PUBLIC INVESTMENTS
**CENTER FOR MONITORING BUSINESS ACTIVITIES IN THE ENERGY SECTOR AND INVESTMENTS (CEI)**

**ABOUT CEI**

- The CEI was established with the objective of finding solutions for improving the financial effectiveness of companies in the energy sector in which the state has shares or stakes and centralised and systematic monitoring of public investments in the Republic of Croatia.

**OUR CORE ACTIVITIES**

4 basic pillars of CEI:

- Monitoring public investments
- Preparing capital energy projects and supporting renewable energy sources
- National coordination body for increasing energy efficiency in existing buildings
- Developing new public – private partnerships
INVESTMENT OVERVIEW

TOTAL INVESTMENT POTENTIAL
Total projects: 174
Value: 22 bil. EUR

ENERGY SECTOR
Total projects: 36
Value: 9 bil. EUR

INFRASTRUCTURE
Total projects: 63
Value: 6 bil. EUR

PUBLIC-PRIVATE PARTNERSHIP
[Group of projects]
Value: 2 bil. EUR

Looking for private investors:
Total projects: 25
Value: 8 bil. EUR

Looking for private investors:
Total projects: 10
Value: 5 bil. EUR

Looking for private investors:
Total projects: 12
Value: 0.5 bil. EUR

Looking for private investors:
[Group of projects]
Value: 2 bil. EUR
Electric Energy sources - 2011

- Import: 32%*
- Hydro: 25%
- Nuclear: 16%
- Termic: 28%

- Republic of Croatia imports around 30% of electric energy and 75% of primary energy
- 25% of EE sources are generated out of Hydro-electric power plants; cheap, but highly dependent on weather conditions

Government of Croatia strongly promotes new capital generation investments

Total of 5,700 MW new capacity planned

*During last 5 years import was 26% in average.
## ENERGY SECTOR – PLANNED INCREASE IN CAPACITY

<table>
<thead>
<tr>
<th>IN PROGRESS</th>
<th>Project</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPP Sisak</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td>TPP Plomin C</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

### Project Capacity

<table>
<thead>
<tr>
<th>Project</th>
<th>MW</th>
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<td>TPP Sisak</td>
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</table>

### Potential Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kosinj/Senj II</td>
<td>412</td>
</tr>
<tr>
<td>ZG on Sava</td>
<td>120</td>
</tr>
<tr>
<td>Dubrovnik II</td>
<td>300</td>
</tr>
<tr>
<td>TE-TO Osijek</td>
<td>600</td>
</tr>
<tr>
<td>TPP Rijeka</td>
<td>600</td>
</tr>
</tbody>
</table>

### Potential Projects for Private Investors

<table>
<thead>
<tr>
<th>Project</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPP Vukovar</td>
<td>400</td>
</tr>
<tr>
<td>TPP Slavonski Brod</td>
<td>500</td>
</tr>
<tr>
<td>TPP Peruča</td>
<td>400</td>
</tr>
</tbody>
</table>

### Renewables

| Total MW | 1,655 |

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**TOTAL**

**MW**

**=**

**5,700**
TPP SISAK C

Project overview

Project owner
- HEP Proizvodnja d.o.o. (part of HEP group)

Key data
- Installed capacity:
  - Electric: 230 MW
  - Thermal: 50 MW
- Anticipated annual production
  - Electric 1500 GWh
  - Thermal 140 GWh

Status and outlook

Progress summary:
- General contractors: Technopromexport, Monting PIM and INGRAD
- Trial runs planned to start at the end of 2013, commercial operation from February 2014.
- Financing through compensation with Russia
- Location on an infrastructurally good position + close to the center of a large consumption center – Zagreb

Status:
- Under construction (approximately 90% completed)
- Sufficient gas quantities still to be secured for the operation of the plant

Total investment: 224,6 mil. EUR

Implementation schedule: construction started 2008, expected commissioning 04/2014
### Project overview

