



Centre for RES / CHP Support: The new Slovenian feed-in system

International Feed-in Cooperation Workshop

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THE SLOVENIAN ELECTRICITY MARKET

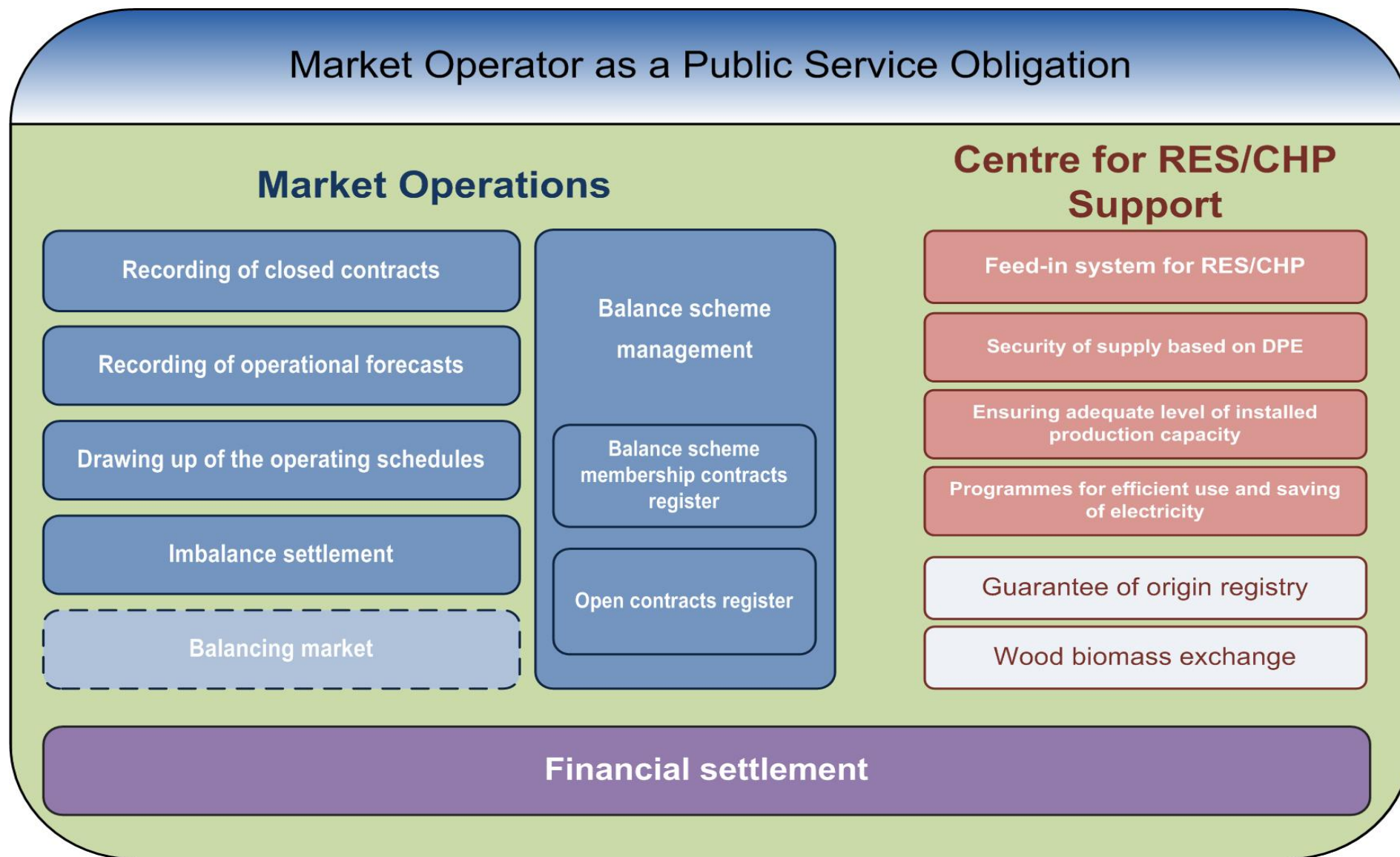
The Slovenian electricity market

- Relatively small market (annual consumption \approx 14 TWh; peak \approx 1900 MW)
- Production sources divided roughly as: 1/3 nuclear, 1/3 thermal (coal), 1/3 large hydro (**200 – 250 MW other RES / CHP \approx 10% of installed capacity, excl. large hydro, biomass co-firing**)
- Important “transit” market (SEE, CEE, Italy); explicit auctions on all borders
- 2 production / trading “pillars” – one centred around the nuclear plant in Krško and the Sava river hydro chain (GEN-I) and one around coal thermal plants and other large hydro (HSE)
- Fully unbundled system – TSO (ELES d.o.o.), DSO (SODO d.o.o.)
- 5 distribution companies, but market fully liberalized (all consumers, including households can switch supplier)
- Operating power exchange – Borzen from 2001 to 2008, BSP since end of 2008 (www.bsp-southpool.com)

