



Celsius Summit 20221
Energy Democracy

Policy Perspective Workshop

24-11-2021

SECAP 2030

40% renewable energy



Required by national energy regulations

Energy Masterplan 2050

100% renewable energy

With a **strong political commitment**: in October 2017,
objective approved by an unanimous vote by
Eurometropole's Council

Voluntary strategy and plan

Schéma Directeur des Energies
100 % renouvelables en 2050

Other words in the cloud include: volontaire, stratégie, plan, route, mobilité, décarbonnée, Plan Climat, diagnostic, expérimentation, collectivité, exemplaire, fixer, les étapes, Caisse des dépôts, baisse, des consommations, avenir, durable, efficacité, stratégie, air, énergie, climat, sobriété, réseaux de distribution, territoire à énergie positive, mobilisation, intransecting, efficacité, innovation, solaire, biomasse, solidarité, urban-rural, énergies de récupération, horizon, volontariste, économie verte, projections, 2025-2030-2050, stratégique, Cit'Ergie, transversale, participation, citoyenne, ADEUS, maîtrise des besoins, énergies renouvelables, Plan Local d'Urbanisme, vision globale, Ademe, objectifs partagés et clarifiés, outil prospectif, performance climatique, mix énergétique, autonomie énergétique.

SECAP 2030

40% renewable energy



Energy Masterplan 2050

100% renewable energy

With a **strong political commitment**: in October 2017, objective approved by an unanimous vote by Eurometropole's Council

