UNITED NATIONS

ECONOMIC COMMISSION FOR EUROPE

COMMITTEE ON SUSTAINABLE ENERGY

ENERGY POLICY FOR POLAND

BASIC DATA

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Polska Izba Ekologii

GENEVE

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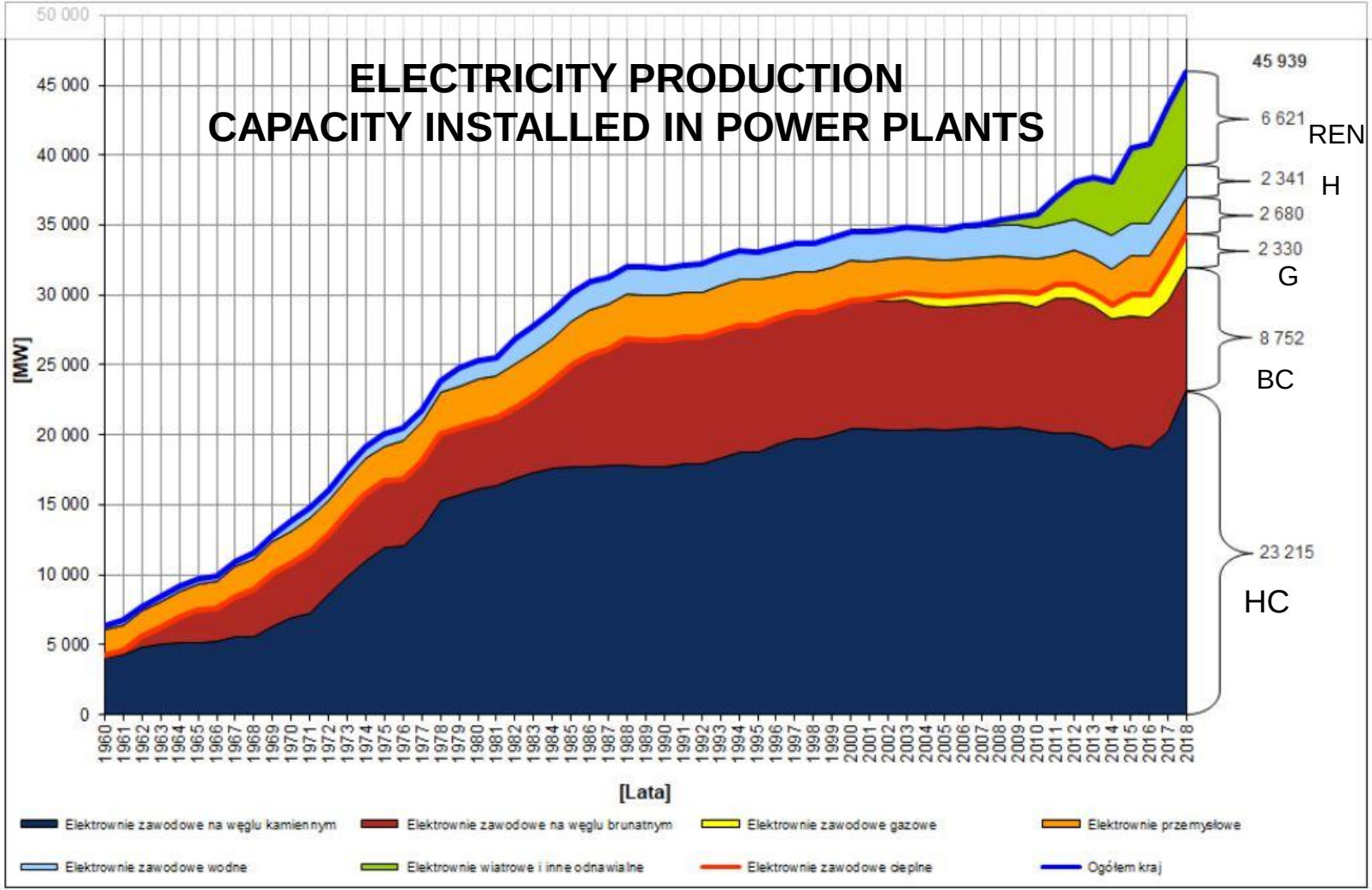
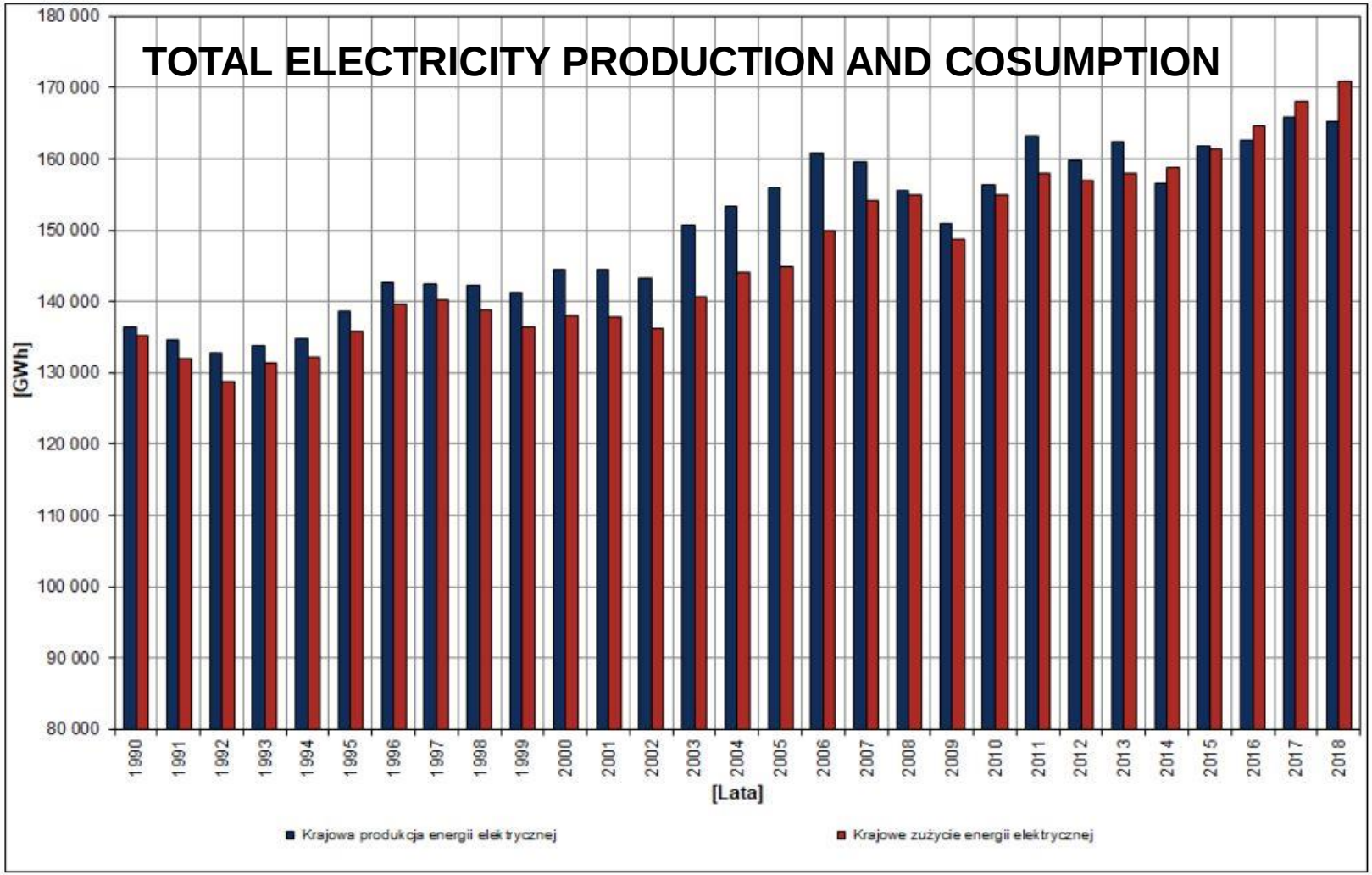
ELECTRICITY PRODUCTION
CAPACITY INSTALLED IN POWER PLANTS



