



Oslo

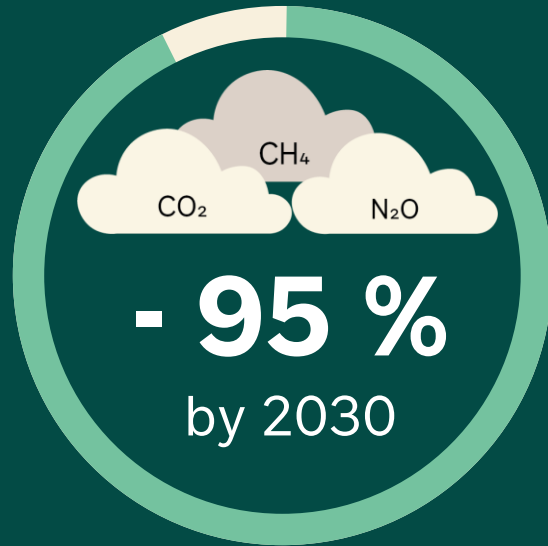
# Electrification of heavy duty transport and construction

Implications for local energy  
demand

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# Climate strategy



## Direct emissions

Oslo's greenhouse gas emissions in 2030 will be reduced by 95 per cent compared with 2009, and by 52 per cent by 2023



## Climate resilience

Oslo's capacity to withstand climate change will be strengthened towards 2030, and the city will be developed so that it is prepared for the changes projected by 2100



## Energy

Oslo's total energy consumption in 2030 will be reduced by 10 per cent compared with 2009



## Forests and land use

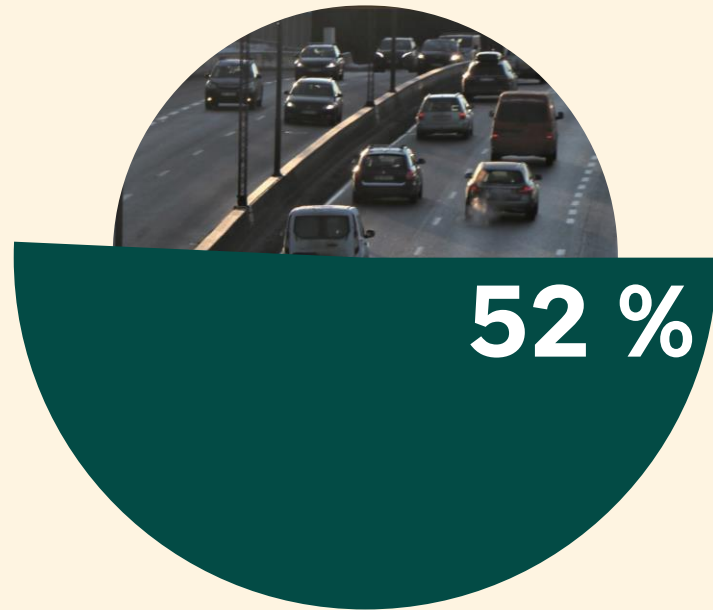
Oslo's natural environment will be managed in such a way that natural carbon storage in vegetation and soil are protected and the greenhouse gas removal in forests and other vegetation increase by 2030



## Indirect emissions

Oslo's contribution to greenhouse gas emissions generated outside the municipality will be substantially lower in 2030 than in 2020

