

# *Photovoltaic boom in the Czech Republic*



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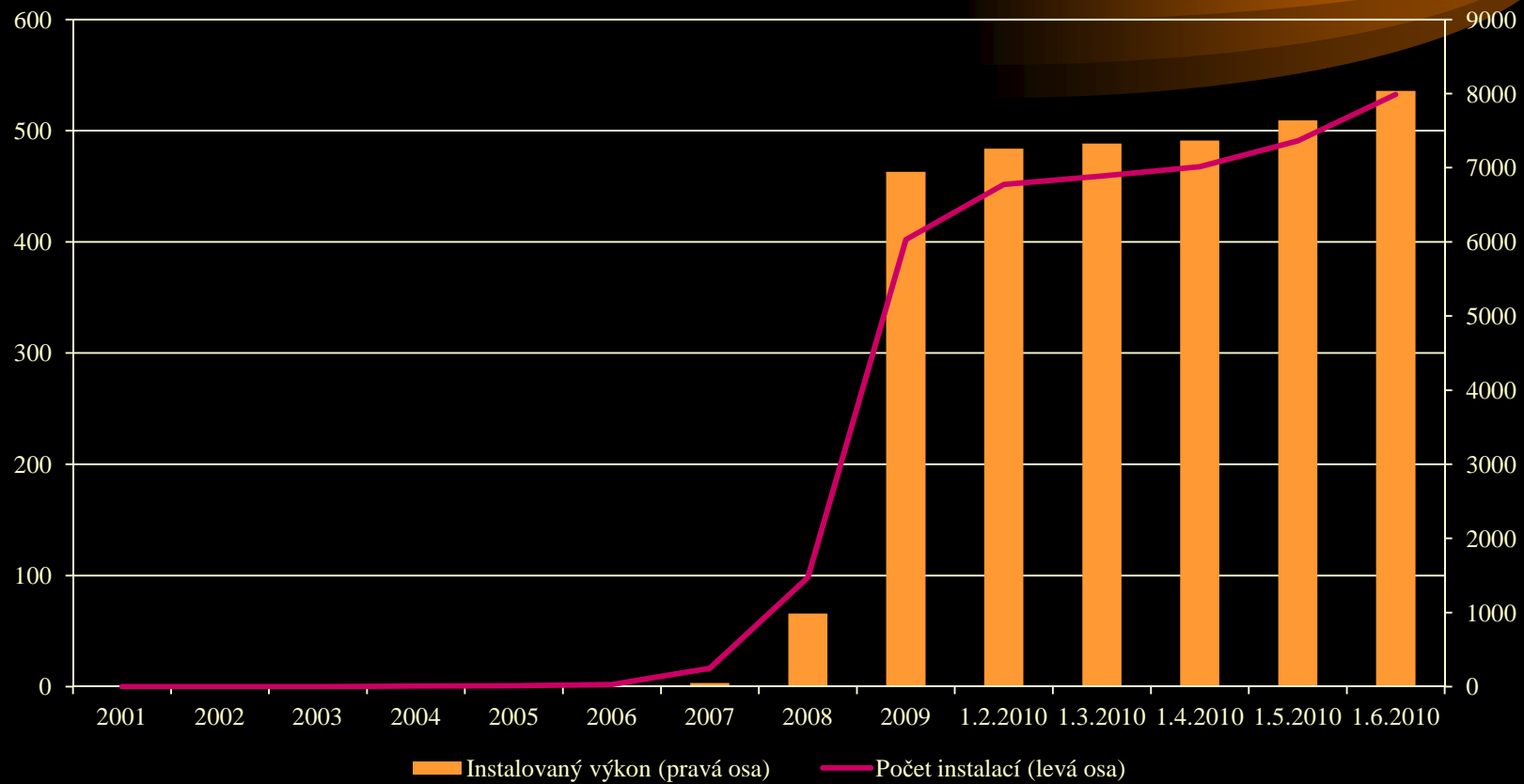
University of Economics in Prague

# *Public support for electricity produced by PV plants*



- In existence from 2002
- Based on the German system (EEG 2000)
- Form: Feed-in tariffs and Green certificates