ABOUT BORZEN

The role of Borzen in the Slovenian electricity market

The role of Borzen



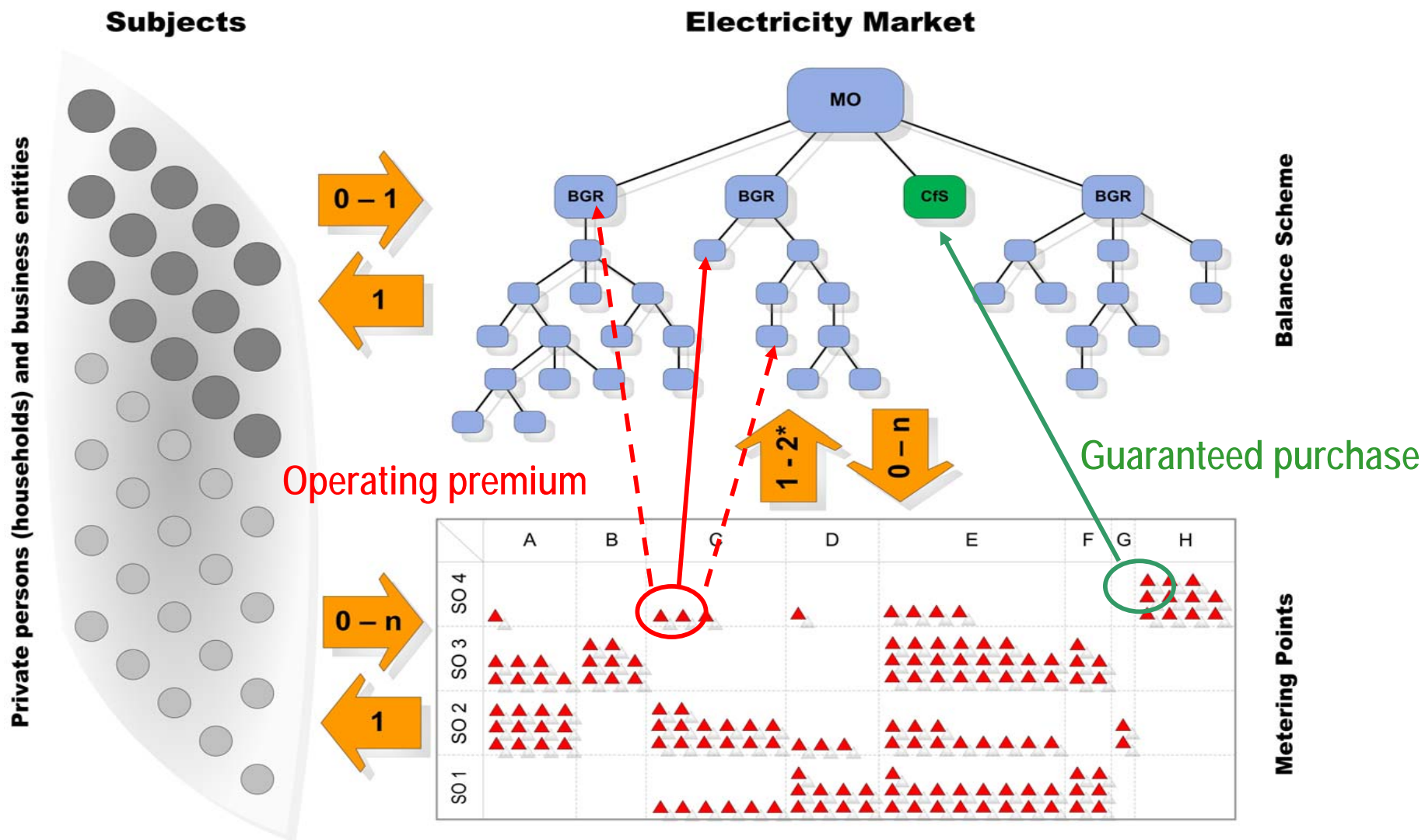
CENTRE FOR RES / CHP SUPPORT

(NEW FEED-IN SUPPORT SCHEME)

New feed-in support scheme

- Amendment to Energy Law (in effect from 12.7.2008) – change to feed-in support system
- Feed-in system administration to be independent of grid – transferred to Borzen
- Start: 1.1.2009
- Quick overview – how does it work:
 - RES <5MW, CHP <1MW – choice between **fixed price or premium**; all others (>5MW; >1MW CHP) premium only (sell energy by themselves, responsible for imbalances)
 - New investment / Plant upgrade -> **“RED” (regulator) -> Application for support (regulator) -> Contract with CfS**; Based on technology and eligible cost the PRICE (or premium) is determined (max. 15 years RES, 10 years CHP)
 - **Price updated at least once a year** according to: changes in costs (e.g. fuel) and market conditions
 - System based on **transfer of Guaranteed of origin as proof of RES / CHP production**
- **FUNDING OF THE SYSTEM: monthly tariff collected from all energy users in Slovenia (depends on voltage level / power, but not on quantity of energy consumed) – approx. 45 million EUR per annum**

Guaranteed purchase vs. Operating premium



Other tasks of the Centre for RES/CHP support

- **Beside administering the electricity feed-in support scheme for RES (renewable energy sources) and CHP (high-efficiency cogeneration) power plants and, based on the Slovenian Energy Law, carries out also the following tasks, related to:**
