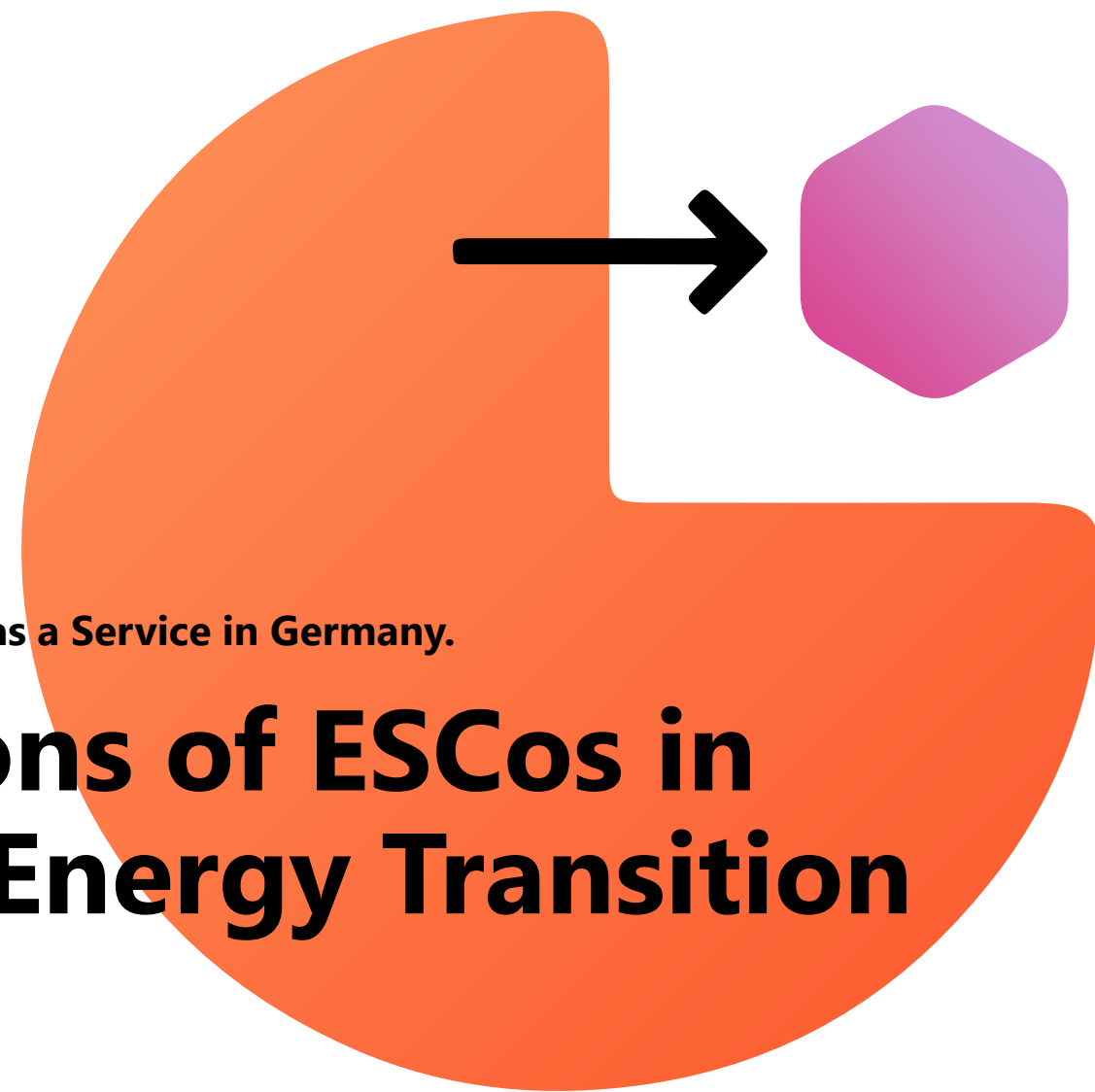


DENEFF EDL\_Hub- The Strong Voice for Decarbonization as a Service in Germany.