# *Boom in photovoltaics in the Czech Rep.*

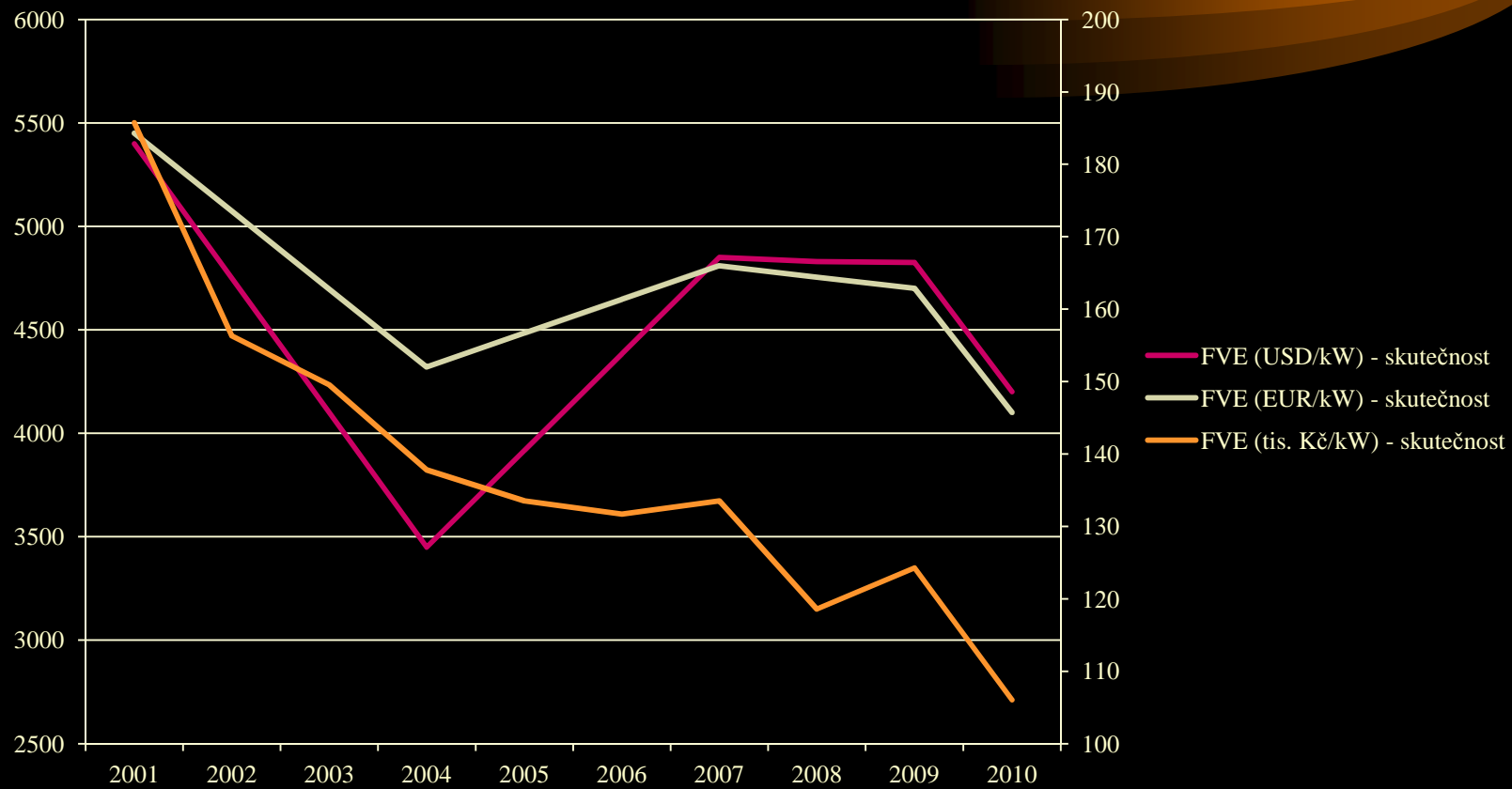


## *Reasons for the boom*

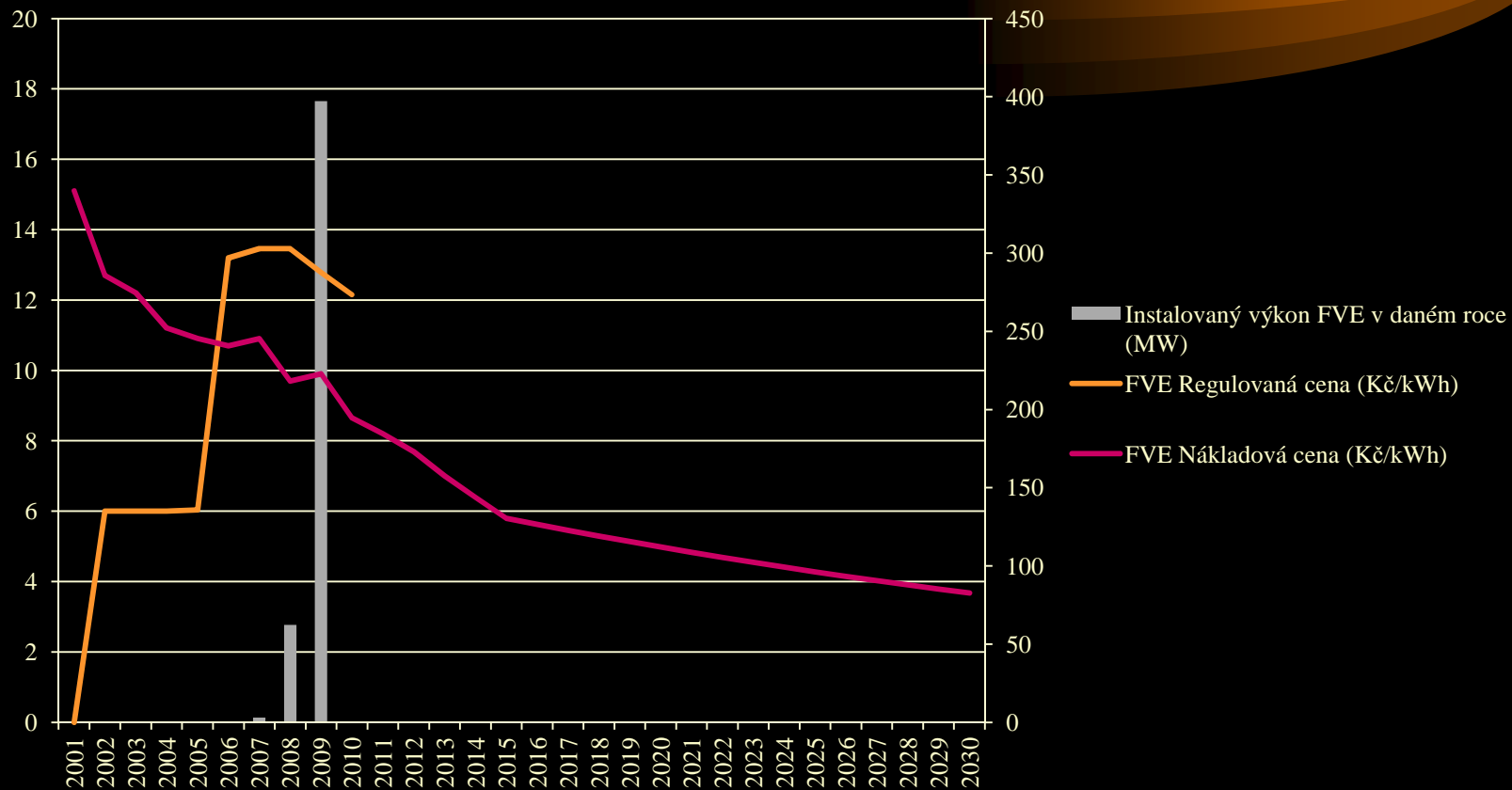


- Falling investment costs
- High regulated prices for feed-in tariffs and/or green certificates

# Investment costs of photovoltaic plants



# Regulated price vs. cost covering price for PV plants in the CR



# *Costs of photovoltaics*

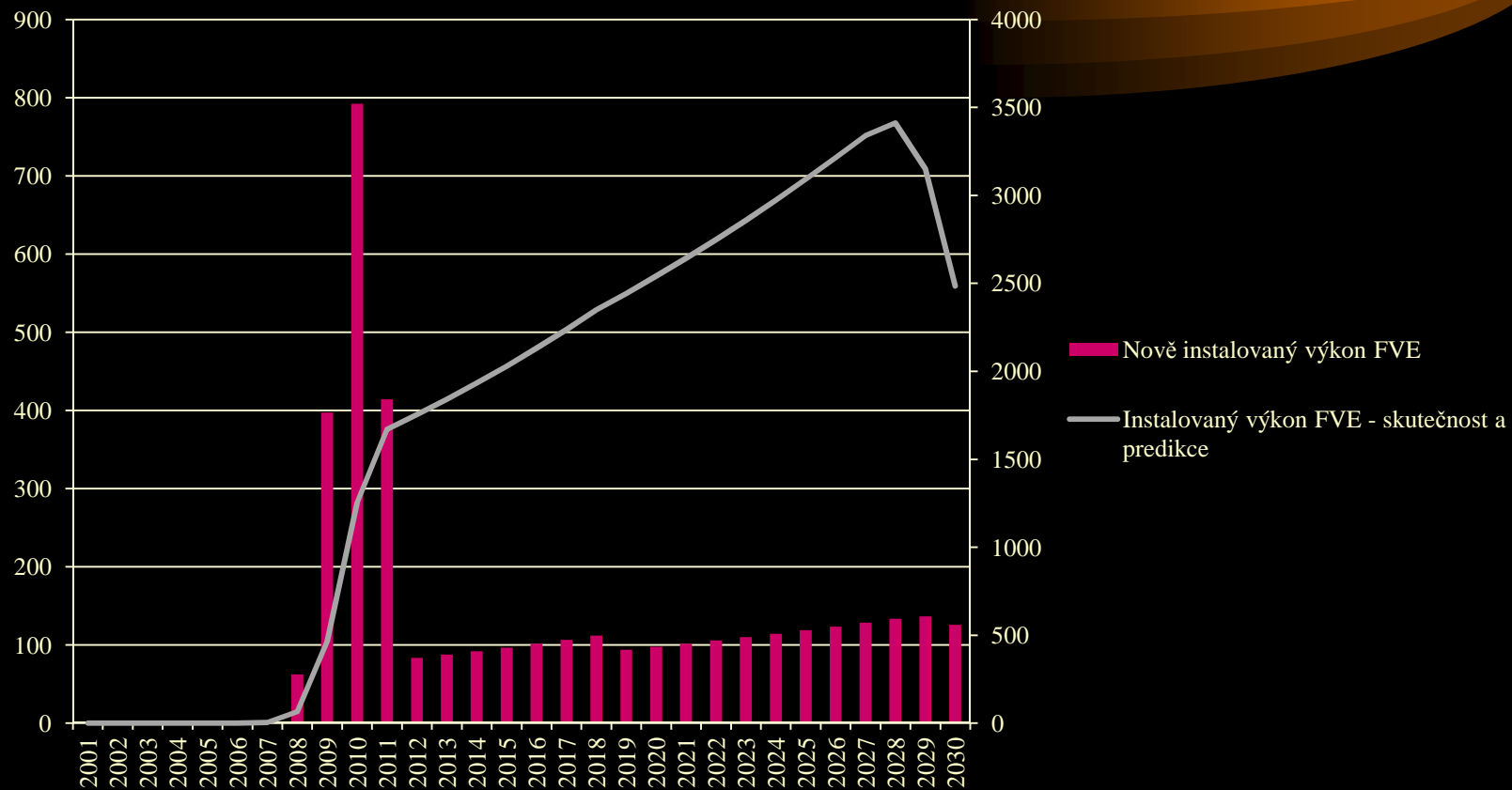


- Direct costs
- Forced investments on part of distribution and transmission network
- Additional ancillary services costs
- Additional regulatory electricity costs