**Project coordinator**
- HEP d.d.

**Key data**
- Installed capacity 500 MW
- Anticipated annual production 3600 GWh
- Investment value exceeds 800 mil. EUR
- Construction planned to start Q4/2014
- Commissioning planned for Q3/2018

### Status and outlook

- **Tender for a strategic partner is in progress. Binding bids expected October 2013**
- 50-50% joint venture with strategic partner (SP), which will be responsible for providing an EPC construction, financing, coal supply and marketing 50% of the electricity (50% will be taken over by HEP with a long-term PPA contract)
- The project is a „replacement” project for Plomin I, which also runs on coal
- Plomin II until 2015 in co-ownership with RWE (50%)
- New capacity with high efficiency - 45%
- Expected NOx and SO2 emissions lower than Plomin I

**Total investment:**  800+ mil. EUR

**Implementation schedule:** expected start Q2/2014, commissioning 06/2018
TE – TO OSIJEK (CCGT)

Total investment: 500 mil. EUR

Implementation schedule: ongoing preparations, commissioning by early 2017

### Project overview

**Key data**
- Installed capacity
  - Electrical: 600 MW
  - Thermal: 180 MW
- Anticipated annual production 3.600 GWh
- Construction planned to start in 2014
- Commissioning planned for 02/2017

### Status and outlook

- Combined-cycle cogeneration gas unit to replace old CCGT
- In Slavonia missing approximately 400 MW of capacity.
- Documentation package (BD, FS, EIA) contracted with IGH + APA + EF Osijek. BD by 10/13, EIA by 10/13.
- Feasibility study finished.
- Purchase of land in progress
- Good infrastructure at the site, the possibility of cogeneration for district heating,
- Decision to be made on financing and the business model
HES KOSINJ/SENJ II (HYDROPOWER SYSTEM LIKA-GACKA)

Key data
- Installed new capacity 412 MW
- Anticipated annual production 345 GWh

Project overview

Total investment: 650 mil. EUR
Implementation schedule: expected start Q2/2014, commissioning Q4/2019

Status and outlook
- Environmental impact study and main impact assessment is in progress,
- Project is integrated in spatial plans
- Project includes refurbishment of existing HE Sklope (27MW) and Senj 1 (216 MW), construction of reservoirs Kosinj and Gusić; construction of new HPP Kosinj (52MW) and Senj 2 (360 MW)
- The system will generate a total of approximately 1600 GWh (345 GWh new peak energy and 782 GWh of existing base energy becomes peak)
- Will be used for flood control of Kosinjsko field, improving water supply to a part of the Primorje region (Karlobag-Pag)
# HYDRO POWER PLANT (HPP) DUBROVNIK 2

## Project overview

<table>
<thead>
<tr>
<th>Key data</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Installed capacity 300 MW</td>
</tr>
<tr>
<td>• Anticipated annual production 318 GWh</td>
</tr>
<tr>
<td>• Investment value 174 mil. EUR</td>
</tr>
<tr>
<td>• 50% HEP participation in investment and capacity allocation</td>
</tr>
<tr>
<td>• Construction planned to start in 2014</td>
</tr>
<tr>
<td>• Commissioning planned for Q4/2018</td>
</tr>
</tbody>
</table>

## Status and outlook

<p>| |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>• MoU signed with ERS (Elektroprivreda Republike Srpske) on joint project development (first step is development of a feasibility study)</td>
</tr>
<tr>
<td>• HPP Dubrovnik 1 and 2 use water accumulation Bileća (located BiH, owner ERS)</td>
</tr>
<tr>
<td>• HEP awaiting agreement with ERS (owner of Bileća accumulation) on joint financing, construction and management and regarding disagreements over distribution ratios of electricity from HPP Dubrovnik I) before committing to investment</td>
</tr>
<tr>
<td>• Total power after commissioning of HPP Dubrovnik 2 on location is 520 MW</td>
</tr>
</tbody>
</table>