# Key emissions sectors



**Mobility**



**Waste  
incineration**

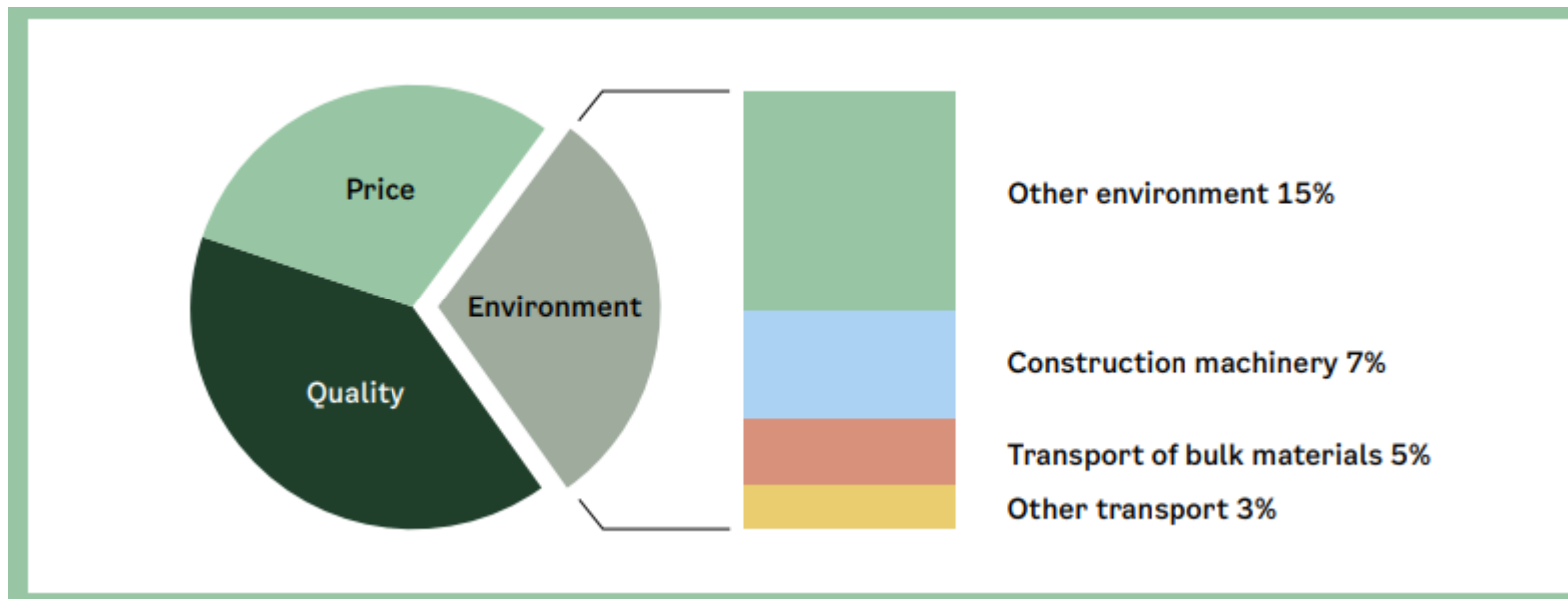


**Other mobile  
combustion**



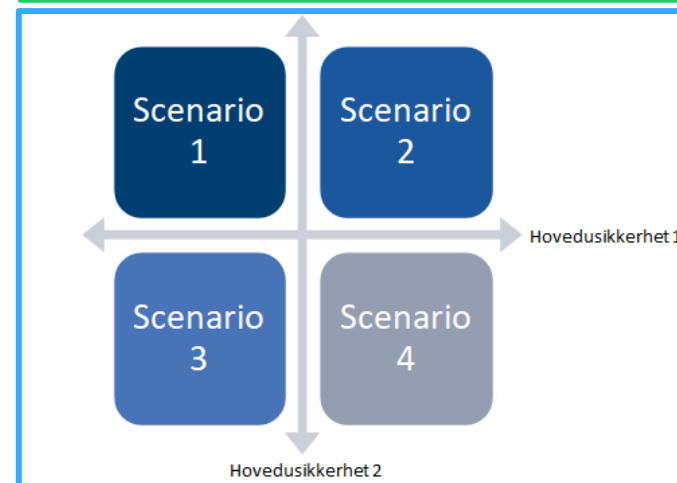
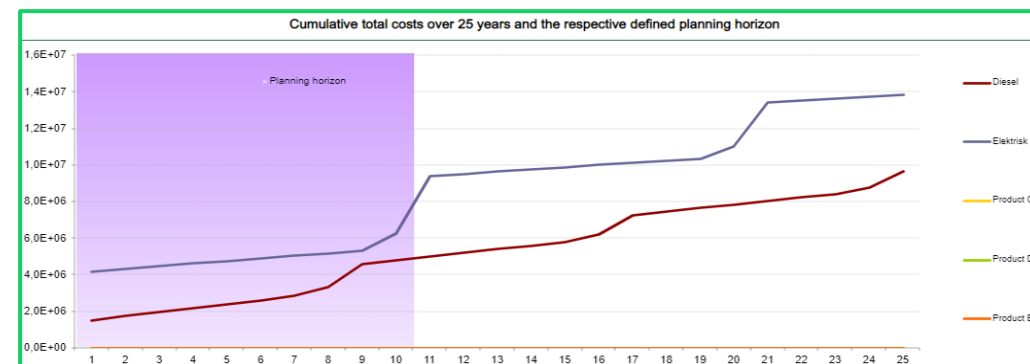
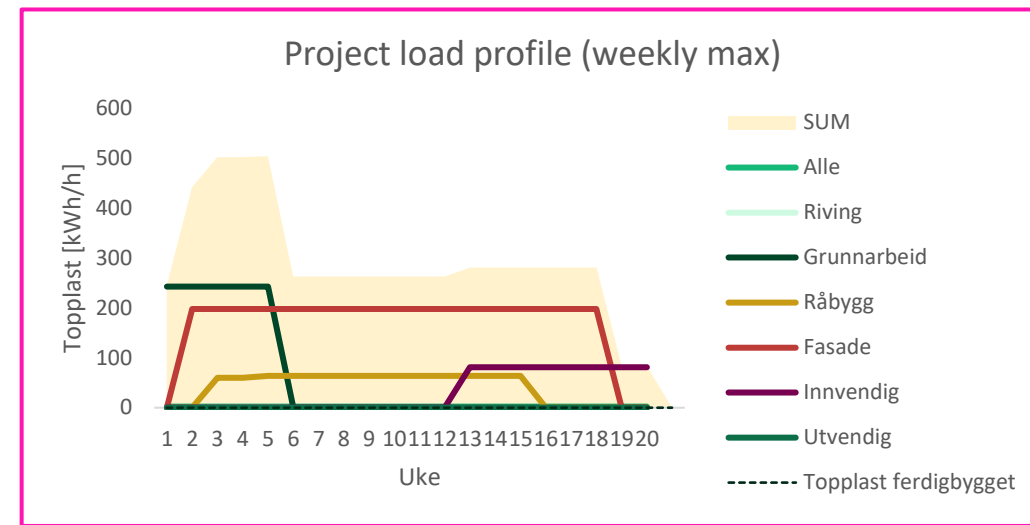
# A procurement strategy that drives innovation

