# Renewables, cogeneration and district heating – The local energysolutions in Kalmar

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Kalmar Energi

# A few milestones in our history

1863 – The company was founded – the year after the first street light was presented in Kalmar lighted up with gas

1973 – Municipality-owned company

2001 - 100 % renewable electricity

2006 – Our first wind power association was formed

2010 – Moskogen, Heat and power station opened. Produces electricity and district heating that corresponds to the heating of 33.000 houses

2015 - Our first solar association was formed

2018- Large scaled solarpanel is build at the Airport area

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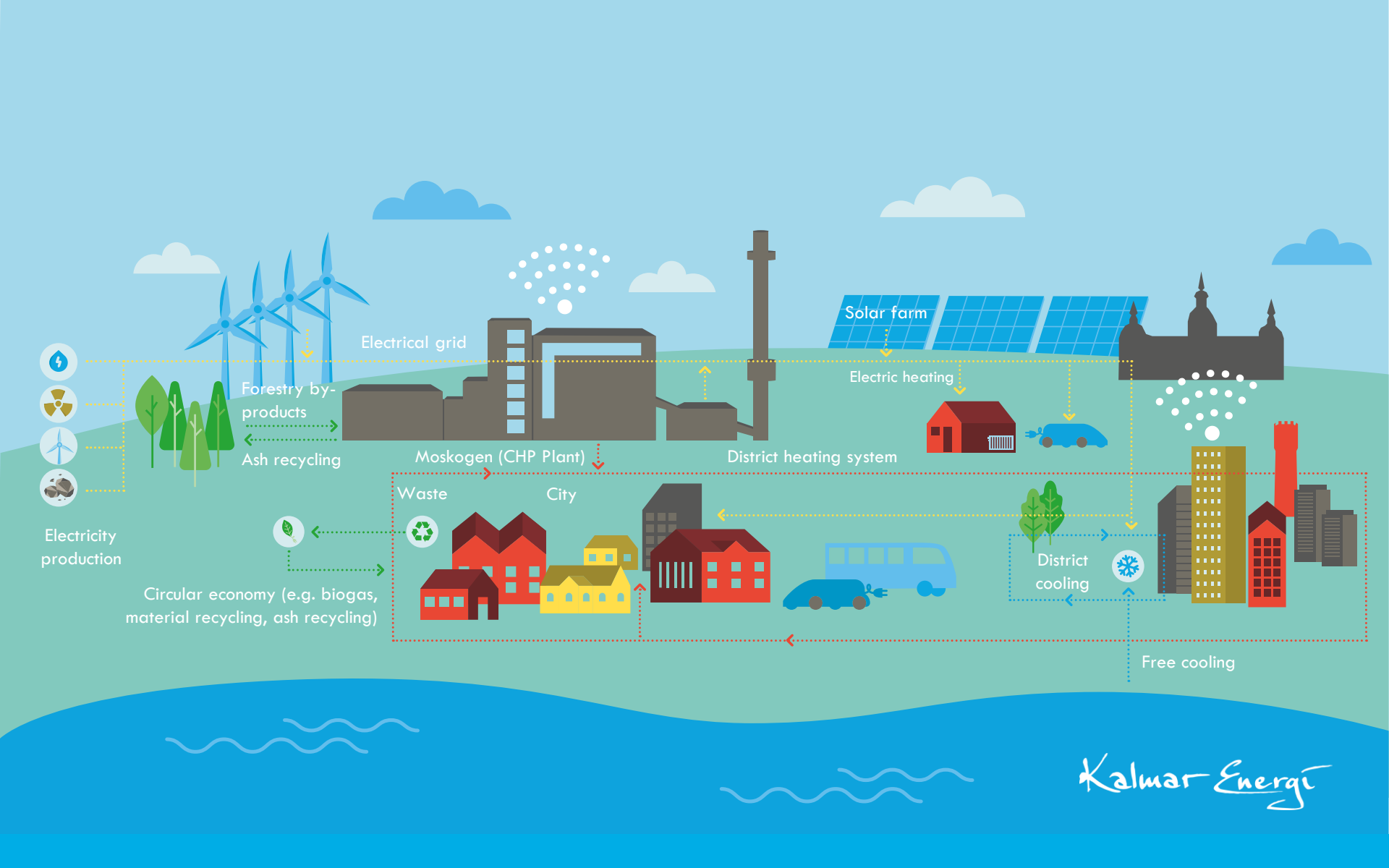
Solar farm
Electrical grid
Electric heating
Forestry by-products
Ash recycling
Moskogen (CHP Plant)
District heating system
Waste
City
Electricity production
District cooling
Circular economy (e.g. biogas, material recycling, ash recycling)
Free cooling
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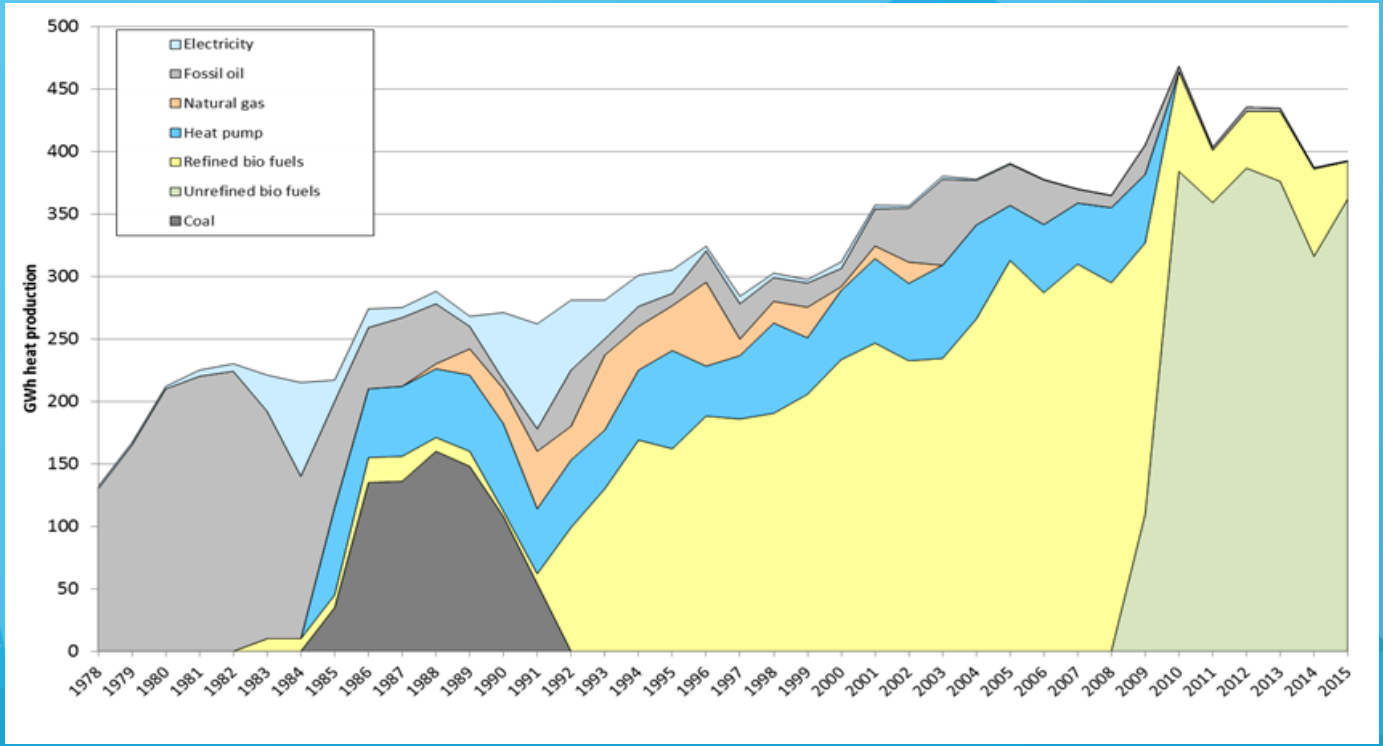
# A history of fuelchange..