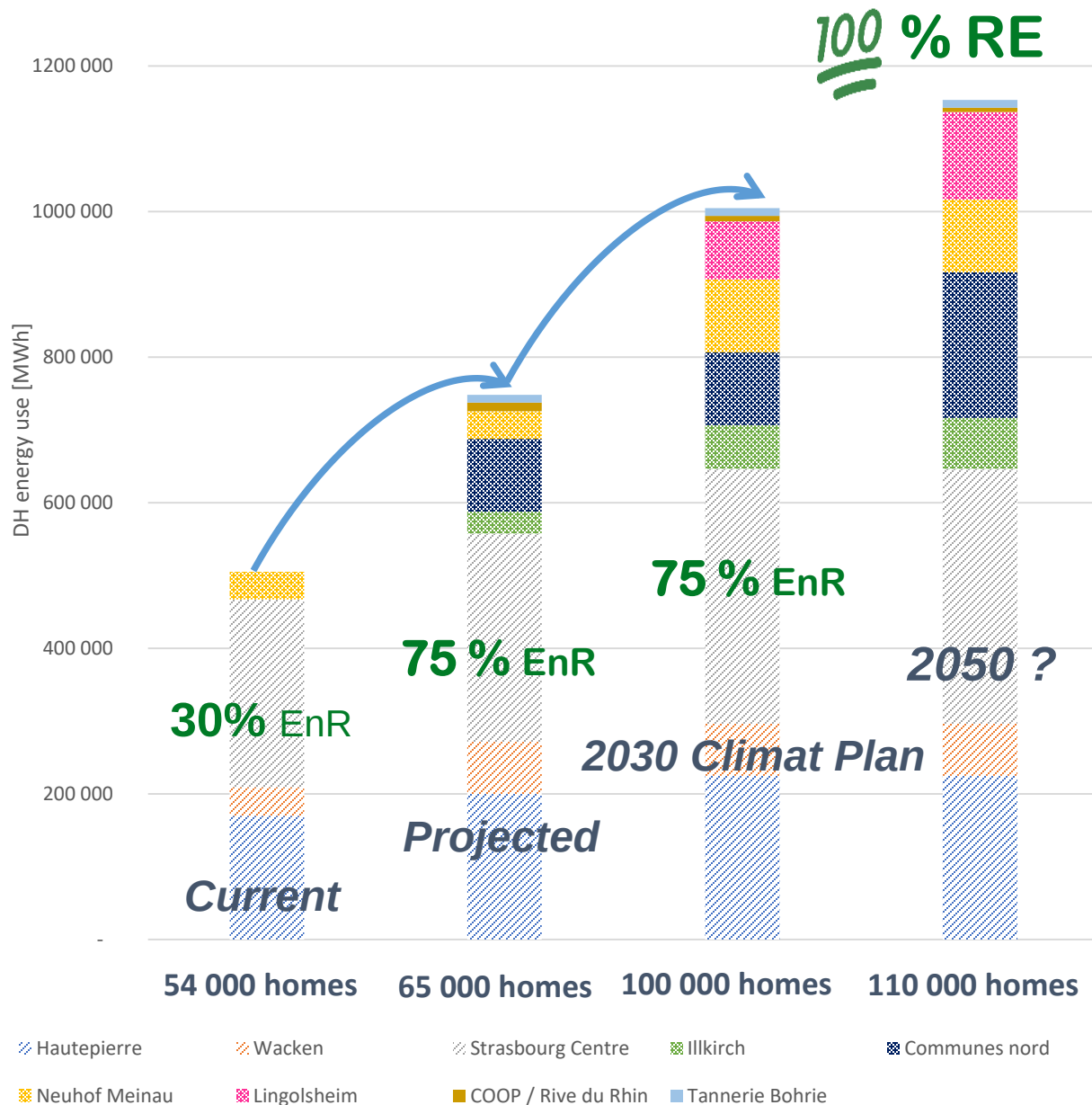


NEW 2021

Local Planning Regulations

- Renewable energy (heat + solar PV)

District Heating ambitions -> New policies in place 2021



Ambitions

100 000 homes at 100% renewable heat through DH

How (technical) ?

1. Expand existing DH
2. Create new DH networks
3. Reduce heat demand

How (policy/planning regs)?

1. Require DH connexion for new builds and renovations
2. Allow exceptions only if RE > DH performance
3. Require min RE heat even outside of DH zones

