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# Geothermal energy in the EU Green Deal

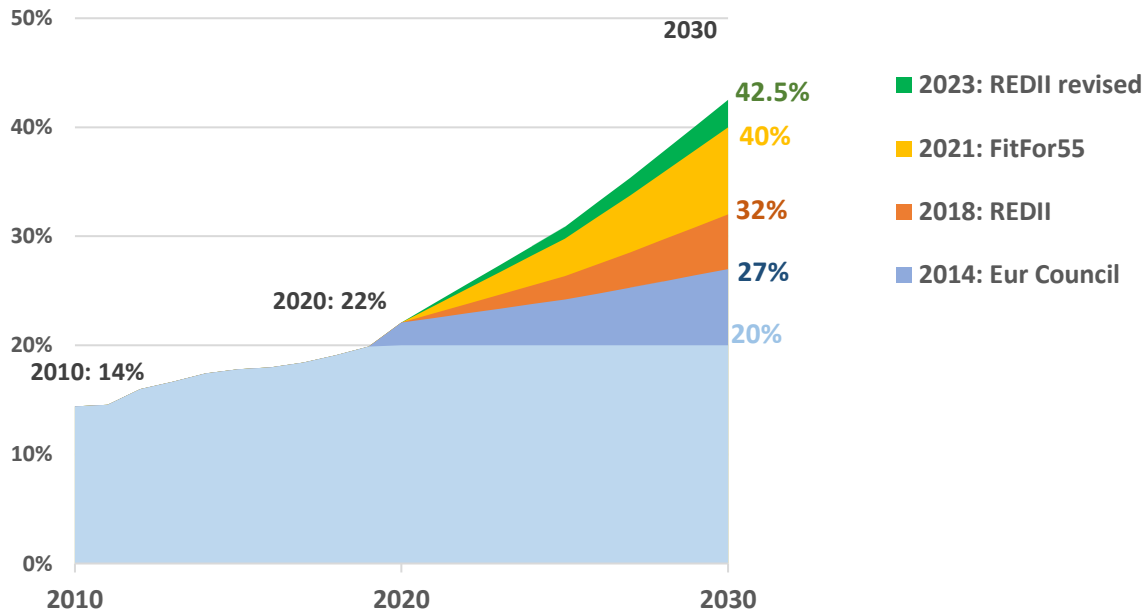
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# Renewable heating and cooling – key to EU energy transformation

- Half of all energy use in the EU is for heating and cooling
- More than 70% of that is still fossil
- Slow progress of RES-H&C
- Most RES-H&C remains traditional biomass
- Cost effective potential, direct benefits for citizens

# Revised Renewable Energy Directive (RED): new RES target for 2030

Evolution of RE targets for 2030



# EU policy: new framework, implementation challenge

- **REDII (2018)** introduced dedicated targets for RE heating and cooling
- **RED revision 2023:**
  - Increased and binding targets
  - Simpler permitting (incl. for large heat pumps)
  - Heat purchase agreements
  - Skills, training and certification
- **Draft NECPs** being assessed: to reflect new ambition

# EU policy: new framework, implementation challenge

- **Energy Efficiency Directive:**
  - Definition of efficient DHC: drive RES increase, incl. geothermal
  - Local energy planning requirement
- **Buildings and products legislation:**
  - Accelerate switch to renewables-based heating
- Upcoming **Heat pump Action Plan**
- **NZIA:** Support to value chains, permitting, skills

## Further work needed?

- **Implementation, best practices, assess potential and gaps**
- **Data availability, complex regulatory environment:**
  - Mapping of subsurface data (heat resources, geological data)
  - Varies between MS. Issue of availability / private ownership
  - Diverse regulatory landscape (mining codes, permitting)
- **Financing:**
  - Member States putting in place national schemes
  - This summer, EC approved under state aid rules a FR guarantee scheme



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# Thank you

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