



HEP - OPERATOR PRIJENOSNOG SUSTAVA d.o.o.

Član HEP grupe

Member of HEP group

godišnje izvješće - sažetak

annual report - summary

2007

Pozdravna riječ direktora

Introductory Address

HEP-Operator prijenosnog sustava d.o.o. je tijekom 2007. godine u skladu sa zakonskim obvezama nastavilo izvršavati svoje osnovne zadaće - vođenje elektroenergetskog sustava Republike Hrvatske, prijenos električne energije, te održavanje, razvoj i izgradnja, prijenosne mreže - s ciljem pouzdane opskrbe kupaca uz minimalne troškove.

Tijekom 2007. godine izgrađeno je i pušteno u pogon četiri nove transformatorske stanice 110/x kV i 65 km novih dalekovoda, te je izvršen čitav niz zamjena i rekonstrukcija u objektima prijenosne mreže.

U 2007. godini pokrenut je projekt strateškog značaja „Funkcije vođenja elektroenergetskog sustava“ koji obuhvaća cjelovitu zamjenu, prilagodbu i nadogradnju računalne



Dr. sc. Dubravko Sabolić



i programske opreme procesne informatike u Nacionalnom dispečerskom centru u Zagrebu, u mrežnim centrima Osijek, Rijeka, Split i Zagreb, te u elektroenergetskim objektima.

Protekle godinu je obilježio aktivan doprinos HEP-OPS-a razvoju tržišta električne energije. Društvo je sudjelovalo u radu međunarodnih udruga iz područja prijenosa električne energije, kao i u aktivnostima zaštite okoliša.

Obzirom da nije bilo značajnijih pogonskih događaja s posljedicama za elektroenergetski sustav, 2007. godinu možemo ocijeniti mirnom u pogonskom smislu.

U 2007. godini ostvarena je visoka pouzdanost i raspoloživost prijenosne mreže što je doprinijelo sigurnosti pogona i vođenja hrvatskog elektroenergetskog sustava u cjelini. Društvo je u tom pogledu uspješno obavilo svoju osnovnu zadaću u lancu opskrbe kupaca električnom energijom.

The company HEP-Operator prijenosnog sustava d.o.o. during 2007 in accordance with relevant legal framework continued to perform its main activities - system operation of Croatian electricity system, electricity transmission, maintenance, development and construction of operation facilities of transmission network for the purpose of reliable electricity supply at the lowest costs.

Four new 110/x kV substations were constructed and commissioned during 2007, as well as 65 km of new overhead lines. A lot of replacements and reconstructions were performed in high voltage network facilities as well.

A project of strategic importance, "The Functions of Power System Operation", was launched in the course of 2007, containing complete replacement, adjustment and upgrade of information and communication equipment at the National Dispatch Centre in

Zagreb and network centres in Osijek, Rijeka, Split and Zagreb, as well as in other facilities of electricity system.

The last year was marked by an active contribution of HEP-OPS to the electricity market development. The company was engaged in the work of international associations at the filed of electricity transmission, as well as in activities regarding environmental protection.

Since there were no significant operational events with consequences on electricity system, the year 2007 can be evaluated as stable in operational sense.

A high reliability and availability of transmission network was achieved in the year 2007, which contributed to the overall security of electricity system operation and control. The company, in this respect, successfully performed its basic task in the value chain of electricity supply of customers.

Opći podaci

General Data

HEP-Operator prijenosnog sustava d.o.o. (u daljnjem tekstu: HEP-OPS), osnovan 4. travnja 2005. godine, je operator prijenosnog sustava Republike Hrvatske koji posjeduje dozvolu za obavljanje energetske djelatnosti prijenosa električne energije kao javne usluge na organiziranom tržištu električne energije.

HEP-OPS je član HEP grupe kao tvrtka kćer Hrvatske elektroprivrede d.d.

Konzum prijenosa u 2007. godini bio je 16,8 TWh, što je za 3,7 % više od ostvarenog konzuma prijenosa u 2006. godini. Gubici u prijenosnoj mreži od 547 GWh veći su za 0,6 % u odnosu na ostvarenje u 2006. godini i iznose 2,31 % ukupne potrošnje električne energije na razini prijenosne mreže. Vršno opterećenje na razini prijenosne mreže u 2007. godini zabilježeno je dana 17. prosinca i iznosilo je 3098 MW, što je za 2 % više no u prethodnoj godini te predstavlja povijesno najviše opterećenje u Hrvatskoj.

