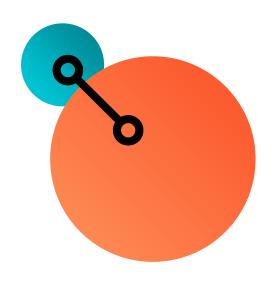


DENEFF EDL_Hub- The Strong Voice for Decarbonization as a Service in Germany.

Development of the German ESCO Market, Challenges and Best Practices.

Brussels 6. June 2023 | Rüdiger Lohse, MD

Energy Service Market in Germany: 75% of the ESCO Market Potential still untapped as level playing field for ESCOs does not exist



German ESCO Market:

- ESCO Market Volume 2020/21: 8-10 Mrd. €, static
- > 100 ESCOs on national and regional level
- 90% Providing Energy Supply Solutions

2020 / 2021 ESCO Market Report provided by BAFA/BfE

- Stagnating Market nvestive ESCO products
- Overregulation in Housing Sector and Industry
- 75% of Market Potential is still untapped
- No Level Playing Field for ESCos



Energy Policy and Market Framework has changed disruptively in 2022-providing huge challenges and opportunities for Energy Service Companies...



...to be successful ESCo Business
Models need to be Adopted to the
Needs of Target Groups with regard to
their specific Technical and
Organizational Demands...



...which leads to ESCo Toolbox
Business Models and Contracts
replacing more and more the two
standard contracts for Energy
Performance Contracting (pay-as-yousave) and Energy Supply Contracting...



...and while technical and organizational complexity and the need for funding increases drastically user demands make ESCos venture in a more broader scope of services and technologies provided in a "one-stop-shop-solution".

DENEFF EDL_HUB: Innovation and Association Hub with Major German ESCOs and the Purpose of Professional Decarbonizers since 2020

DipL-Ing. HEINZ ULLRICH BROSZIEWSK Kraft-Wärme-Kopplung Beratung , Projektierung , Gutachter

















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DENEFF EDL_HUB: Mission and Vision- Help Creating Framework Allowing ESCos to Work Successfully as Professional Decarbonizers



We Contribute Strongly to Create Level-Playing Field for ESCOs in Germany in the EU Context

- Prio 1: "Level Playing Field" for ESCos in terms of the recent EED Art. 26 in 2023
- Prio 2: Non-discriminatory access to funding and subsidy programmes
- Prio 3: Revise discriminatory regulation in Building-, Industry- and B2C Sector



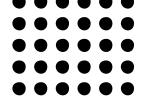
Creating Interaction Between Stakeholders

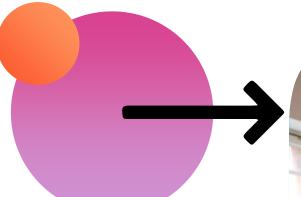
- Connecting ESCOs and Stakeholders
- Enhancing interaction between ESCOs, Suppliers and Energy Consumers
- Create broad acceptance in target groups and especially SME and End Consumers (Heating Grid)



- Inkubation and Fertilization of innovative Business and Finance
- Strategic Market Development for Dis-functional Markets in Research Projects on IEA, EU and national level
- Finance: Integrate ESCo into the Green Financing Schemes as Performance Assured System Providers
- Social Decarbonization: affordable building renovation with ESCos financing and De-risking







Lessons Learnt:

Disruptive Changes in Framework-Impacts on the Business Model and the M&V





The Political Agenda, new User Demands have Sparked Disruptive Changes and Frictions in the ESCO market since 2021- replacing "old school" ESCo approaches



Challenges: Policy & Society

- Climate Protection has become Main Stream
- Decarbonization Target 2045 for Buildings and Industry
- 65% Renewable Energy in the Heating Market
- Energy Security and Independance
- Building Sector: MEPS
- Factor 3 Heating Grids 2045



....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!

- "old school" Business Models "ESPC" and "ESupplyC" do not match with user needs (scope of work, complexity)
- Mixtures and tool-box approaches replace the "old school"
- Detailed M&V highly complex and time consuming replaced by
 - "5%-tolerance saving scope",
 - No-penalty when missing
 Mutual maintenance finance pools

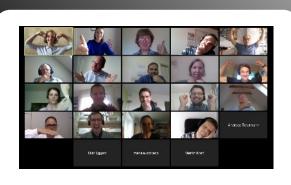




...ESCo ESPC M&V is priority 5 in Hospitals in Germany when it comes to decision making pro or against ESCo



Best Practice: Adoption of ESCO Services to Specific Requirements of Hospitals in the Project CoSo







Target

- Increase Opportunities for ESCOs in the Hospital Sector
- Help Hospitals and Retirement Homes to Cut Energy Cost Bills
- Create Standard Contracts

Key Achievements

- Stakeholder Process with all major German hospital owner associations and hospital groups
- Demand Profiles for Hospitals and Retirement Homes
- Adoption and Match-Making Workshops with ESCOs and Hospitals
- Pilot Projects with technical and business scope adopted to the needs of Hospitals

Beteiligte

Förderer:



Mitwirkende & Anwender (Auswahl): KEA-BW







Next Steps

- Trainings for Hospital Owners- how to cut costs now
- Set up of new project: One Stop Shop for Hospitals-Information, Finance Diligence, Transformation Roadmap Services and Investment specifically drawn to the demand of hospitals



DENEFF PowerPoint Master

DENEFF EDL_HUB innovation Hub is Tackling also Other Disfunctional Market Sectors of High Relevance for ESCOs



Home Owner Associations

20% of Housing in Germany is organized in HOAs
Refurbishment Rate < 1%

Issue

Low Refurbishment Activities Complex Approach for ESCOs and Financiers to conduct Deep Energy Retrofits

Approach

- EU Project GREEN home
- Creating One Stop Shops with ESCOs, Financiers, Consultancies
- Learning from LaBeef



SME Financing of Energy Investements:

Finance Industry does not provide financing approaches for Energy Efficiency Investments

- Lack of Finance Products and Energy Service Approaches for SME Decarbonization
- Finance: mismatch of costs for due diligence and project size

- Effinvest.de- DENEFF has set up the first finance plattform for financing energy investments in SME
- Launch in Berlin October 13, 2022
- Handover to SME Bank January 2023



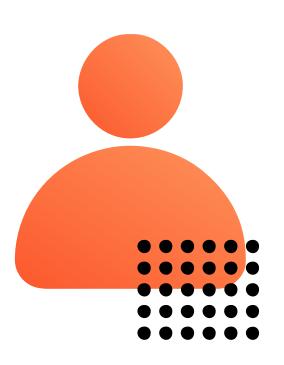
Affordable Decarbonization for Financially Vulnerable Person Groups

- Low Income Person Groups live in the least efficient building stock
- Price volatilty hurts the most here
- Additional financial burdens are not

- ESCo pay as you save Models provide annual rates and cost neutral approaches
- ESCo and Mortgage Banks provide Service+Finance
- Risks dilution in financing pools
- Remaining Risks partly covered by FedGov



Contact





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