



TRAINING

Quality certification frameworks
for Energy Efficiency services to
scale up responsible investment
in the building sector

Modules 3 & 4: Certifications





✔ Introduction

✔ General framework

✔ Impact of the quality assurance scheme on the EES market

✔ Categories of quality assurance schemes

- Private schemes
- Semi-public schemes
- Public schemes

✔ The QualitEE scheme

✔ Example of assessment procedure



QualitEE project summary

The QualitEE project aims to:

- ✓ **Standardise** the quality related aspects of energy efficiency services and **institutionalize** the quality assurance process:
 - Development of a standardized set of “Quality Criteria”
 - Technical and financial guidelines
 - Lean but powerful tool to assess different EES offerings
 - Criteria that can be incorporated in service contracts by clients
 - Each technical quality criterion contains a set of assessment criteria
 - Implementation of national quality assurance schemes in partner countries
 - Establishment of 11 national promotion teams
 - Introduction of national discussion platforms
- ✓ **Reduce the complexity** of energy efficiency services and **increase** service quality
 - **Application of Technical Quality Criteria in 24 pilot projects**
 - 3 pilots in Germany and Austria, 2 pilots in 9 further countries
 - Incorporation of technical quality criteria in service contracts and tender dossiers
 - 33 training workshops for market players and rising their awareness
 - **Dissemination of quality criteria and quality assurance models**
 - Easy-to-use EES market database
 - Distribution of newsletters, press releases and social media postings
 - 68 national and international presentations
- ✓ **Increase responsible investment** in energy efficiency services in the building sector
- ✓ **Improve the trust level** of clients and financial institutions in energy service providers



Training target group

✓ Certification Bodies → those with interest in developing a quality assurance scheme by means of a certification or any other type of system



✓ Public and private clients → those who are interested in developing EE measures. Owners and facility managers of:

- Schools and universities
- Hospitals and health care
- Hotels
- Large scale multi-family houses
- Etc.



✓ Energy service providers → in particular those who plans to deliver energy services or are already engaged and would like an introduction to quality criteria



✓ Financial Institutions → with potential interest in financing energy efficiency projects or also are already financing providers, clients and bears (part of) the project risk





Aim of the training

- ✔ Common understanding of “quality assurance scheme”
- ✔ Highlighting the need of a quality assurance scheme for energy efficiency services (EES) in Europe
- ✔ Better informed EES clients on the benefits of a quality assurance scheme
- ✔ Increasing transparency and trust in EES
- ✔ Common understanding of “technical quality criteria”
- ✔ Modules 3 & 4 provide detailed information on certification frameworks



✔ Introduction

✔ General framework

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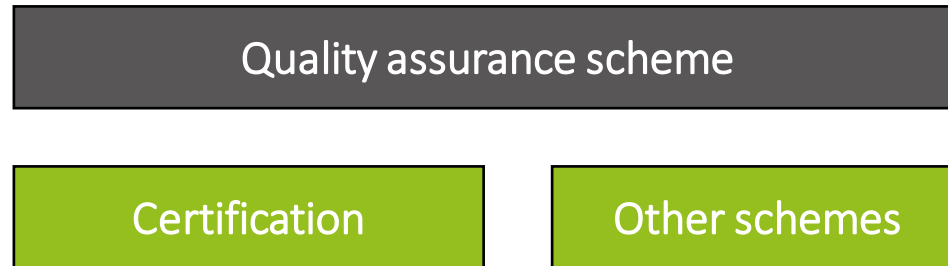
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✔ The QualitEE scheme

✔ Example of assessment procedure



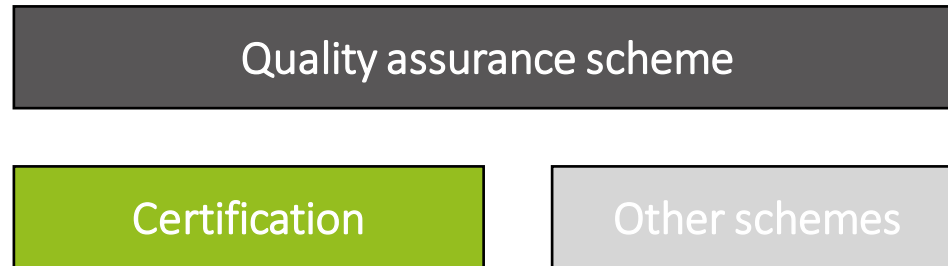
Quality Assurance Scheme (QAS)



- ✓ A quality assurance scheme (QAS) is the *system through which the energy efficiency service is guaranteed to meet pre-established quality criteria*
- ✓ The main difference between the certificate and other quality assurance schemes is that the certificate must be issued by an independent and accredited certification body following ISO 17065.