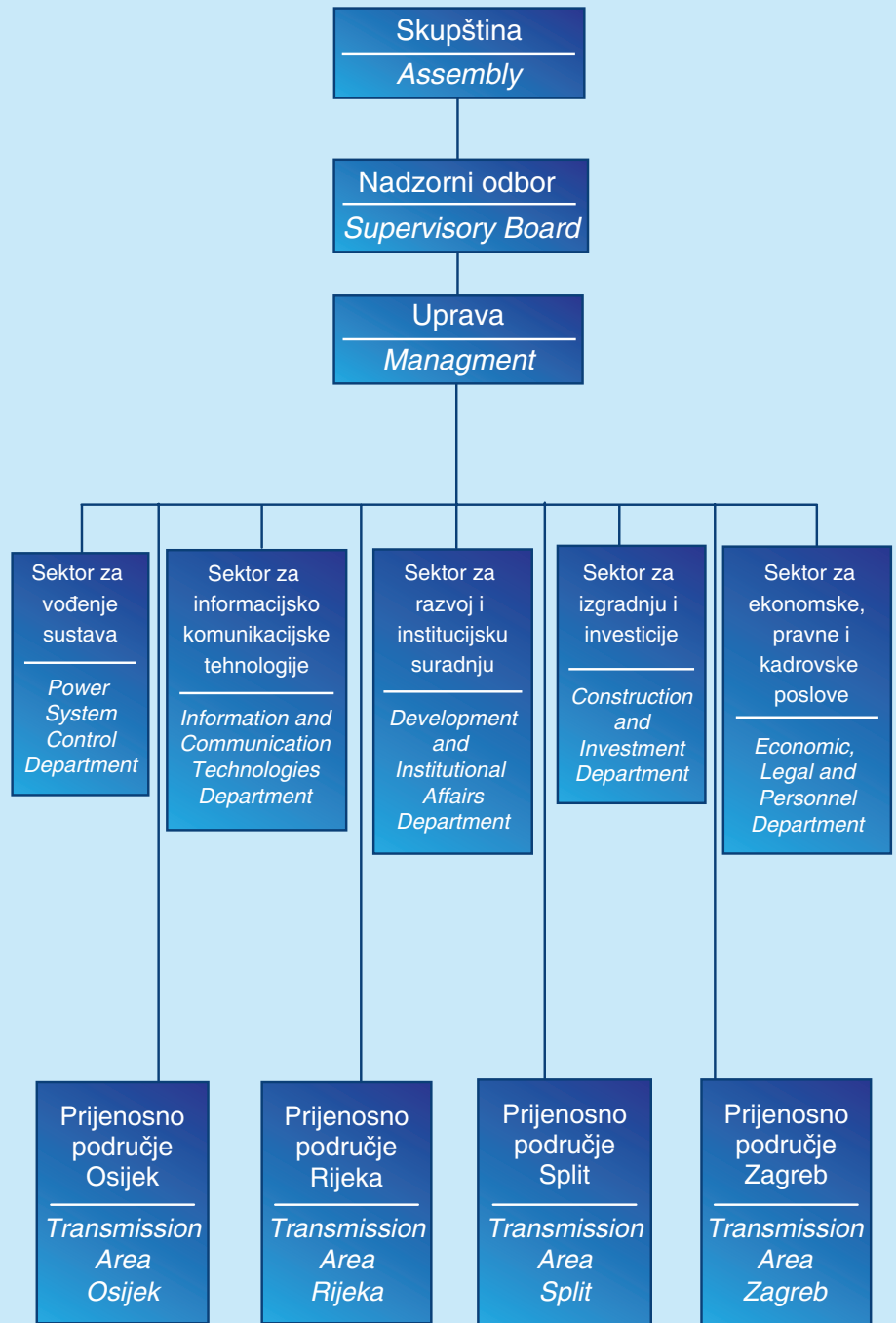
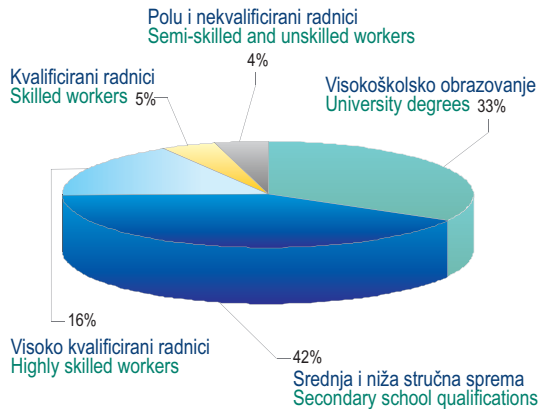


HEP-Operator prijenosnog sustava d.o.o. (hereafter referred to as HEP-OPS), founded on 4th April 2005, is the national transmission system operator of the Republic of Croatia, licensed to perform the activity of electricity transmission as a public service on organized electricity market.

HEP-OPS is a member of HEP Group as a daughter company of Hrvatska elektroprivreda d.d.

The consumption on transmission grid in 2007 was 16.8 TWh, which is 3.7% higher compared to the consumption in 2006. The losses in the transmission network amounting 547 GWh are higher by 0.6% compared to those in 2006, amounting 2.31% of total electricity consumption at transmission level. The peak load in 2007 was recorded on 17th December, amounting 3098 MW, which is 2% higher compared to the previous year and it historically represents the highest load in Croatia.

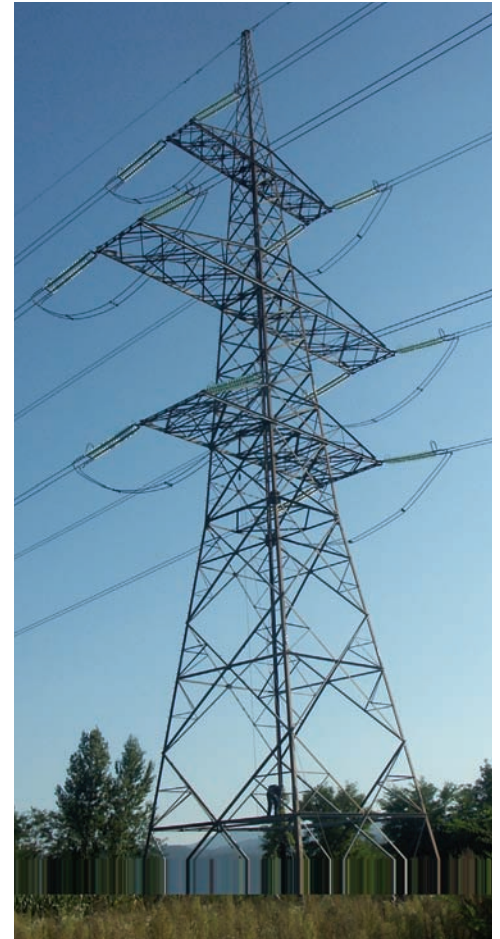
Kadrovska struktura Human resources



**Hrvatski elektro-
energetski sustav**

**Croatian Electric
Power System**

U nadležnosti HEP-OPS-a je prijenosna elektroenergetska mreža koju čini 117 visokonaponskih transformatorskih stanica ukupne instalirane snage transformatora 11.103 MVA, te 7.121 km dalekovoda naponskih razina 400, 220 i 110 kV.



HEP-OPS is responsible for electricity transmission network that consists of 117 substations with total installed power of 11103 MVA, and 7121 km of 400, 220 and 110 kV lines.

