Ambitious Climate and Energy Policy
*The case of Oslo municipality*

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Green Capital of Europe

• Awarded each year to an European city with more than a 100,000 citizens

• **2017: 14 candidates applied**, among them: Ghent (Belgium), Lahti (Finland), Lisbon (Portugal) and Tallinn (Estonia)

• Criteria: Climate policy, air quality, green innovation, public transport, biodiversity, water quality, outdoor life

• **Oslo ranked highest in 8 out of 12 categories**
Criteria

• Local contribution to fighting global climate change (Oslo scores best)
• Transport (Oslo scores best)
• Green lungs in the city (Lahti number 1. Oslo number two)
• Nature and biodiversity (Oslo scores best)
• Air quality (Oslo scores best)
• Noise pollution (Oslo scores best)
• Waste production and treatment (Oslo scorer best)
• Water usage (Lahti number 1. Oslo number six)
• Handling of waste waters (Lahti number one. Oslo number seven)
• Environmental innovation and sustainable workplaces (Oslo scorer best)
• Energy performance (Oslo scores best)
• Local authorities' environmental management (Gent number one. Oslo number two)
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Why Oslo in 2019?

**Goal of:** 836,000 ton reduction in emissions by 2020

**Achievements:**
- World EV-capital: 30% of all new cars bought are electric.
- Recycling – connected to transport
- 90% of Oslo’s citizens live less than 300m from frequent public transport
- 98% of citizens live less than 300m from green lungs.
Even a Green Capital has its problems...

- **Main issue: Air pollution**
  - 185 citizens suffer a premature death due to air pollution annually
  - 1753 healthy years of life lost by Oslo’s population annually

- **Worst during winter time:**
  1. Wood heating of houses
  2. Use of studded tires (creates fine-grained airborne particles)
  3. Higher emissions from cars due to colder weather

- **And, 2/3s of CO2-emissions from the transport sector**
Solutions: Escaping the diesel reality

• **Environmental speed limit**
  - Higher speeds create more pollution, both from road wear and tear, as well as from fuel-use.

• **Subject of debate:**
  - Pilot project from 2004-2013
  - Can speed limits be adjusted due to environmental concerns?
  - Law changed in 2014, so that protection of «public interest» in the law now includes environmental considerations
Temporary prohibition – Diesel cars

• On days with cold weather and little wind
• Fines for violations
• Aided by the road pricing system as well as local law enforcement.
• Exceptions for necessary transport, like emergency services
Road pricing – differentiation by pollution

- Increasing fees related to type of vehicle, as well as the type of fuel
  - Free for EVs
  - Standard price for gasoline-driven personal cars
  - Additional fees for diesel-driven vehicles, heavy transport
  - Rush hour most expensive
  - Hot debate
Bicycles

• Oslo’s bicycle strategy: 16% of all transport by 2025
• Current authorities: 25% of all transport by 2025.
• From 2015 to 2016, the growth in bicycle traffic in Oslo were among the top 5 cities in the world – growing by 18%. In Norway as a whole, growth was at 7%.
  - Despite weather conditions. Increase in all-year use.
• Dedicated bicycle lanes or roads.
• Statistics measured by 43 counters around the city – by EcoCounter
• Worth mentioning: City bike system
• Electric bikes, Segway, skateboards
Shore power – Oslo Harbor

• Oslo harbor not big: But, cruise ships docked in Oslo harbor emit as much as 13 000 cars every day
• Harbors are owned by municipalities in Norway

Political decision: Electrification
• Goal of providing shore power to cruise ships and local marine transport
• Why?
  Emission reduction, noise reduction, safer work environment.
• The harbor as an electric hub?
Shore power - Challenges and incentives

Main challenge:
- Getting companies to invest in proper equipment to allow for use of electricity when docked. Reconstruction or new ships.

Incentives:
- Differentiation of harbor fees for ships.
- Electrification is profitable
- PR – From dirty fossils to clean hydro power
- **What if energy was not clean?**
  - Still a smart decision – Centralizing emissions and energy efficiency.
Emission-free construction sites

An incentive for deploying RES in the industry
Local potential: for developing solar power..
**Online information and purchase system**

<table>
<thead>
<tr>
<th>MILJØ</th>
<th>Fjern 143 538 kg CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Det tilsvarer en bittur på 550 748 km! På denne distansen kan du reise fra Oslo til Bodo 489 ganger.</td>
</tr>
<tr>
<td></td>
<td>I henhold til NVE3 vardeklarasjon vil anlegg ditt i lepet av sin levetid kunne fjerne 143 538 kg CO₂.</td>
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<table>
<thead>
<tr>
<th>ØKONOMI</th>
<th>Spar 12 705 kr i året</th>
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<tr>
<th>OFFENTLIG STØTTE</th>
<th>23 250 kr</th>
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<tr>
<td></td>
<td>Når anlegget er installert får du utbetal 23 250 kr i offentlig støtte fra Innova.</td>
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<tr>
<th>INSTallasjon</th>
<th>Desember 2017</th>
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<tbody>
<tr>
<td></td>
<td>Estimert installasjondata. Vi jobber på å spreng for å få opp anlegg så fort som mulig. Så vil du for å</td>
</tr>
</tbody>
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| ALT INKLUDERT | Lanser hvordan du velger å bakte for installasjonen og at av utstyr og arbeid knyttet til installasjon, tilkobling og vedlikehold og forlengelse er inkludert. |

<table>
<thead>
<tr>
<th>SELG OVERRSKUDD</th>
<th>Nabostrom</th>
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<tbody>
<tr>
<td></td>
<td>Vi hjelper deg å selge overskuddsstrom til naboen. Øk tosider 100 øre for hver kWh du ikke bruker selv. Les mer.</td>
</tr>
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<th>PRIS: DIREKTEKJØP</th>
<th>159 723 kr</th>
</tr>
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<tr>
<td></td>
<td>– 23 250 kr</td>
</tr>
<tr>
<td></td>
<td>Totalt 136 473 kr</td>
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Din totalpris, fra bruket offentlig støtte.
Incentives for solar power installation
- Private homes

Grant for such projects on a national level.
- **10 000 NOK per project as a basis**
- **+ 1250 NOK per installed kilowatt**
- **up to a maximum of 15 kW** (max 10 000 + 18750 = 28750)

- **Oslo municipality** operated one grant for installation of solar power, up to and including 2017.
- Only such local grant in Norway.
  - **Covers 30% of total costs.**
- A grant for private home owners - 8 million NOK (aprox. 815 000 EUR)
ENOVÁ vs Oslo municipality

Same project, different grants:

![Bar chart comparing ENOVÁ and Oslo municipality costs and grants.](chart.png)
Comments from the green party: 
Political challenges in making a city green
Thank you for your attention

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