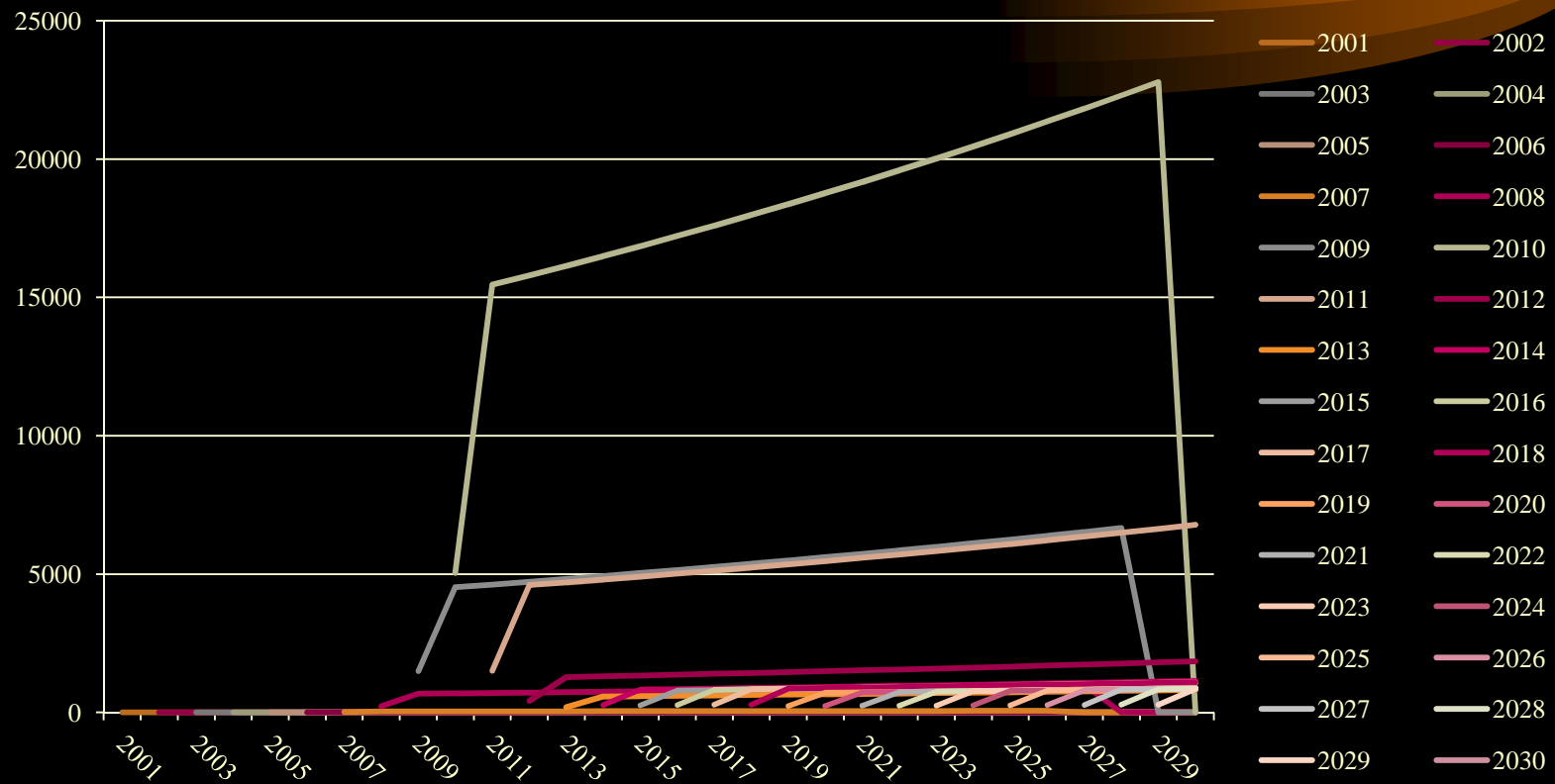




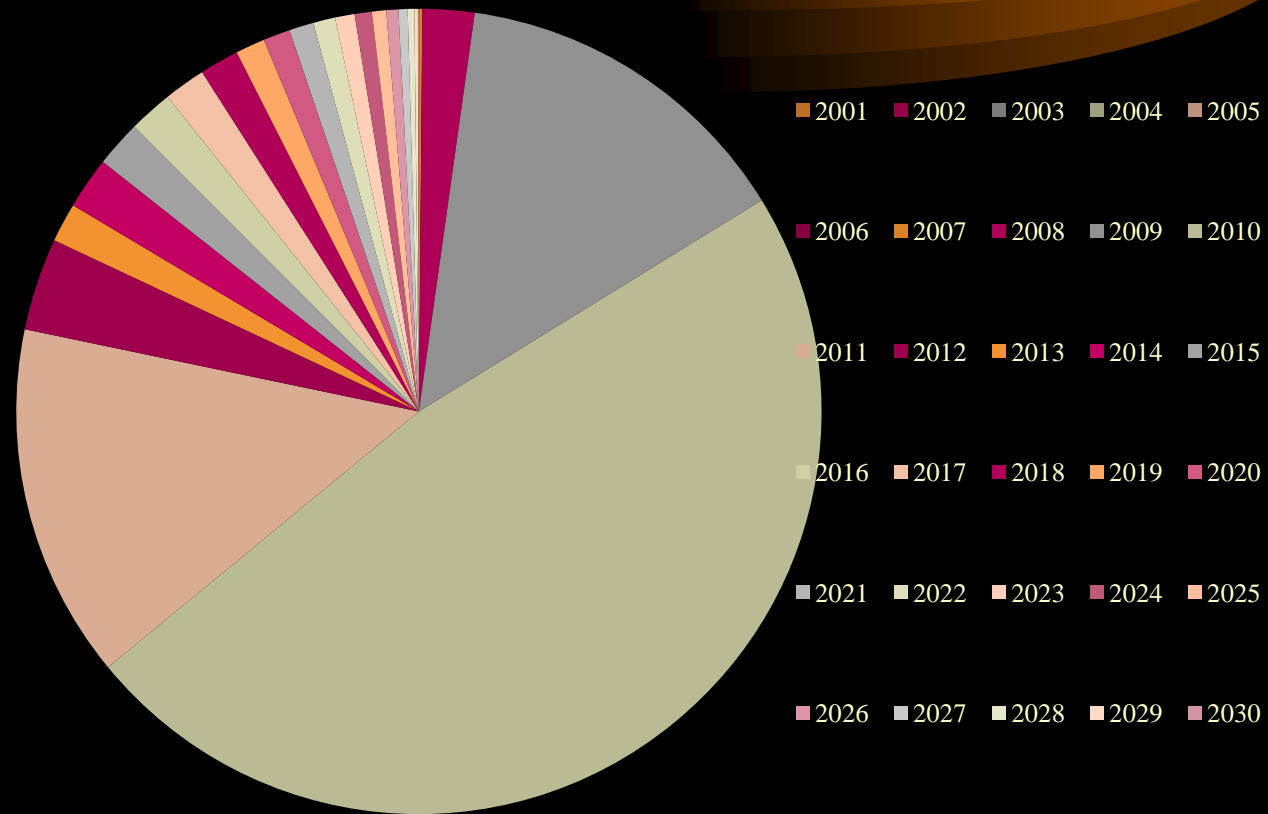
# Prediction of PV inst. capacity (current state of affairs)