- Oslo procures goods, services and works for NOK 30 billion annually
- Invests for NOK 11 billion – 400 contract notices – 550 000 invoices
- All planned procurement shall be based on the goal of becoming a zero-emission city
- Premium on low/zero emission solutions – use Life Cycle Analysis



# Impact assessment

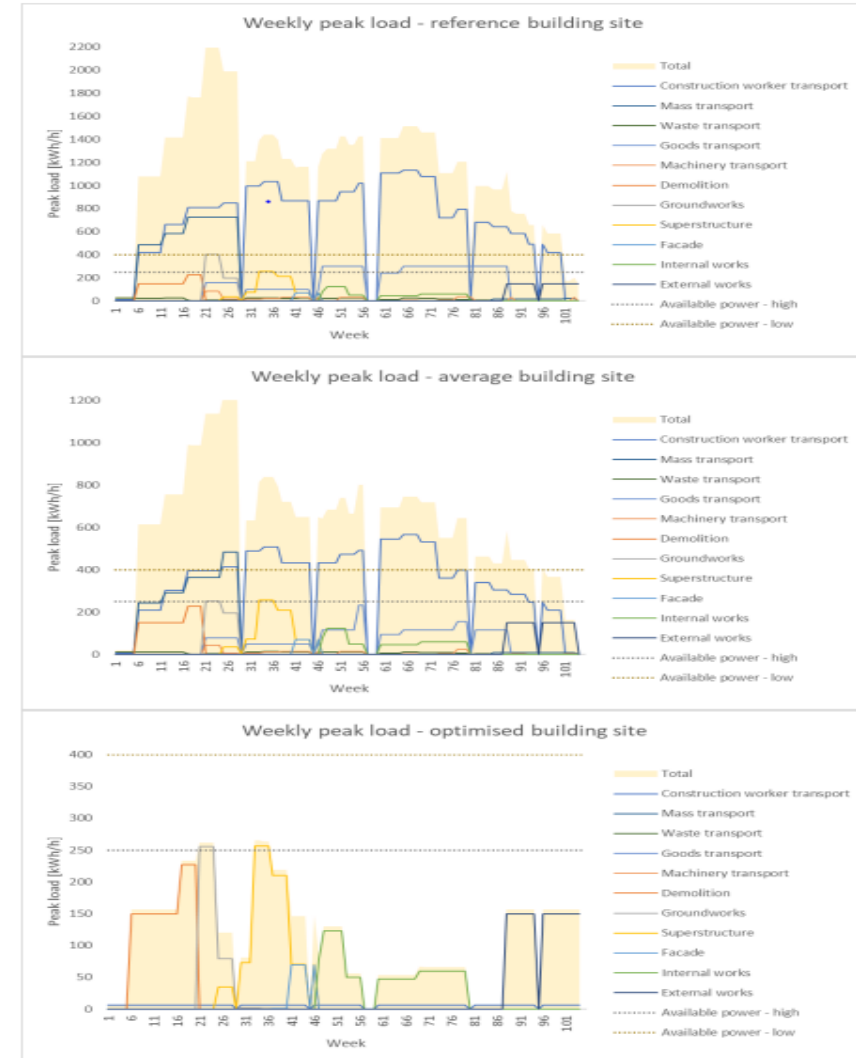
- ▶ Energy use profiles from initial Zemcons project portfolio
- ▶ LCC – systems analyses and cost assessments based on market surveys
- ▶ Expected future market development, cost and availability, enabling policy framework
- ▶ Scenarios towards 2025 & 2030