 - guaranteeing the security of electricity supply based on usage of domestic primary energy sources,
 - ensuring an adequate level of installed capacity for the production of electricity and
 - programmes for efficient use and saving of electricity.

- **Administration of the WOOD BIOMASS EXCHANGE**
(<http://res.borzen.si>)

- **Administration of the GUARANTEE OF ORIGIN REGISTRY**
(<https://poi.borzen.si>)

GoO Registry – https://poi.borzen.si



e Javna agencija RS za energijo

Pol Register potrdil o izvoru v RS

Domov | Dokumentacija | Sezname | Stiki | Registracija | Prijava

Novice



pozdravljeni na straneh **Registra Pol**

Uredba o izdajanju potrdil o izvoru električne energije (Uradni list RS, št. 121/05) določa vsebino in način izdaje potrdil o izvoru električne energije iz obnovljivih virov in iz soprodukcije.

Potrdila o izvoru predstavljajo dokaz, da je bila v določenem proizvodnem objektu v določenem obdobju proizvedena določena količina električne energije na način, kot ga določa potrdilo o izvoru električne energije.

Register Pol je računalniška podpora sistemu izdajanja potrdil o izvoru električne energije. Uporabnikom na pregleden in enostaven način preko svetovnega spleta omogoča izdajo, prenos in unovčenje potrdil o izvoru. Razni sezname, ki so podprti v registru Pol omogočajo uporabniku stalen pregled nad njegovimi računi, podatke se lahko tudi izvozi ter poljubno obdeluje v za to namenjenih programskih orodjih. Trgovsko usmerjeni uporabniki pa bodo lahko izkoristili možnosti, ki jim jih nudi posebna funkcionalnost registra - Borza Pol. Namenjena je vsem, ki želijo kupovati ali prodajati potrdila o izvoru.

