





## A nuclear vision with a solar boost

Critical analysis of the Hungarian NCEP from the sustanability's point of view

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## Unambitious and unbalanced plan for RE technologies

21% renewable energy target

Heat: solid biomass dominance

**Electricity**: solar PV dominance

Prohibited wind energy developments;

Unclear role of the flexible biogas technology.







## Heating & Cooling



### Biomass heat

130%

#### Geothermal heat

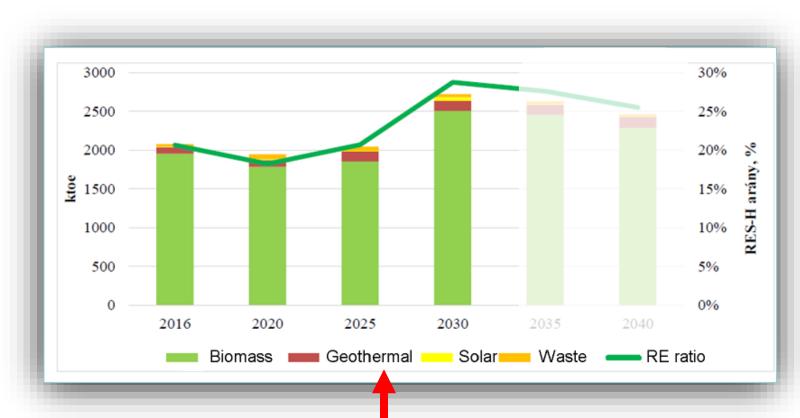
138%

## Solar heat

423%

#### Other ambient heat

567% in heat pump heat production



#### Missing ambient heat:

- excess heat
- air source
- water source





# Electricity production

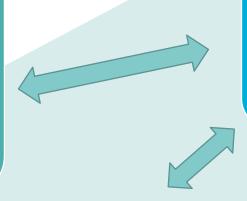
## Electricity sector by 2030



RENEWABLES: 21%

Solar boom (+5000 MW)
Wind under prohibition

Biomass in increase



Smart energy: slow development Community energy: questionmarks

New nuclear capacity (+2400  $MW_e$  + ~6000  $MW_{th}$ ) by 2030?



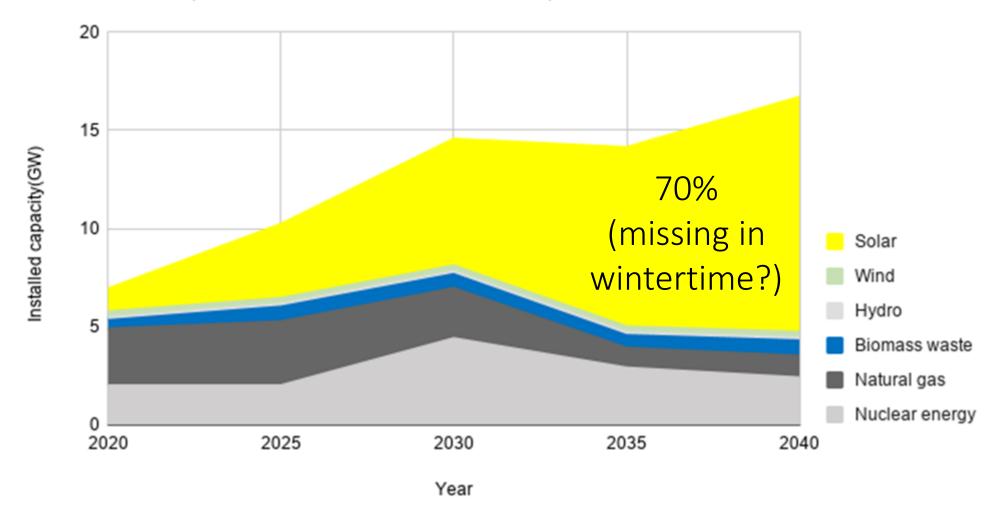
Decommissioning of lignite

 $-900 \, \mathrm{MW_e} \rightarrow \mathrm{gas} + \mathrm{waste}$ 

## Power production capacity – one-sided RE development

#### Evolution of the installed power capacity according to the Hungarian NECP

Selected sources (coal, oil and ambient heat not included)



## Some of the suggestions of the Energiaklub



#### IMPROVE the concept of national level "network of energy engineers"

→ network of environmental management centres with **multidisciplinary teams** 

#### LIFT THE BAN on wind energy developments

→ 2000-4000 MW new wind energy capacity by 2030

#### TRANSFORM the green premium scheme (METÁR)

→ focus on technology neutrality and cost efficiency

#### TAKE seriously the **SUPPORT of energy communities**

→ with creating an encouraging legal background

### Success stories – despite of the weak climate policy

#### Solar PV

- 39% increase in household-level solar PV in 2019
- 460 MW household-level solar PV (01. 2020.)
- all available: ~1500 MW PV capacity

#### Geothermal energy

- first geothermal <u>power plant</u> was launched in 2017 (3 MW<sub>e</sub> +7 MW<sub>th</sub>)
- the second largest geothermal-based <u>district</u> <u>heating system</u> of Europe under construction (224 MW<sub>th</sub>)