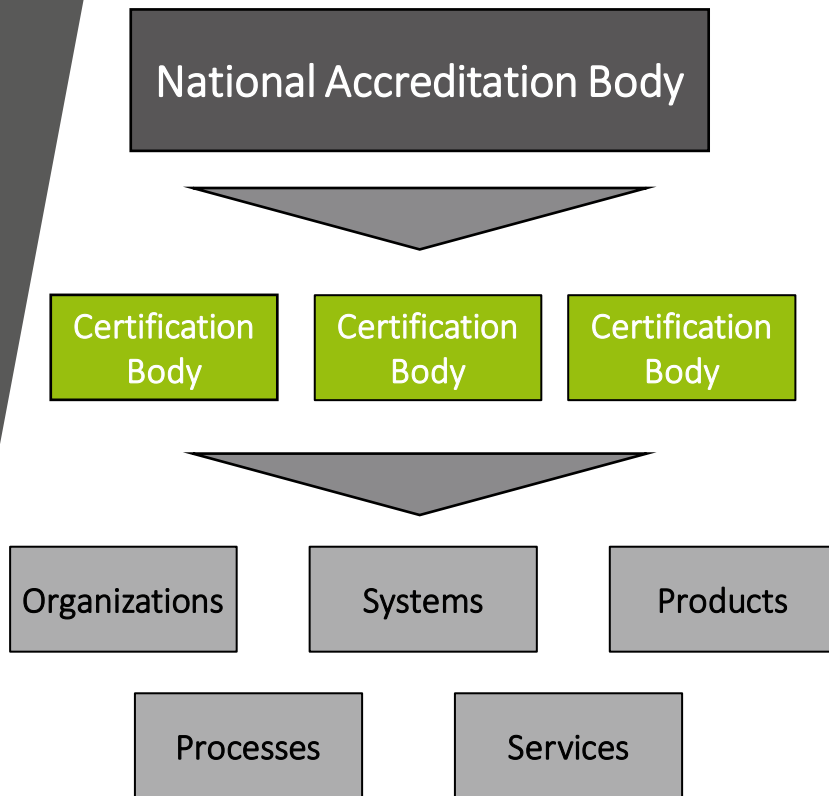
Certification



- Certification is the provision by an independent body of written assurance (a certificate) that the product, service or system in question meets specific requirements; certification is also known as third party conformity assessment



General framework



- ✓ The National Accreditation Body accredits the competence and integrity of Certification Bodies operating in the country according to the Regulation 765/2008
- ✓ Certification bodies are organizations accredited by the National Accreditation Body and offer auditing and certifications of objects to standards
- ✓ Certified objects include organizations, systems, products, processes or services; these objects are the subject of certification.



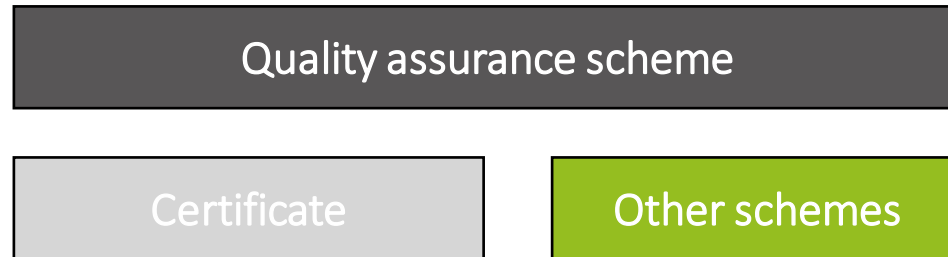
Certifications in the energy field

- ✔ European Standard **EN ISO 50001:2011 Energy management systems - Requirements with guidance for use** was adopted to enable organizations to establish the systems and processes necessary to improve energy performance, including energy efficiency, use and consumption.
 - There has been a rapid growth in number of valid certificates for ISO 50001 for energy management, from 364 in 2011 to 17,102 in 2016 across Europe.