Želimo, da bi Vam register Pol nadvse dobro služil pri vašem vsakodnevnem poslovanju z električno energijo!

Varnostno potrdilo spletnega mesta

V novejših verzijah brskalnika Internet Explorer se lahko pojavi sledeče varnostno opozorilo:
 "Prišlo je do težave z varnostnim potrdilom tega spletnega mesta.
 V varnostnem potrdilu tega spletnega mesta so napake, zato mestu ne bi smeli zaupati.
 Težave z varnostnimi potrdili lahko kažejo na poskus zavajanja uporabnika ali na poskus prestrežanja podatkov, ki jih pošljete strežniku. Svetujemo, da zaprete to spletno stran in ne nadaljujete z brskanjem po tem spletnem mestu.

Če želite zapreti to spletno stran, kliknite tukaj.
 Nadaljuj z brskanjem po tem spletnem mestu (ni priporočeno)."

Težava se pojavi zaradi https seje, če nimate nameščene t.i. "root" certifikata (certifikat spletnega mesta, ne osebni certifikat za prijavo v sistem)

Možni rešitvi:
 1. Izberite možnost "Nadaljuj z brskanjem po tem spletnem mestu (ni priporočeno)." (v tem

Naslov	Datum
Varnostno potrdilo spletnega mesta	3.7.2008
Register Pol ponovno dostopen	2.6.2008
Obvestilo o nedostopnosti Registra Pol	28.5.2008
Nova uredba o pogojih za pridobitev statusa kvalificiranega proizvajalca električne energije	24.8.2007
Nadgradnja sistema Pol v RS	5.3.2007

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[Obvestilo o dostopnosti / Pravno obvestilo](#)

Account statement

Pol Register potrdil o izvoru v RS

Lastni podatki Potrdila o izvoru Sezname Pomoč Borza Pol Odjava

Pregled stanja

Ime Priimek / proizvajalec

Prikaz stanja Pol

Izbor prikaza

Osnovni + proiz. naprava + mesec proizvi

Spremeni

Aggregation level

Stanje Pol

Tehnološka koda	Vir energije	Ime proizvodne naprave	Obdobje proizvodnje od	Obdobje proizvodnje do	Količina Pol [kWh]
SPT	bioplin	Cogenerator - Sptejevaska 1, 1232 lhan	1.1.2006	31.7.2006	55965
SPT	bioplin	Cogenerator - Sptejevaska 1, 1232 lhan	1.1.2006	31.1.2006	20553
SPT	bioplin	Cogenerator - Sptejevaska 1, 1232 lhan	1.1.2005	31.1.2005	147
SPT	bioplin	Cogenerator - Sptejevaska 12, 1232 lhan	1.1.2008	31.1.2008	98
kombi	biomasa	Combined PP - Kombi ulica 12, 3456 Žalec	1.12.2006	31.12.2006	2
kombi	biomasa	Combined PP - Kombi ulica bb, 3456 Žalec	1.4.2006	30.4.2006	2755
kombi	biomasa	Combined PP - Kombi ulica bb, 3456 Žalec	1.1.2006	31.3.2006	15280
OVE	sonce	Fotovoltaik - Sončna ulica 33, 0978 Piran	1.7.2006	31.7.2006	1457
OVE	sonce	Fotovoltaik - Sončna ulica 33, 0978 Piran	1.6.2005	30.6.2005	589
OVE	geotermalna energija	Geotherm	1.3.2007	31.3.2007	250
kombi	biomasa	Hks hks	1.1.2008	17.3.2008	24
OVE	vodna energija	Mlinček Brbotajček 2 - Za tremi ribniki 1000, 1000 Ljubljana	1.2.2008	29.2.2008	2
OVE	vodna energija	Testna HIDRO - tesna ulica 22, 5555 Testново	1.1.2006	31.1.2006	29880
OVE	vodna energija	Testna HIDRO - tesna ulica 22, 5555 Testново	1.1.2007	31.1.2007	690
OVE	vodna energija	Testna HIDRO - tesna ulica 22, 5555 Testново	1.7.2006	31.7.2006	30000
OVE	vodna energija	Testna HIDRO - tesna ulica 22, 5555 Testново	1.4.2006	31.5.2006	57200