# Potential Contributions of ESCos in Germany to Finance Energy Transition

OFATE DFBEW| 9 February 2023 | Rüdiger Lohse, MD



# First things first: to answer your question...

Germany's ESCO Market is appr. 10 bn € per year...however...

...the potential is actually 60-80 bn € per year...

...if the potential would be focused on the building sector, the refurbishment rate could be increased by almost 0,9%...

Yes... we can contribute significantly....

...so the answer is **YES WE COULD**... if policy lets us!

?

In the following we give you insights in our ESCO market in Germany, on **hurdles** and **drivers**.



**Energy Services Germany  
2023**

# Dramatic policy failures in the past 20 years have to be corrected in short time now! ESCOs have started to adapt to new demands.

## Major Policy Events

- **EnergyEfficiency Act** to create robust framework for energy efficiency and energy services in DE
- **Energy in Buildings Act:** thriving for binding energy targets for newly built and building stock refurbishments and prioritization of worst performing buildings- from 2024 on fossile heating systems will have to be replaced by heating systems based on 65% RE.
- **Heating Design Act:** Setting up structures for the decarbonization of the heating system (50% by 2030, 100% by 2045)



## Impact on Energy Services in Germany

- Level Playing field still not existing for energy services in the housing sector.
- Instead of gas based CHP ESCOs have started 2022 to dive into the electrification of the heating sector. The technical scope in these projects includes HVAC and building insulation measures which has not been the case in energy supply contracting before. This increases also the demand for finance by factor 2-5.
- ESCOs have started to increase consulting business in their portfolio. In the past this has been mostly cost-free acquisition effort.



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## Major Policy Events

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## Impact on Energy Services in Germany

- Level Playing field still not existing for energy services in the housing sector.

- **Energy in Industry:** thriving for binding energy targets in processes as a top-down approach of the EnergyEfficiency Act. Mandatory use of waste heat in industry in circular and externalized processes (heating systems e.g. in housing systems)



- EEW grant program enabling and supporting industry to set up transformation plans, carry out holistic energy efficiency and renewable integration in major processes and cross-technologies providing up to 2bn €. Grant programm accessible for Escos

**Disruptive Changes in the German Energy Market challenge traditional business models. ESCOs only have the option of adapting the new rules of the game or disappearing form the market in rapidly shrinking niches. However, from the perspective of finance: the interest of ESG and Taxonomy driven finance has increased the opportunities for ESCOs to collect attractive third-party refinancing ressources**

# DENEFF EDL\_HUB: Innovation Plattform and Association with major German and EU ESCOs on Board- making the ESCO case since 2020



# DENEFF EDL\_HUB: Mission and Vision



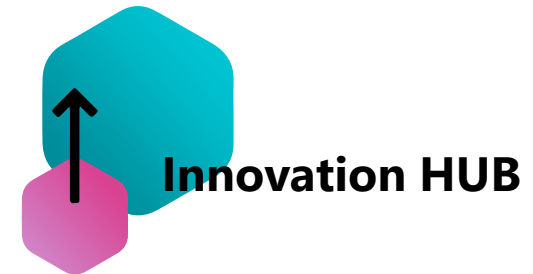
**Contribute Strongly to Create Level-Playing Field for ESCOs in Germany:**

- **Policy Agenda Settings in EU and DE**
- **Access** to funding and subsidies
- **Policy** regulations to create a framework which enables ESCOs to put in place significant investments

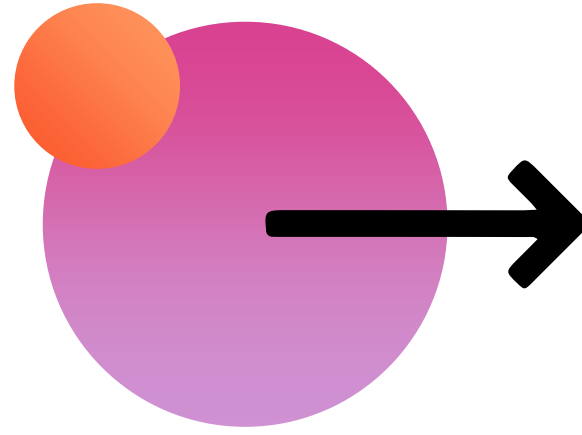
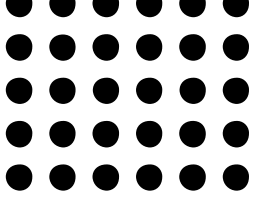