- ✔ The energy performance certificate or energy certificate is an official document drawn up by a competent technician that includes objective information on the energy characteristics of a building.



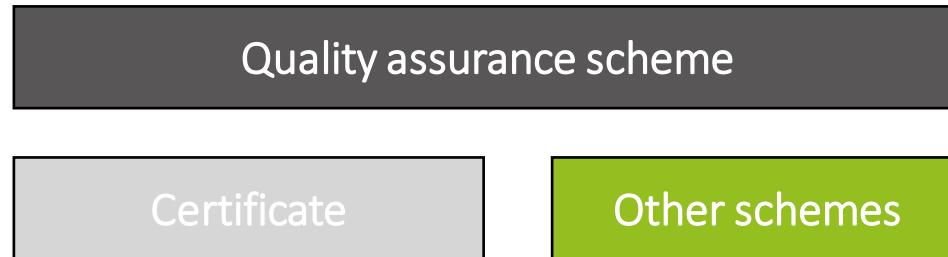
Other forms of quality assurance



- ✓ There are quality assurance schemes that do not have such an exhaustive control than certificates since the issuing body does not need to follow the ISO 17065 standard
- ✓ These schemes are also present in the national energy markets



Other forms of quality assurance



✓ Among these schemes:

- **Labels**: the quality is assured by means of a label indicating that compliance with certain standards has been verified;
- **European Code of Conduct for EPC**: the signing company commits itself to comply with the values and principles contained in the Code;
- **Guidelines**: non mandatory statements by which to determine a course of action;
- **Contract Templates**: contract templates containing specific clauses are published by public bodies or through legislation;
- **Registration**: companies must meet specific requirements to access the registry



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How does a quality assurance scheme affect the market? (I/IV)

- ✔ Although there are other quality assurance schemes in many European countries for specific fields, currently there is none at European level to guarantee the quality of Energy Efficiency Services
- ✔ The QualitEE project proposes a set of homogeneous quality criteria as the foundation of national quality assurance schemes
- ✔ Why is this necessary?



How does a quality assurance scheme affect the market? (II/IV)

✓ Why is it necessary?

- The lack of trust is one of the main barriers for both EPC and ESC markets, according to the Quality survey results (sept. 2017; available in the website)

Figure 19 What are the main barriers to EPC business based on the activities of the last 12 months? (Percentage share of responses by providers and facilitators Sept 2017)