CERTIFICATE / POTRDILO

OF REDEMPTION
OF GUARANTEES OF ORIGIN

O UNOVČENJU POTRDILO
O IZVORU ELEKTRIČNE ENERGIJE

Quantity

SERIAL NUMBER	08-0101	SERIJSKA ŠTEVILKA
TYPE	RES / OVE	VRSTA POTRDILO
REDEMPTION DATE WITHIN THE SLOVENIAN SYSTEM OF GUARANTEES OF ORIGIN	3.4.2008	DATUM UNOVČENJA V SLOVENSKEM SISTEMU POTRDILO O IZVORU

With this certificate the Energy Agency of the Republic of Slovenia as the issuing body of Guarantees of Origin for Slovenia confirms that

S tem potrdilom Javna agencija RS za energijo kot izdajatelj potrdilo o izvoru za območje Slovenije potrjuje, da je bilo

of electrical energy was produced in the units included in the List of Production Units and that the corresponding number of Guarantees of Origin were redeemed for

električne energije proizvedene v objektih, navedenih v seznamu proizvodnih objektov, in da je bilo ustrezno število potrdil unovčeno za

250 kWh

Dobavitelj končnim potrošnikom

Ulica XL, 5000 Nova Gorica

Slovenija

REDEEMER	Veliki GENERATOR	UNOVČITELJ
ADDRESS	Generatorska 223d 3000 Celje Slovenija	NASLOV

Redemption "beneficiary"

Entity that redeemed the GoOs



Javna agencija RS za energijo
Energy Agency of the Republic of Slovenia

Data on device

SERIAL NUMBER	08-0101	SERIJSKA ŠTEVILKA
GOO SERIAL NUMBER	123456789123456790508200701001	SERIJSKA ŠTEVILKA POI
DATE OF ISSUE	5.6.2007	DATUM IZDAJE
EXPIRY DATE	5.6.2012	DATUM VELJAVNOSTI
Production unit	Plinska CHP turbinca - Ulica CHP 33, 3001 Celje, Slovenija	Proizvodni objekt
Owner/operator of the production unit	Veliki GENERATOR - Generatorska 223d, 3000 Celje, Slovenija	Lastnik/upravljalca proizvodnega objekta
Capacity	500,1 kW	Moč
Source of energy	Water / Vodna energija	Vir energije
Production period	1.5.2004 - 30.6.2004	Obdobje proizvodnje
Public suport	none / brez	Javna podpora
Produced electricity corresponding to the redeemed Guarantees of Origin	250 kWh	Proizvedena energija, ki ustreza številu unovčenih potrdil o izvoru



