COP29 Baku Azerbaijan

UNFCCC COP29 SIDE EVENT Blue Zone:
20/11 2024 11:30-13:00, SE Room 2

Local Climate Solutions towards 100% Renewables - Gender Matters

100 % Renewables in Europe & Why Nuclear is NOT a Solution

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INFORSE-Europe

Transition to 100% Renewable Globally

- All countries can move to 100% renewable within 15 -25 years.
- Hundreds of scientific studies have proven that 100% renewable energy systems can be achieved on global, regional, and national levels by or before 2050. Some examples:
  - A 100% Renewable Energy System is Cheaper than the Current Global Energy Supply Zero GHG Emissions from Power, Heat, Transport and Desalination Sectors is possible before 2050, study by prof. Christian Breyer, Lappeenranta University of Technology, Finland.
  - Achieving the paris climate agreement goals: Global and regional 100% renewable energy scenarios with non-energy GHG pathways for +1.5°C and +2°C, Ass. Prof. Sven Teske, University of Technology Sidney.

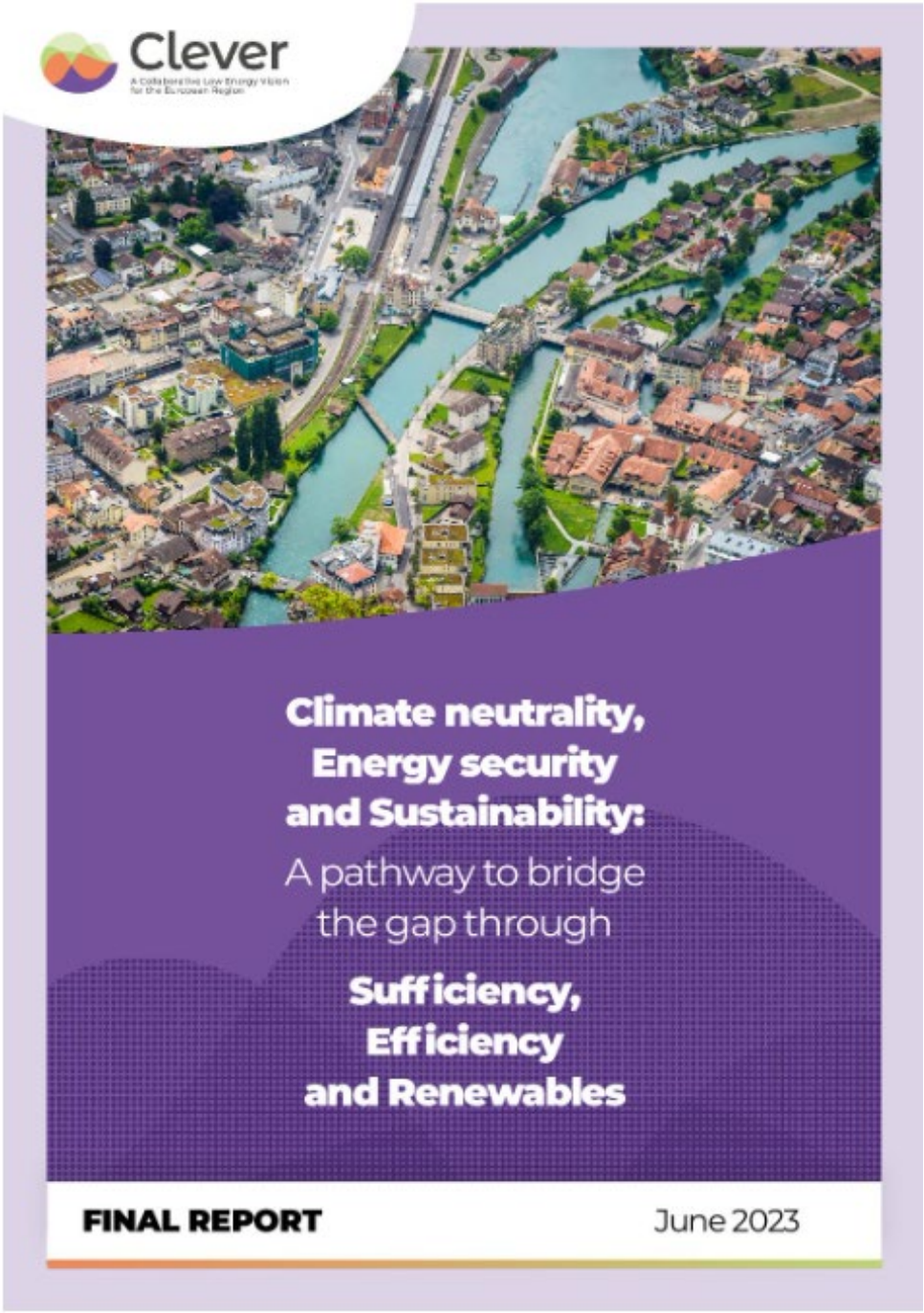
INFORSE
International Network for Sustainable Energy