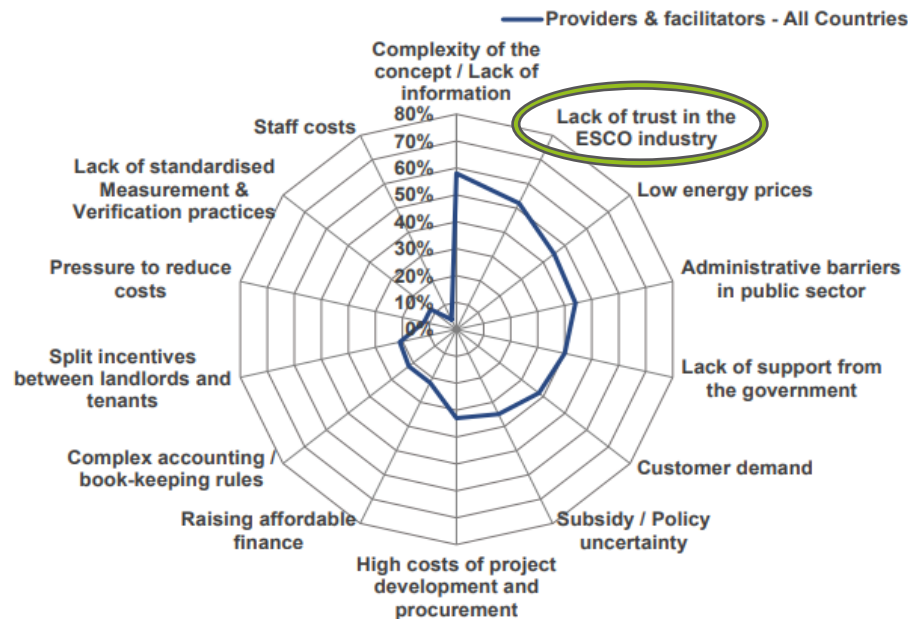
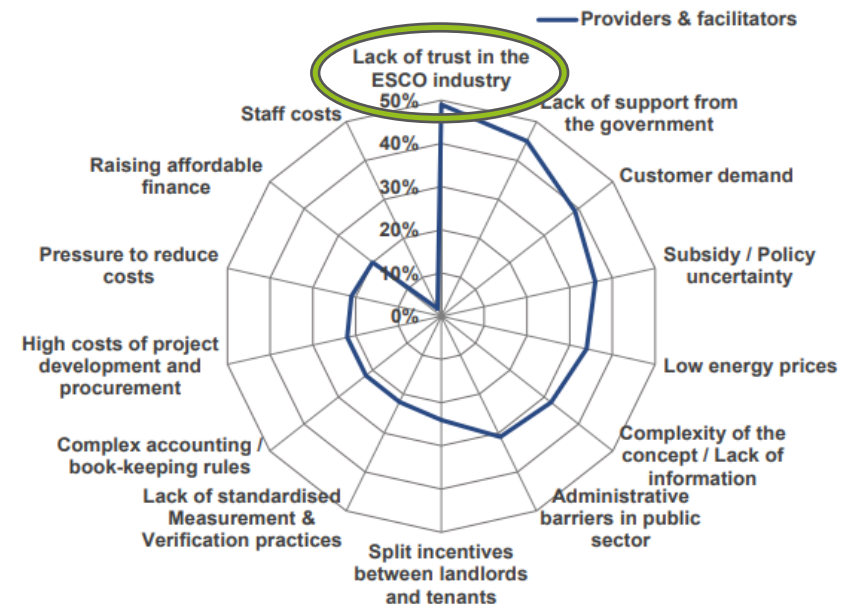


Figure 30 What are the main barriers to the ESC business based on the activities of the last 12 months? (Percentage share of responses by providers and facilitators Sept 2017)

