



# Resilient and sustainable power for critical data infrastructure

VP Environment  
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2026



# Importance of energy transition for datacenters

**1,5%**

**x2**

**53%**

Source: IEA and ITU: Guidance for ICT setting Science Based Targets

# The transition of Europe's energy system is ongoing

Fossil-based electricity generation

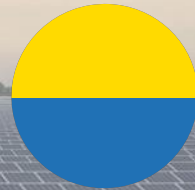
Fossil-free electricity generation

2003

2014

2023

# VATTENFALL



# Vattenfall is delivering on its strategy of being a leader in the energy transition

*Fossil-free  
living within one  
generation...*

*...as a profitable  
energy business*

# This is Vattenfall

## In Brief


- Vattenfall is one Europe's largest producers and retailers of electricity and heat
- We are committed to **fossil-free competitiveness**
- A business model of **an integrated utility**, as being active in generation, flexibility, distribution, sales, services, optimisation and trading
- This model enables us to create opportunities that combine sustainability with profitable growth
- **100 per cent owned by the Swedish State**
- Our long-term credit ratings are **BBB+ stable outlook by S&P and A3 stable outlook by Moody's**

 **7.4 Million**  
Electricity customers

 **0.5 Million**  
Heat customers

 **1.0 Million**  
Electricity grid customers

 **2.4 Million**  
Gas customers

 **20,869**  
Employees

## Activities in the Value Chain

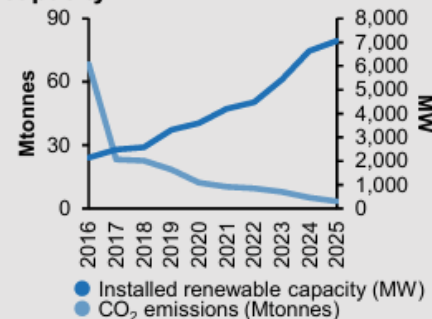


## Main markets

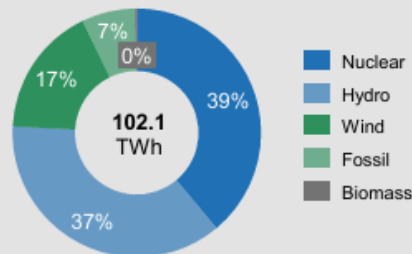
- Sweden
- Germany
- Netherlands
- Denmark
- United Kingdom



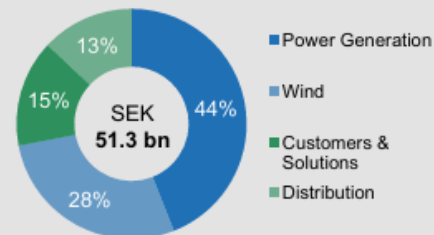
## CO<sub>2</sub> emissions & renewable capacity