Paris Compatible 100% renewables scenario for EU

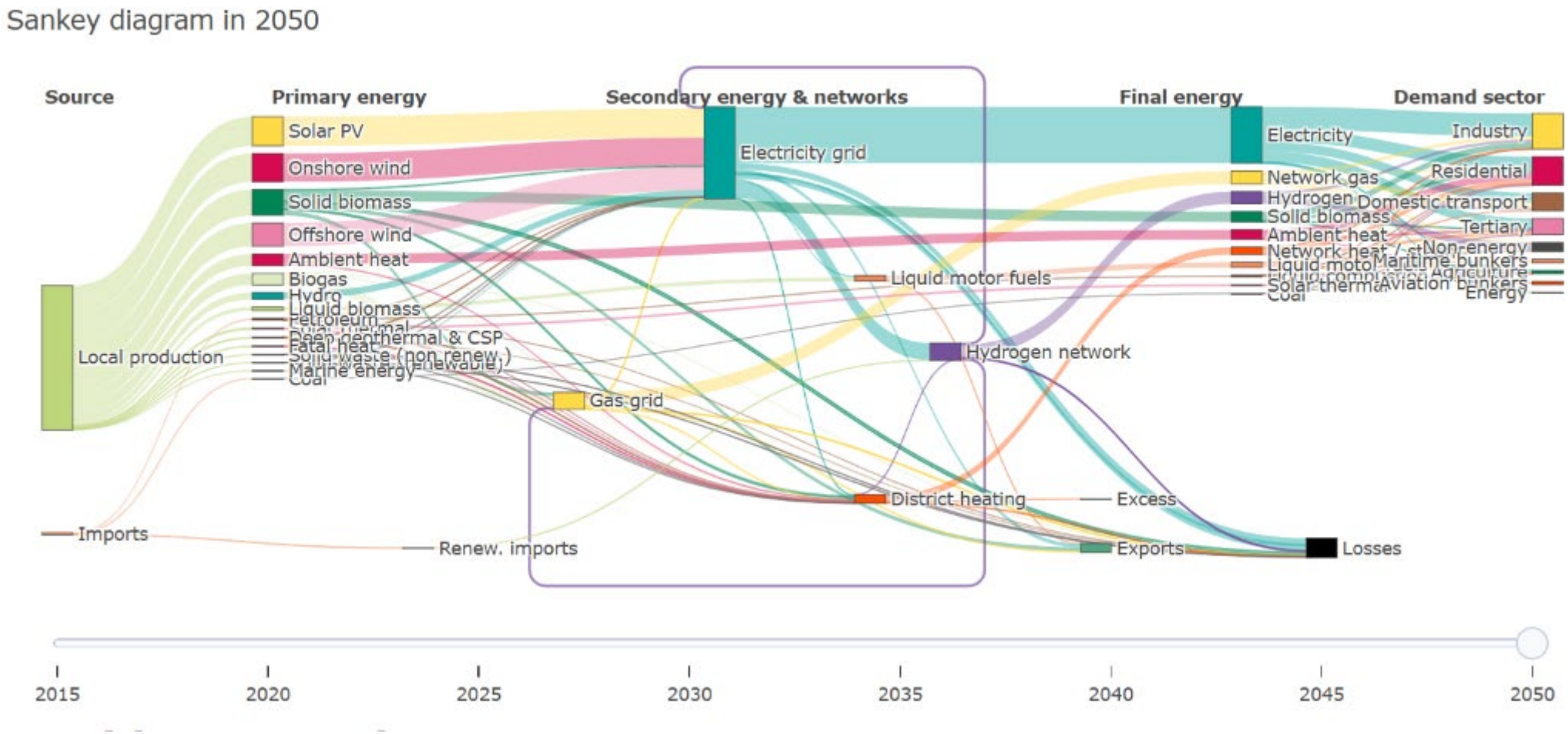
- Strong energy savings, development of renewables to 100% by 2040 in EU
- 40% faster renewable eneergy development than today, require stronger public participation
- Cut EU energy consumption by half 2020-2040 with energy savings, electric cars, electrification and sufficiency
- Reduction af CO_2 without CCS, small hydrogen sector
- Large investements needed, but the transition pays back with at least 40% extra earnings compared in total until 2040, compared with business as usual. Even better economy if fossil fuel prices go up.
- Extra benefits with edd pollution (less particles etc.), security of supply, adding up to an estimated value of 1000 billion until 2040.