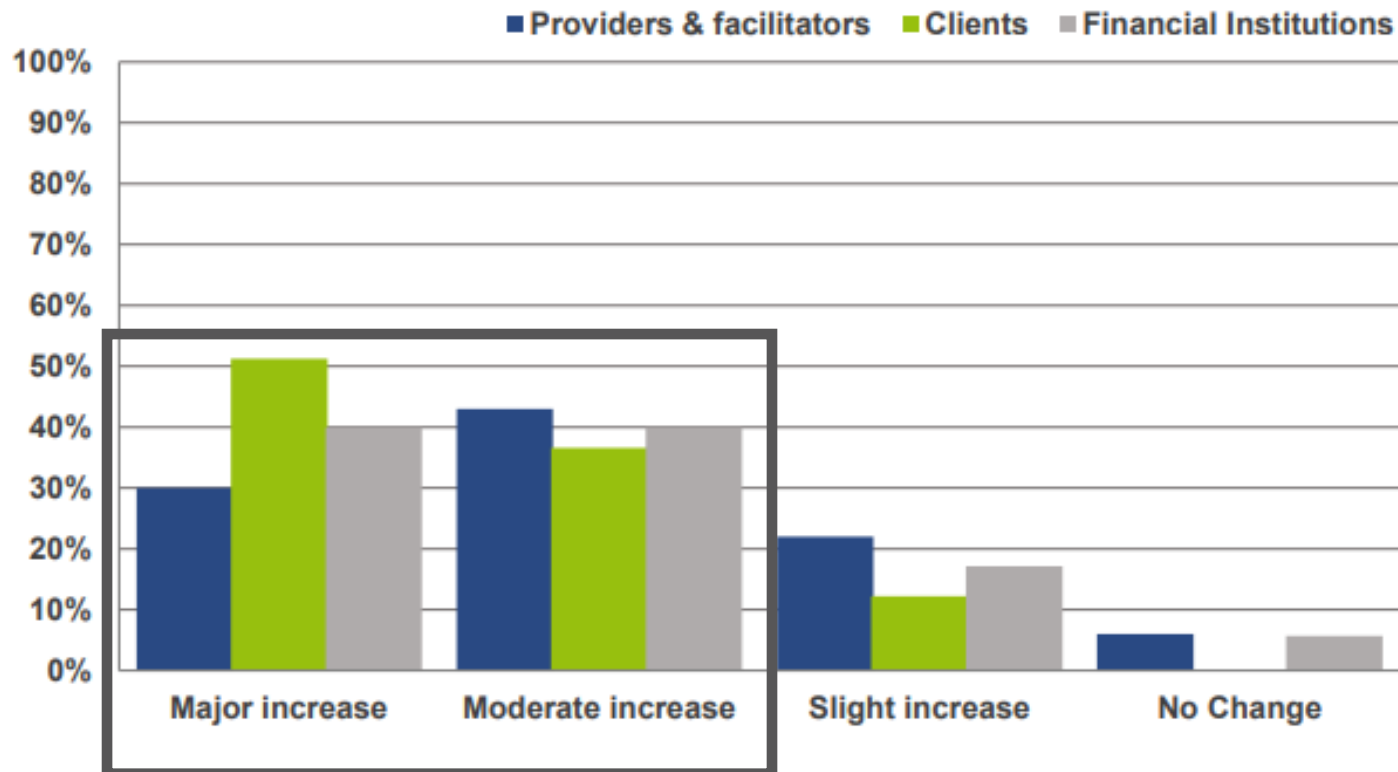


Note: Respondents may have selected multiple answers. The chart shows the proportion of respondent selecting each answer out of overall respondents to the question. Results therefore do not sum to 100%



How does a quality assurance scheme affect the market? (III/IV)

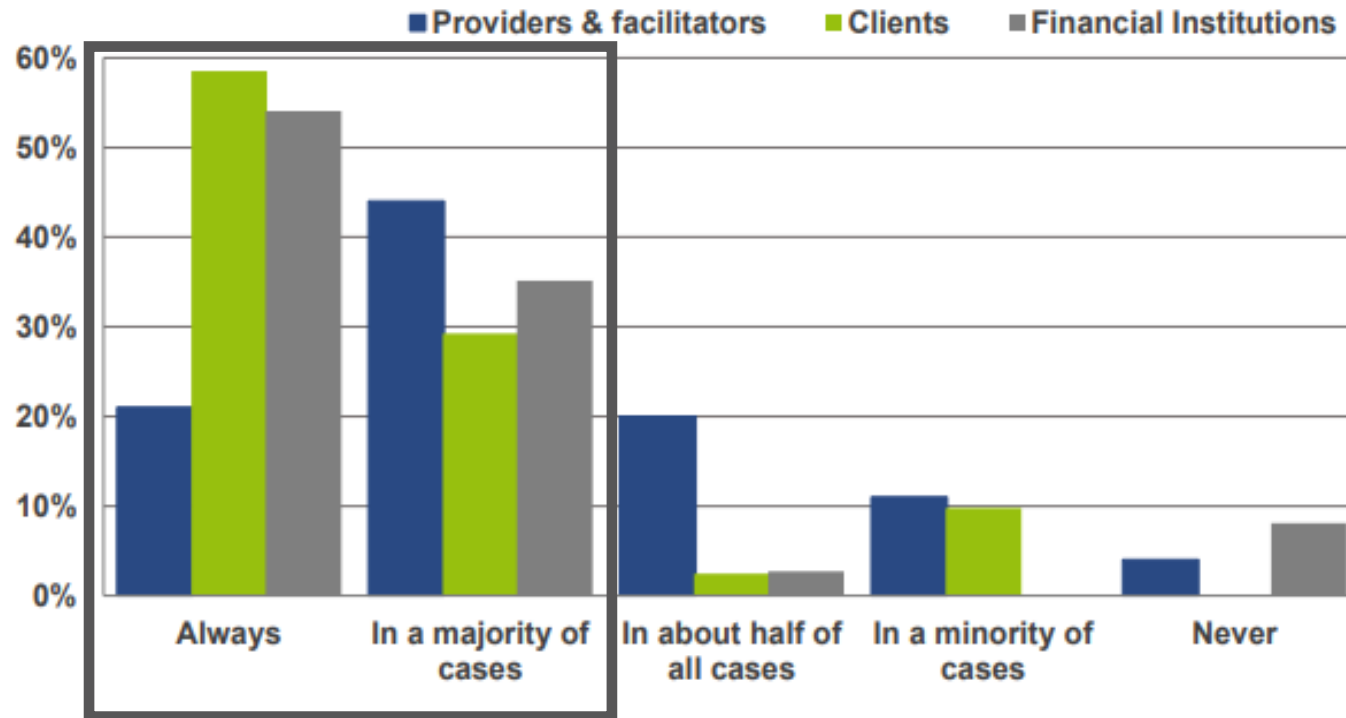
Figure 46 To what extent would a quality assurance scheme increase client trust in EPC/ESC services and providers? (Percentage share of responses by providers and facilitators; and clients¹⁹ Sept 2017)