## Electricity generation breakdown by technology, 2025



## Underlying EBITDA breakdown by segment, 2025<sup>1</sup>



<sup>1</sup> Breakdown excludes other and eliminations

## Introduction

# Location of our operations and major plants



Wind ●



Biomass ●



Hydro ●



Gas ●



Nuclear ●



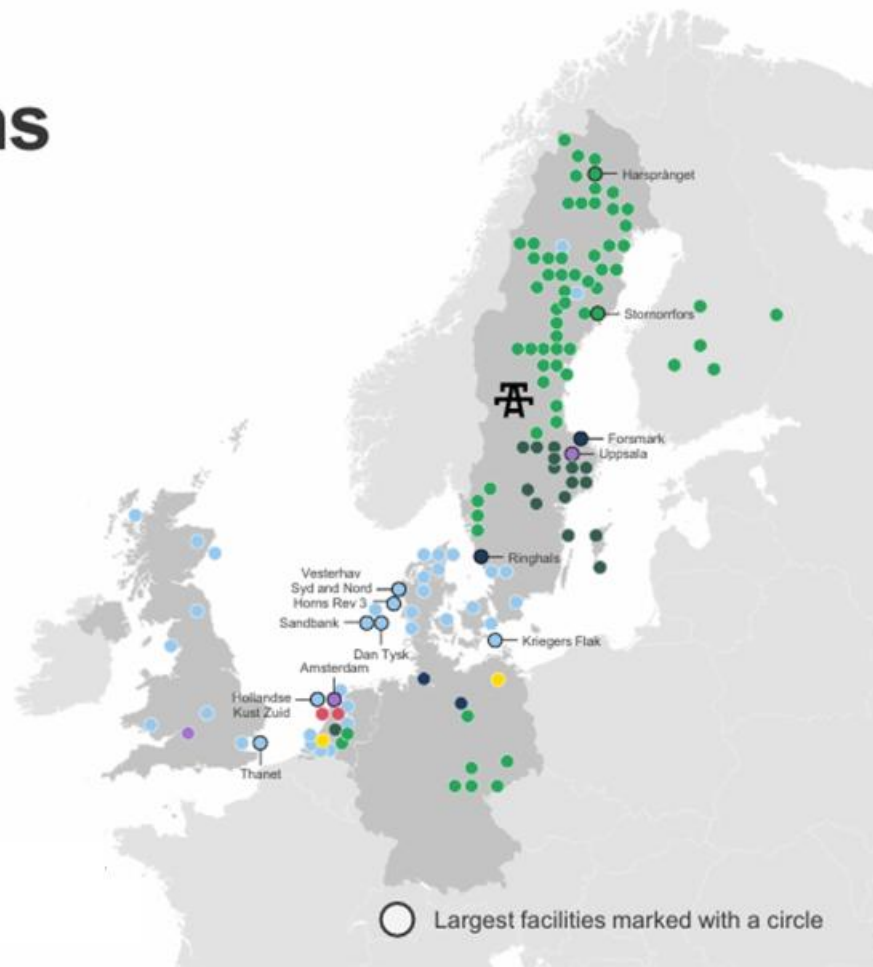
Solar ●



District heating ●



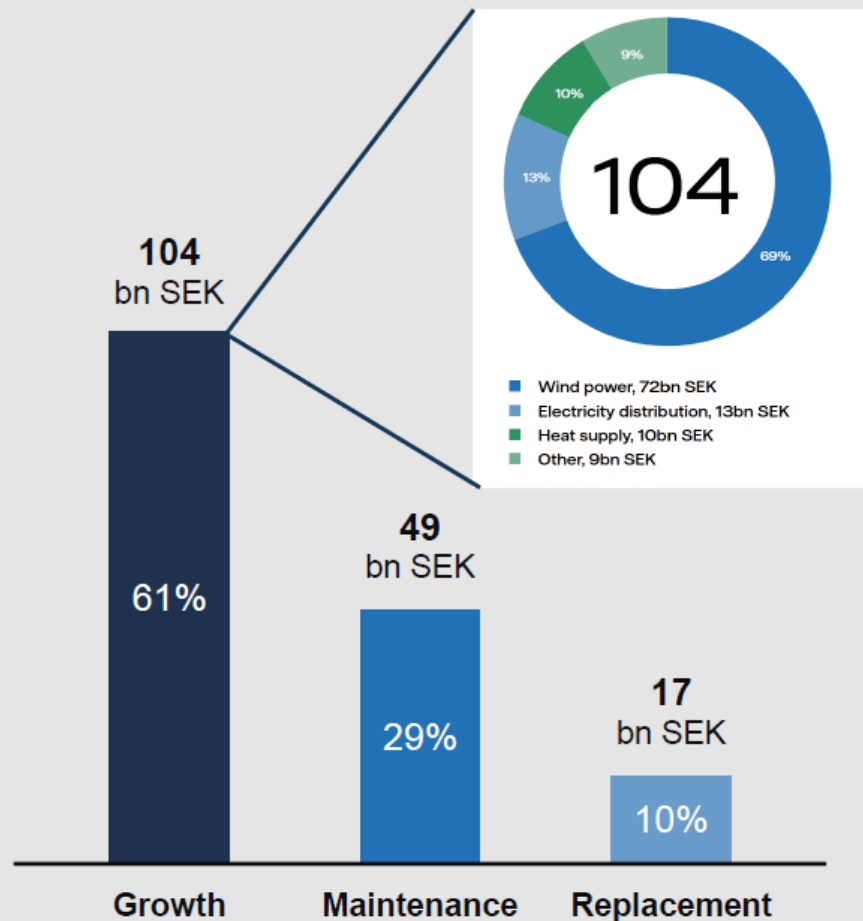
Electricity distribution grids



# Investment plan 2025-2029

# 170

bn SEK Total net capex  
2025–2029



# Our 2030 and 2040 climate targets validated by SBTi show our commitment towards Net Zero

**-69%**

Emission intensity  
reduction since 2017

2023

**1.5°C**

Target for own  
emission reductions



2030

**Net Zero**

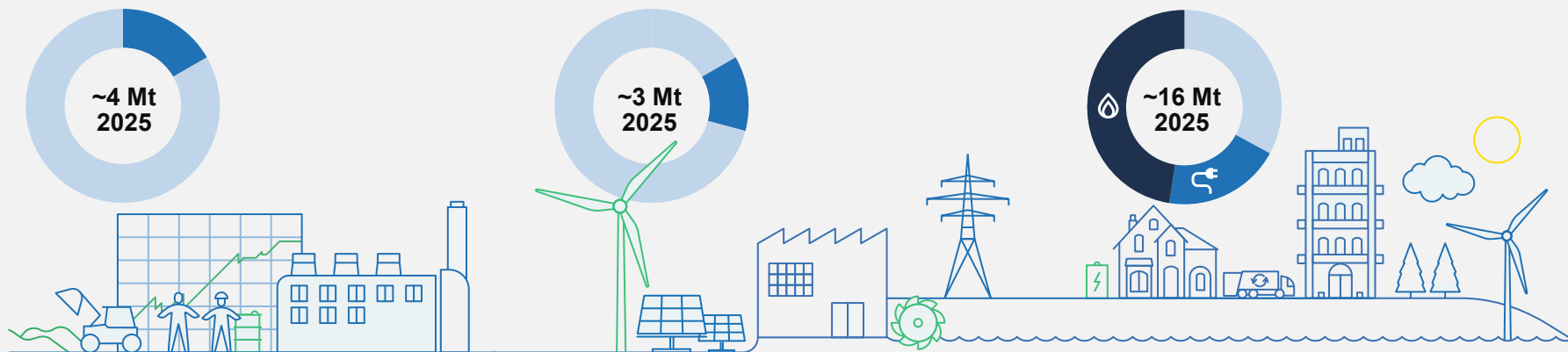
Emissions in our  
full value chain



2040

**Beyond climate** we focus on biodiversity, social sustainability and circularity

# Cut CO<sub>2</sub> emissions throughout the value chain



## Suppliers

**Focus on emissions related to fuel sourcing** through phase out of fossil fuels and increased supplier requirements

**Decarbonising key emission drivers** such as steel and concrete by circularity measures and the use of fossil free alternatives.

**Partnerships** to enable fossil-free value chains, e.g., HYBRIT and Cemvision.

## Own operations

Phase out of fossil fuels in own operations:

- **Replacing fossil gas** with biogas or hydrogen
- **Reducing overall production volumes** in fossil-based assets as more fossil-free come online
- Integration of third-party **waste heat, heat pumps and storages** in district heating

## Customers

Secure volumes of fossil-free electricity for customers, by sourcing fossil-free electricity.