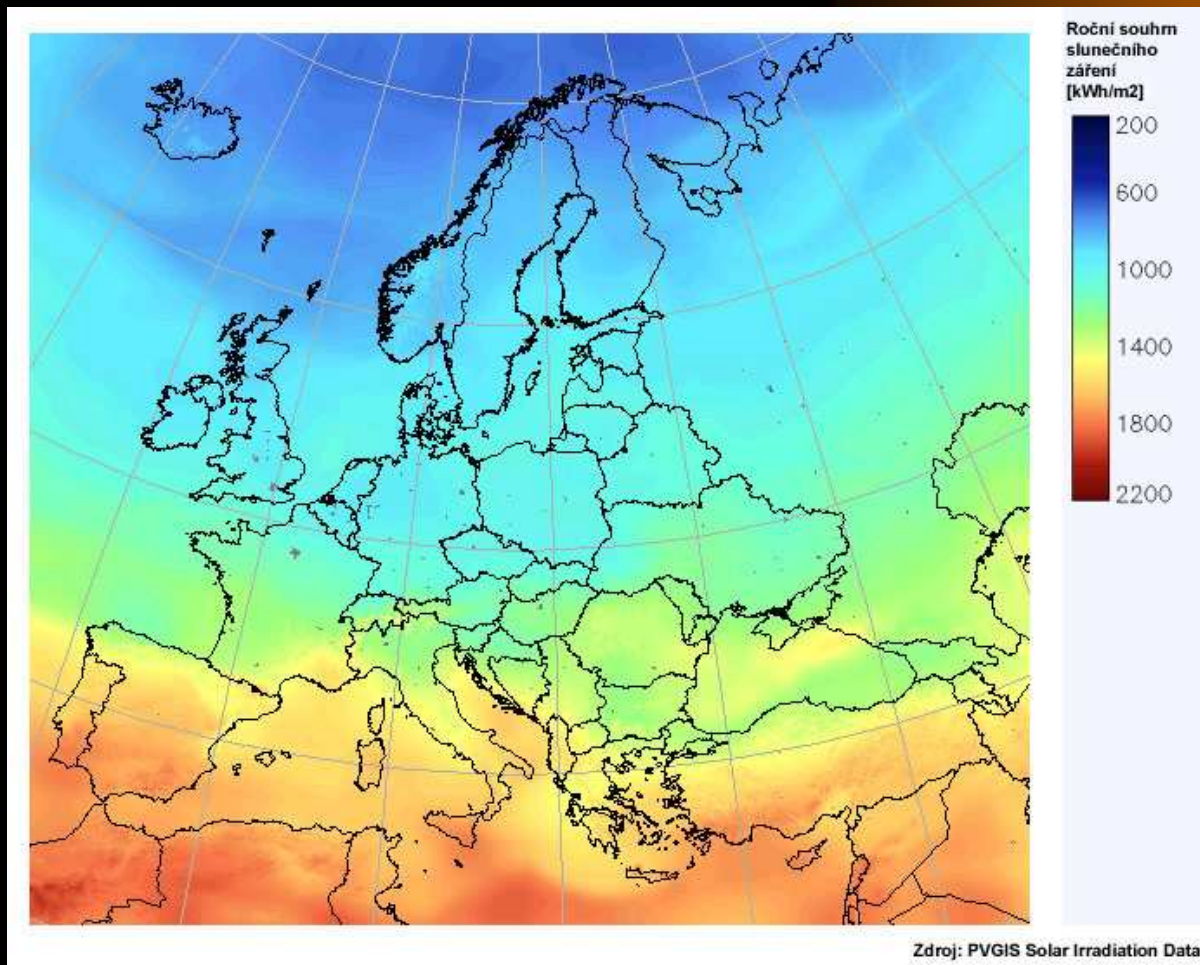
# Costs of particular „years“ of PV plants



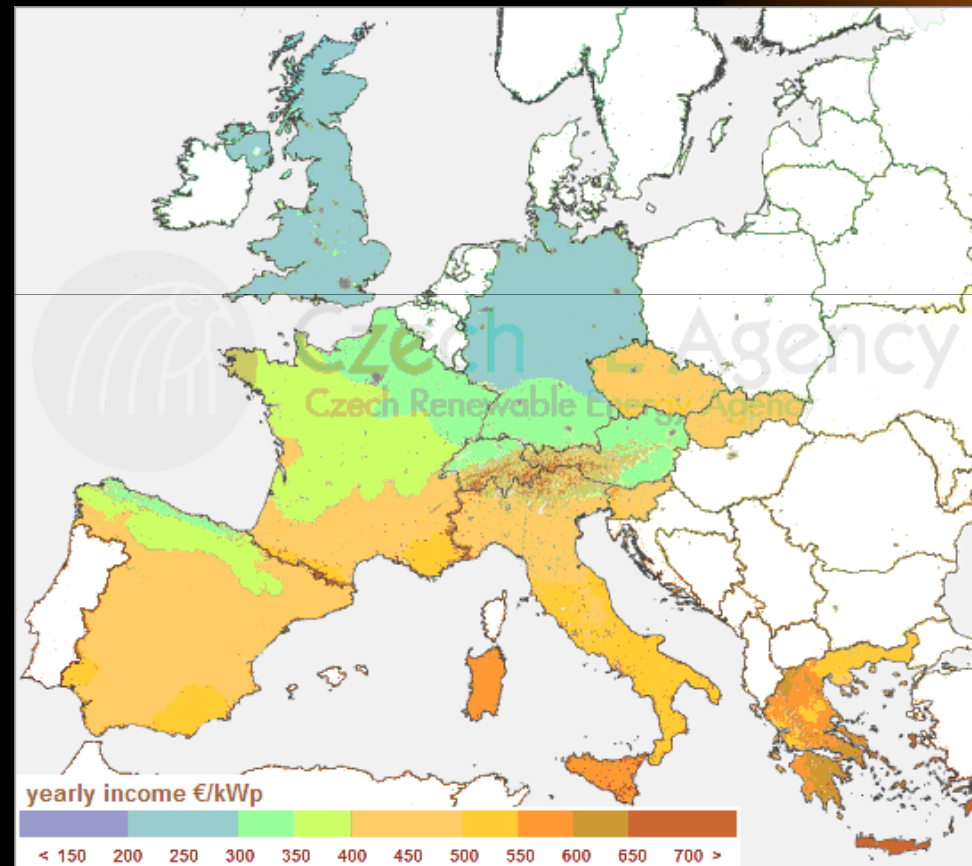
# *Shares of particular „years“ of PV plants in total costs*



