quarter of the total electricity produced in Slovenia. The average annual production of the company, which amounts to 2,800 GWh, represents 80 percent of the total electricity produced in Slovenia that complies with the criteria of renewable energy sources and standards of the internationally-recognised Renewable Energy Certificates System (RECS). Total net power of the power plants is almost 600 MW. Efficiency, reliability, adaptability, comprehensiveness and environmental and social responsibility are the basic values of the company, which are pursued both when it comes to the existing capacities and those we intend to build.



Hidroelektrarna Dravograd

Dravograd Hydro Power Plant



Začetek obratovanja: Prvi agregat (1943), drugi agregat (1944), tretji agregat (1945)

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 142 GWh

Moč na pragu: 26,2 MW

Število agregatov: 3

Nazivni pretok turbin: 405 m³/s

Leto obnove: od 1994 do 2000

Start of operation: First generator (1943), second generator (1944), third generator (1945)

Type of power plant: Hydro power plant in the riverbed

Annual production: 142 GWh

Net power: 26.2 MW

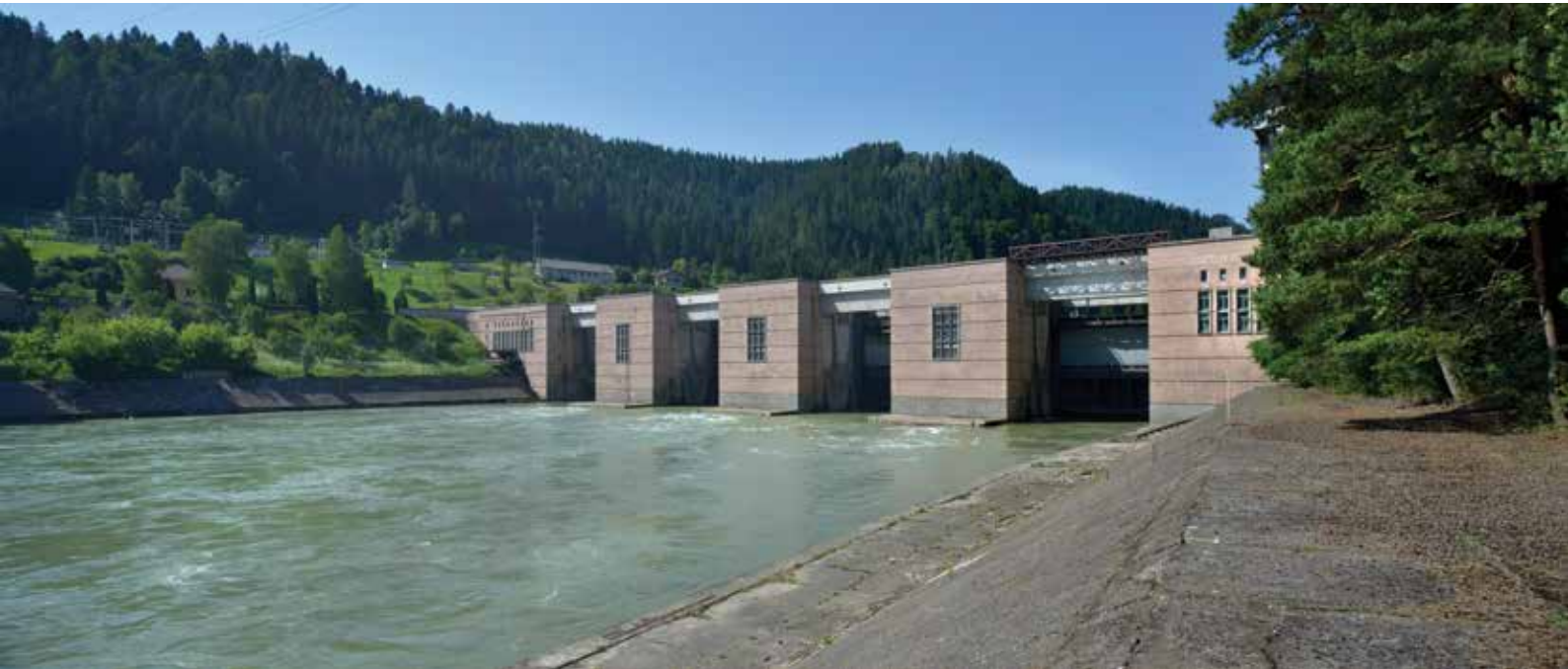
Number of generators: 3

Nominal flow of turbines: 405 m³/s

Year of reconstruction: from 1994 to 2000

Hidroelektrarna Vuzenica

Vuzenica Hydro Power Plant



Začetek obratovanja: Prvi agregat (1953), drugi in tretji agregat (1957)