Transition fossil gas sold to end customers by:

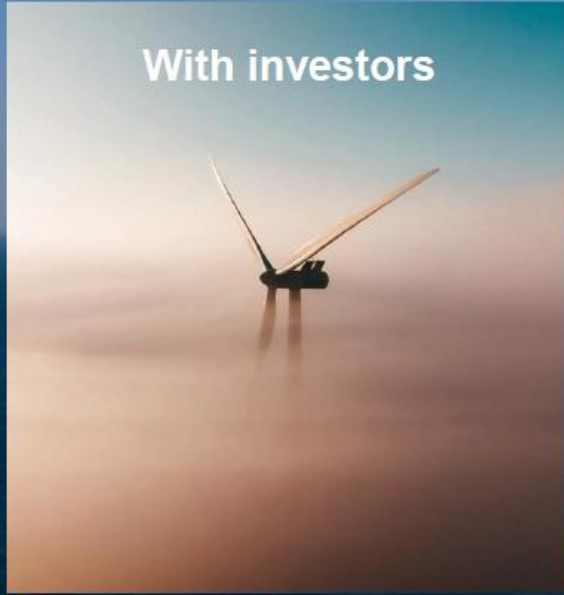
- **Introducing and offering fossil-free gas** such as biogas
- **Offering alternative heat sources** such as heat pumps and district heating

# Partnerships are an important part of our strategy...

With offtakers



With investors



In supply chains



With multi-stakeholder initiatives

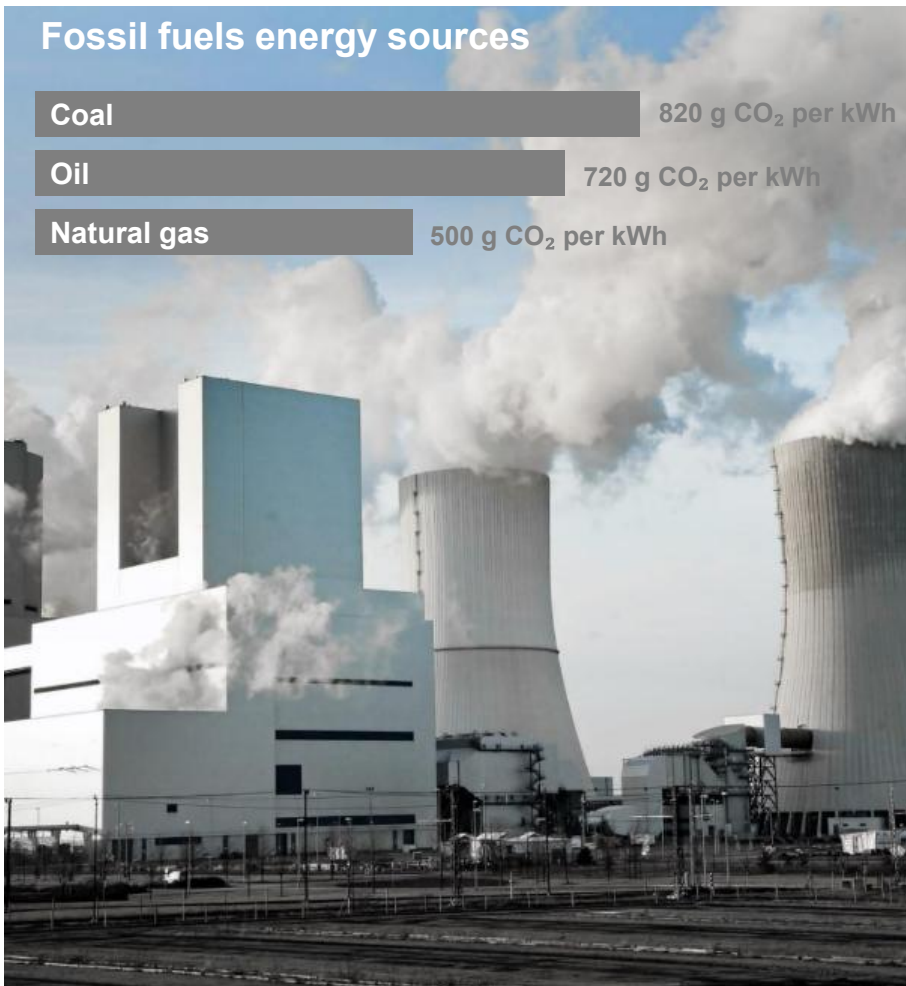
**What a difference an...  
...energy source makes**

## Fossil fuels energy sources

Coal 820 g CO<sub>2</sub> per kWh

Oil 720 g CO<sub>2</sub> per kWh

Natural gas 500 g CO<sub>2</sub> per kWh



## Fossil free energy sources (Vattenfalls own assets)

Solar 50 g CO<sub>2</sub> per kWh\* (30)