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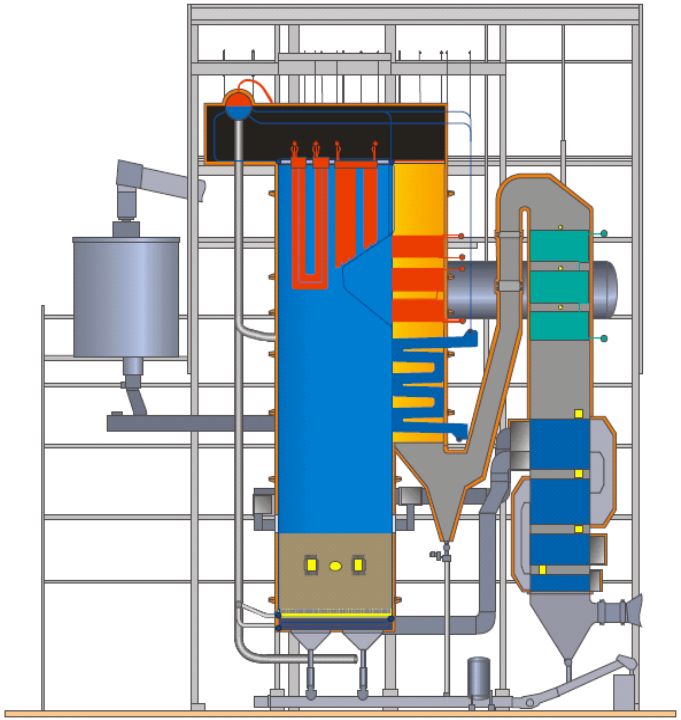
# Moskogen – Combined Heat and Powerplant