Legenda / Legend:

Trafostanice / Substations:

- 400 / 220 / 110 kV
- 400 / 110 kV
- 220 / 110 kV
- 110 / x kV
- 220 / 35 kV

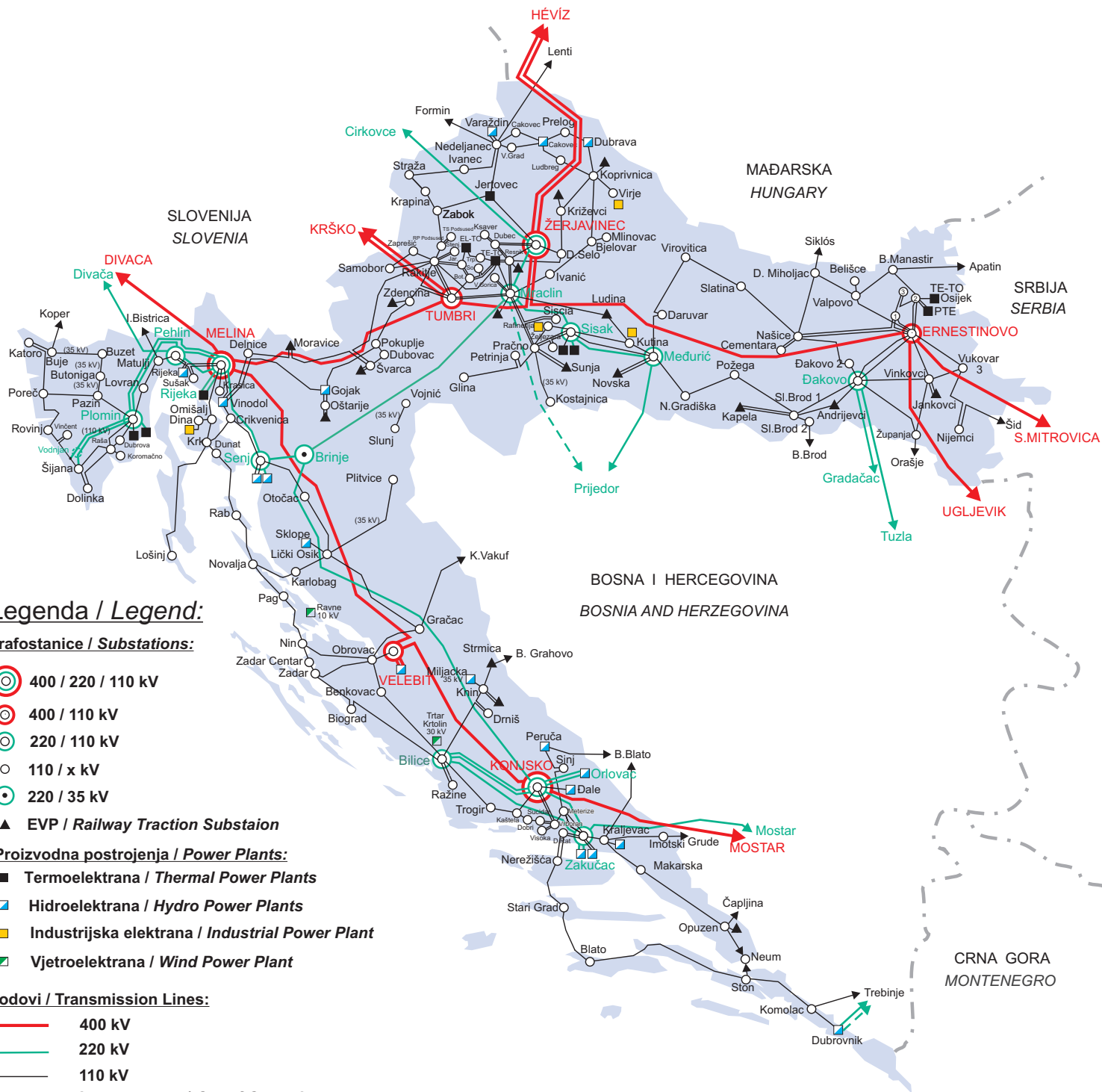
▲ EVP / Railway Traction Substation

Proizvodna postrojenja / Power Plants:

- Termoelektrana / Thermal Power Plants
- Hidroelektrana / Hydro Power Plants
- Industrijska elektrana / Industrial Power Plant
- Vjetroelektrana / Wind Power Plant

Vodovi / Transmission Lines:

- 400 kV
- 220 kV
- 110 kV
- Izvan pogona / Out of Operation



**Prijenosna
mreža**

**Transmission
Network**

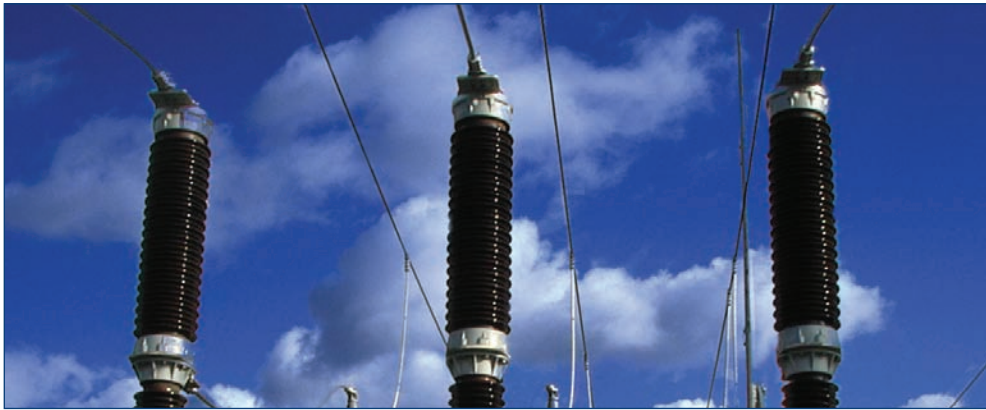
Tijekom 2007. godine pušteno je u pogon nekoliko novih objekata prijenosne mreže:

- TS 110/20 kV Vinčent s dva transformatora 110/20 kV, 20 MVA i dva vodna polja 110 kV
- TS 110/20 kV Karlobag s jednim transformatorom 110/20 kV, 20 MVA i dva vodna polja 110 kV
- TS 110/35/(20)10 kV Drniš s transformatorima 20 MVA (110/35 kV) i 20 MVA (110/20 kV) te dva vodna polja 110 kV
- TS 110/20/10 kV Siscia s dva vodna polja i dva transformatorska polja 110 kV
- DV 110 kV Đakovo–Županja duljine oko 45 km
- oko 20 km novih vodova 110 kV za priključak novih transformatorskih stanica.

