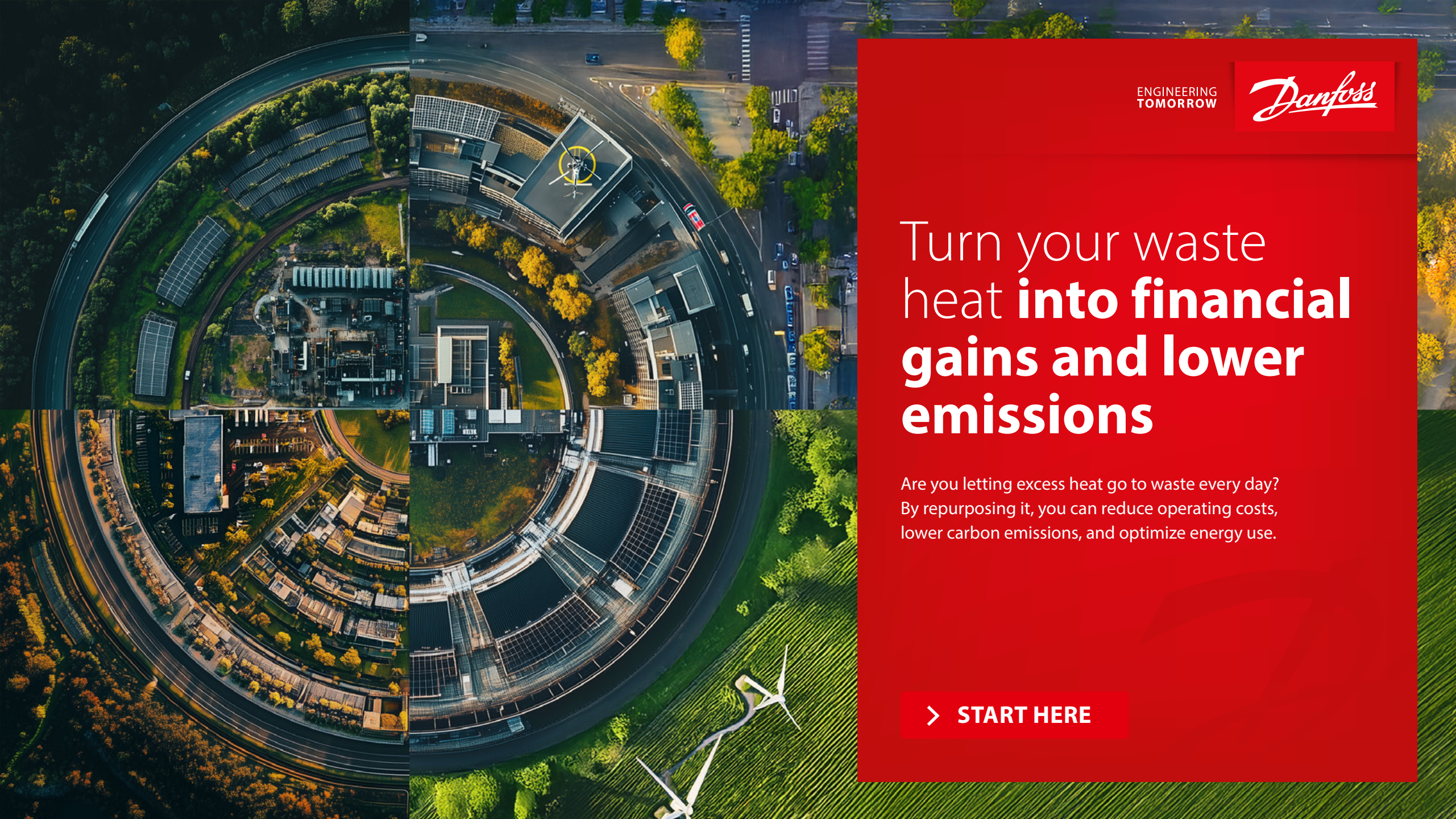


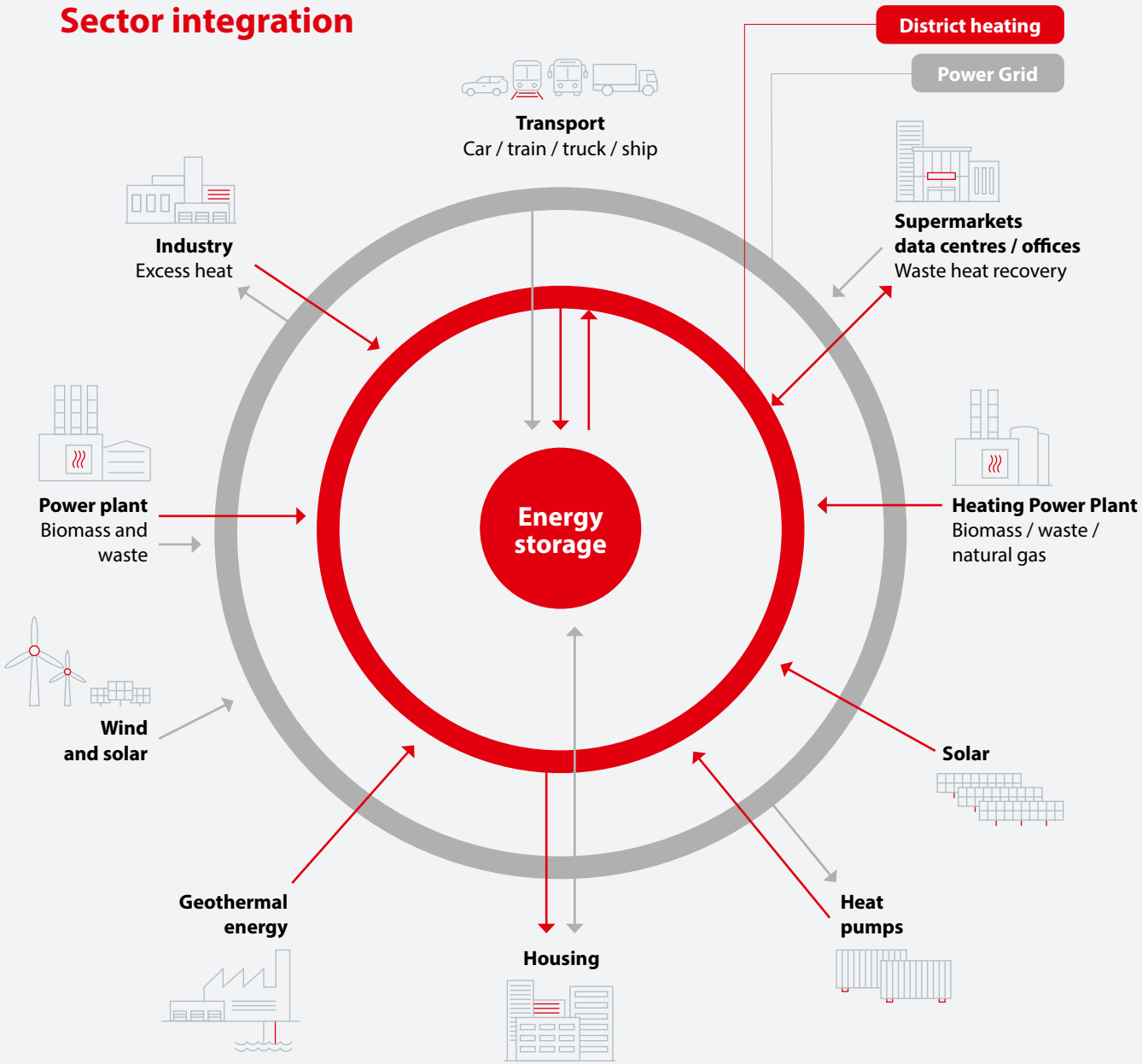
ENGINEERING TOMORROW

Danfoss

Turn your waste heat **into financial gains and lower emissions**

Are you letting excess heat go to waste every day? By repurposing it, you can reduce operating costs, lower carbon emissions, and optimize energy use.

› START HERE



Combine systems
for greater efficiency

By combining two or more supply and demand systems, such as heating and cooling, you can repurpose excess energy from one system to power the other. It is called sector coupling or sector integration, and it is a pivotal strategy for maximizing efficiency and sourcing green energy in a holistic manner.

Sector coupling can help you reduce carbon emissions, enhance system reliability, stabilize energy supply and address the intermittent availability of renewables.

