



Just transition in Slovakia

Incentives and motivators

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Learn more: bankwatch.org



Lignite combustion will end in 2023

- Inefficient underground mining;
- approx. EUR 100 million annual subsidy in the prices of electricity;
- rising EU ETS prices;
- air pollution - very high SO_x and NO_x emissions
- threat of new mining field for local spa
- decrease of approx. 5% of Slovakia's GHG emissions
- **New vision for the region - local working groups since January 2018**



Lessons learnt

- **Connecting local, regional, national and EU levels**
- **Clear deadline for fossil fuel phase out helps**
- **Dedicating expert capacities** is crucial, i.e. Heating solutions;
- Calls for projects should include:
 - EU funding priorities / rules, such as: the Energy efficiency first principle; contribution to EU climate and energy targets
 - clear deadlines and further steps
- Pressure on „Quick wins“ does not bring diversity and quality



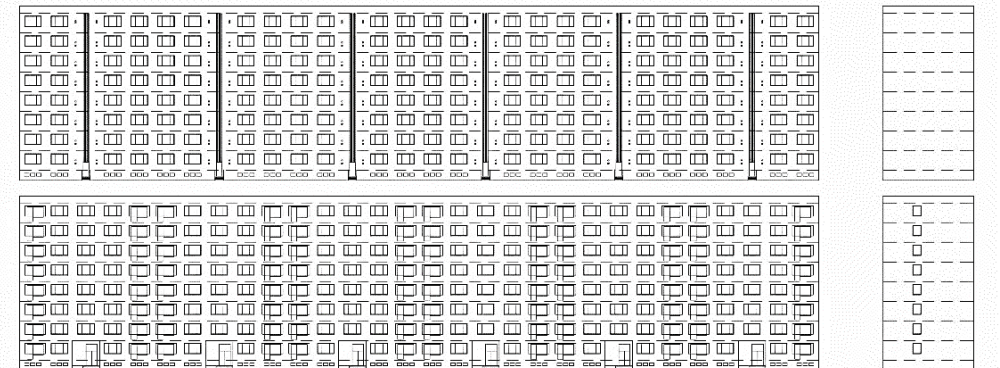
Incentives for more sustainable heating

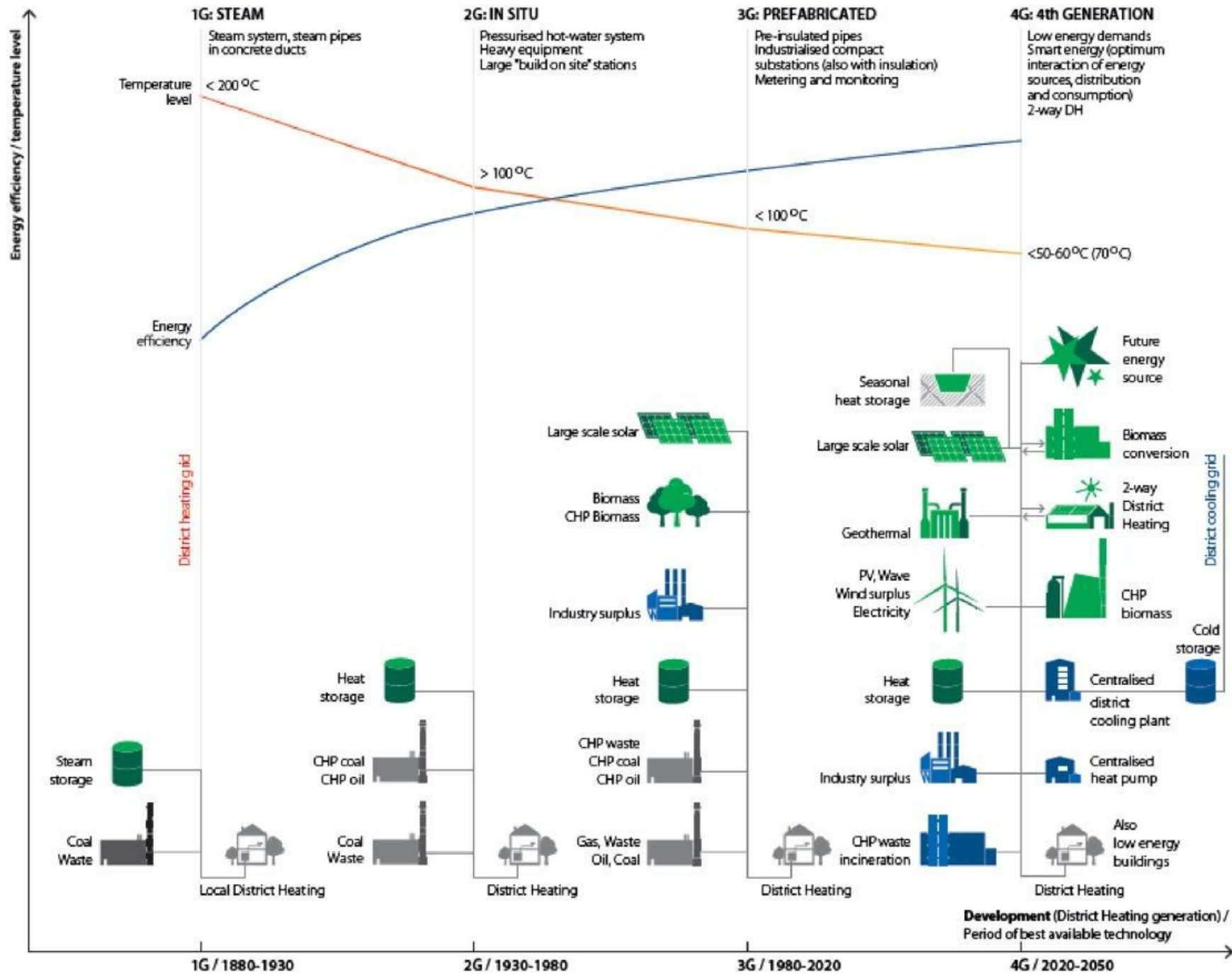
- Requesting proper EIA process:
 - cumulative impacts of fossil gas including methane leakages;
 - assessment of other EE and RES solutions;
- Memoranda of understanding ► Action Plan ► Ministry annually reporting:
 - ✓ reducing energy needs in buildings and distribution systems connected to the district heating;
 - ✓ increasing the share of energy from renewable sources to fully replace fossil gas by 2034;
 - ✓ the use of energy facilities owned by energy communities, citizens/prosumers and municipalities to increase energy efficiency.