District Heating Development

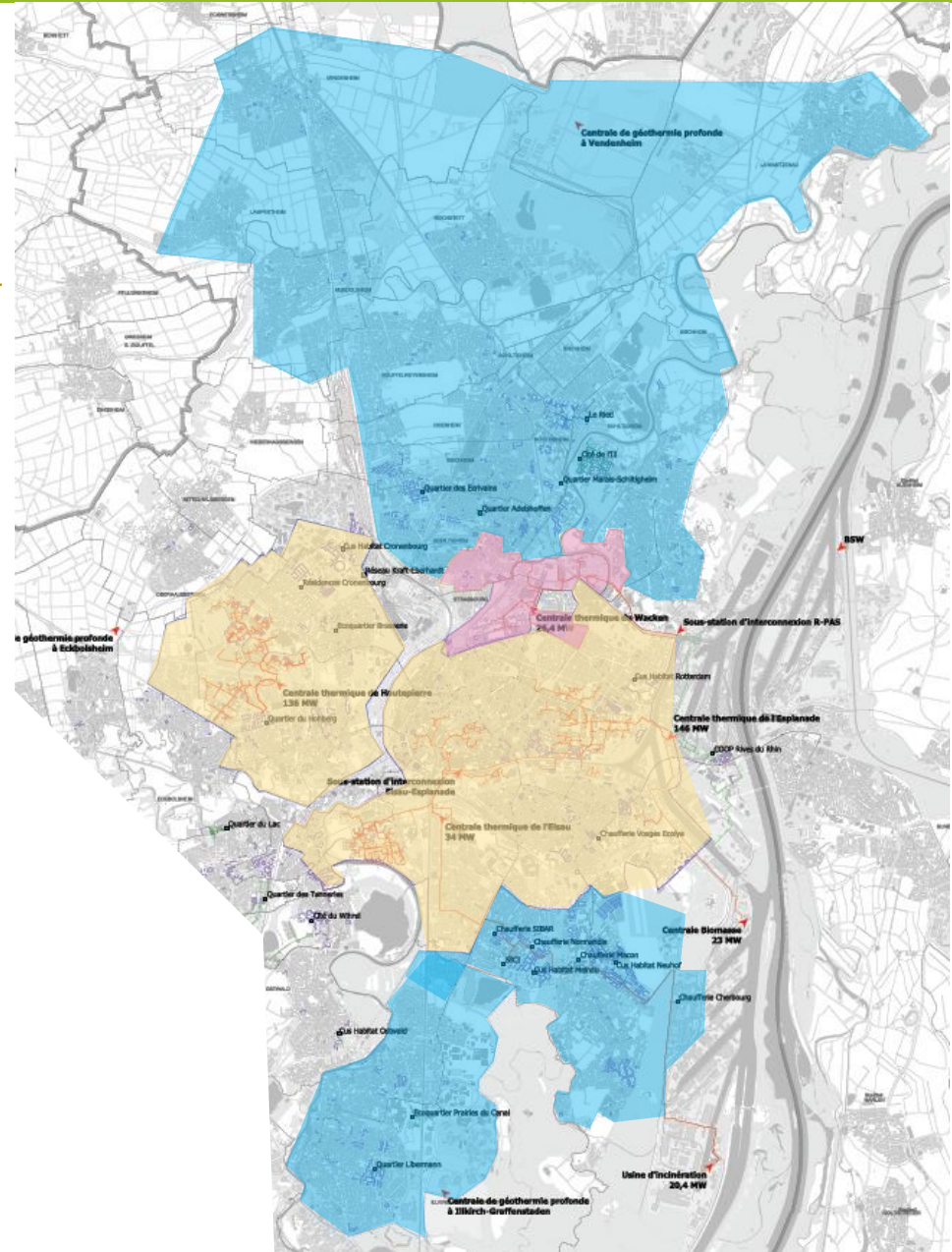
Technical challenges

1. Existing DH networks (dense urban areas):

- Modernise,
- Expand,
- Energy transition

2. New networks (peri-urban areas)

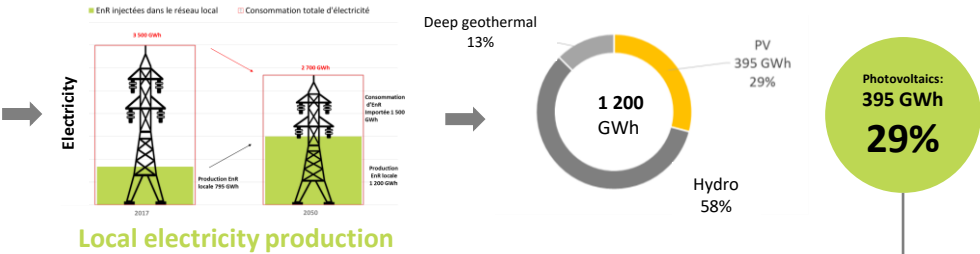
- Create high performing modern DH,
- Introduce district cooling (attractivity),
- Ensure cost competitiveness,
- Approve RE infrastructure



Strasbourg – Current Solar Energy Policy

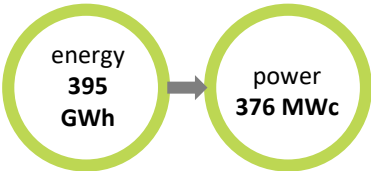
Primary objective: production of local renewable energy

2050 energy masterplan
100% renewables in 2050

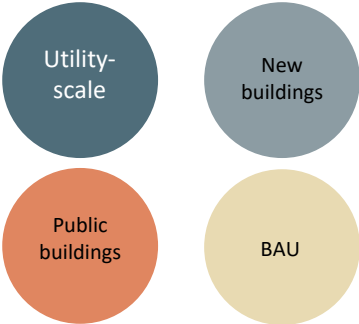


« L'autoconsommation doit être mise en avant pour réduire les risques éventuels de contrainte dans des conditions dégradées (aléas de perte d'un transfo de poste source, de plusieurs départ HTA) »