TOTAL ELECTRICITY PRODUCTION AND COSUMPTION



POWER INDUSTRY IN POLAND

ELECTRICITY GENERATION

• CAPACITY INSTALLED IN POWER PLANTS	45 939 MW
• CAPACITY OF THE BIGGEST THERMAL P P (LIGNITE)	5 420 MW
• ELECTRICITY PRODUCTION	165 214 GWh
• AVERAGE EFFICIENCY OF ELECTRICITY GENERATION	~ 38 %
• ELECTRICITY PRODUCTION IN COGENERATION	approx 15 %
• ELECTRICITY CONSUMPTION PER CAPITA	4 470 kWh
• CO_2 EMISSION	327 MLN T/Y (0,89%)

ELECTRICITY PRODUCTION AND COSUMPTION - 2018

	GWh	%
TOTAL PRODUCTION	**165 214**	
COAL FIRED P.P.*)	89 375	52,2
LIGNITE FIRED P.P.	49 072	28,7
GAZ FIRED P.P.	12 612	7,5
WIND, HYDRO and other RENEWABLE	14 155	8,3
IMPORT	5 718	3,3
TOTAL FINAL CONSUMPTION	**170 932**	100,00

CONSUMPTION OF THE COAL IN POLAND

TOTAL COSUMPTION OF (STEAM) HARD COAL 58 - 64 MLN T (prod. ~ 50 MLN T)
TOTAL CONSUMPTION OF LIGNITE 60 - 64 MLN T

EQUIVALENT OF > 58 BLN m3 OF NATURAL GAS

- PROFESSIONAL (PUBLIC) THERMAL PLANTS
  ELECTRICITY GENERATION AND HEAT PRODUCTION
  34 - 36 MLN T – HARD COAL
  60-64 MLN T – LIGNITE

- INDUSTRIAL AND NON-PROFESSIONAL HP PLANTS
  HEAT AND HOT WATER PRODUCTION
  FOR INDUSTRY AND CENTRAL HEATING SECTOR
  12 - 14 MLN T - HARD COAL
  0,1 MLN T - LIGNITE