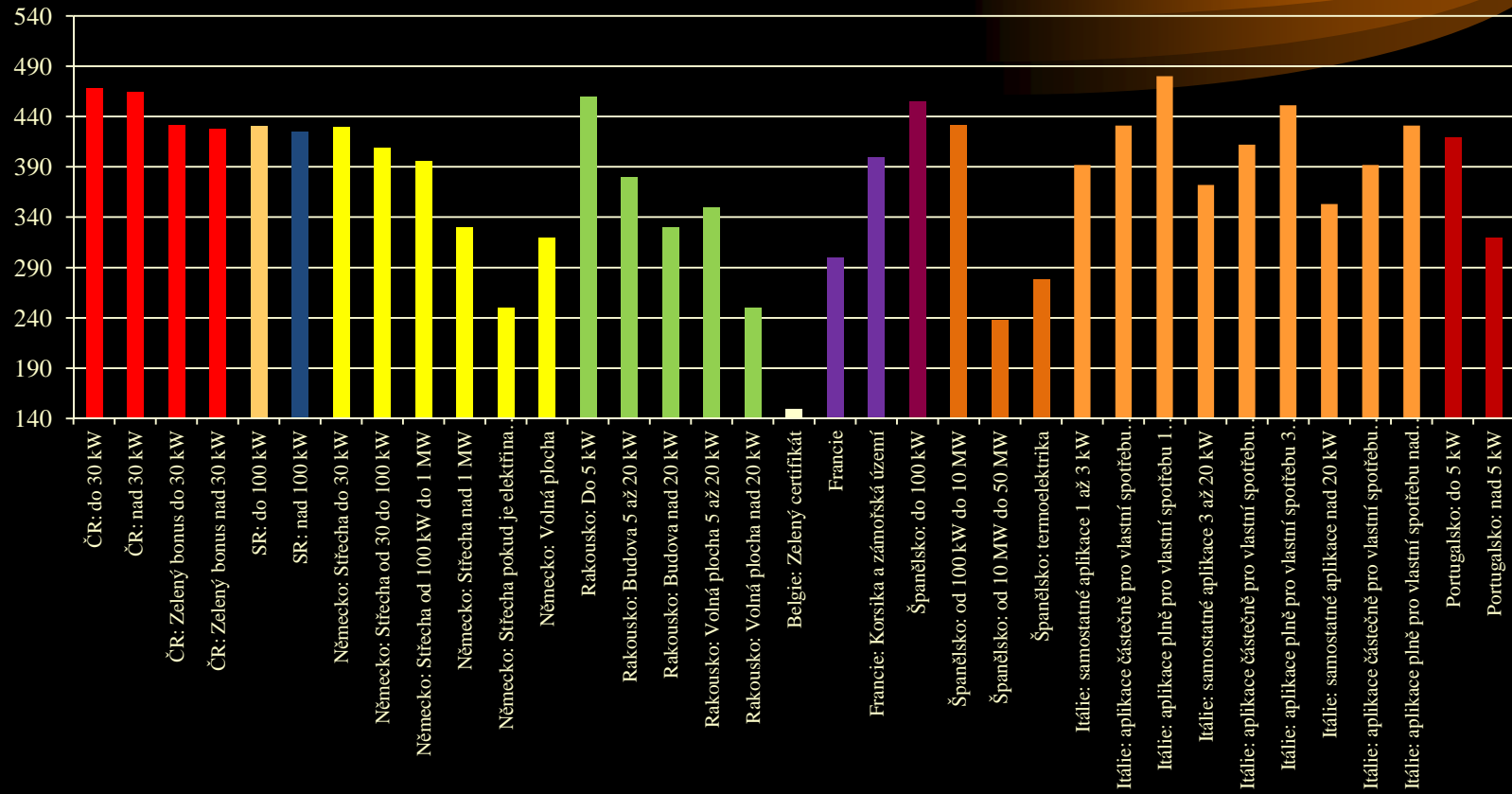
# *Solar radiation in Europe (kWh/m<sup>2</sup>)*



# Returns from PV plants in Europe (EUR/kWp)



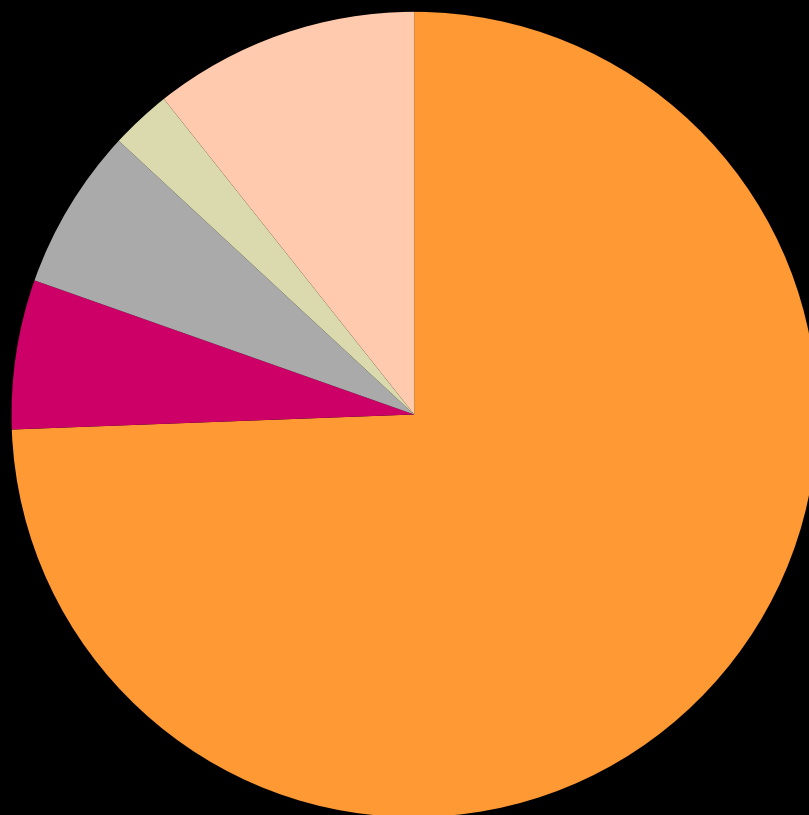
# Prices for PV electricity in Europe (EUR/MWp)



## *Total costs – absolute numbers*

- Direct costs (PV) – 556 bil. CZK
- Direct costs (WP) – 556 bil. CZK
- Ancillary services – 48 bil. CZK
- Forced investment – 18 bil. CZK
- Regulatory electricity – 80 bil. CZK
- Value of electricity produced – 47 bil. CZK
- TOTAL NET – 700 bil. CZK

# *Total costs – shares*



- Přímé náklady výkupu elektřiny z FVE
- Přímé náklady výkupu elektřiny z VtE
- Náklady na zajištění dodatečných PpS
- Náklady vynucených investic
- Náklady na dodatečnou regulační energii