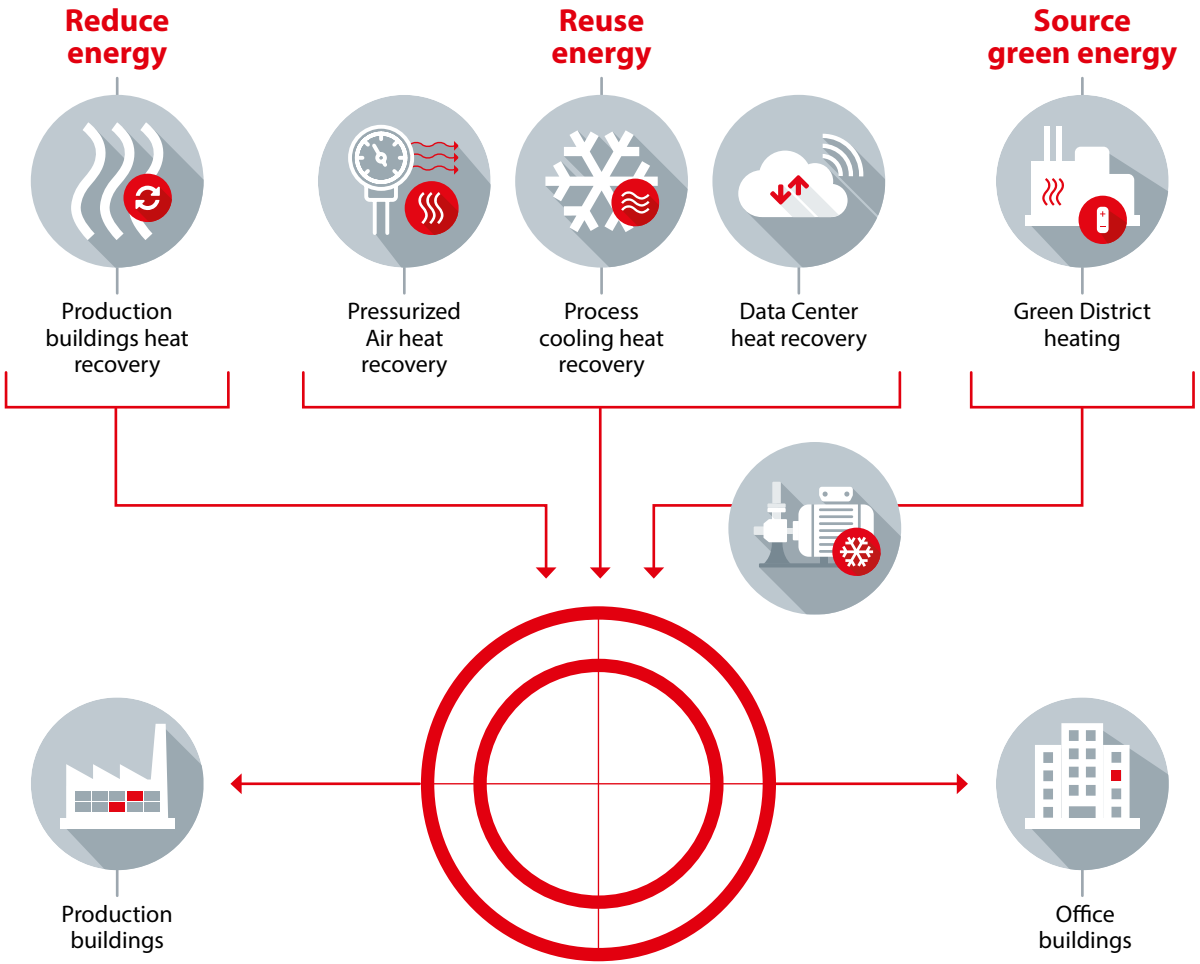
Read on to learn more about this cost-effective, resilient solution, and how you can get started.