Od većih realiziranih zamjena i rekonstrukcija potrebno je istaknuti TS 400/220/110 kV Konjsko gdje je u pogon pušteno potpuno zamijenjeno i rekonstruirano postrojenje 400 kV, pri čemu su zamijenjeni i prekidači u transformatorskim poljima 220 kV.

Rekonstruirana je i TS 110/35 kV Buje (pet polja 110 kV), u TS 110/35/10 kV Osijek 2 rekonstruirano je spojno polje 110 kV, u TS 110/20(10) kV Novalja završena je dogradnja drugog transformatorskog polja 110 kV, a u TS 110/10(20) kV Mlinovac transformatorsko polje 110 kV.

U više postojećih transformatorskih stanica obavljene su zamjene transformatora, rekonstrukcije postrojenja za opskrbu istosmjernim naponom, zamjene zaštitnih i mjernih uređaja,



te telekomunikacijske opreme i opreme daljinskog upravljanja. Na nekoliko dalekovoda 110 kV zamijenjeni su vodiči, izolatori te ovesna i spojna oprema. U okviru zakonske obveze HEP-OPS-a tijekom 2007. godine pripremljen je trogodišnji plan razvoja i izgradnje objekata prijenosne mreže za razdoblje 2008.-2010. godine, te je upućen na odobrenje Hrvatskoj energetske regulatornoj agenciji (HERA).

Plan je izrađen temeljem dosadašnjih planova, te procjenom potreba za dinamikom izgradnje novih objekata i revitalizacijom postojećih, uzimajući u obzir planove ostalih elektroenergetskih i drugih subjekata u Hrvatskoj te stanje mreže i postrojenja.

Several new transmission network facilities were commissioned during 2007:

- substation 110/20 kV Vinčent with two 110/20 kV, 20 MVA transformers, and two 110 kV feeder bays
- substation 110/20 kV Karlobag with one 110/20 kV, 20 MVA transformer and two 110 kV feeder bays
- substation 110/35/(20)10 kV Drniš with 20 MVA (110/35 kV) transformer, 20 MVA (110/20 kV) transformer and two 110 kV feeder bays
- substation 110/20/10 kV Siscia with two feeder bays and two 110 kV transformers
- 110 kV overhead line Đakovo–Županja in length of 45 km

- 20 km of new 110 kV overhead lines for connection of new substations.

The reconstruction of substation 400/220/110 kV Konjsko is to be highlighted, where completely reconstructed 400 kV switchgear was commissioned. Circuit-breakers in 220 kV transformer bays were replaced as well.

Substation 110/35 kV Buje (five 110 kV bays) was reconstructed, too. A bus coupling bay was reconstructed at substation 110/35/10 kV Osijek, an upgrade of second 110 kV transformer bay at substation 110/20 (10) kV Novalja was completed, and at the substation 110/10 (20) kV Mlinovac a 110 kV transformer bay was completed as well.

Replacement of transformers, reconstruction of DC power supply system, replacement of measurement, telecommunication and relay protection equipment were performed at several existing substations. Conductors, isolators, suspension and connecting equipment were replaced on several 110 kV overhead lines.

Within legal framework of HEP-OPS, a Three-Year Development and Construction Plan of the transmission network facilities for the period from 2008 to 2010 was prepared during 2007. It was submitted for the approval to Croatian Energy Regulatory Agency (CERA). It was drafted on the basis of present plans and by evaluating the necessity for construction of new facilities and revitalization of the existing ones, taking in account the plans of energy entities and other relevant entities in Croatia, as well as the state of the network and facilities.

Raspoloživost mreže / Network availability

Godina Year	2003	2004	2005	2006	2007
Raspoloživost mreže (%) Network availability (%)	99.979	99.992	99.996	99.995	99.996

Raspoloživost mreže = $100 - \text{Neisporučena energija} / \text{Konzum} * 100$

Network availability = $100 - \text{Undelivered} / \text{Consumption} * 100$

**Međunarodne
aktivnosti**

**International
Activities**

HEP-OPS širi opseg suradnje s drugim nacionalnim operatorima prijenosnih sustava, posebice sa susjednim. Društvo aktivno sudjeluje u radu udruga i organizacija operatora prijenosnih sustava, posebice UCTE (*Union for the Coordination of Transmission of Electricity*), te u aktivnostima u sklopu Atenskog Foruma, jednog od tijela u okviru Ugovora o Energetskoj zajednici. HEP-OPS je u lipnju 2007. godine primljen u pridruženo članstvo organizacije ETSO (*European Transmission System Operators*).

HEP-OPS je aktivno sudjelovao u procesu pregovora za pristupanje Republike Hrvatske Europskoj Uniji putem svojih predstavnika u radnim skupinama za poglavlja 15. - Energetika i 21. - Transeuropske mreže. U prosincu 2007. su i formalno otvoreni pregovori za poglavlje 21.

U srpnju je potpisan ugovor o izgradnji dalekovoda 2x400 kV Ernestinovo–Pecs s mađarskim operatorom prijenosnog sustava (MAVIR) koji definira međusobna prava i obveze partnera. U studenom je potpisan ugovor s tvrtkom Dalekovod iz Zagreb o izgradnji hrvatske dionice tog voda.