Source: Sintef

# Key findings

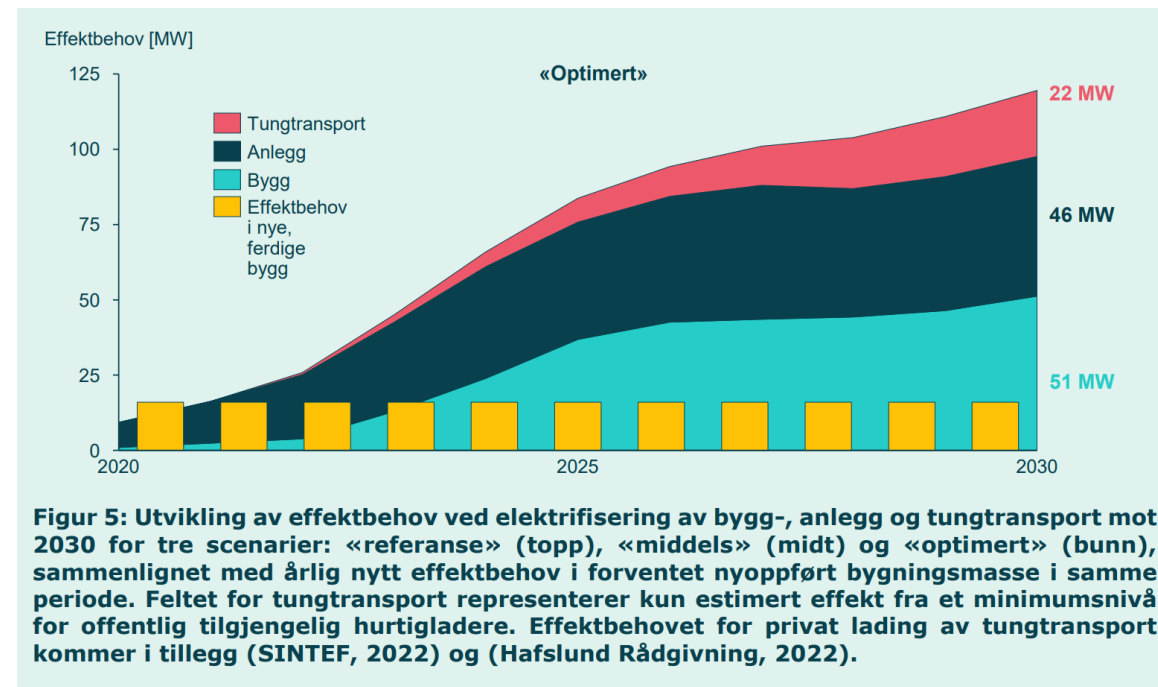
- ▶ Strong business case towards 2030
  - Additional costs only in the pessimistic scenario with high electricity prices and low carbon tax
- ▶ Limitations in the electricity grid is a key risk
- ▶ Energy planning on site can reduce grid load
  - Explore energy flexibility, such as district heating and mobile battery systems



Source: Sintef

# Grid load increase

- ▶ Just replacing all ICE-based machinery and trucks increase electricity demand more than what is compatible with the energy infrastructure
- ▶ In the optimized scenario, exploring all options to limit power demand, Oslo's grid load still increase significantly



Source: Hafslund rådgivning

14.12.2022

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# Response

- ▶ Establish necessary charging infrastructure
  - depot charging and public available fast chargers for HDV
- ▶ Provide targeted financial support
  - for solutions that increase flexibility in energy supply
- ▶ Gather more knowledge!
  - data, analyses and assessments of local power demand and supply options

## Climate subsidy

The infographic is a vertical list of four subsidy programs, each with an icon, a title, a description, and a plus sign in a circle. The background is light blue.

- The solar subsidy**  
Receive grants for advice, purchase and installation of solar cells in housing associations, condominiums and commercial buildings.  
Housing associations and condominiums Companies
- Subsidy for biogas stations**  
An increasingly large proportion of Oslo and Norway's heavy transport runs on biogas. You can now get grants to establish biogas stations in Oslo.  
Companies
- Subsidy for mobile charging stations for construction sites**  
Get support for the purchase or hire of mobile charging stations for building and construction work.  
Companies
- Publicly available fast charging for heavy vehicles**  
Get support for up to 80 per cent of the costs of establishing publicly accessible charging points for heavy vehicles.  
Companies

Source: [Klimatilskudd.no](https://www.klimatilskudd.no)





Oslo

**Thank you!**