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 247 GWh

Moč na pragu: 55,6 MW

Število agregatov: 3

Nazivni pretok turbin: 550 m³/s

Leto obnove: od 1994 do 2000

Start of operation: First generator (1953), second and third generator (1957)

Type of power plant: Hydro power plant in the riverbed

Annual production: 247 GWh

Net power: 55.6 MW

Number of generators: 3

Nominal flow of turbines: 550 m³/s

Year of reconstruction: from 1994 to 2000

Hidroelektrarna Vuhred

Vuhred Hydro Power Plant



Začetek obratovanja: Prvi in drugi agregat (1956), tretji agregat (1958)

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 297 GWh

Moč na pragu: 72,3 MW

Število agregatov: 3

Nazivni pretok turbin: 550 m³/s

Leto obnove: od 2000 do 2005

Start of operation: First and second generator (1956), third generator (1958)

Type of power plant: Hydro power plant in the riverbed

Annual production: 297 GWh

Net power: 72.3 MW

Number of generators: 3

Nominal flow of turbines: 550 m³/s

Year of reconstruction: from 2000 to 2005

Hidroelektrarna Ožbalt

Ožbalt Hydro Power Plant



Začetek obratovanja: Prvi agregat (1960), drugi agregat (1961), tretji agregat (1962)

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 305 GWh

Moč na pragu: 73,2 MW

Število agregatov: 3

Nazivni pretok turbin: 550 m³/s

Leto obnove: od 2000 do 2005

Start of operation: First generator (1960), second generator (1961), third generator (1962)

Type of power plant: Hydro power plant in the riverbed

Annual production: 305 GWh

Net power: 73.2 MW

Number of generators: 3

Nominal flow of turbines: 550 m³/s

Year of reconstruction: from 2000 to 2005

Hidroelektrarna Fala - Najstarejša hidroelektrarna na celotnem toku

Fala Hydro Power Plant - The oldest hydro power plant on the entire course



Začetek obratovanja: Prvih pet agregatov (1918) – prvi, drugi in tretji agregat so bili iz obratovanja izločeni leta 1990, četrti in peti agregat pa leta 1991, šesti agregat (1925) – iz obratovanja izločen leta 1991, sedmi agregat (1931) – iz obratovanja izločen 1991, osmi agregat (1977), deveti in deseti agregat (1991)

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 206 GWh

Moč na pragu: 58 MW

Število agregatov: 3

Nazivni pretok turbin: 525 m³/s

Leto obnove: od 1987 do 1995

Start of operation: *The first five generators (1918) – the first, second and third generators were excluded from operation in 1990, and the fourth and fifth generators in 1991, sixth generator (1925) – excluded from operation in 1991, seventh generator (1931) – excluded from operation in 1991, eighth generator (1977), ninth and tenth generator (1991)*

Type of power plant: *Hydro power plant in the riverbed*

Annual production: 206 GWh

Net power: 58 MW

Number of generators: 3

Nominal flow of turbines: 525 m³/s

Year of reconstruction: *from 1987 to 1995*

reke Drave in najstarejša slovenska, velika, še delujoča hidroelektrarna

course of the Drava River and the oldest Slovenian large operational hydro power plant



Leta 1986 je bila hidroelektrarna Fala zaradi tehničnih in arhitekturnih kakovosti razglašena za tehnični spomenik lokalnega pomena, leta **2008 pa je bila z odlokom Vlade Republike Slovenije razglašena za kulturni spomenik državnega pomena.**

Za obisk muzeja hidroelektrarne Fala preverite www.dem.si.