Kalmar Energi Värme AB
Kalmar
Sweden

| | |
|---|---|
| Steam | 90 $MW_{th}$<br>36 kg/s<br>143 bar<br>540 °C |
| Fuels | Forest residue, wood chips, bark, peat |
| Start-up | 2009 |



The boiler is the heart of the system

12 km of piping between CHP and Kalmar

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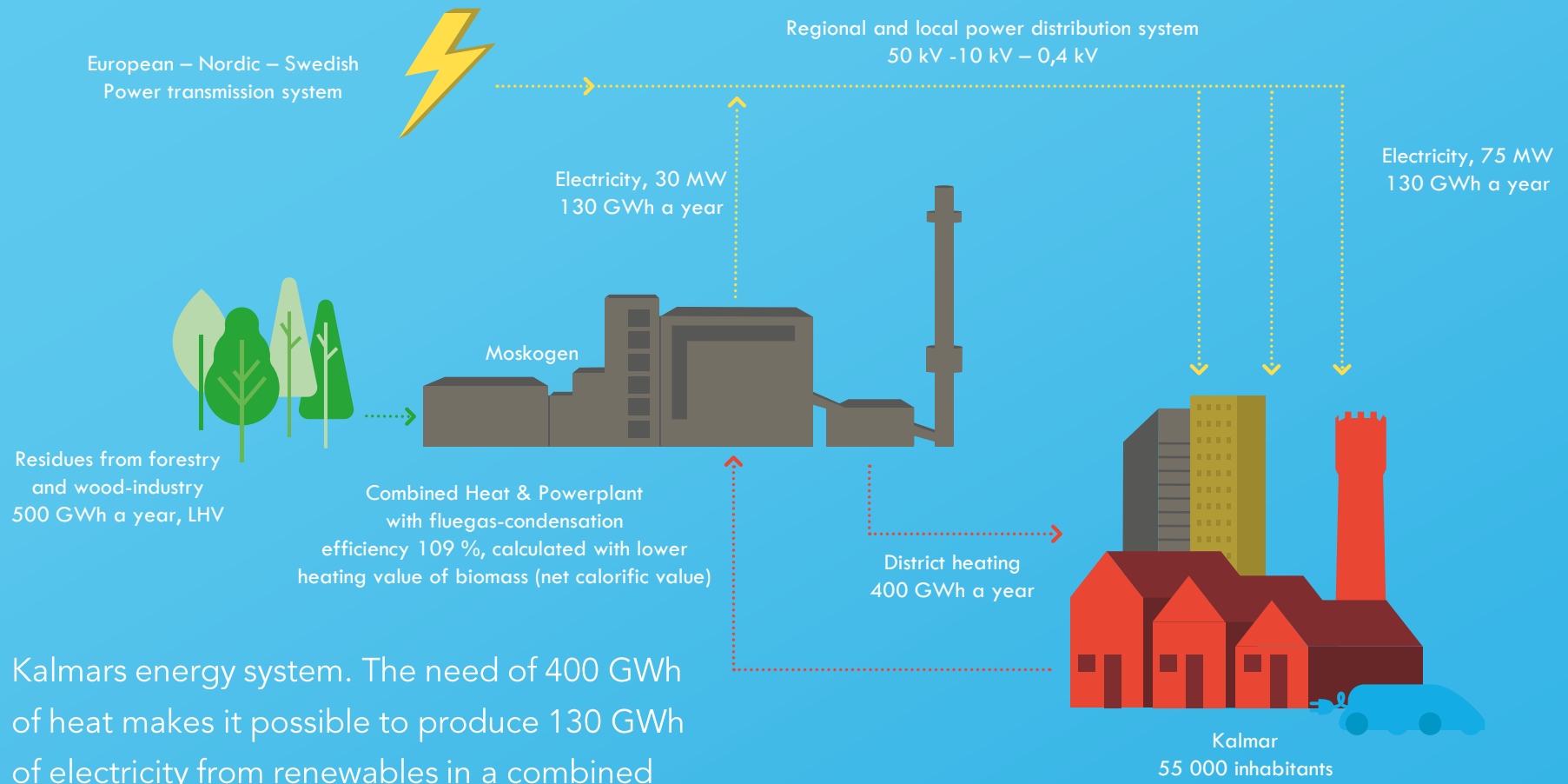
# Fuel storage of wood fuels




Kalmars energy system. The need of 400 GWh of heat makes it possible to produce 130 GWh of electricity from renewables in a combined heat and power plant. At a cold winters morning, when you need the most of heat, you gain the highest power production.