Javna agencija RS za energijo
Energy Agency of the Republic of Slovenia

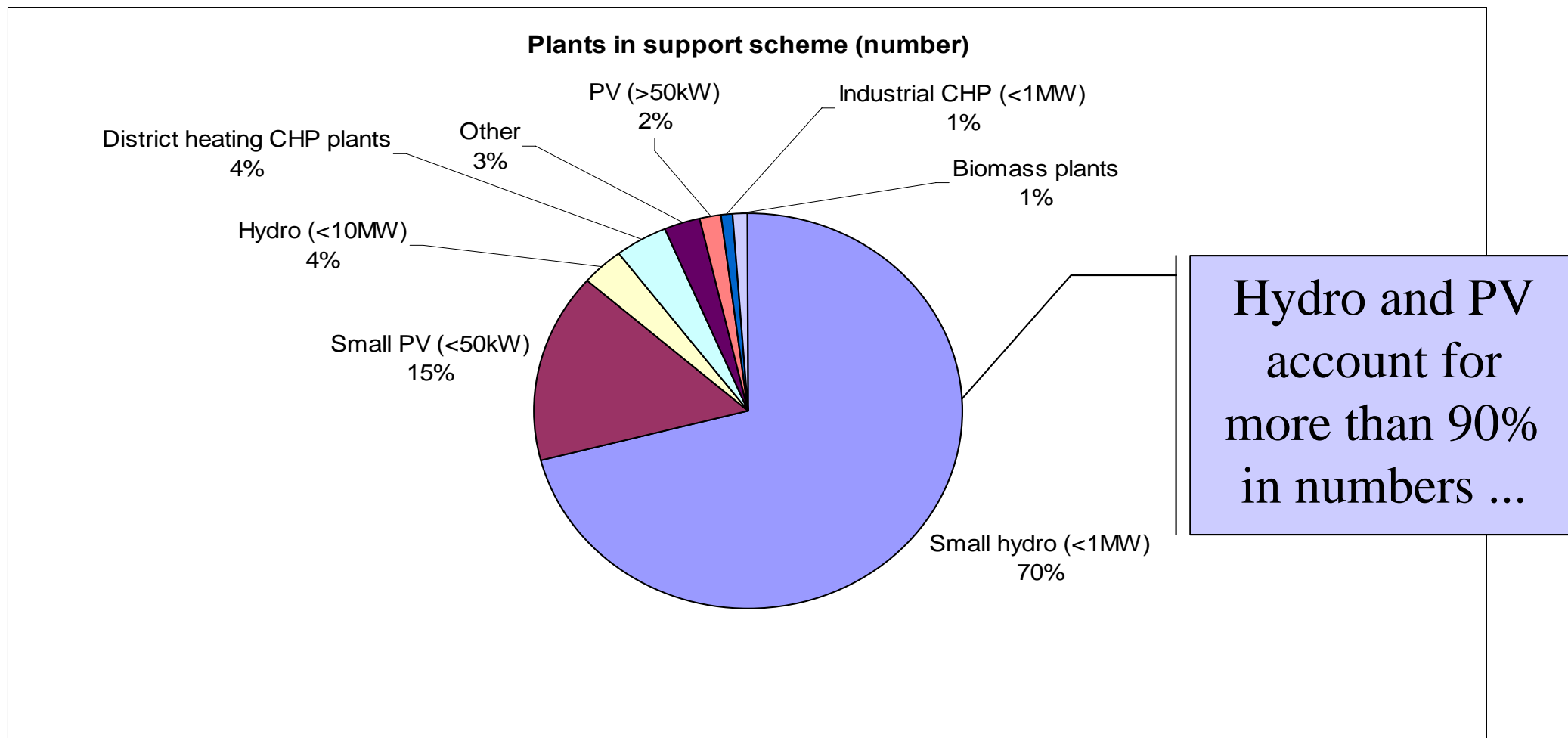
STATISTICS AND RECENT ACTIVITY

Recent activity

- On 1.1.2009 the so called “transition period” started – i.e. “old” scheme administration switched from TSO/DSO to CfS
- Establishment of a CfS balance group – although 99% of power plants sell to the market directly, including micro units
- Establishment of a CfS account in the Guarantees of origin registry
- Establishment of a “Registry of power plants included in the feed-in system”
- Set up of data transfers with SOs (metering data etc.)

- In brief:
 - 568 units totaling ≈ 211 MW of installed capacity*
 - first trimester payments ≈ 7,3 mio EUR (w/o biomass co-firing)*
 - ≈ 206 GWh of electricity (fed into the grid, without consumption at site)*