*In 1986, the Fala Hydro Power Plant was declared a technical monument of local importance for its technical and architectural features, while **in 2008 it was declared a cultural monument of national importance by government decree.** If you are interested in visiting the museum of the Fala Hydro Power Plant, visit www.dem.si.*

Hidroelektrarna Mariborski otok

Mariborski otok Hydro Power Plant



Začetek obratovanja: Prvi agregat (1948), drugi agregat (1953), tretji agregat (1960)

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 270 GWh

Moč na pragu: 60 MW

Število agregatov: 3

Nazivni pretok turbin: 550 m³/s

Leto obnove: od 1994 do 2000

Start of operation: First generator (1948), second generator (1953), third generator (1960)

Type of power plant: Hydro power plant in the riverbed

Annual production: 270 GWh

Net power: 60 MW

Number of generators: 3

Nominal flow of turbines: 550 m³/s

Year of reconstruction: from 1994 to 2000

Hidroelektrarna Zlatoličje - Največja slovenska hidroelektrarna

Zlatoličje Hydro Power Plant - The biggest Slovenian Hydro Power Plant



Jez Melje je bil dograjen leta 1968. Ima šest pretočnih polj.
The Melje dam was upgraded in 1968. It has six sluices.



Začetek obratovanja: Prvi agregat (1968), drugi agregat (1969)

Tip elektrarne: Derivacijska elektrarna (kanal)

Letna proizvodnja: 577 GWh

Moč na pragu: 136 MW

Število agregatov: 2

Nazivni pretok turbin: 530 m³/s

Leto obnove: od 2007 do 2013

Start of operation: First generator (1968), second generator (1969)

Type of power plant: Derivative power plant (channel)

Annual production: 577 GWh

Net power: 136 MW

Number of generation units: 2

Nominal flow of turbines: 530 m³/s

Year of reconstruction: from 2007 to 2013

Hidroelektrarna Formin

Formin Hydro Power Plant



Jez Markovci je bil dograjen leta 1978. Ima šest pretočnih polj.
The Markovci dam was upgraded in 1978. It has six sluices.



Začetek obratovanja: Prvi in drugi agregat (1978)

Tip elektrarne: Derivacijska elektrarna (kanal)

Letna proizvodnja: 548 GWh

Moč na pragu: 116 MW

Število agregatov: 2

Nazivni pretok turbin: 500 m³/s

Leto obnove: Elektrarna še ni bila obnovljena

Start of operation: First and second generator (1978)

Type of power plant: Derivative power plant (channel)

Annual production: 548 GWh

Net power: 116 MW

Number of generation units: 2

Nominal flow of turbines: 500 m³/s

Year of renovation: Power plant has not been reconstructed yet

Mala hidroelektrarna Ruše

Ruše Small Hydro Power Plant



Začetek obratovanja: 2012

Tip elektrarne: Derivacijska elektrarna
(tlačni cevovod)