- HOUSEHOLDS SECTOR AND SMALL CONSUMERS - HEAT AND H.WATER
  (WITHOUT CHS)
  11,5 – 12,5 MLN T - HARD COAL

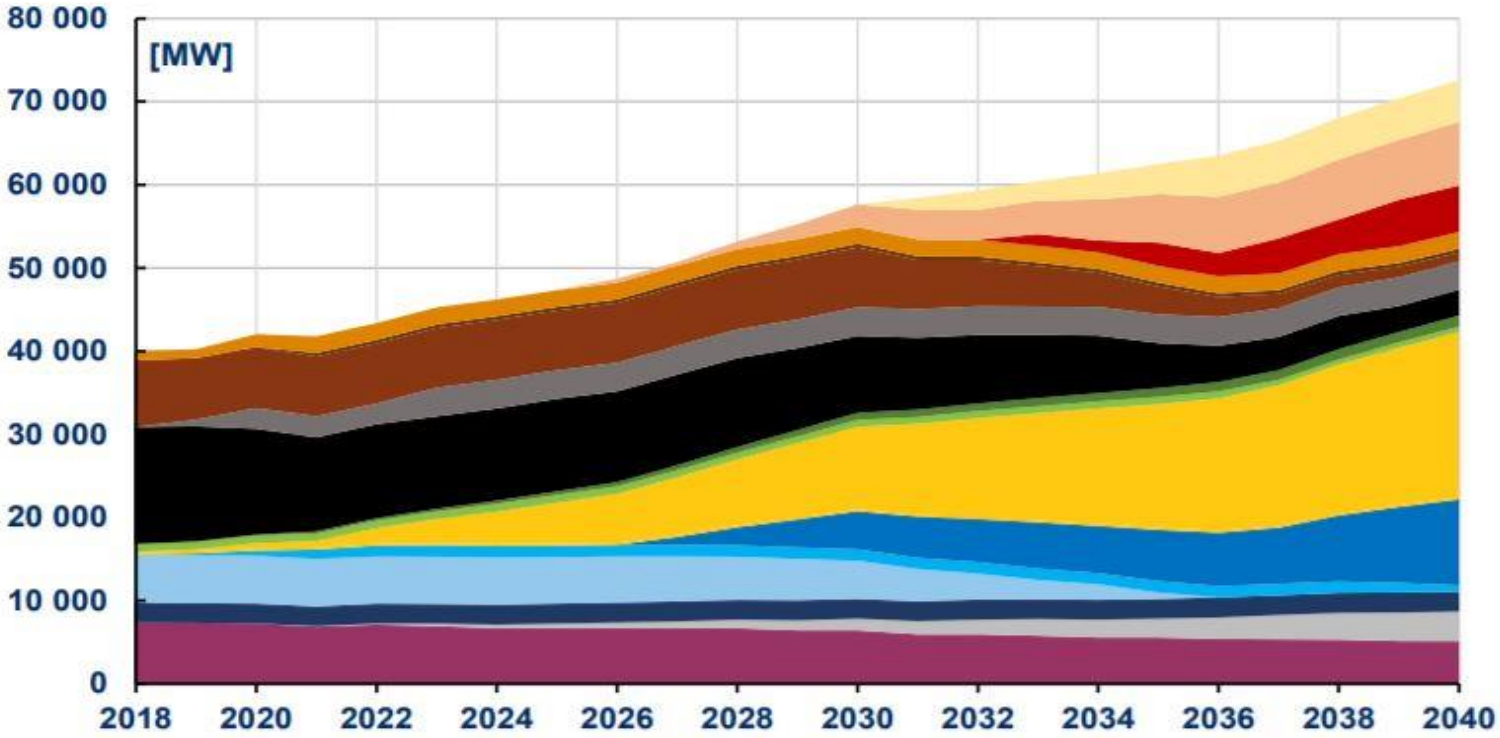
ENERGY POLICY FOR POLAND

up to
2040
(PEP 2040)