Total investment: 174 mil. EUR  
Implementation schedule: ongoing preparations, commissioning by late 2018
HYDROELECTRIC SYSTEM „ZAGREB ON SAVA”

Project overview

Project owner
- Razvoj višenamjenskih nekretninskih objekata, d.o.o., HEP group member

Key data
- Installed capacity of 120 MW
- A series of 4-6 run-of-river HPPs on Sava producing 600 GWh (23% of annual consumption for city of Zagreb)
- Investment value 492 mil. EUR (energy)
- Construction planned to start in 2016
- Commissioning planned for 2021

Status and outlook

- Study on optimal technical solution in progress, results Q2/2013
  - Confirmed possible 120 MW, additional 500 MW of pumped-storage HPP being evaluated
- Multipurpose project of using the river Sava from the Slovenian border to Sisak
  - Multiple interested parties (Croatian Waters, City of Zagreb, Zagreb county, private real estate developers)
  - Enabling urban development, transportation (bridges) and recreation facilities on 360 hectares
- Construction of the navigation channel Sava-Sava, river port Zagreb in Velika Gorica
- Creates flood protection for city of Zagreb and increases security of water supply

360 ha of newly created development areas

Total investment: 492 mil. EUR (energy components only), 1.2 bil. EUR expected total
Implementation schedule: expected start 2016, commissioning possible in 2021
Overview of implemented renewable energy sources (RES) in comparison with the Energy Strategy of Croatia

- **Target total RES by 2020. according to the Energy Strategy:** 1,655 MW
- **204 projects**
  - Wind power plants (WPP) currently main contribution
  - 226 MW

- **RES connected to the grid**
  - 288 MW

- **960 projects**
  - Connection of a large number of new solar power plants and biomass plants is expected, along with new WPP

- **Potential RES remaining until fulfillment of goals from Energy Strategy:** 1,141 MW

Current realization of RES projects represents 13.8% and projects in progress an additional 17.4% of the total goal set in the Energy Strategy
ENERGY SECTOR – LNG TERMINAL

Project development overview

- Construction of onshore* receiving LNG terminal with initial capacity of 5 bcm
- LNG terminal is a strategically important project for the Republic of Croatia
- Only a short pipeline interconnection is needed for integration in the gas system of Croatia and Europe
- Maritime characteristics are favorable
- Explored, development of environmental study in progress

Planned terminal capacity: 5 bcm/year
Total investment: 600 - 800 mln €
Expected start of construction: 2014
Size of supply ships: 75,000 – 265,000 m³

* Offshore terminal is being considered as an option for project implementation
NEW LEGAL FRAMEWORK FOR EXPLOITATION AND EXPLORATION OF HYDROCARBONS IS BEING ADOPTED IN CROATIA

- Optimize management of mineral resources
- Increase the level of investment protection
- Increase competition in hydrocarbons exploration and exploitation
- Adopt international legal best practices

Law on mining

Law on exploration and exploitation of hydrocarbons

Law is based on best practices from countries with extensive and successful experience with hydrocarbons exploration:

- Tunisia, Egypt, Lybia, Syria, Albania, Russian Federation, Georgia, Kazahstan, Turkmenistan

The law is also based on EU positions regarding foreign investments.
INFRASTRUCTURE – CONTAINER TERMINAL – RIJEKA PORT

**Project overview**

- Increase of capacity: **250 KTEU**
- Planned capacity, with existing: **350 KTEU** per year

**Strategic partner**

- The future concessionaire/strategic partner would be expected to prepare Phase 1 works for commercial operations and develop, if deemed necessary, Phase 1A and Phase 2 of the Terminal.