Clever Energy Scenario

- Developed by 25 organisations in 20 countries, including INFORSE-Europe and coordinated by negaWatt in France
- Strong focus on sufficiency/sustainable lifestyles, combined with transition to renewable energy and energy efficiency



Clever Energy Scenario – EU27



Measures and infrastructures enabling European citizens to live less energy- and travel-intensive lifestyles

Clever

	Infrastructures & services	Legal framework & regulation
Less travel-intensive lifestyles 	**Spatial planning** allowing proximity to services → *15 min city*	Financial support to **remote working** associated to legal insurance **Frequent flyer levy**
Modal shift  	**Collective transports** development → *local to EU-wide train networks (TEN-T)* **Cycling infrastructure** → *strong city networks to EU cycling lines*	**Accessibility of collective modes** → *fair tariffs* Fiscal policies and **regulation on unsustainable modes** → *flight bans if <5h train alternative*
Lighter, shared and high-occupancy electric vehicles 	Dedicated **car-pooling and car-sharing infrastructures** → *HOV lines, tolls, specific parking slots with charging points, adapted services, apps*	**Promoting lighter and electric cars** → *bonus/penalty system offering incentives and purchase taxes, indexed to LCA (energy & materials consumption and CO2 emissions)*

100% Renewables for Denmark - 2040

- Based on official plans for renewables in 2030: 100% RE in electricity, ~90% in heating
- Transition to continue in transport, industry, remaining heating
- Energy efficiency and electrification cuts demand to ~half
- Flexibility in demand for heating with heat pump and heat storages, moderate hydrogen production and other flexible demand, combined with biogas peak power plants and international power lines can give a stable energy system with >90% power from windpower and solar
- Proved with analysis with EnergyPlan and other modelling tools, hour by hour analysis for a year

- Development by Centre for Alternative Technology in Wales and others
- Showing how Britain can transition to 100% renewable energy and climate neutrality
- Analysing renewable energy development, energy efficiency, land use in a climate neutral Britain, diets and more
- Proposing actions for the transition

100% renewables means NO nuclear power

- Nuclear power is a very slow climate action, a reactor takes 8-18 years to build. Solar and windpower can be installed in 2 months – 2 years, the longest for off-shore windpower. (on top of this comes time to get planning permission, which is lengthy for nuclear power)
- Nuclear power is 2-5 times as expensive as solar and windpower, also when costs for compensation of varying demands and supply are included.
- Nuclear waste can be used in the circular economy, and the waste problem is not fully solved.
- Nuclear power is risky and lead to large accidents with gigantic costs for the society, costs not paid by the nuclear power companies. Do we need another Fukishima or should we move away from nuclear?

Let us work together for 100% Renewables

- INFORSE and menbers have contributed to almost 20 scenarios, strategies etc. for 100% renewable energy
- Lately we also covered developing countries as Kenya and Uganda
- We will be happy to cooperate further on the transition to 100% renewable energy – in all countries, where partners are interested.

Thank You

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More: www.inforse.org/cop29.php