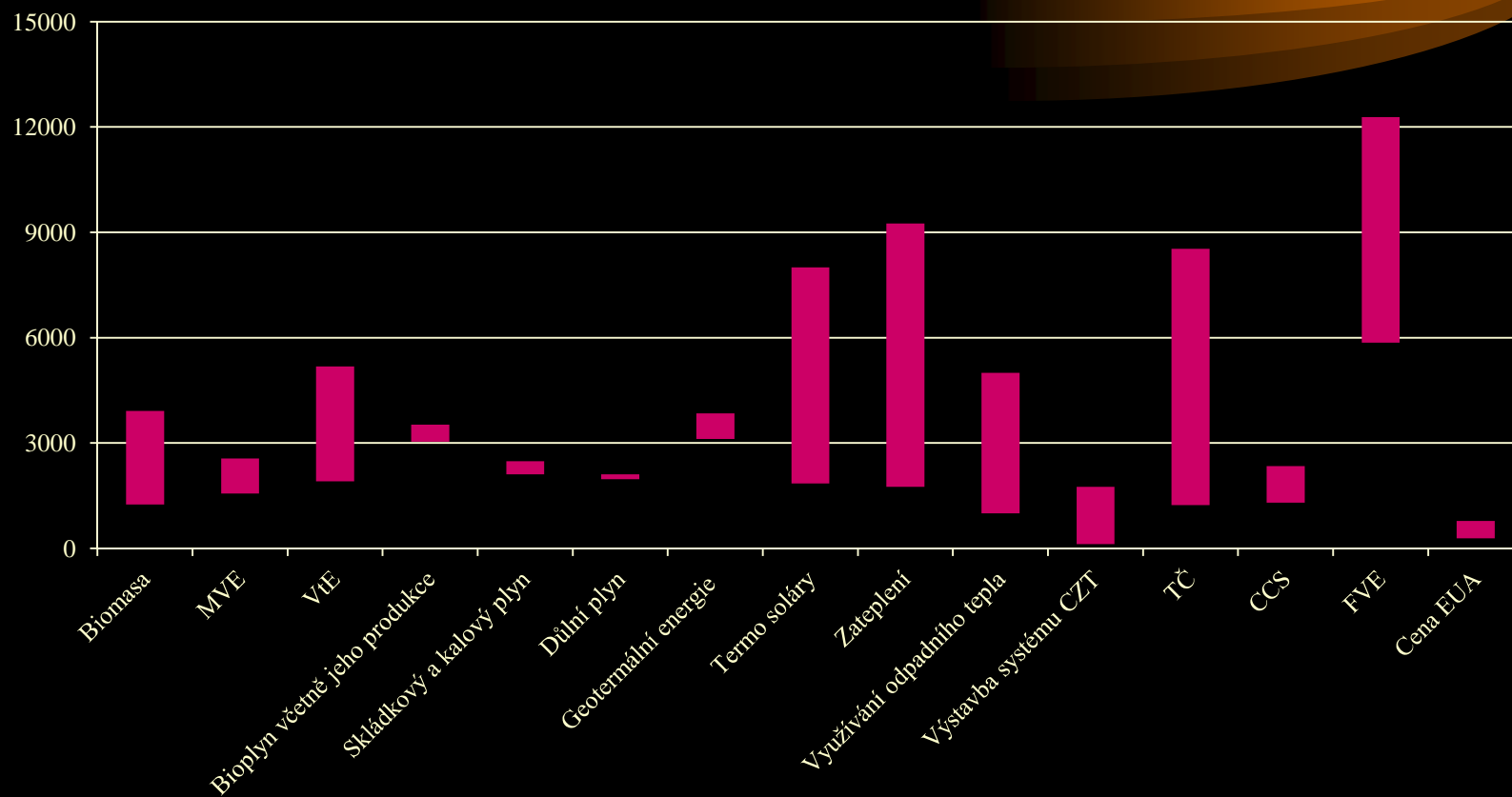


## *Reasons for the support*

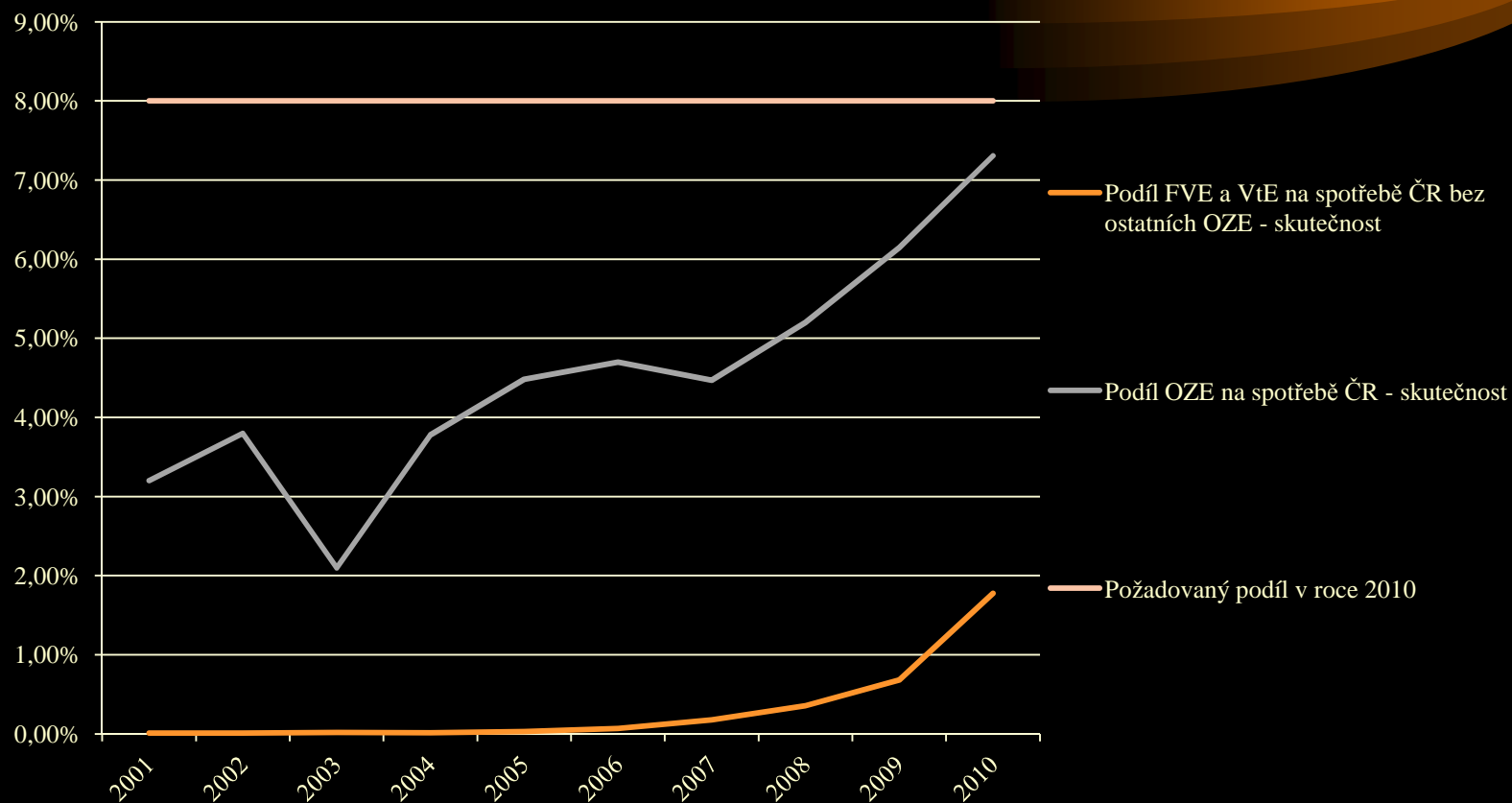


- CO2 abatement
- International obligations
- Energy „independence“
- Additional regulatory electricity costs