HEP-OPS extends the scope of cooperation with other transmission system operators, especially neighbouring. The company is actively involved in the activities of associations and organisations of transmission system operators, especially UCTE (*Union for the Coordination of Transmission of Electricity*), and also in the activities within the Athens Forum, one of the bodies under the Energy Community Treaty. HEP-OPS was accepted as an associated member of ETSO organisation (*European Transmission System Operators*) in June.

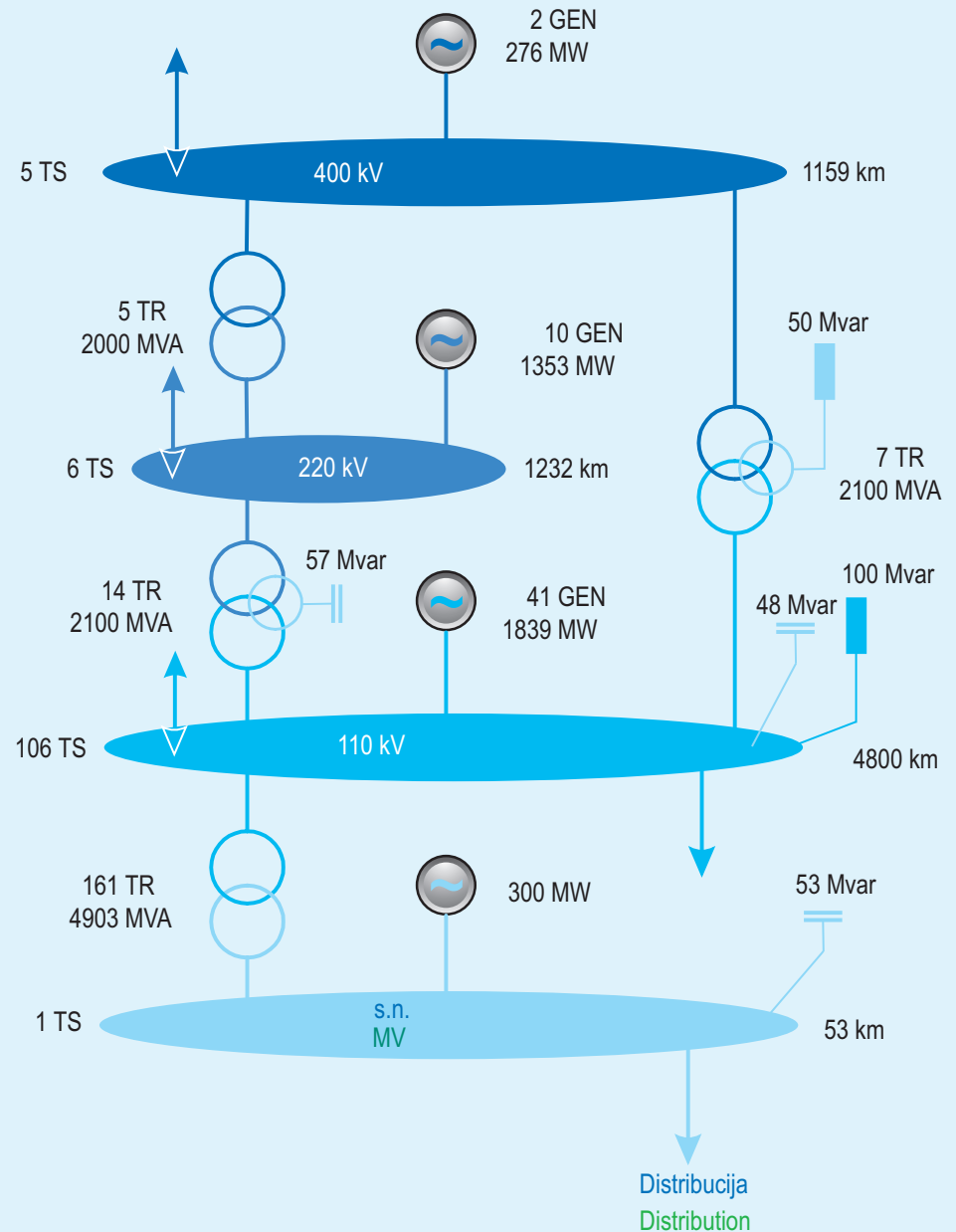
As a part of negotiation on Croatia's accession to the European Union, in 2007 HEP-OPS representatives participated in working groups for chapters 15 (Energy) and 21 (Transeuropean Networks). The negotiations for chapter 21 were officially opened in December 2007.

HEP-OPS signed the *Contract of Construction of the overhead line 2x400 kV Ernestinovo – Pecs* in July with the Hungarian transmission system operator (MAVIR), defining rights and obligations of the partners. The Contract with the company *Dalekovod* from Zagreb on construction of the Croatian section of that overhead line was signed in November.



Blok shema hrvatskog elektroenergetskog sustava u nadležnosti HEP-OPS-a

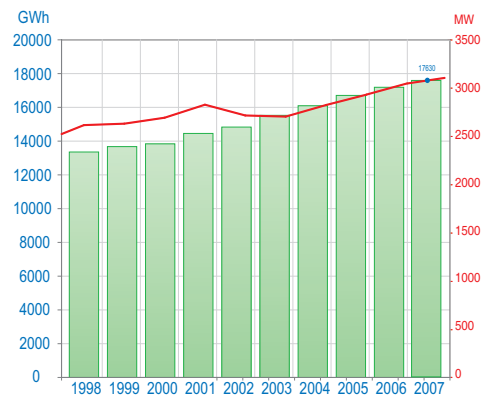
Croatian Electric Power System Scheme under the Competence of HEP-OPS



Elektroenergetska bilanca

Electricity Balance

Godišnja potrošnja električne energije (GWh)
i vršna opterećenja (MW) za razdoblje 1993.-2007.
Annual electricity consumption (GWh)
and peak loads (MW) 1993-2007