Letna proizvodnja: 0,530 GWh

Moč na pragu: 0,11 MW

Število agregatov: 2

Nazivni pretok turbin: 1,40 m³/s

Start of operation: 2012

*Type of power plant: Derivative hydro
power plant (pressure penstock)*

Annual production: 0.530 GWh

Net power: 0.11 MW

Number of generation units: 2

Nominal flow of turbines: 1.40 m³/s

Mala hidroelektrarna Melje

Melje Small Hydro Power Plant



Začetek obratovanja: 2008/2009

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 8,690 GWh

Moč na pragu: 2,26 MW

Število agregatov: 2

Nazivni pretok turbin: 33,00 m³/s

Start of operation: 2008/2009

Type of power plant: Hydro power plant in the riverbed

Annual production: 8.690 GWh

Net power: 2.26 MW

Number of generation units: 2

Nominal flow of turbines: 33.00 m³/s

Mala hidroelektrarna Markovci

Markovci Small Hydro Power Plant



Začetek obratovanja: 2012

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 4,320 GWh

Moč na pragu: 0,900 MW

Število agregatov: 2

Nazivni pretok turbin: 29,75 m³/s

Start of operation: 2012

Type of power plant: Hydro power plant in the riverbed

Annual production: 4.320 GWh

Net power: 0.900 MW

Number of generation units: 2

Nominal flow of turbines: 29.75 m³/s

Mala hidroelektrarna Rogoznica

Rogoznica Small Hydro Power Plant



Začetek obratovanja: 2019

Tip elektrarne: Pretočna elektrarna v strugi reke

Letna proizvodnja: 0,12 GWh

Moč na pragu: 0,023 MW

Število agregatov: 2

Nazivni pretok turbin: 1,14 m³/s

Start of operation: 2019

Type of power plant: Hydro power plant in the riverbed

Annual production: 0.12 GWh

Net power: 0.023 MW

Number of generation units: 2

Nominal flow of turbines: 1.14 m³/s

Mala hidroelektrarna Ceršak

Ceršak Small Hydro Power Plant

Edina hidroelektrarna, ki leži na slovenskem delu reke Mure.
The only hydro power plant in the Slovenian part of the Mura River.



Začetek obratovanja: 1936; v okviru družbe DEM deluje od leta 2005
Tip elektrarne: Derivacijska elektrarna (kanal)

Letna proizvodnja: 4,74 GWh

Moč na pragu: 0,650 MW

Število agregatov: 3

Nazivni pretok turbin: 10,00 m³/s

Start of operation: 1936; as part of the DEM company since 2005

Type of power plant: Derivative power plant (channel)

Annual production: 4.74 GWh

Net power: 0.650 MW

Number of generation units: 3

Nominal flow of turbines: 10.00 m³/s

Sončna elektrarna Dravograd

Dravograd Solar Power Plant



Začetek obratovanja: 2012
Letna proizvodnja: 0,042 GWh
Moč na pragu: 0,041 MW

Start of operation: 2012
Annual production: 0.042 GWh
Net power: 0.041 MW

Sončna elektrarna OCV 3

OCV 3 Solar Power Plant



Začetek obratovanja: 2012
Letna proizvodnja: 0,028 GWh
Moč na pragu: 0,026 MW

Start of operation: 2012
Annual production: 0.028 GWh
Net power: 0.026 MW

Sončna elektrarna Zlatoličje

Zlatoličje Solar Power Plant



Začetek obratovanja: 2011
Letna proizvodnja: 0,893 GWh
Moč na pragu: 0,777 MW

Start of operation: 2011
Annual production: 0.893 GWh
Net power: 0.777 MW

Sončna elektrarna Formin

Formin Solar Power Plant



Začetek obratovanja: 2012
Letna proizvodnja: 0,123 GWh
Moč na pragu: 0,112 MW

Start of operation: 2012
Annual production: 0.123 GWh
Net power: 0.112 MW

Odgovornost do okolja in družbe

Environmental and social responsibility

Kjer človek v naravi išče energijo, se dogajajo posegi v krajino. Stebrne elektrarne, postavljene v rečno strugo, imajo manjši vpliv na okolje kot kanalske elektrarne. Pri omenjenih so posegi obsežnejši, a s premišljenimi rešitvami lahko krajino tudi varujejo in bogatijo. Obratovanje hidroelektrarn z ustreznimi tehnološkimi rešitvami ne obremenjuje okolja, izgradnja pa lahko vpliva na podobo krajine, na spremembe vodnega režima reke in s tem na rečna življenjska okolja. Odgovorno ravnanje z okoljem se zato začne že pri načrtovanju tehnoloških rešitev, s preprečevanjem morebitnih neželenih vplivov in z nenehnim nadziranjem možnih posledic delovanja hidroelektrarn za okolje. Nekaterih vplivov ni mogoče popolnoma preprečiti, zato je še toliko pomembnejša skrb za odpravo njihovih posledic. Vse naštetje je ves čas vodilo družbe Dravske elektrarne Maribor tako pri obstoječih enotah kot pri načrtovanju novih objektov za proizvodnjo električne energije.

Dravske elektrarne Maribor ob navedenem namenjamu pozornost tudi družbi. Podpiramo različne posameznike, društva, organizacije in projekte. Vsakoletna pokroviteljstva in donacije dobrodelnim, športnim, kulturnim, znanstvenim ter izobraževalnim projektom sledijo ključnemu načelu razpršenosti po celotnem območju reke Drave, predstavljajo pomemben del korporativnega komuniciranja in zasledujejo mednarodne standarde družbene odgovornosti.

