



Energy sector Cogeneration and Renewable Energy

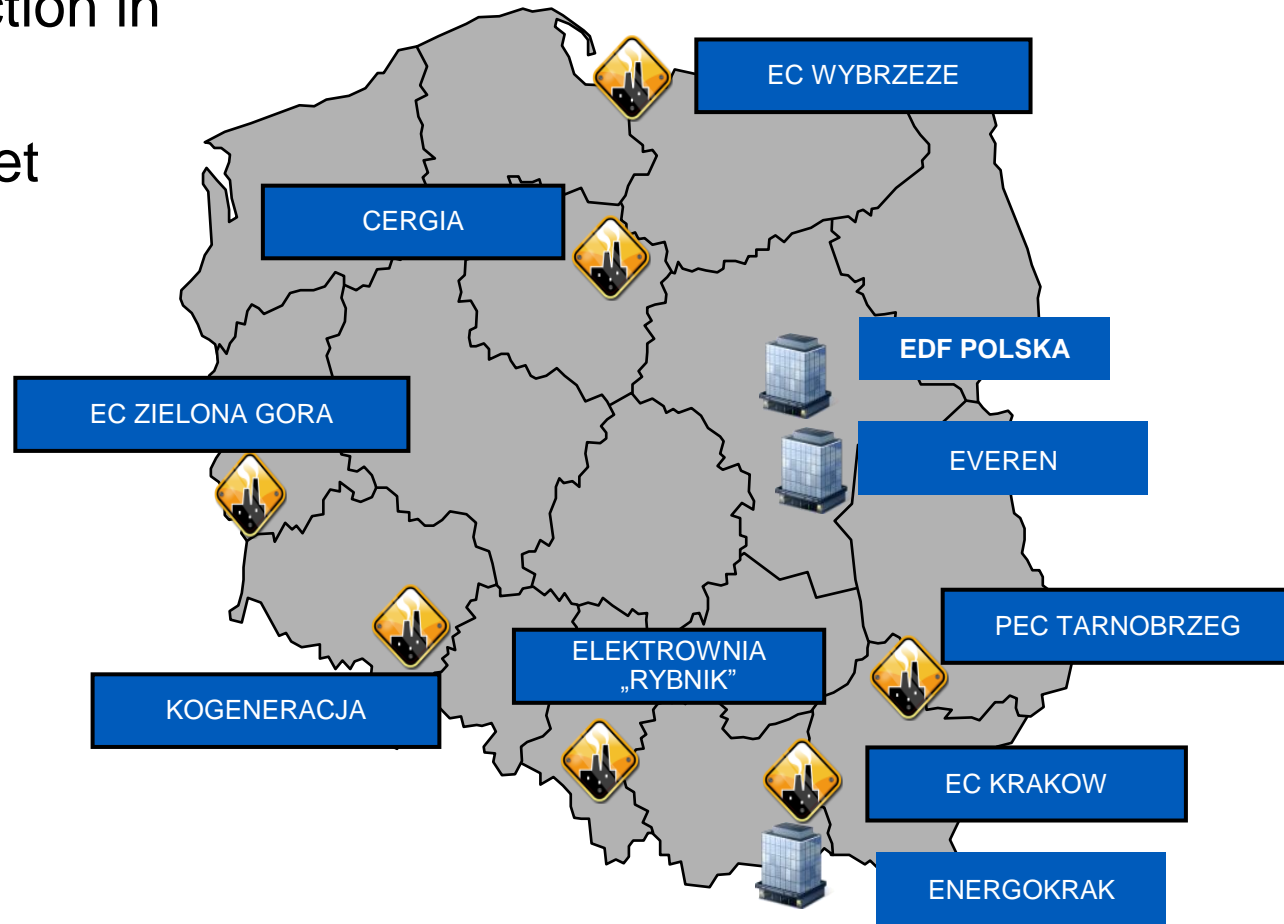
NEUF, 16th of June 2011



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EDF Group in Poland