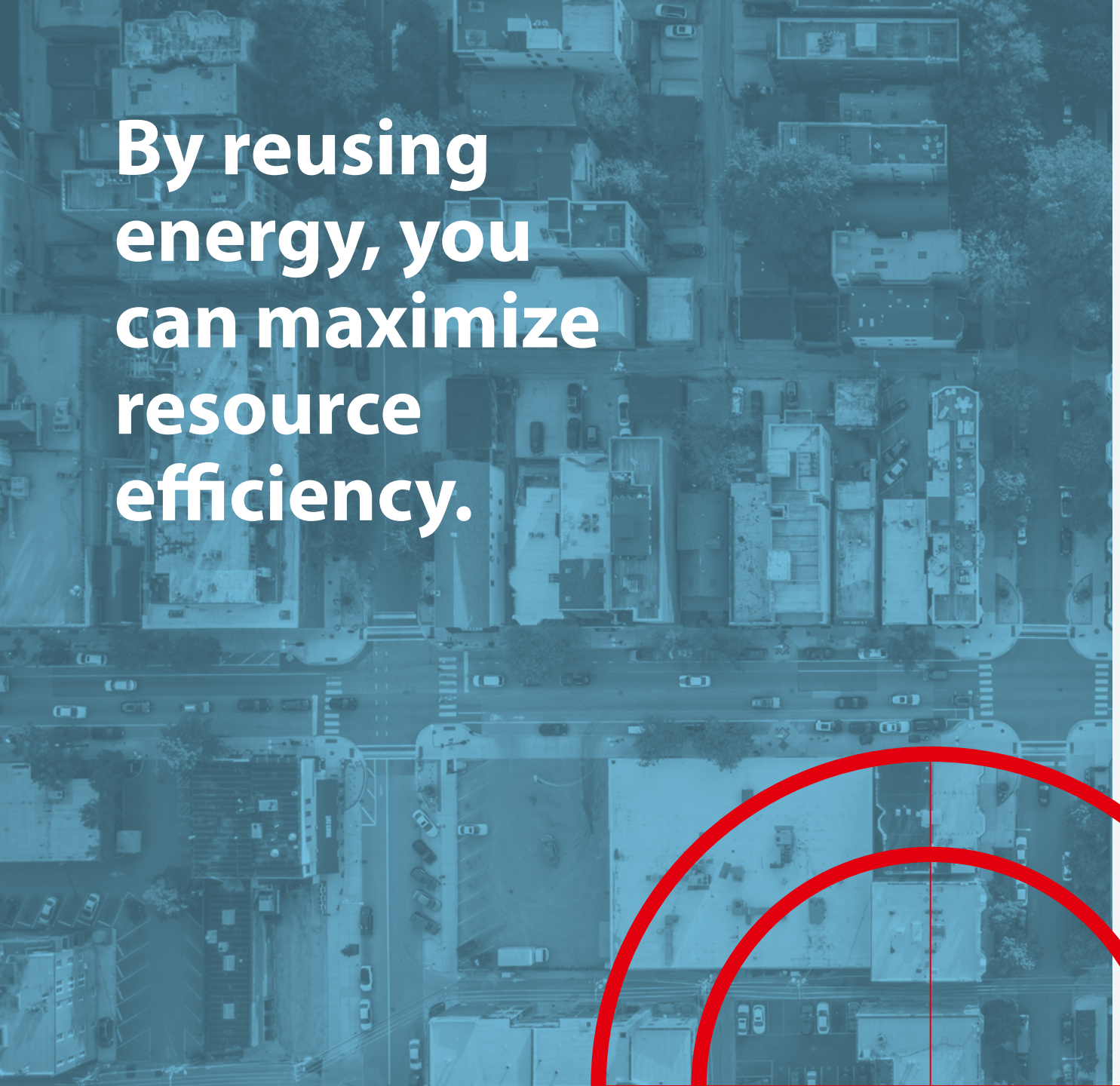
Reduce, reuse and re-source
your power supply

Whether you're aiming to meet global climate targets, lower your CO_2 tax liability, reduce your operating costs, or achieve other sustainability goals, sector coupling helps you effectively reduce CO_2 emissions through heat recovery. This helps you reduce, reuse, and re-source your energy consumption and lower your dependency on fossil fuels.

Reduce energy consumption

Heat recovery allows you to reuse energy already present in your system, reducing the need to supply additional energy to your facility. When combined with other measures — such as using energy only when needed and adjusting temperature settings for greater efficiency — it can help you significantly reduce your reliance on energy from fossil fuels. →





By reusing energy, you can maximize resource efficiency.