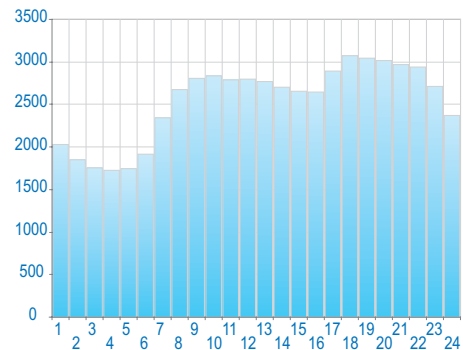


Mjesečna potrošnja (GWh)
i vršna opterećenja (MW) u 2007. godini
Monthly consumption (GWh)
and peak loads (MW) in 2007



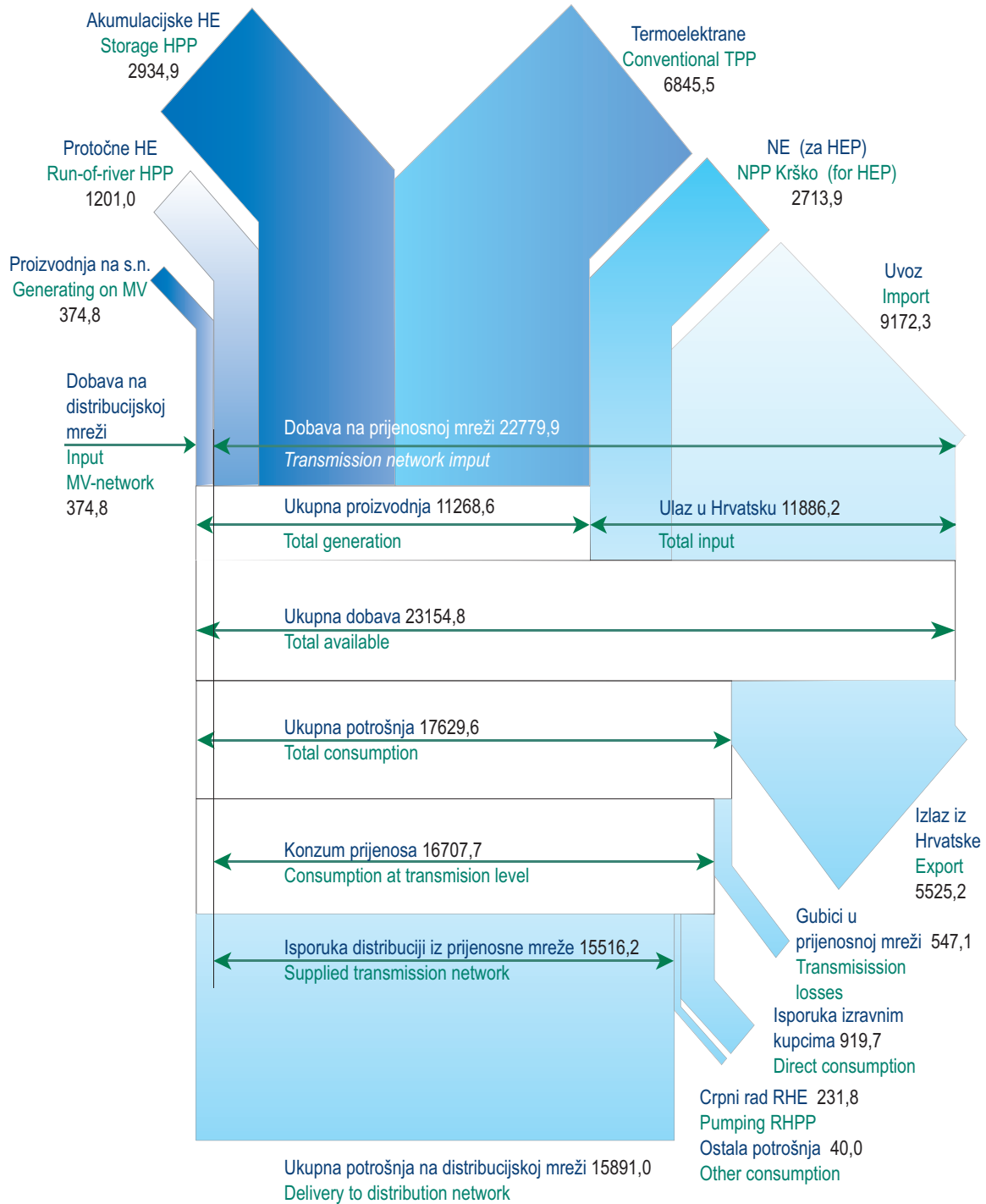
Dnevni dijagram opterećenja karakteristične
srijede 19.12.2007. (MWh/h)

Daily load diagram of a representative
Wednesday, 19 December 2007 (MWh/h)



Elektroenergetska bilanca (GWh)

Electricity Balance (GWh)





**Informacijsko
komunikacijske
tehnologije**
**Information
Communication
Technologies**

HEP-OPS i Končar - Inženjering za energetiku i transport krajem studenog su potpisali ugovor „Funkcije vođenja elektroenergetskog sustava“, koji obuhvaća cjelovitu zamjenu strojne i programske opreme procesne informatike, te dodavanje niza novih funkcija operatora prijenosnog sustava s posebnim naglaskom na podršku radu u tržišnim uvjetima. Projektom su obuhvaćeni Nacionalni dispečerski centar u Zagrebu, sva četiri mrežna centra – Osijek, Rijeka, Split i Zagreb, te prilagodba postojeće opreme u svim transformatorskim stanicama i elektranama na novi sustav vođenja. Ostvarenje tog projekta od strateškog je značaja za sigurno i pouzdano vođenje elektroenergetskog sustava Republike Hrvatske, te predstavlja najznačajniju aktivnost HEP-OPS-a u sljedećem razvojnom razdoblju.