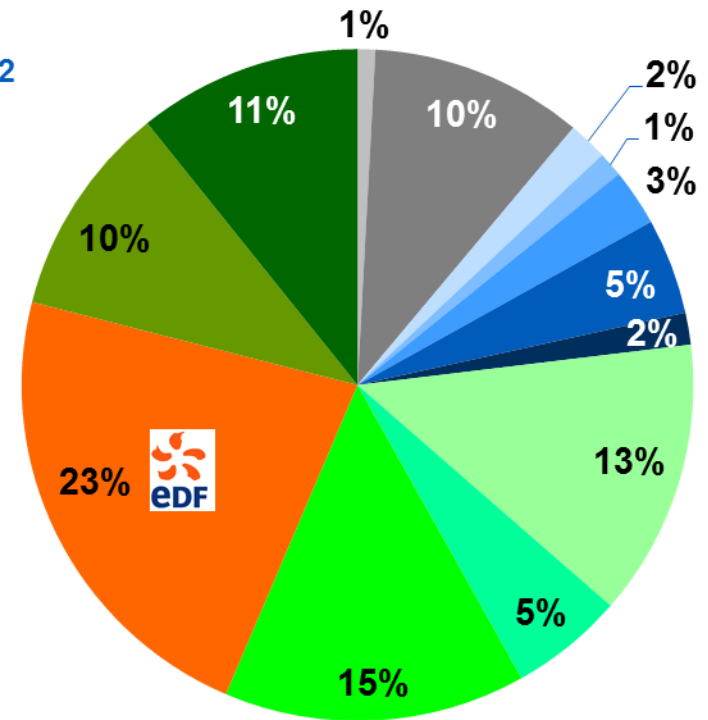
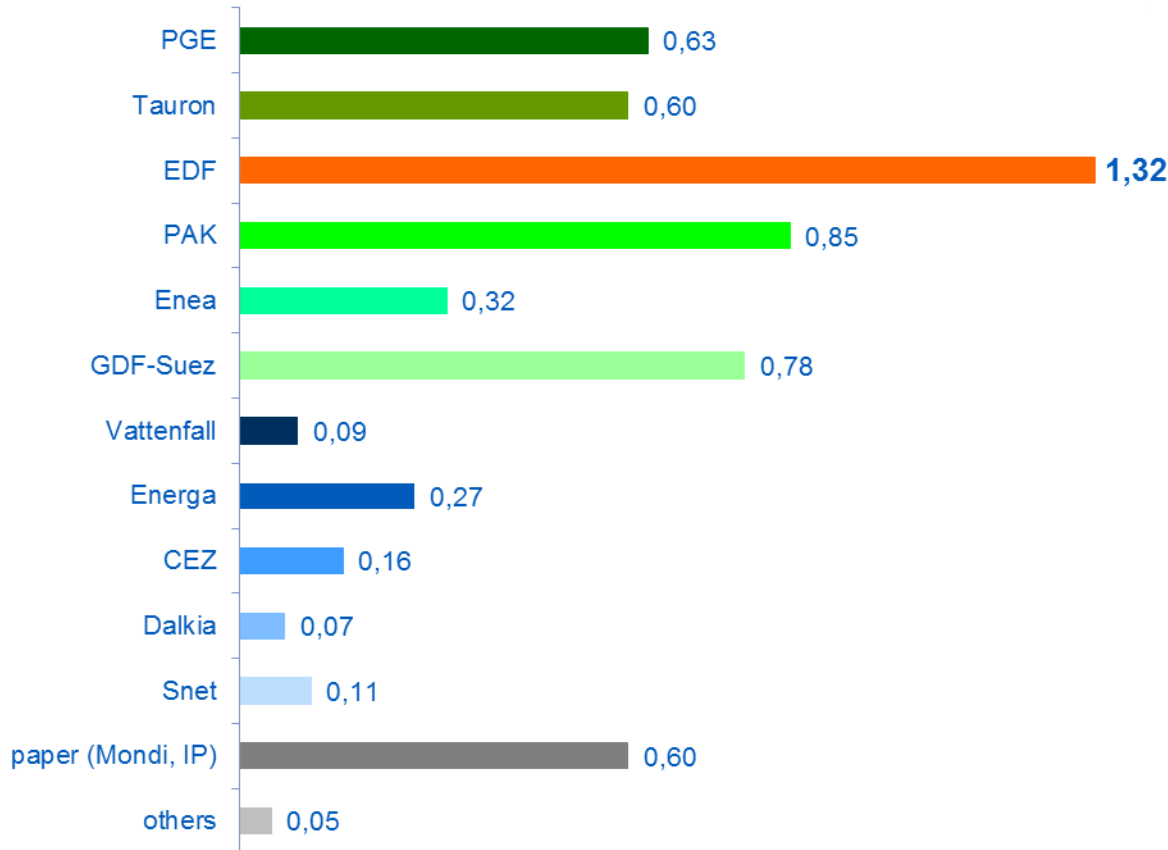
- ▶ Cogeneration Heat and Power (CHP) at the base of our production in Poland
- ▶ 20 % of heat market production