How does a quality assurance scheme affect the market? (IV/IV)

Figure 51 Would you prefer (implementing/financing) a project, which is subject to quality assurance over a project without quality assurance? (Percentage share of responses by providers and facilitators; and clients²² Sept 2017)





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Categories of quality assurance schemes

Private schemes

- ✓ The quality is assured by a private entity
- ✓ The issuing body is usually an association

"Semi-Public" schemes

- ✓ The quality is assured either by a private entity with public support or by a certification body recognized by means of the accreditation body

PUBLIC SCHEMES

- ✓ The quality is assured by a purely public entity
- ✓ The scheme counts with full recognition



Categories of quality assurance schemes

- ✔ In support of the development of the QualitEE assurance scheme, 84 quality assessment schemes were identified and pre-analyzed
- ✔ Through this process, 63 models were discarded and the 21 most relevant were moved to the next phase
- ✔ Among these, QualitEE partners scored them according to the following criteria:
 - Is a good scheme to assure the quality?
 - Is a replicable scheme?
- ✔ The 10 schemes with the highest score were selected and a comprehensive analysis was performed (available in the website)



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Examples of selected quality assurance schemes in Europe

PRIVATE SCHEMES



"SEMI-PUBLIC" SCHEMES



PUBLIC SCHEMES





Private



DECA Label

- ✔ DECA is an Austrian association made up by 41 relevant ESCO
- ✔ DECA Label was launched to the market in 2018
- ✔ This Label follows a “self-declaration with plausibility check” method
- ✔ QualitEE criteria are based on DECA criteria

DECA

PROVIDER

CLIENT

DESCRIPTION OF THE PROCESS

- DECA sets the quality criteria to be implemented in projects that carry their label
- Provider of EES signs the self-declaration committing to meet the criteria on the projects that carry the Label
- Each project executed under DECA's quality criteria carries a Label with a specific ID number
- Projects are executed with the DECA quality Label
- If reasonable doubt exists, the client may contact a DECA Association member to verify compliance with the criteria
- If the provider does not meet the standards, DECA is allowed to revoke the company's registration



ANESE system

- ✓ ANESE is a Spanish ESCO association
- ✓ ANESE offers two types of certificates:
 - The “ESE” label, for companies that have not yet implemented any projects following the ESCO model
 - The “ESE PLUS” label, for companies that can prove (with evidence) that they have worked following the ESCO model



DESCRIPTION OF THE PROCESS

- ANESE establishes the criteria to be a certified ESCO
- The ESCO must contact ANESE to initiate qualification process, who will redirect them to TÜV Rheinland
- TÜV Rheinland, will audit the ESCO
- The report and evaluation as well as the assessment done will be sent to ANESE
- ANESE will classify the company and consider if the requisites are met
- If the result of the evaluation is not positive, the candidate company is given a resolution period
- If ANESE considers that all the criteria are met, they will proceed to the delivery of the certificate



Passive House (I/II)

- ✓ Passive house is a rigorous, voluntary standard for energy efficiency in a building, reducing its ecological footprint.
- ✓ For a building to be considered a Passive House, it must meet pre-established criteria
- ✓ Passive House certificate can be obtained in two different ways

PASSIVE HOUSE INSTITUTE

CLIENT

CERTIFIED DESIGNER

DESCRIPTION OF THE PROCESS

- The Passive House Institute established the criteria and Passive House Planning Package for buildings to ascribe to, to be considered Passive Houses
- The client wishing to get certified contacts a Passive House Institute Certified Building Designer
- The Certified Building Designer will act both as the designer of the building as well as the accredited certifying body granting the Passive House certificate



Passive House (II/II)

- ✓ The delivery of the certificate corroborates that the documentation provided is correct and complies with the technical requirements of the standards defined at the time of certification.
- ✓ Passive House stamps may only be used in the associated certified building.