Uspostavljen je i pušten u rad sustav za nadzor elektroenergetskog sustava u realnom vremenu – WAM (Wide Area Monitoring), koji omogućuje prikupljanje vrlo točnih podataka o stanju sustava s velikog područja u realnom vremenu. Taj sustav olakšava moderan način vođenja i nadzora u uvjetima liberaliziranog tržišta električne energije i poboljšava iskoristivost elektroenergetskog sustava i obuhvaća transformatorske stanice 400 kV: Tumbri, Žerjavinec, Melina, Ernestinovo i Konjsko.

Krajem godine uspostavljeni su web portali (Intranet) za prijenosna područja



Osijek, Rijeka, Split i Zagreb. Implementirani su programski moduli za obradu pogonskih događaja i izradu dnevnih pogonskih izvještaja, kao i moduli opće namjene za upravljanje dokumentima, shemama te energijskim i drugim izvještajima. U okviru sustava integriran je i programski modul Statistika pogonskih događaja koji uključuje podsustav za praćenje prekida napajanja na mjernobračunskim mjestima korisnika prijenosne mreže prema Općim uvjetima za opskrbu električnom energijom.

HEP-OPS and Končar – Power Plant and Electric Traction Engineering Inc. signed a contract „Power System Control Functions“ at the end of November. It includes overall replacement of information and communication equipment, adding a set of new functions of transmission system operator with emphasis on supporting the operation within market conditions. This project includes National Dispatch Centre in Zagreb, all four network centres – Osijek, Rijeka, Split and Zagreb, as well as the adjustment of existing equip-

ment in all substations and power plants to the new system of power control. The realisation of this project is of strategic importance for secure and reliable system operation of Croatian electricity system, and it represents the most significant activity of HEP-OPS in the following period.

A new real time monitoring and control system was established and put into operation – WAM (Wide Area Monitoring). It enables the collection of accurate data from wide area in real time. The system facilitates a modern way of monitoring and control in conditions of liberalized electricity market. It also improves power system efficiency. Within the system the following 400 kV substations are encompassed: Tumbri, Žerjavinec, Melina, Ernestinovo and Konjsko.

Web portals (Intranet) for Transmission Areas Osijek, Rijeka, Split and Zagreb were established at the end of the year. Program modules for operational events analysis and creation of daily operational reports were implemented, as well as general purpose modules for management of documents, schemes, energy and other reports. An Operational Events Statistics program module was also integrated within the system. It includes a subsystem for power supply failure monitoring at metering points of the transmission network users in accordance with the General Conditions of Electricity Supply.

Daljinsko vođenje EES-a

Remote Control of the Electric Power System

Opis <i>Description</i>	Kom. <i>Pcs.</i>	Broj uključenih objekata <i>Number of connected facilities</i>
Centri daljinskog upravljanja <i>Remote control centres</i>	3	59
Mrežni centri <i>Network centres</i>	3	76
Nacionalni dispečerski centar <i>National dispatching centre</i>	1	129

**Potporna razvoju tržišta
električne energije**

**Electricity Market
Development Support**

Sukladno Pravilima o dodjeli i korištenju prekogranične prijenosne moći (kapaciteta), u veljači je započela dodjela prekogranične prijenosne moći na granicama s operatorima sustava iz Slovenije, Srbije te Bosne i Hercegovine (prethodno je sa MAVIR-om uspostavljena zajednička dodjela mjesečnih prekograničnih prijenosnih moći na granici s Mađarskom). Postupci dodjele, sa svim potrebnim podacima, objavljuju se na internetskim stranicama HEP-OPS-a.

U veljači je također započela redovita objava cijena električne energije uravnoteženja na internetskim stranicama HEP-OPS-a sukladno Pravilima o uravnoteženju elektroenergetskog sustava.

HEP-OPS, poput ostalih europskih operatora prijenosnih sustava, obnaša i ulogu Nacionalnog ureda za izdavanje EIC oznaka (Energy Identification Code), pa su tako hrvatskim elektroenergetskim subjektima dodijeljene i potom objavljene EIC oznake.

Krajem ožujka HEP-OPS, uz suglasnost Ministarstva gospodarstva, rada i poduzetništva, definirao je i objavio Kriterije za određivanje kandidata za dobivanje prethodnih elektroenergetskih suglasnosti za priključenje vjetroelektrana na prijenosnu i distribucijsku mrežu. Utvrđena je i maksimalna ukupna instalirana snaga (ukupno 360 MW) vjetroelektrana koju elektroenergetski sustav Hrvatske može prihvatiti.

Sukladno Zakonu o tržištu električne energije, početkom srpnja 2007. godine izrađeno je izvješće o provedbi Programa za osiguranje i

primjenu načela razvidnosti, objektivnosti i nepristranosti rada HEP-OPS u razdoblju od lipnja 2006. do lipnja 2007. godine, te je isto dostavljeno Hrvatskoj energetske regulatornoj agenciji (HERA) i objavljeno na internetskim stranicama HEP-OPS-a.

Temeljem prethodnih odobrenja HERA-e, HEP-OPS je početkom lipnja pristupio prvom jedinstvenom europskom ITC mehanizmu (Inter Transmission system operator Compensation) potpisivanjem Sporazuma za izračun i nadoknadu tranzitnih troškova prouzrokovanih prekograničnim prijenosom električne energije za razdoblje lipanj - prosinac 2007. godine. Krajem 2007. godine HEP-OPS je potpisao dvogodišnji ITC Sporazum za razdoblje 2008. - 2009. U skladu sa zahtjevima energetske regulative EU prenesene i u hrvatsko zakonodavstvo, HEP-OPS je prestao naplaćivati naknade za tranzit električne energije.

The allocation of cross-border transfer capacity at the borders with Slovenia, Serbia and Bosnia and Herzegovina started in February in accordance with the Rules on Allocation and Use of Cross-Border Transmission Capacity (joint cross-border monthly allocation of cross-border transmission capacities on border with Hungary previously started with MAVIR). The allocation procedures with all necessary data are published at the web page of HEP-OPS.