Smo ponosni pokrovitelji večjih in manjših, znanih in manj znanih klubov, društev, posameznikov in dogodkov, ki vsak na svojem področju stremijo k najboljšemu, kar je tudi naše pomembno vodilo. Prav posebej pa smo ponosni na **Veslaški klub Dravske elektrarne Maribor**, katerega pokrovitelj smo že vrsto let, člani vseh generacij pa vsako leto dosegajo odlične rezultate na nacionalnih in mednarodnih tekmovanjih.





In the places where humans look for energy in nature, interventions in the landscape take place. Pier-type power plants, installed in the riverbed, have a lesser impact on the environment than channel-type power plants. In such power plants, interventions are more extensive, but if prudent measures are taken, they may even protect and develop the landscape. The operation of hydro power plants with adequate technological solutions does not place a burden on the environment, but their construction may impact the appearance of the landscape, change the water regime of the river and, consequently, habitats. Responsible environmental management thus starts with the planning of technological solutions, prevention of possible negative effects and constant monitoring of the possible environmental impact of the operation of hydro power plants. It is impossible to completely prevent certain impacts, which is why it is particularly important to eliminate their consequences. All the above mentioned has been the guideline of the company Dravske elektrarne Maribor both when it comes to the existing units and the design of new power production facilities.

In addition to this, Dravske elektrarne Maribor also pays attention to society. We support various individuals, associations, organisations and projects. The annual sponsorships and donations to humanitarian, sport, cultural, scientific and educational projects follow the key principle of dispersion across the entire Drava basin, represent an important part of corporate communication and follow the international standards of corporate social responsibility.

*We are proud sponsors of big and small, known and less known clubs, associations and individuals who each in their particular field strive for the best result, which is also an important guideline of our company. We are especially proud of the **Dravske elektrarne Maribor Rowing Club**, whose sponsor we have been for a number of years, and whose members of all generations achieve excellent results at national and international competitions every year.*

Priložnosti razvoja

Development opportunities

Trendi nakazujejo potrebo po doseganju zanesljive in varne oskrbe z električno energijo na stroškovno učinkovit način. Cilj povečanja konkurenčne sposobnosti družbe Dravske elektrarne Maribor in skupine HSE zahteva obvladovanje in primerljivost stroškov s konkurenti in zahtevami trga na vseh področjih delovanja in razvoja energetskih podjetij tako pri obratovanju, vzdrževanju, trgovanju, investiranju, razvoju kot pri vpeljavi novih storitev. V skladu z omenjenim izvajamo dela in načrtujemo projekte na naslednjih področjih:

- redno vzdrževanje, obnova in nadgradnja obstoječih proizvodnih enot,
- ohranjanje energetskega potenciala akumulacijskih jezer hidroelektrarn na reki Dravi,
- energetska izraba pritokov reke Drave – male hidroelektrarne,
- energetska izraba sonca,
- energetska izraba vetra,
- energetska izraba geotermalne energije,
- črpalne hidroelektrarne,
- hranilniki za zmanjšanje odstopanj proizvodnje,
- sanacija in energetska izraba reke Mure,
- drugo.





Trends point to the need to achieve a reliable and safe supply of electricity in a cost-effective way. The objective of an increased competitive capacity of the company Dravske elektrarne Maribor and the HSE Group requires the management and comparability of costs with the competitors and market requirements in all fields of operation and development of energy companies, both in operation, maintenance, trade, investment and development, and the introduction of new services. In accordance with this, we implement works and plan projects in the following fields:

- regular maintenance, reconstruction and upgrade of the existing production units,*
- preserving the energy potential of reservoirs of hydro power plants on the Drava River,*
- utilisation of hydro power of the tributaries of the Drava River – small hydro power plants,*
- utilisation of solar power,*
- utilisation of wind power,*
- utilisation of geothermal energy,*
- pumped-storage hydro power plants,*
- energy storage facilities for reducing deviations in production,*
- rehabilitation and utilisation of hydro power of the Mura River,*
- other.*

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