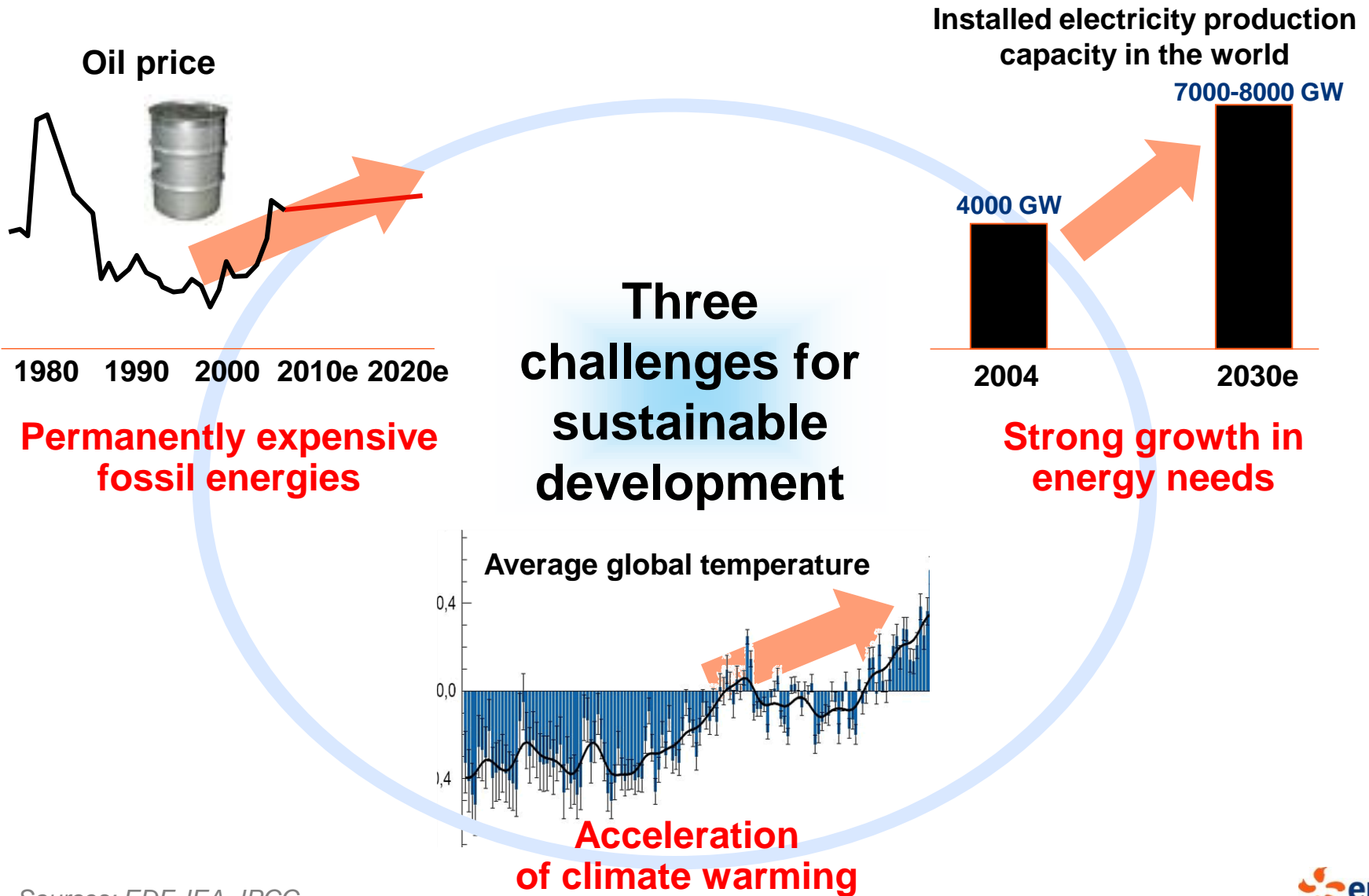
EDF in Poland: main Renewable Energy producer and leader in biomass