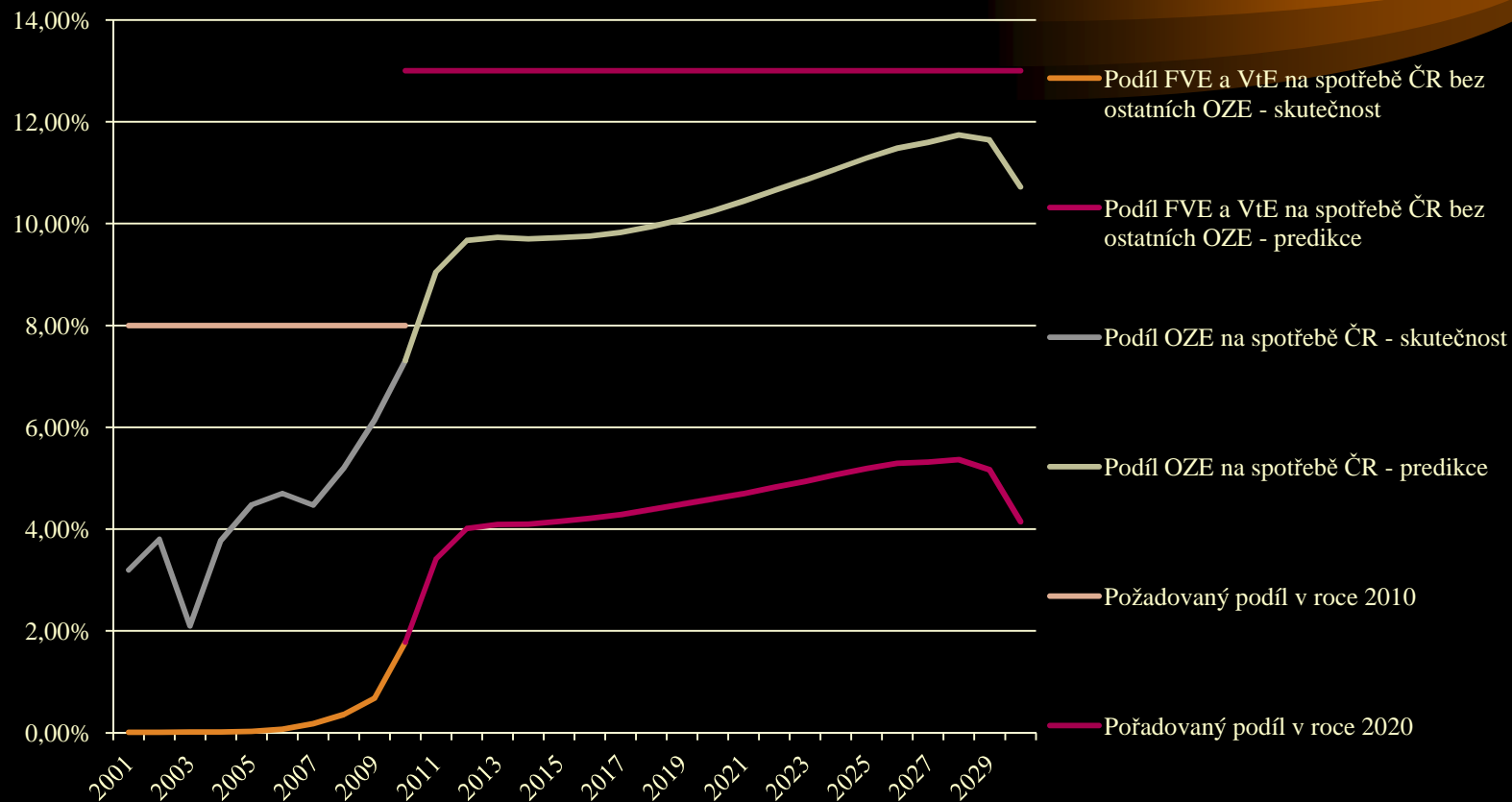
# *Costs of CO2 emission abatement for evaluated programs (CZK/t)*



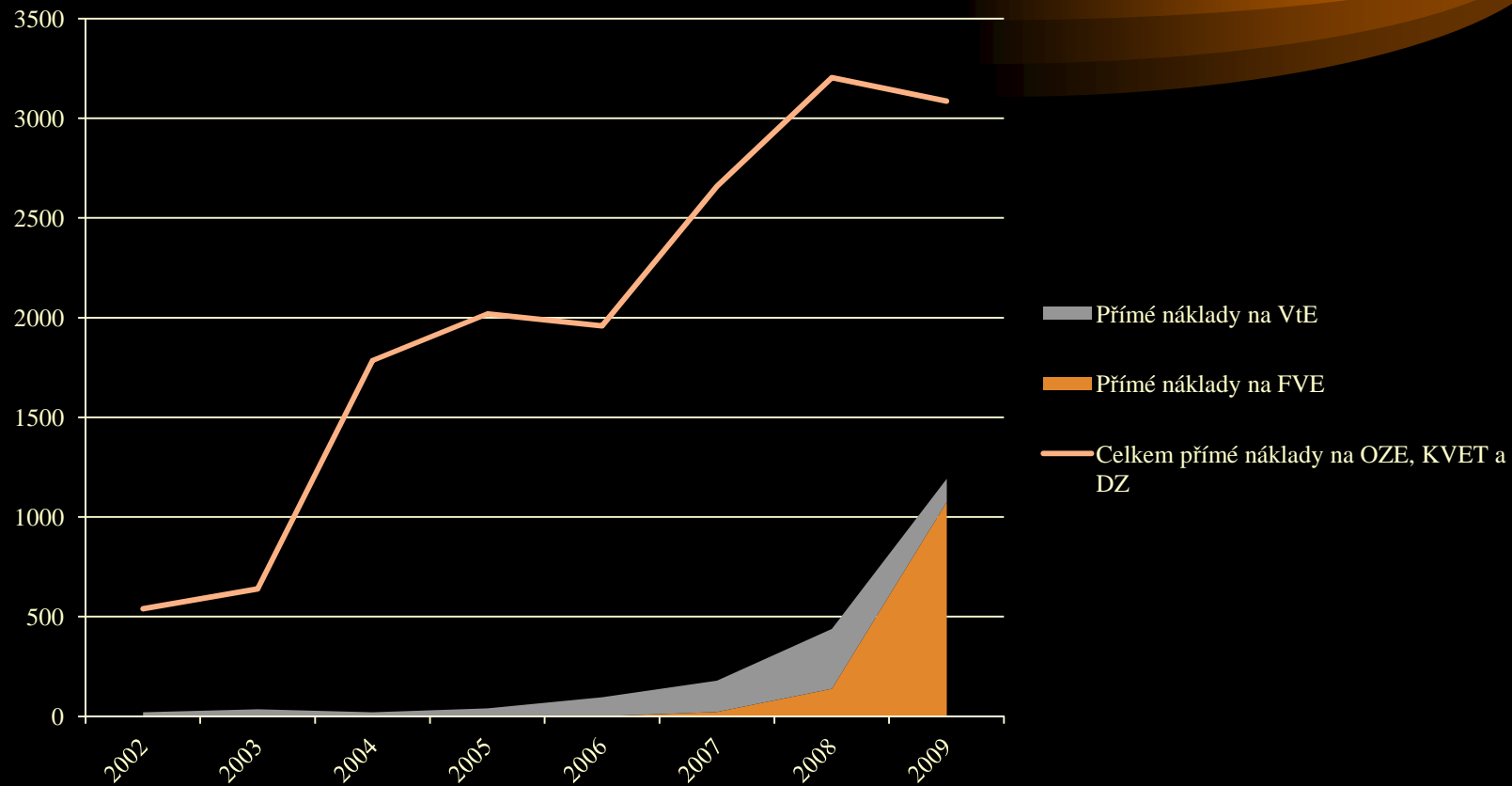
# *RES shares on gross electricity consumption – real data*