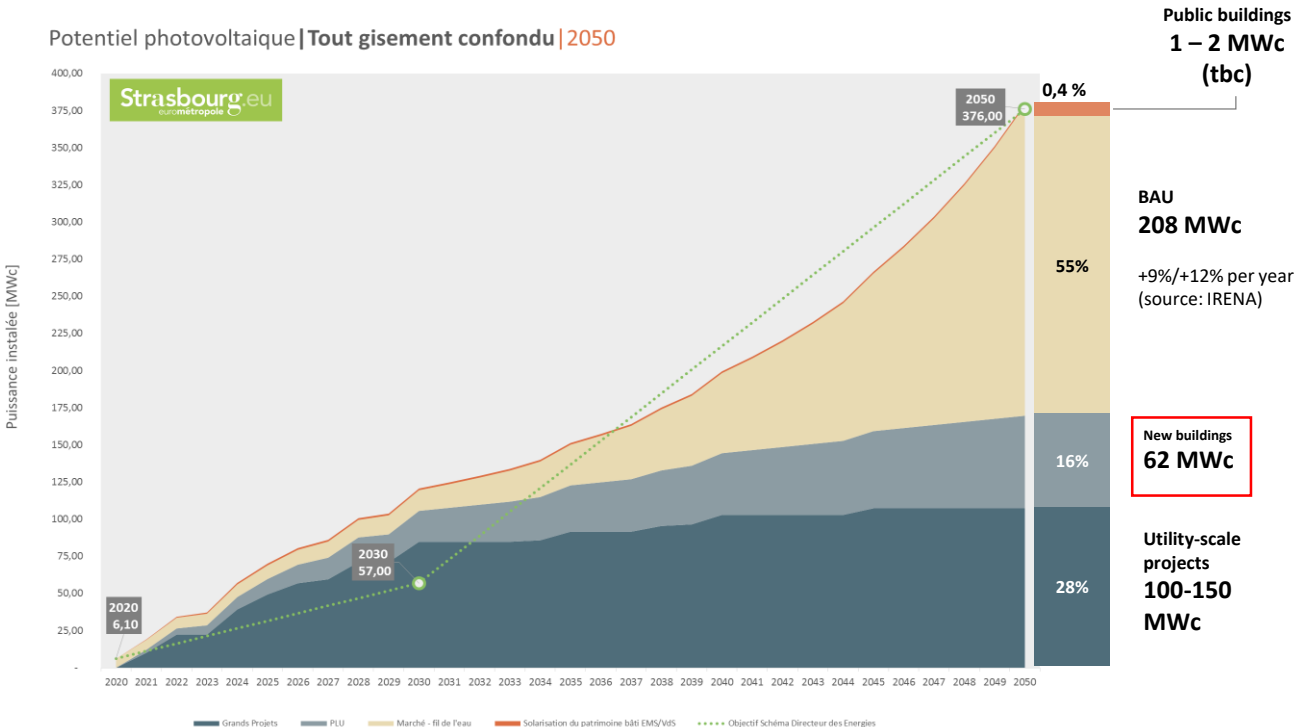
Solar Strategy 2050



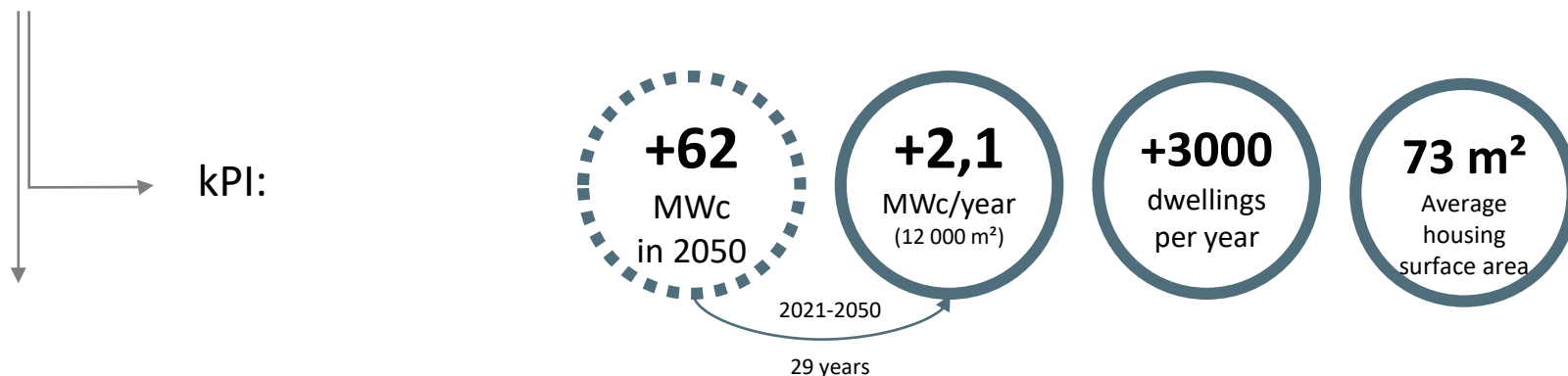
What kind of projects?



Potentiel photovoltaïque | Tout gisement confondu | 2050



New / refurbished buildings: **contribution to photovoltaic targets**



Layout principle: impose a new regulation in PLU (Local Urban Plan) = $\frac{\text{« X » power PV [Wp]}}{\text{Floor area [m}^2\text{]}}$

$$\begin{aligned} \text{« Solar obligation »} &= \frac{\text{Expected PV targets}}{\text{Available area}} \\ &= \frac{2,1 \cdot 10^6 \text{ Wp}}{3000 \cdot 73} \\ &= 9,58 \text{ Wp/m}^2 \text{ SP} \approx \mathbf{10 \text{ Wp/m}^2} \end{aligned}$$

→ 0,06 m² of solar pannel per floor m²

→ 6 m² of solar pannels perr 100 m² floor

Ambitions + Regulations and Rules = **Results ?**

How democratic is this action plan ?