Amager bakke - taking infrastructure into the future?

The combination of EfW with recreational activities.
Task 36: Material and Energy valorisation of waste in a Circular Economy
Background

- Replacement of 70’s plant
- Location beside old plant
- Growing city - a need to be inclusive
Vision

• Highest possible standard when it comes to
  ‒ Energy and environmental performance
  ‒ Safety

• Flexibility regarding power production - balancing the grid

• Integrated into the city- with public access to part of the plant
De seks kandidater

Gottlieb Paludan Arkitekter A/S - DK
Dominique Perrault Architecture - Fr3XN A/S - DK
Lundgaard & Tranberg Arkitekter A/S - DK
Bjarke Ingels Group A/S - DK
Wilkinson Eyre Architects - UK
3XN A/S - DK
Dominique Perrault Architecture - Fr
Not only skiing

- 80 m climbing wall
- Cafe and viewpoint
- Running trails
- Park
Part of the city – social licence to operate...
Flexibility

High electricity production – normal heating needs

- No heatpumps: 63 MW Power, 157 MW Heating
- With heatpumps: 57 MW Power, 190 MW Heating
- Heatpumps and turbine by-pass: 247 MW Heating

Capacity 560 Mton/year

High wind power production or high heating needs
Why is this plant important?

• Waste management facilities (and biomass) suffers badly from NIMBY

• Shows that important infrastructure could/should be part of the city and not necessarily something to hide away

• Combined heat and power can play an important role in balancing energy systems with high amount of intermittent renewables
Thank you for your attention!
Inge Johansson
inge.johansson@ri.se
+46 10 516 58 64