In addition, regular publishing of balancing energy prices at the web page of HEP-OPS started in February in accordance with the Rules on Balancing the Electric Power System.

HEP-OPS, like other European transmission system operators, carries out also the function of National Issuing Office of EIC Codes (Energy Identification Code). EIC codes were assigned to the Croatian energy entities and published.

HEP-OPS, with the approval of Ministry of

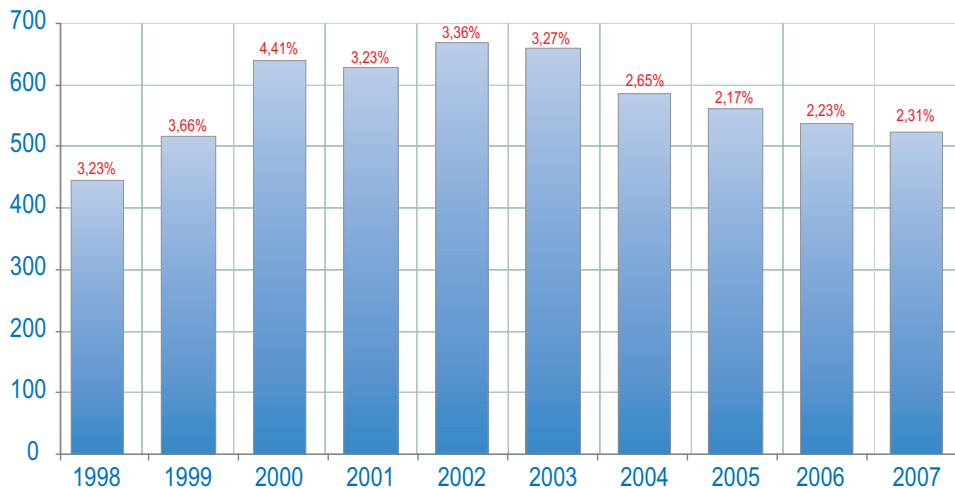
Economy, Labour and Entrepreneurship of the Republic of Croatia, defined and published the Criteria on candidate determination for acquiring previous energy consent for wind farm connection to transmission and distribution network at the end of March. In this context maximum installed power (total of 360 MW) of wind farms which can be integrated into Croatian electricity system at this moment was determined.

In accordance with the Electricity Market Act the Report on implementation of Program setting out and ensuring the application of the principles of transparency and non-discrimination in business activities of HEP-OPS for the period from June 2006 to June 2007 was completed at the beginning of July 2007. It was submitted to the Croatian Energy Regulatory Agency (CERA) and published on the web page of HEP-OPS.

On the basis of prior approvals of CERA, at the beginning of June HEP-OPS entered into the first unified European ITC mechanism (Inter Transmission system operator Compensation) by signing the Agreement for calculation and settlement of transit costs caused by cross-border electricity transmission for the period from June to December 2007. The two-year Agreement for the period from 2008 to 2009 was signed at the end of 2007. In accordance with the requirements of the EU energy legislation, transposed to the Croatian legislation, HEP-OPS stopped charging transaction based fees for electricity transit.

Gubici u prijenosnoj mreži (GWh)

Transmission Network Losses (GWh)



**Zaštita
okoliša**

**Enviromental
Protection**

U sklopu redovitih aktivnosti zaštite okoliša, u skladu s važećim propisima i inspeksijskim nadzorom, izrađeni su operativni planovi postupanja u slučaju iznenadnih zagađenja okoliša. Ažurirani su pravilnici o radu i održavanju objekata za obradu otpadnih voda, planovi gospodarenja otpadom, te je osnovano Povjerenstvo za postupanje sa plinom sumpor-heksafluoridom. Nastavljene su i aktivnosti na realizaciji Projekta uvođenja sustava upravljanja okolišem u Prijenosnom području Zagreb prema normi ISO 14001:2004. Privremena skladišta otpada kontinuirano su opremana odgovarajućim spremnicima i opremom, a sav proizvedeni opasni, neopasni i komunalni otpad zbrinjavan je na propisan način.



Within the regular environmental protection activities and in accordance with the rules and inspectoral supervision, operative plans for procedure in case of emergency environmental pollution event were developed. Rules on operation and maintenance of facilities for drainage and waste water processing as well as plans for waste management were updated. A Committee for Sulphur-Hexafluoride gas management was established. The activities on the realisation of the Project for Implementation of Environmental Management System in Transmission Area Zagreb according to ISO 14001:2004 were continued. The temporary landfills have been continually equipped with the appropriate containers and equipment. All hazardous and non-hazardous waste was managed according to the law.



RAČUN DOBITKA I GUBITKA (u tisućama kuna) ◆ INCOME STATEMENT (HRK '000)

Prihodi iz poslovanja	◆ Operating income	773.995
Rashodi iz poslovanja	◆ Operating expenses	748.883
Dobit iz poslovanja	◆ Profit from operations	25.112
Neto gubitak iz financijskih aktivnosti	◆ Net financial costs	55.523
Gubitak prije oporezivanja	◆ Loss before taxation	30.411
Gubitak tekuće godine	◆ Loss for the year	30.858

IMOVINA ◆ ASSETS

Ukupna dugotrajna imovina	◆ Total non-current assets	3.907.837
Ukupna kratkotrajna imovina	◆ Total current assets	196.177
Gubitak iznad visine kapitala	◆ Loss above capital limitations	30.858
UKUPNO AKTIVA	◆ TOTAL ASSETS	4.104.014

KAPITAL I OBEVEZE ◆ CAPITAL AND LIABILITIES

Glavnica	◆ Principal	20
Rezerve	◆ Reserves	40
Ukupne dugoročne obveze	◆ Total non-current liabilities	3.307.338
Ukupne kratkoročne obveze	◆ Total current liabilities	827.474
UKUPNO KAPITAL I OBEVEZE	◆ TOTAL CAPITAL AND LIABILITIES	4.104.014



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