■ others ■ paper (Mondi, IP) ■ Snet ■ Dalkia ■ CEZ ■ Energa ■ Vattenfall ■ GDF-Suez ■ Enea ■ PAK ■ EDF ■ Tauron ■ PGE

[TWh]



The energy sector challenges



Polish situation

▶ Similar as elsewhere in Europe:

- Age of assets
- Climate protection concerns
- Competitiveness economy/affordability of energy prices

▶ But:

- Increasing demand
- Different fuel mix
- Fuel reserves

There is no single solution to these challenges but Renewable Energy and Cogeneration Heat and Power (CHP) are an important part of these challenges

Targets regarding Renewable Energy and cogeneration

- ▶ In many cases directly driven by EU regulations
- ▶ RES – 15%
- ▶ Support for cogeneration
 - Target set in Polish Energy Policy until 2030: increase from 24.4 TWh in 2006 to 47.9 TWh in 2030
- ▶ Support for energy efficiency
 - Target set in Energy Efficiency Act

Support systems

- ▶ Poland implemented support systems to reach the targets

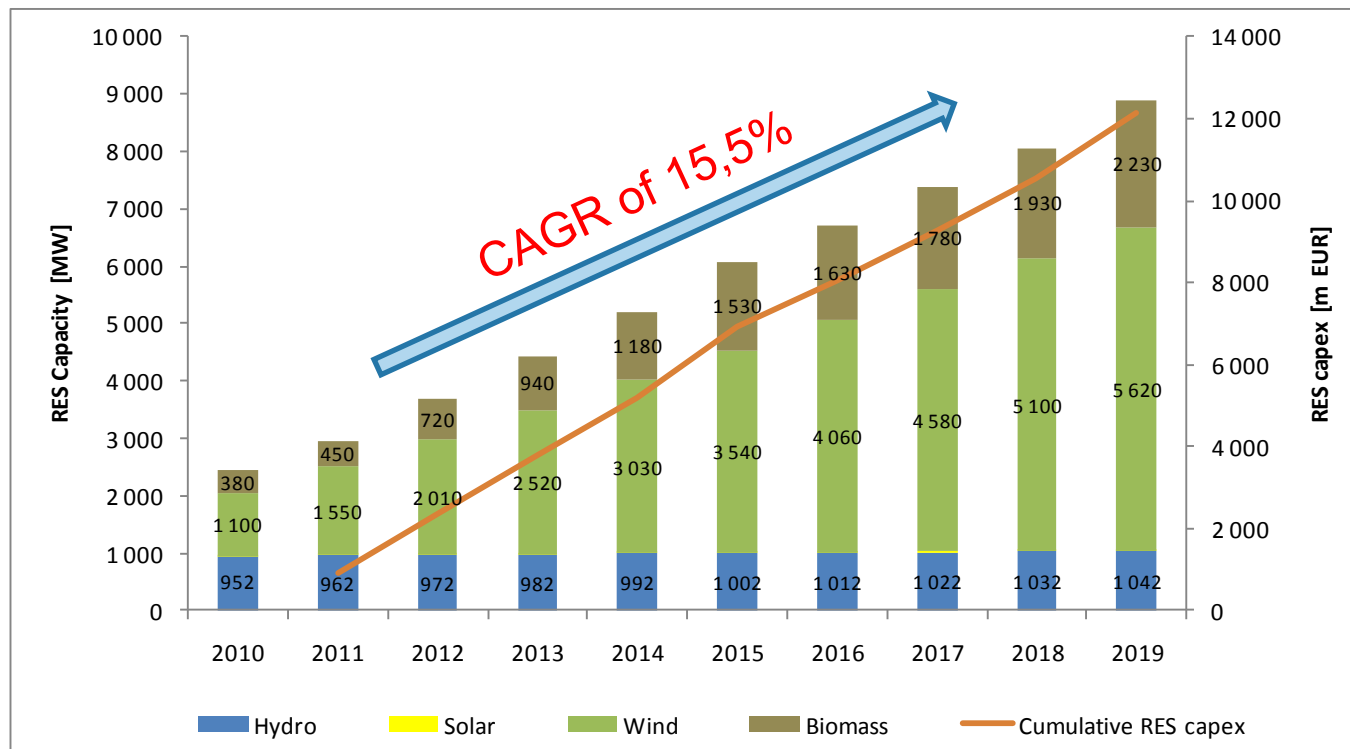
	Related to RES	Related to CHP
In Operational Phase	<ul style="list-style-type: none">• System of certificates• Time horizon: 2005 - 2017	<ul style="list-style-type: none">• System of certificates• Time horizon: 2008 - 2012 !!!
In Investment Phase	<ul style="list-style-type: none">• Donations or preferred loans/credits	<ul style="list-style-type: none">• Donations or preferred loans/credits