The total concessionaire’s investment is estimated at 60 mil. EUR
Tender for investors: expected Q2 / 2013
INFRASTRUCTURE – VUKOVAR PORT

Project overview

• Expected **start of construction: 2014.**
• The project encompasses the construction of infrastructural port facilities, road and rail as well as communal infrastructure, port loading and unloading equipment.

Strategic partner

• The future concessionaire / strategic partner would be expected to participate in the investment of “Reconstruction of the Port of Vukovar - New Port East” for its commercial operations and to develop, if deemed necessary, further development phases of the port.

The total concessionaire’s investment is estimated at 24 mil. EUR
The Company is 100% owned by Croatian government
The Company has already initiated negotiations with foreign partners and decided to refocus its core activity as a cargo carrier.
## Project overview

- Reconstruction and expansion of the passenger building and aeroplane parking platform
- Construction of storage and manipulation facilities for management of goods
- Addition and reconstruction of the existing aeroplane taxiway

## Strategic partner

- The future concessionaire / strategic partner would be expected to participate in the investment of "Reconstruction, modernization and development of Rijeka Airport".
- Transaction currently envisages three options:
  - **Option one: recapitalization**
  - **Option two: repurchase of existing stockholders**
  - **Option three: (concession with the features of the project public-private partnership or concession contract)**

The Company is looking for Equity investment, PPP or Concessionaire

Total investment of 16 mil. EUR
PPP PROJECT
JUSTICE SQUARE IN ZAGREB

- Estimated capital value (VAT excluded): 173 mil. EUR
- Demolition, construction, adaptation and reconstruction
- Project status: pending approval, expected tender (competitive dialogue): June 2013

<table>
<thead>
<tr>
<th>PROJECT PLANNED ACTIVITIES</th>
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</tr>
</thead>
<tbody>
<tr>
<td>COUNTY COURT</td>
<td>17,331</td>
</tr>
<tr>
<td>MUNICIPAL COURT</td>
<td>29,281</td>
</tr>
<tr>
<td>COMERCIAL COURT</td>
<td>11,675</td>
</tr>
<tr>
<td>MAGISTRATES COURT</td>
<td>13,891</td>
</tr>
<tr>
<td>MAGISTRATES COURT OF COUNTY STATE ATTORNEY</td>
<td>7,534</td>
</tr>
<tr>
<td>ACADEMY OF JUSTICE</td>
<td>3,103</td>
</tr>
<tr>
<td>COMMON FACILITIES</td>
<td>603</td>
</tr>
<tr>
<td>GARAGE</td>
<td>49,948</td>
</tr>
<tr>
<td>TOTAL</td>
<td>138,956</td>
</tr>
</tbody>
</table>

First Conference of Croatian Honorary Consuls
3 - 4 June 2013, Zagreb
PPP PROJECTS
HOSPITALS

NEUROPSYCHIATRIC HOSPITAL IN POPOVAČA
• Estimated capital value: 16.5 mil. EUR
• Reconstruction and outhouse
• Project status: tender in process

GENERAL HOSPITAL IN VARAŽDIN
• Estimated capital value: over 40 mil. EUR
• Construction, outhouse and adaptation
• Project status: in preparation
PPP PROJECTS
SCHOOLS

9 SCHOOLS IN VARAŽDIN COUNTY
- Estimated capital value: 23 mil. EUR
- Project status: pending approval, expected tender: September 2013

4 SCHOOLS IN ISTRA COUNTY AND TOWN POREČ
- Estimated capital value: 19.5 mil. EUR
- Project status: in preparation

2 SCHOOLS IN TOWN DUBROVNIK
- Estimated capital value: 13.6 mil. EUR
- Project status: in preparation
PPP PROJECTS
CULTURE

CROATIAN HISTORICAL MUSEUM
• Estimated capital value: 16.8 mil. EUR
• Reconstruction and redevelopment
• Project status: in preparation,

STATE ARCHIVE
• Estimated capital value: 18.4 mil. EUR
• Construction of new building
• Project status: in preparation,