PASSIVE HOUSE

CLIENT

DESIGNER

ACCREDITED BODY

DESCRIPTION OF THE PROCESS

- The Passive House Institute established the criteria and Passive House Planning Package for buildings to ascribe to, to be considered Passive Houses
- The client contacts a non-accredited designer to build a who
 - The building will be designed according to Passive House standards using the PHPP program
 - Once the design has been completed, the documentation is sent to the Passive House Institute accredited certifying body
- The documentation required must be provided to the certifier which will be reviewed at least once
 - The client is then given the calculation results corrected with the proposed improvements, if applicable
 - Supervision during the construction phase is not subject to certification
 - After construction, any changes in the planning will be updated
 - If the technical accuracy of the documentation required is confirmed and the criteria established are met, the certificate will be issued.



Quality Label in Construction

- ✔ It is a voluntary, permanent, certification method that evaluates and rates products and services that meet high, professionally prepared and internationally comparable quality requirements
- ✔ The Slovenian Institute of Building and Civil Engineering (ZRMK) is the promoter of the label
- ✔ Companies go through bidding processes to get the Label; this means that only one company per product and service is awarded the label each year



DESCRIPTION OF THE PROCESS

- Candidates hand in proposals that will later be considered for the corresponding bid, which will depend on the type of product/service they offer
- ZRMK will prepare detailed evaluation criteria for the bidding processes
- The evaluation process will be conducted by an evaluation committee
- The evaluation committee will grant the ZKG award
- ZMRK supervises and monitors the use of the ZKG brand



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Bund certificate

- ✓ BUND is one of Germany's biggest organizations for the protection of the environment
- ✓ BUND certification "energy saving hospital" was created in the year 2001; any hospital in Germany can acquire it
- ✓ Criteria to obtain the certificate are: reduction of CO₂, reduction of energy consumption, long-term optimal energy consumption and implementation of energy management

BUND**CLIENT****ESCOs****BUND**

DESCRIPTION OF THE PROCESS

- The BUND establishes 4 quality criteria, and requires that clients meet at least 2 of them to obtain the Certificate
- Clients from the health sector (hospitals, clinics, etc.) implement the measures in order to meet BUND's pre-established criteria
- Clients apply to obtain the Certificate
- To implement energy performance measures, clients contact ESCOs
- BUND verifies compliance with at least 2 of the criteria, in cooperation with technical staff from the facilities
- If criteria are met, the BUND awards the Certificate
- The certification is re-evaluated every 5 years



ISO standard

- ✓ The International Organization for Standardization, is an independent, non-governmental organization, the members of which are the standards organizations of the 163-member countries
- ✓ The use of the standards supports in the creation of products and services that are safe, reliable and of good quality

ISO

STANDARD
DEVELOPMENT

TECHNICAL COMMITTEE

NATIONAL STANDARDIZATION AND
CERTIFICATION ORGANIZATIONS

DESCRIPTION OF THE PROCESS

- ISO sets criteria for the creation of new standards
- Standards must respond to:
 - A need in the market
 - Global expert opinion
 - Multi-stakeholder process
 - Consensus from stakeholders
- Experts form a technical committee responsible for specific subject area
 - develop a standard draft
 - The draft is then shared for commenting and discussion
 - The draft is voted on
 - If an agreement is reached, the standard is published. Otherwise, it is modified and voted on again
 - Standards are implemented in countries by national standardization and certification organizations
- Companies that wish to get certified contact their national certification organizations
 - Initial audit to evaluate if there is compliance with standards is conducted
 - A corrective plan is implemented if there are issues with compliance
 - An evaluation and decision is carried out
 - If requirements are met, the certificate is issued



EPC: Standard contract

- ✓ The Standard Contract was created with the aim of facilitating the comparison of the different proposals to bids carried out by the Public Administration in the scope of energy efficiency
- ✓ The draft contract ensures better transparency and traceability of bidding decisions since all competitors assume the same contracting conditions