**Creating Interaction Between Stakeholders**

- **Connecting** ESCOs, Service and Component Suppliers and Stakeholders
- **Enhancing** interaction between ESCOs, Suppliers and Energy Consumers
- 



- **Inkubation and Fertilization of innovative Business and Finance**
- **Market Development** in Disfunctional Market Settings
- This is done within in third party Finance Research Projects on EU and national level



Lessons Learnt:

## **Disruptive Changes in the Energy Market provide Exceptional Opportunities for ESCOs- if ESCOs are Willing to Adopt User Demands**

Stakeholder- and User-Workshops provide a clear picture: User Demands are Changing, and innovative ESCOs and Start-Ups are on their way to provide adequate and new solutions



# The Political Agenda, New User Demands have Sparked Disruptive Changes and Frictions in the ESCO market since 2021



## Challenges: Policy & Society

- Climate Protection has become Main Stream
- Decarbonization Target 2045 for Buildings and Industry
- Fed. Regulation: 65% Renewable Energy in the Heating Market
- Energy Security and Independence
- Building Sector: MEPS



## ....changing User Demands

- Reduction of Coordinative Effort: One-Stop-Shops instead of complex multi tasking of dozens of partners
- Longterm Partnerships instead of Project approaches
- Simple Front End Solutions-moving complex structures into the back end



## ...require innovative Responses !

- ESCO Scope: handling, coordinating holistic approaches
- The Deployment of Combined Approaches for the Electrification of Heating in Buildings and Pprocess Steam and Heating Processes in Industry have been increased dramatically since Summer 2022
- This results in a dramatic increase of (third-party) ESG finance
- 2022 estimated investment 11bn €



# Evolution of ESCo Tec-Bundles in 2022: Electrification of Heating Market, Reduction of Dependency from Russian Gas by > 75%



## Standard Solutions before 2021

- Housing Sector: Gas CHP + Gas Peak Boiler, Building-/Heating Grid with 70/50 °C System temperature making >80% of the ESCo Heating Market in Housing Sector
- Industry Steam: CHP (engine/turbine)+Gas Peak Boiler more than 60%
- Renewable: <10%



## ...changing Legal and Market Framework, and User Demands

- Gas and Power Prices exploding August 2022 (> +200%)
- Housing: 65% RE by 2024 in New or Replaced Heating Systems
- Housing/Industry: Federal Support Gas-/PowerPrice Cuts from January 23



## ...catalize innovative Responses

- Housing: Heat Pump+PV+P-Storage+Peak Gas Boilers/Large Thermic Boilers+Heating Grids
- Industry: HT-Heat Pumps+Gas-CHP+Storage+ PPAs
- CHP used in the context of grid stabilization



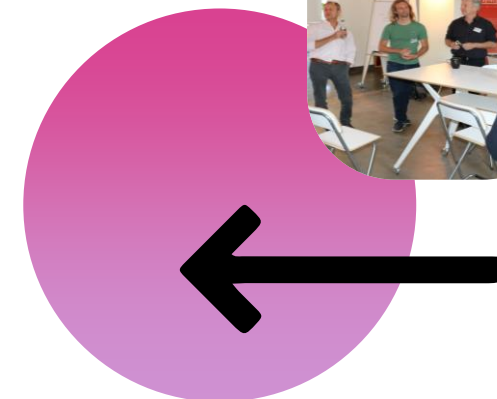
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Energy Efficiency in SMEs: [effinvest.de](https://effinvest.de)  
(German)**

**effinvest**

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**...ESCO provide Tremendous Services-  
to help Germany's Energy System to  
Move out of Gas Based Heating in  
Housing and Industry Processes**



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