

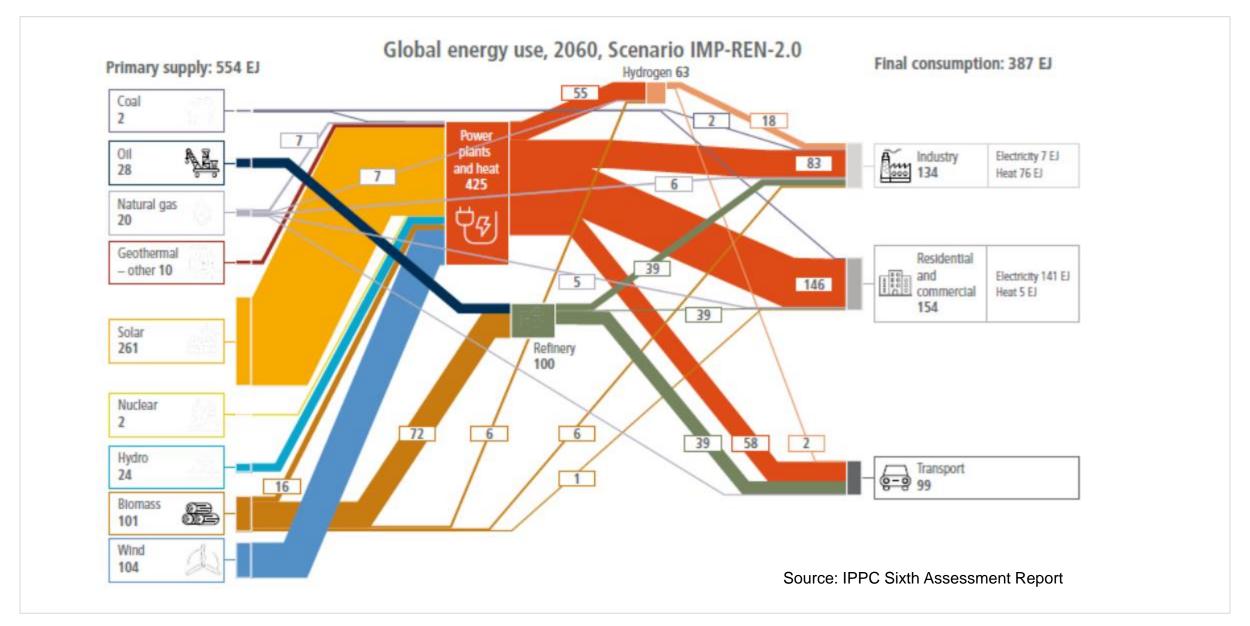
Cities - driving electrification and decarbonisation

Vida Rozite

4 October, UNFCC Fourth Global Dialogue Sharm el-Sheikh mitigation ambition and work programme

Towards an electrified future





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Towards a more affordable and fairer energy system



Strategies for Affordable and Fair Clean Energy Transitions

World Energy Outlook Special Report

Report - May 2024



- Many clean energy technologies are already more cost competitive over their lifespans than those reliant on conventional fuels
- The lower operating costs of electric transport, efficient cooling, insulated buildings will bring savings to people and businesses
- Governments worldwide collectively spent around USD 620 billion in 2023 subsidising the use of fossil fuels
- Governments worldwide collectively spent USD 70 billion on support for consumer-facing clean energy investments
- Realising the gains of clean energy transitions hinges on unlocking higher levels of upfront investment
- The quicker the move on clean energy transitions, the more cost effective it is for governments, businesses and households

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Electrification and net zero tech – hurdles but many opportunities



Costs

Upfront cost of technologies

Cost of electricity vs cost of other fuels

Access to finance

Risk of inequity

Need for coordinated action across multiple fronts in short time frames Lack of data and capacity

Silos and misaligned planning processes

Infrastructure constraints

Time-lag from policy to impact

Supply chain

Access to technologies

Access to service providers

Access to circular solutions

Opportunities

Electric public transport

Energy communities

Bulk procurement

Energy as a service

Solar home systems

Digitalisation & data

And many more...

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How cities can help drive change in energy systems



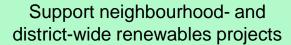
Objective

Encourage local renewables deployment and use

Support smart energy efficiency and electrification

Enable people-centred and inclusive approaches

Possible actions



Support community and municipal clean energy procurement programmes

EV charging infrastructure, provisions for flexibility

City-level building energy codes, renovation, building flexibility

Low-emissions mobility including public transport

Foster public participation and consultation

Support clean energy solutions targeted at disadvantaged groups

Support energy communities or district-level initiatives

Objective

Accelerate the development and deployment of new power infrastructure

Possible actions

Simplify local permit rules, municipal procurement policies, zoning ordinances and other bylaws

Leverage roof surfaces of public buildings for solar installations

Support the implementation of solar

Develop resilient power strategies

projects with battery storage

Implement nature-based solutions, such as green corridors

Implement smart and sustainable urban planning Map city-level renewable and energy efficiency potential

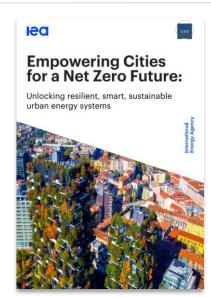
Identify optimal siting of infrastructure and circular solutions

Land use planning

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Inspiring policies and solutions are being deployed around the world





Empowering Urban Energy Transitions
Smart cities and smart grids

- India public- private partnership for 10000 electric buses in cities with limited public transport
- Drammen in Norway uses a heat pump to provide district heating for 60 00 inhabitants saving EUR 2 million and 1.5 million tonnes of CO₂ a year
- Solar communities in Rio de Janeiro favelas lowering bills and improving access to services
- Milan "All you can share" mobility system removing 8-15 cars from roads per shared vehicle and creating USD 2.2 million in revenue to improve services
- Jakarta has committed to electrifying 100% of its <u>Transjakarta</u> bus fleet by 2030

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