Power plants in the system – 568

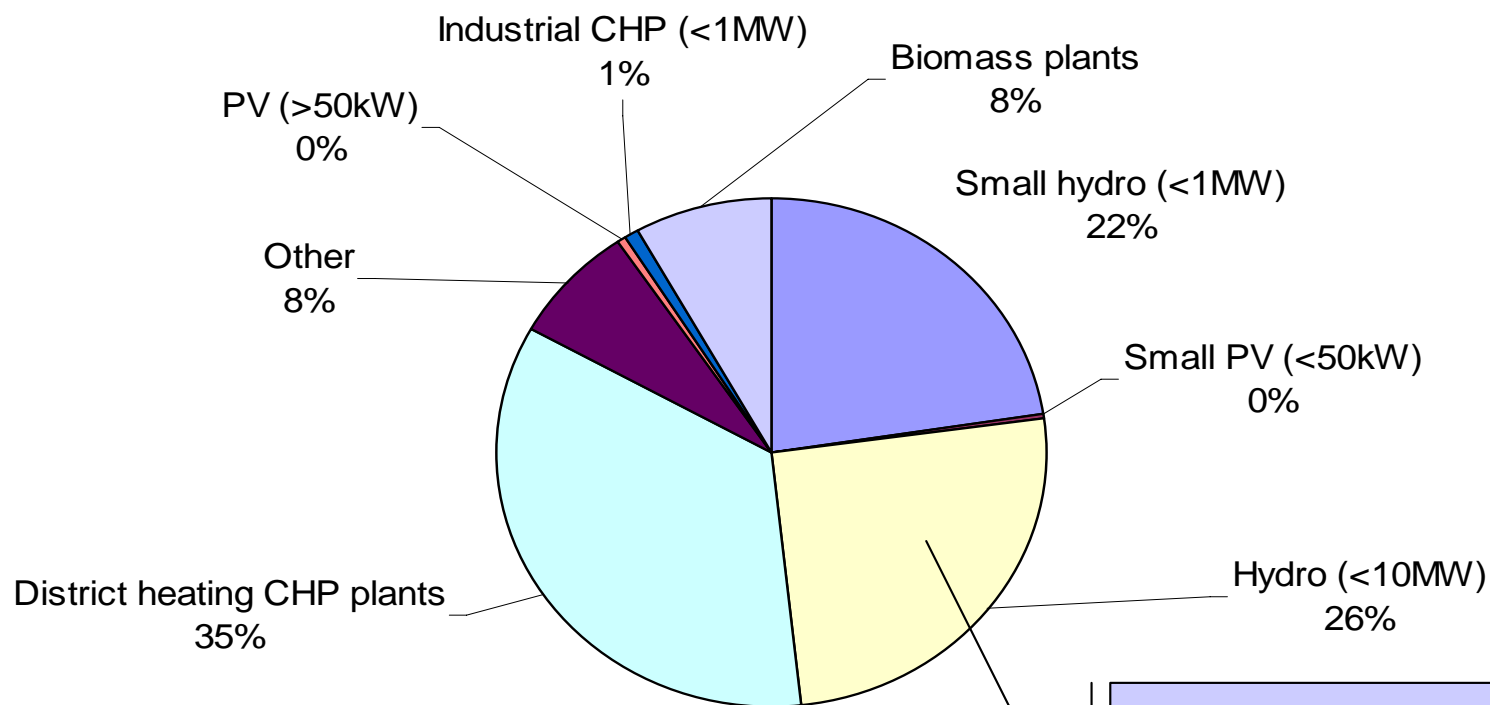


Additionally:

2 plants with wood biomass co-firing (110 MW, 755 MW)

Power plants in the system – 211 MW

Plants in support scheme (installed capacity)



... but for less than 50% of installed capacity

NEXT STEPS

Next steps

- **Transfer from the “transition” period to the new system**
- **Management and streamlining of the new system (invoices, metering data, changes in support levels etc.)**
- **Management of Guarantees of origin (transfers, redemption)**
- ...

Caption: Role of Guarantees of Origin

- Transfer to CfS as proof of RES/CHP generation
- The “greenness” should go to those who pay for it!
- In our system: all (final) consumers of electricity
- One option: Cfs redeems GoO for all suppliers in Slovenia (according to their market share), i.e. all consumers, that contribute to the fund for RES/CHP support are guaranteed a “green” share in the disclosure statement of their supplier

Questions?

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Borzen, power market operator

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