Hydro 25 g CO<sub>2</sub> per kWh\* (4)

Wind 12 g CO<sub>2</sub> per kWh\* (11)

Nuclear 12 g CO<sub>2</sub> per kWh\* (3)



# Every energy source leaves a footprint – reducing it is our responsibility

2007

Lillgrund  
2,3 MW

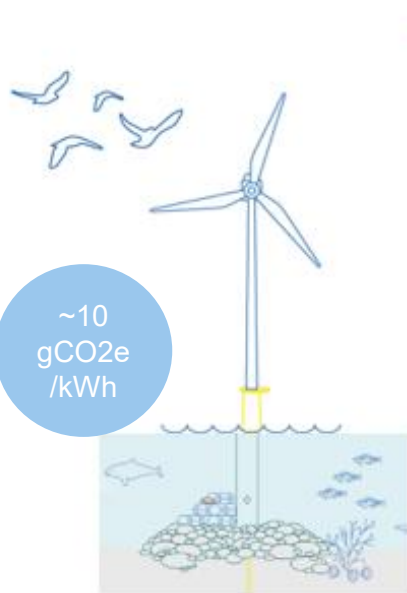
~15  
gCO<sub>2</sub>e  
/kWh



2019

Horns Rev 3  
8,3 MW

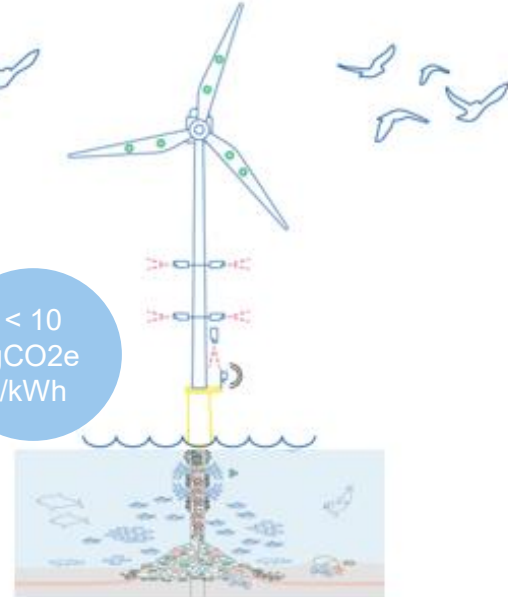
~10  
gCO<sub>2</sub>e  
/kWh



2023

Hollandse Kyst Zuid  
11 MW

< 10  
gCO<sub>2</sub>e  
/kWh





# Examples of AI stories from Vattenfall



AI bird collision monitoring




Green Globe Awards



Flexible Connectivity



Emissions from helicopters & drones



24/7 matching



# All areas in IT supports our journey to fossil freedom by working dedicated in our selected focus areas

*Sustainability is the business*

*The business is digital*

***“Vattenfall IT leads sustainable digitalization.  
We work together with businesses and functions to harness the potential of  
IT to deliver a responsible and impactful future.”***

## Objectives

We include sustainability as a part of everything we do

We reduce our carbon footprint to support Vattenfall's journey to a Fossil free future

We drive Sustainability with our Suppliers for them to join us on the journey of a Fossil free future

### Focus Area 1

Circularity in IT hardware



### Focus Area 2

Supplier selection & management



### Focus Area 3

Data & Digital Efficiency



### Focus Area 4

AI & Innovation for Sustainability



## Foundational Areas



Employee Engagement

Governance & reporting

# Understanding the full footprint of AI

Innovation



Optimize energy systems



Industry, transportation & building sectors



Reduce emissions



Fossil free energy

## Environmental aspects to consider

Energy



Water



Hardware & infrastructure



E-waste



Lack of transparency



Data centre location



With AI, global energy-related  
CO<sub>2</sub> emissions *could* drop by  
~5% by 2035.



# We need more fossil free energy...



# ..and Tech and AI is just the thing we need



There's a way