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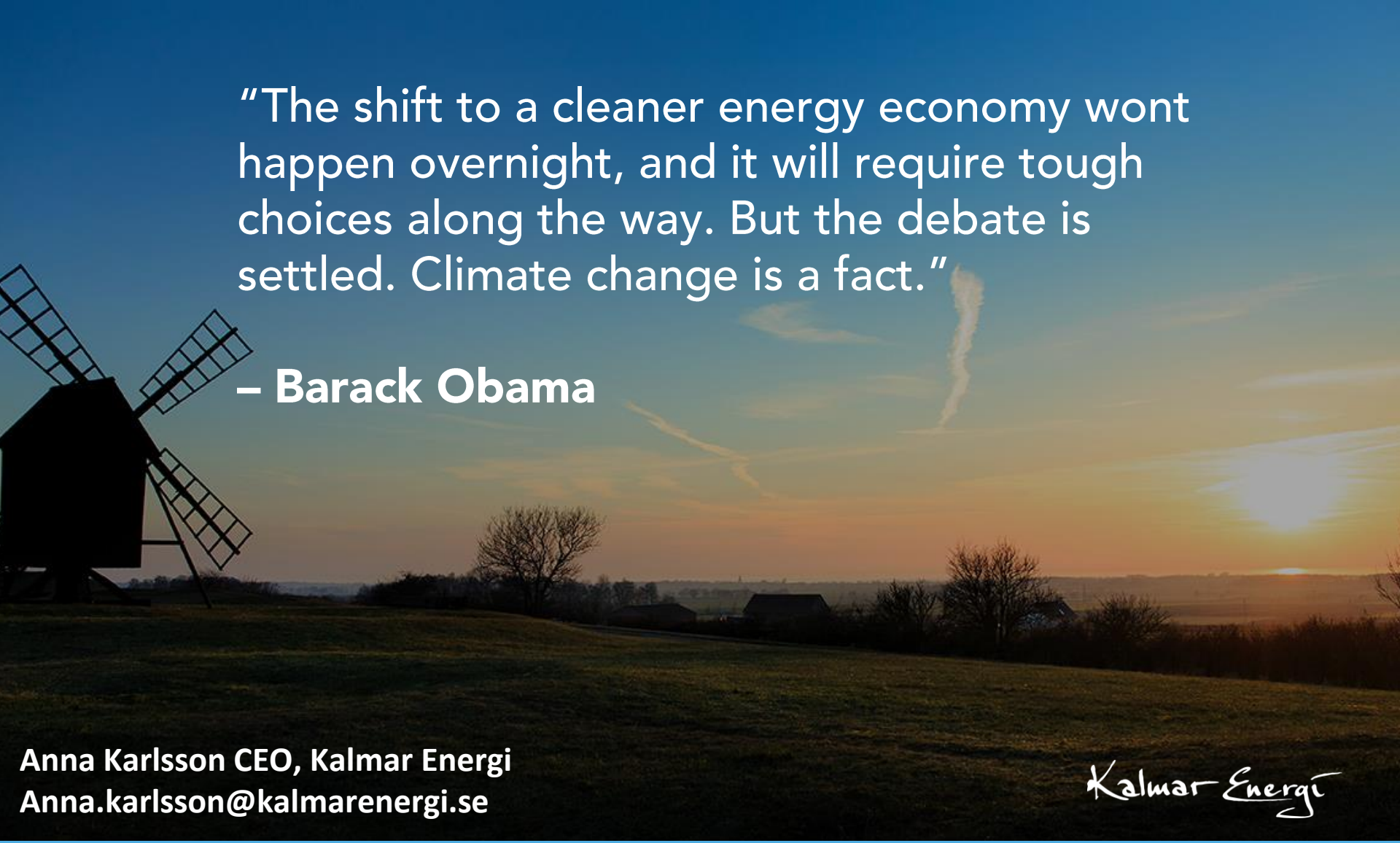

"The shift to a cleaner energy economy wont happen overnight, and it will require tough choices along the way. But the debate is settled. Climate change is a fact."

**– Barack Obama**

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