Incentives for more sustainable heating

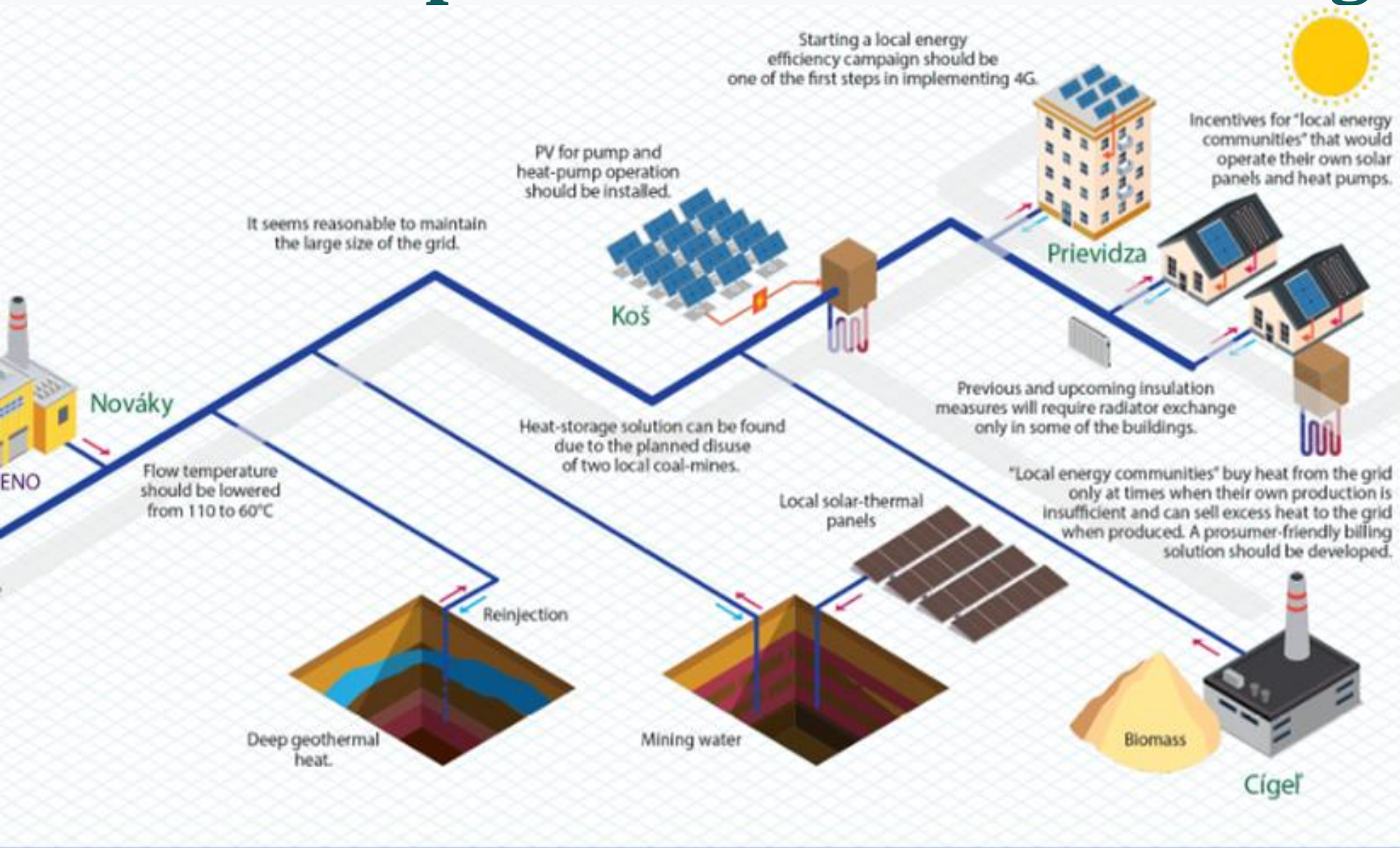
- Municipality decreases energy prices and participates in profit-making (51% share of the energy company; 49% coal mining company)
- Expert studies outlining more sustainable options:
 - ✓ Renovation of buildings - energy savings : 60% in apartment houses; 35% in public schools;
 - ✓ Modernisation of heating pipelines: additional approx. 10 % energy savings potential;
 - ✓ **Removing 12 km of heating infrastructure 12%-20% energy savings (confirmed already) = dividing the district heating into three smaller systems**





Source: 4GDH, Lund H. et al.

Our 2nd phase - 4G district heating



- low flow temperature (~60 °C)
- reduced energy demand
- several sources based on renewables
- seasonal and day-to-day storage (mines)
- power-to-heat (mining water)
- 2-way systems (prosumers, surplus heat)
- smart energy system
- future energy sources (f.e. surplus heat from hydrogen production)

Future milestones

- **Decreasing heat demand** (building renovation) - 60 % apartment houses; 30% schools;
- **connection of existing biomass plant the grid** - 2023 (company PTH during 1st phase)
- **deep geothermal energy** - until 2025 need to know if it is possible (permits, spa) then start planning
- **mining water use** - until 2025 (competence of HBP - source of 15 °C water + seasonal storage)
- **zoning plan** - finding possible areas for solar fields, alternatively storages
- **heat transport plan** - modernisation of distribution system, then continuously improving accordingly
- **heat supply, smart heat management and storage plan** - depends on other factors (until 2030)
- **dynamic heat production and demand development plan** - controlling and monitoring the process continuously

Activities to make our solution a reality

LOCALLY

1. Capacity building

- For all subregions in Slovakia: Regional sustainable energy centres (EUR 16 million in NECP already)

2. Business involvement

- Close cooperation with energy experts

3. Municipality involvement

- Capacity building
- Renovation of public buildings
- Territorial planning

4. Feasibility study

- JASPERS assessment

REGIONALLY

- Documents of development of region
- Territorial planning

NATIONALLY

- 2050 national climate neutrality model
- NECP
- TJTP / Action plan for Upper Nitra
- Prosumers´ legislation

INTERNATIONALLY

- Aalborg University students
- Just transition community

Thanks for your attention!

More information: <https://www.just-transition.info>
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