# RES shares on gross electricity consumption – prediction

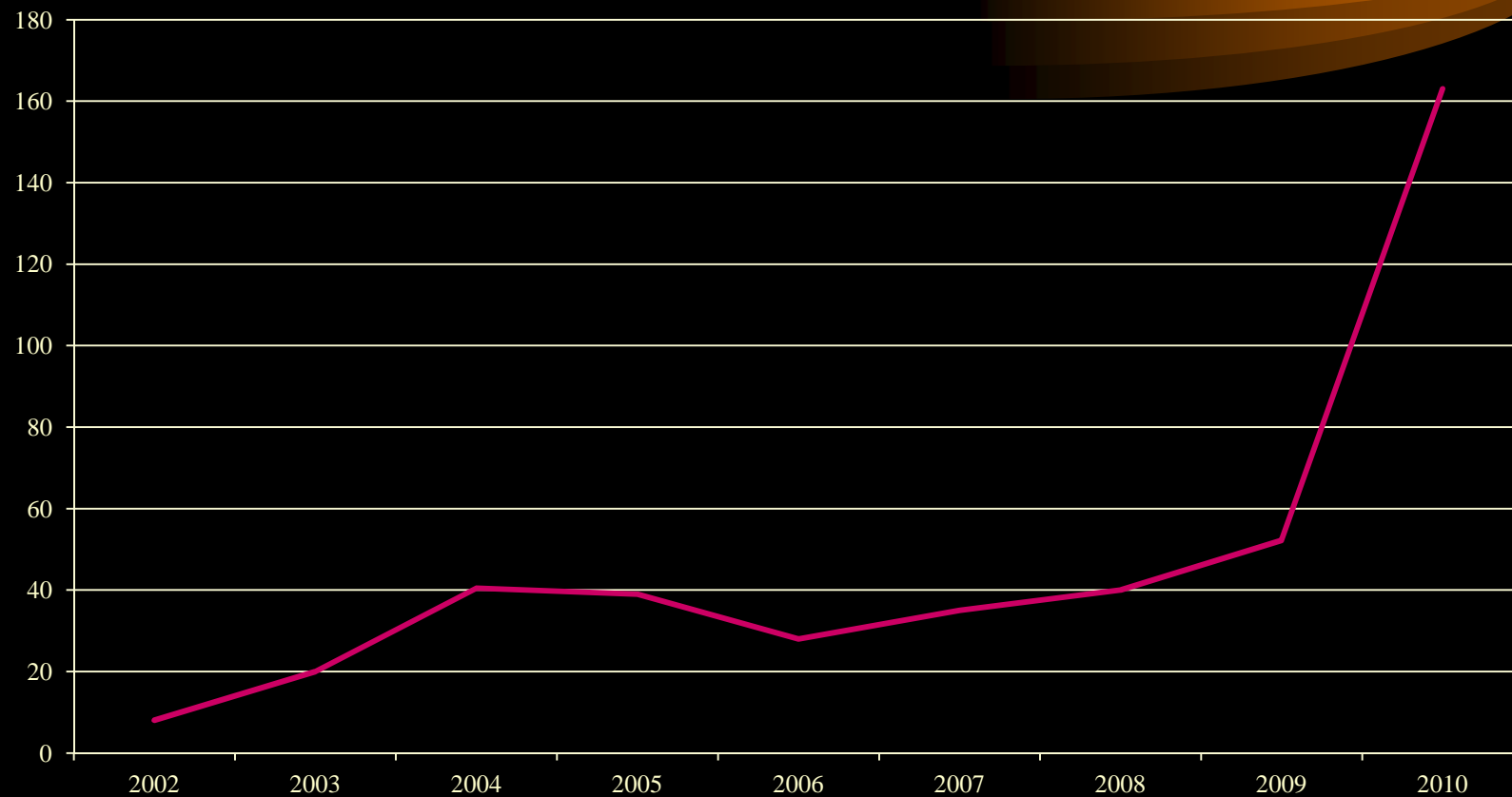


# *Total costs of RES support in the Czech Rep. – real data*

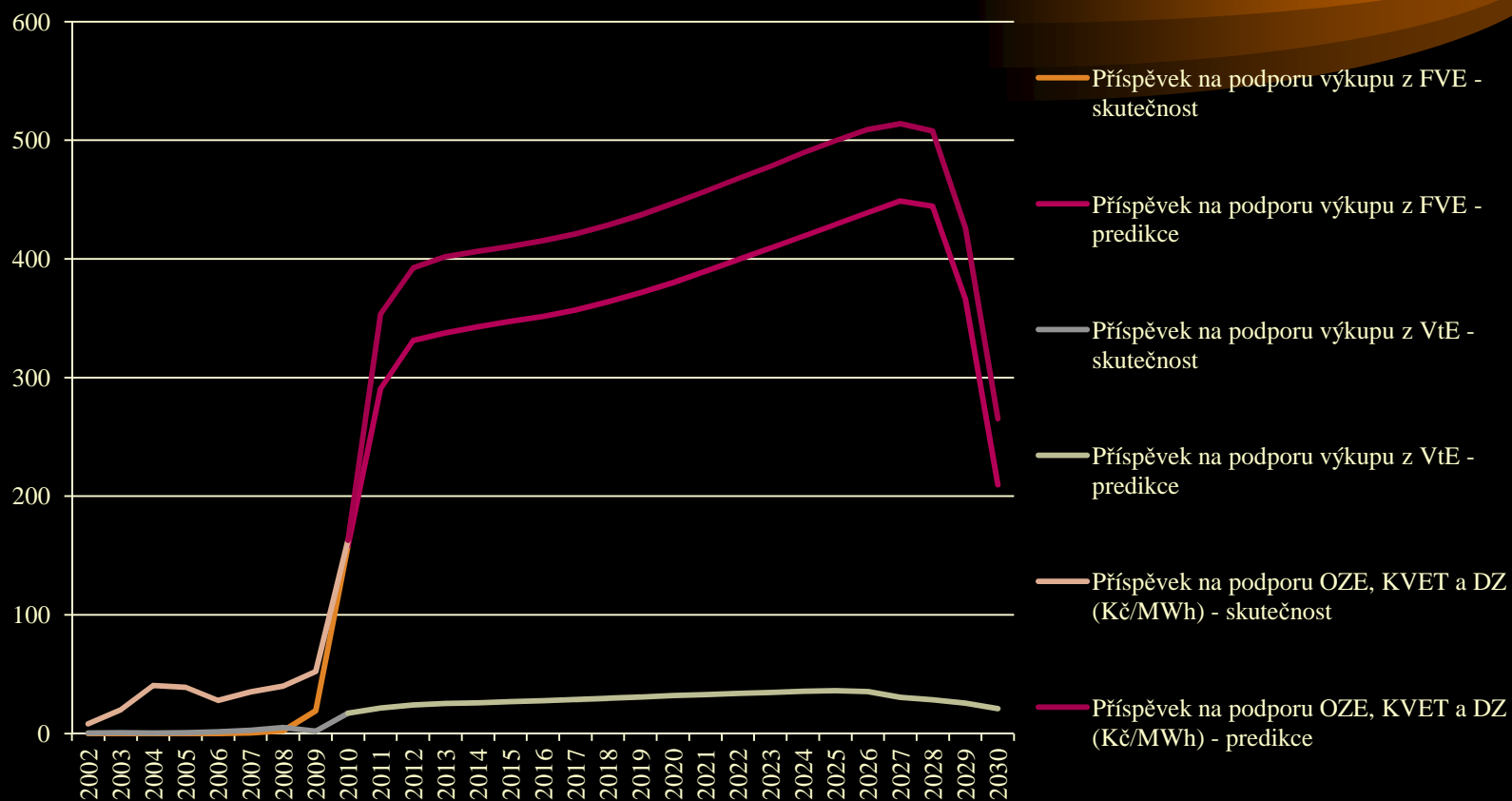




# *RES support fee in the Czech Rep. – real data (CZK/MWh)*



# RES support fee in the Czech Rep. – prediction (CZK/MWh)







*Thank you*