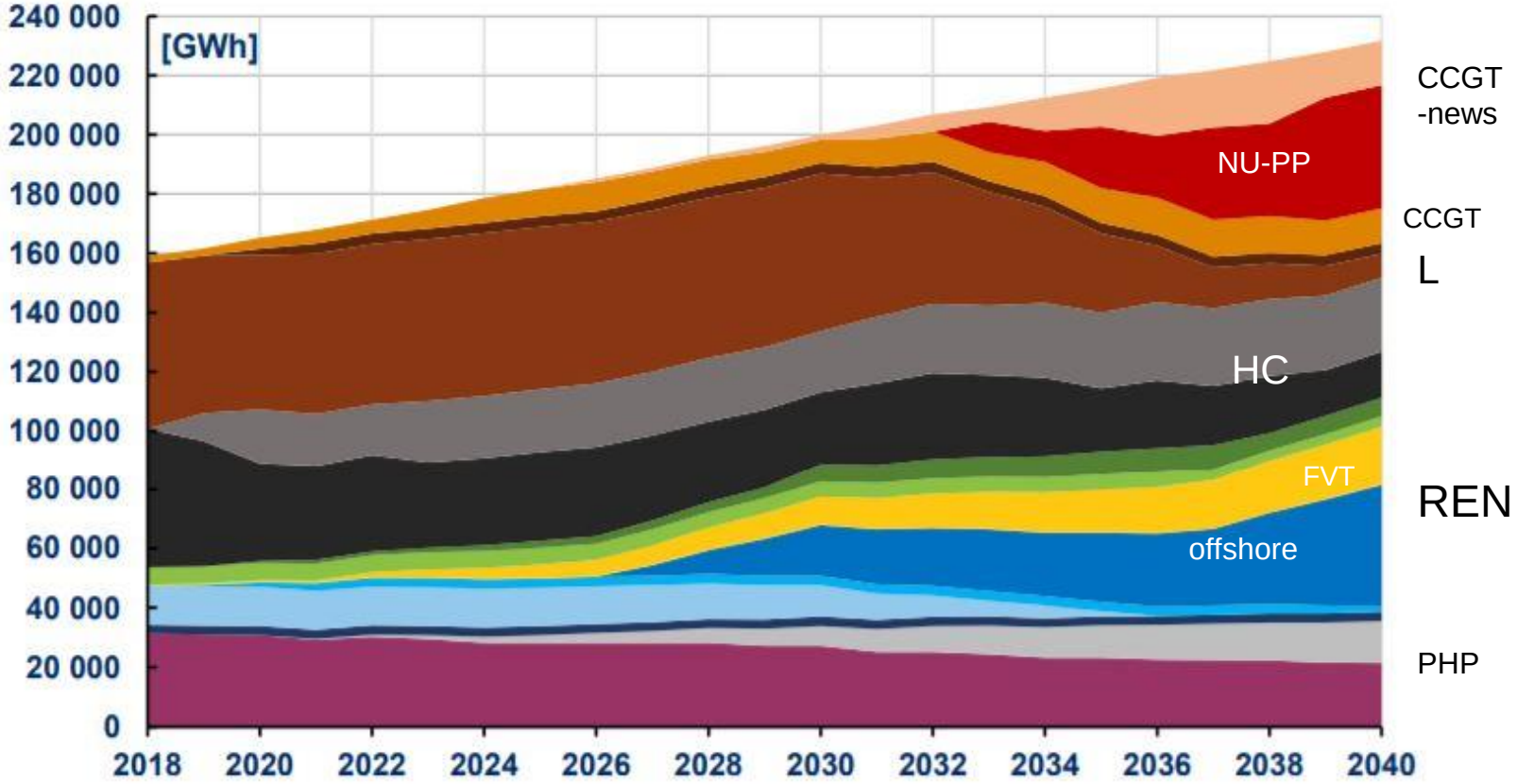
(project presented by Minister of Energy)

ELECTRICITY GENERATION
FORECAST OF INSTALLED CAPACITY IN POWER PLANTS TO 2040 [MW]

projekt PEP – w. 1.2



FORECAST OF ELECTRICITY PRODUCTION TO 2040 [GWh]



GOALS

ENERGETIC

SEFETY

COMPETITIVENESS AND ENERGY EFFICIENCY

REDUCTION OF THE POWER INDUSTRY IMPACT ON ENVIRONNEMENT

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INDICATORS

REDUCTION OF THE SHARE OF COAL IN ELECTRICITY PRODUCTION TO 60% IN 2030 (81%)

21% OF THE RENEWABLE IN FINAL ENERGY CONSUMPTION (8,3 %)

COMMISSIONING OF A NUCLEAR POWER PLANT IN 2033

30% REDUCTION of CO2 EMISSON, COMPARED TO 1990

23 % INCREASE IN ENERGY EFFICIENCY BY 2030

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MAIN PILLARS

1. OPTIMAL USE OF OWN ENERGY RESOURCES
2. DEVELOPMENT OF ELECTRICITY GENERATION AND NETWORK INFRASTRUCTURE
3. DIVERSIFICATION OF GAS AND OIL SUPPLIES AND DEVELOPMENT OF NETWORK INFRASTRUCTURE
4. DEVELOPMENT OF ENERGY MARKETS
5. NUCLEAR ENERGY INTRODUSING AND DEVELOPMENT (1,5 – 9 GW to 2043)
6. DEVELOPMENT OF RENEWABLE ENERGY SOURCES
7. DEVELOPMENT OF DISTRICT HEATING AND COGENERATION
8. IMPROVING THE ENERGY EFFICIENCY OF THE ECONOMY

THANK YOU

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