Reuse waste heat

By reusing energy, you can maximize resource efficiency. For instance, you can repurpose the heat that would normally be rejected through cooling towers to heat your facility or the processes that take place in it. This could include capturing heat from ambient air or excess heat from industrial processes. When your supply exceeds demand, you can either feed the surplus energy into the grid — essentially becoming an energy provider — or store it using an energy storage solution, saving it for times when your demand is higher than your supply.

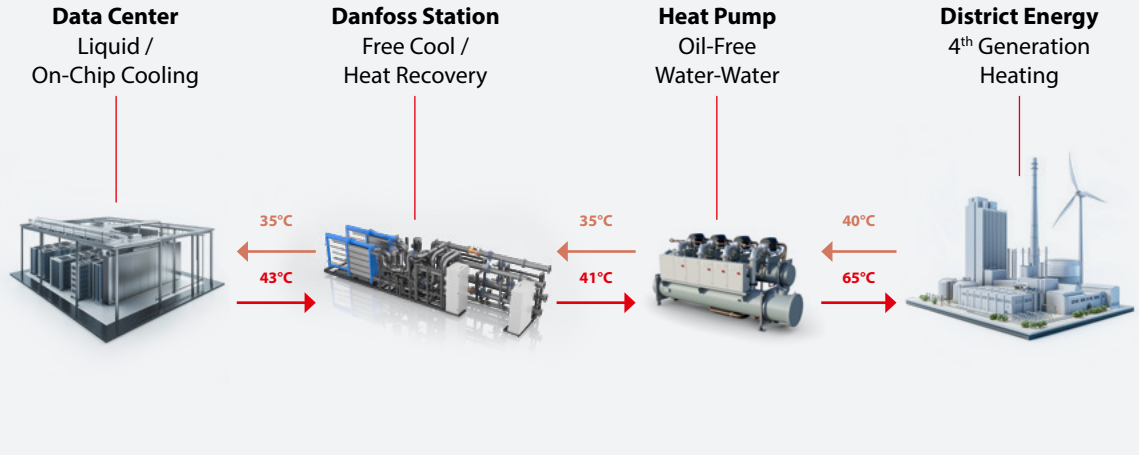
Re-source power supply with renewables

Integrating renewable energy sources such as solar and wind into district heating and cooling systems is key to achieving a more sustainable energy system. This approach reduces environmental impact by offering a cleaner energy supply. Sector integration ensures these renewable sources are used efficiently, supporting sustainability efforts while mitigating the variability of solar and wind energy by complementing them with other technologies or storage solutions.

Want to make sector coupling a reality at your facility?

Danfoss is your ideal partner in realizing the full potential of sector coupling and minimize your operating costs. With our proven track record and a comprehensive portfolio of high-efficiency solutions, we can help you design and implement an integrated energy system that maximizes heat recovery and accelerates your decarbonization journey.

The Danfoss Heat Recovery Station plays a key role in capturing excess heat from industrial facilities. When connected to district energy networks, heat pumps elevate this heat for broader urban use. These facilities benefit from enhanced cooling efficiency, while energy companies utilize the recovered heat for sustainable heating. This collaboration improves efficiency, reduces costs, and strengthens system resilience and sustainability.



Our integrated energy systems can help you:

- Enhance heat recovery efficiency
- Increase efficiency by over 500% compared to fossil fuels
- Simplify design and business models
- Accelerate decarbonization retrofits
- Achieve 3x faster implementation
- Reduce costs by +50% compared to designs not recovering energy.

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Ready to get started with **sector coupling?**

Contact Sector Coupling Solutions to learn more about your options.

Contact us here

Green revolution in Ringsted, Denmark:

Innovative heat recovery system enables 97% fossil-free heating in Danish town, powering 7,000 homes and boosting efficiency by 21%.

Read more here

Danish Hospital undergoes green transformation:

Sector coupling helps Sønderborg Hospital reduce energy consumption by 12,500 MWh, while supplying 15,800 MWh of excess heat to 930 homes annually.

Read more here

Greener heat, smarter solutions:

Flue gas heat recovery saves 1,500 MWh annually, powering 150 households with sustainable energy in the Danish town of Frederikshavn.

Read more here

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