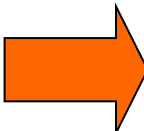
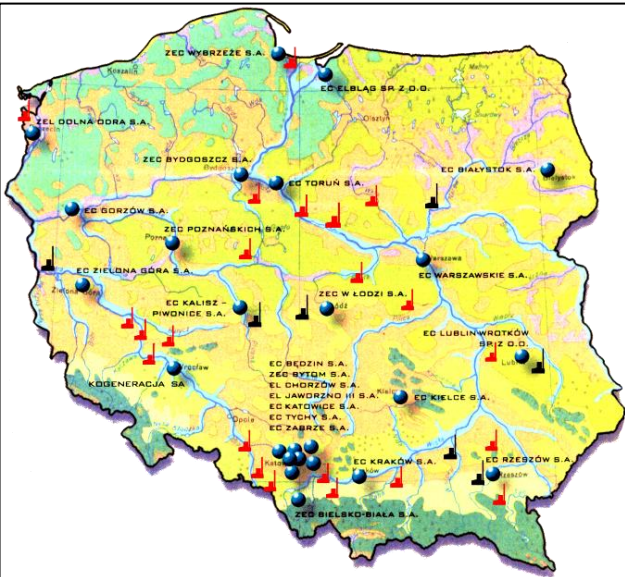
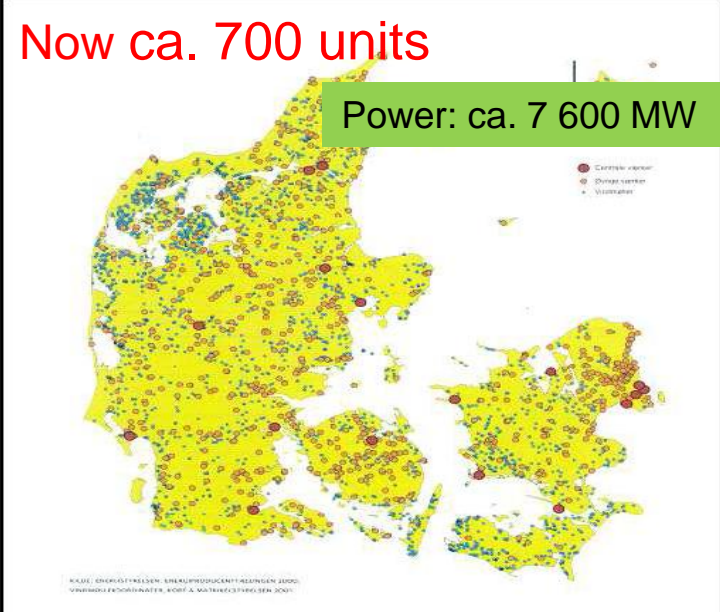
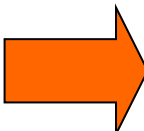
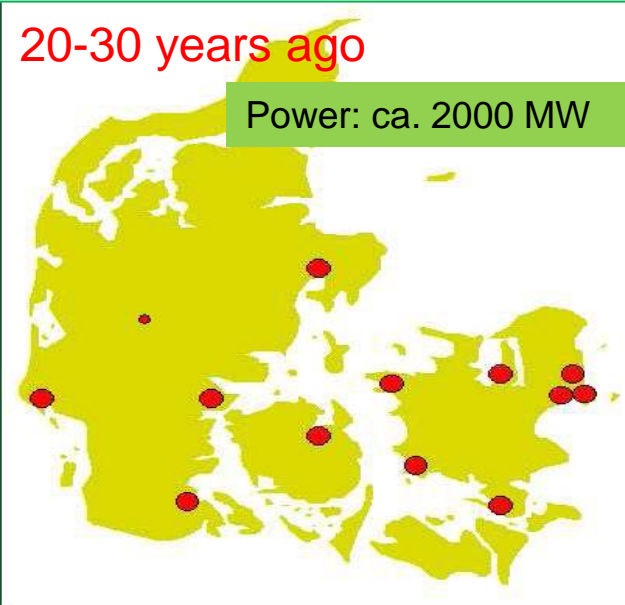
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Renewable Energy development

- ▶ Based on the Ministry of Economy estimates, wind generation will be the most dynamic Renewable Energy Source till 2020
- ▶ Followed by Biomass burning in the form of fully dedicated boilers and co-combustion
- ▶ However widely dependent on the final form of respective support mechanism
- ▶ Investment will require outlay of approximately EUR 12bn (excl. Investments in networks)



Development of Cogeneration Heat and Power



Target for Poland
to double the
production
Result ?

Challenges regarding Renewable Energy and Cogeneration Heat and Power development

Development depends on regulations

▶ There are some positive signals

- Polish Energy Policy
- Support systems (investment phase, operational phase)
- New method of heat tariffs calculation based on reference prices
- Priority for heat produced from renewables or in cogeneration

Challenges regarding Renewable Energy and Cogeneration Heat and Power development

BUT there is still a lot to care about

- ▶ Clear coherent and stable long term legal framework
 - Support for cogeneration is just about to be finished
 - Support for Renewable Energy only to 2017
- ▶ Need to preserve current successful experience
 - Biomass and co-combustion in existing plants must continue to be encouraged
 - Poland to strengthen sustainable development of polish biomass market
 - Regulation for CHP certificates needs to remain stable



**Thank you for
your attention**



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