Welcome to ARC
- part of the city
Agenda

• Waste management in Denmark

• About ARC – recycling and energy

• Amager Bakke - Tech and Architecture
Danes produce 15 million tonnes of waste every year
1: Waste prevention

2: Recycling

3: Energy production

4: Landfill

Waste hierarchy
- part of the city
ARC is owned by five municipalities in the capital area.

600,000 citizens
68,000 businesses
ARC operates by a balancing principle where revenue and expenses have to balance on a 5 year basis.
Business Areas

- Recycling
- Waste to energy
- Sanitary landfill
- Transfer station for hazardous waste
Local Recycling

New Recycling Center

Recycling station

Local Recycling
At our 15 recycling stations ARC receives more than 100,000 tonnes of waste per year. 89% of that waste is recycled.
Project Example:

Direct recycling of used bricks into new brickwork
Energy - when you need it
Heating Networks in the Capital Area
SMOKA – transfer station for hazardous waste
Just 2% of the waste is being stored at our sanitary landfill. It contains little or no organic material.
-part of the future
2013
- Turn of the first sod
- Piling

2014
- Visible
- Design of chimney and turbine
- Closing of building

2015
- Installation of machines
- Steelconstruction
- District Heating Connection
- Testing and incineration

2016
- Commercial operation
From waste to energy
- Cogeneration explained
How it all works
99.9% reduction of hydrochloric acid

Reduction in CO₂ emissions by more than 100,000 tonnes

Dioxin is removed

NOx emissions will be removed by 96%

99.5% reduction of sulphuric acid

25% more energy from the waste
Output ratios

- High electricity production – normal heating needs
- High wind power production or high heating needs
De seks kandidater

Gottlieb Paludan Arkitekter A/S - DK

Lundgaard & Tranberg Arkitekter A/S - DK

Dominique Perrault Architecture - Fr

Bjarke Ingels Group A/S - DK

Wilkinson Eyre Architects - UK

3XN A/S - DK
Why is the architecture important?
Better utilization of urban space
Financing the ski slope

- Loans from owner municipalities: 51%
- Private foundations and donations: 49%

Total cost: 10,986,667 euros
Facilities on Amager Bakke
Go skiing in the summer
Take a walk or try bouldering
Unique view of Copenhagen
... or just take the lift
85 meters of climbing wall
THANK YOU