DESCRIPTION OF THE PROCESS

- The Austrian Federal Ministry of Science commissioned the Austrian Society for Environment and Technology a standard contract for the implementation of EPC projects between municipalities and EPC providers
- The Austrian Society for Environment and Technology created the standard contract
- The contracting objectives essential to the client are included in the standard contract as well as specific information as required by the implementer
- This facilitates comparability in bids
- After a bid, the project is awarded to an EPC provider
- The contract will be signed including the objectives and specifications established by the Austrian Society for Environment and Technology



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Thermoprofit

- ✓ Thermoprofit is the name of the quality guarantee created by the Graz Energy and implemented for the first time in 1996
- ✓ The Thermoprofit Network consists of suppliers of total service packages called Thermoprofit partners that are prime contractors
- ✓ The energy services provider offering the best tendering criteria is selected objectively through a bidding process.

THERMOPROFIT**CLIENT****EPC PROVIDERS**

DESCRIPTION OF THE PROCESS

- Graz-EnergieAgentur sets a series of quality criteria, specific for each EPC project considering their different characteristics, called Thermoprofit Criteria
- Clients submit a project proposal to Graz-EnergieAgentur
 - An energetic analysis is conducted and possible subsidies are identified by Graz-EnergieAgentur once project proposals have been submitted
 - With the aid of Graz-EnergieAgentur a bid is launched
- EPC providers present proposals committing to Thermoprofit Criteria
 - A qualified EPC provider wins the bid
 - The EPC provider finalizes the contract and implements the measures, following Thermoprofit Criteria



Klimaaktiv

- ✔ The klimaaktiv initiative was founded in 2004 by the Austrian Federal Ministry for Sustainability and Tourism
- ✔ It is an innovative governance tool that integrates good ideas, strength and commitment in the federal states, municipalities, companies and NGOs
- ✔ Transparent standards are formulated, advisory and qualification offensives are initiated and quality assurance measures are implemented
- ✔ It follows a “self-declaration with plausibility check” outline through which a company voluntarily ascribes to the klimaaktiv standards which will be later evaluated by klimaaktiv’s advisors



klimaaktiv

PROVIDER

CLIENT

DESCRIPTION OF THE PROCESS

- klimaaktiv sets the quality criteria to be implemented in projects that carry their standard
- Provider of EES signs a self-declaration committing to meet the criteria on the projects that carry the standard
- Projects are executed with klimaaktiv standards
- If reasonable doubt exists, compliance with standards may be evaluated by an accredited body



CHPQA

- ✓ It is a government initiative providing a practical, determinate method for assessing the efficiency of all types and sizes of Combined Heat & Power (CHP) schemes throughout the UK
- ✓ The CHPQA aims to ensure that any CHP plant (fully or partially qualified) that claims fiscal benefits is highly efficient, making tangible primary energy savings, in line with the requirements of the EU Directive 2012/27/EU on Energy Efficiency, (the EED).

DEPT. FOR BUSINESS, ENERGY &
INDUSTRIAL STRATEGY (UK)

CHPQA

CHP PROVIDER

TAX AUTHORITY

DESCRIPTION OF THE PROCESS

- The Department for Business, Energy and Industrial Strategy in the UK sets yearly performance Good Quality CHP Criteria
- The Department for Business, Energy and Industrial Strategy launches a bid to outsource the management and procurement process of CHPQA
 - Proposals are presented and a CHPQA Administrator is selected
 - Companies will send the necessary information to the CHPQA Administrator, who will examine if the requirements are met
- Companies register for the programme and submit the necessary information according to the scheme they are applying for
 - If the requirements are met, the CHPQA Administrator will grant them validation and certification
- Once the CHPQA Administrator has granted validation and certification, the relevant tax authorities will be notified and they will grant the corresponding benefits



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The QualitEE scheme

- ✔ To be considered as a high quality project under the QualitEE scheme, any EES Project must meet the following quality criteria:

QC-1	Adequate analysis
QC-2	Quality of implementation of technical energy efficiency improvement measures
QC-3	Savings guarantee
QC-4	Verification of energy savings
QC-5	Value retention and maintenance
QC-6	Communication between the EES provider and the client
QC-7	Compliance with users' comfort requirements
QC-8	Information and motivation of users
QC-9	Comprehensible contractual stipulations for the definition of specific regulatory requirements



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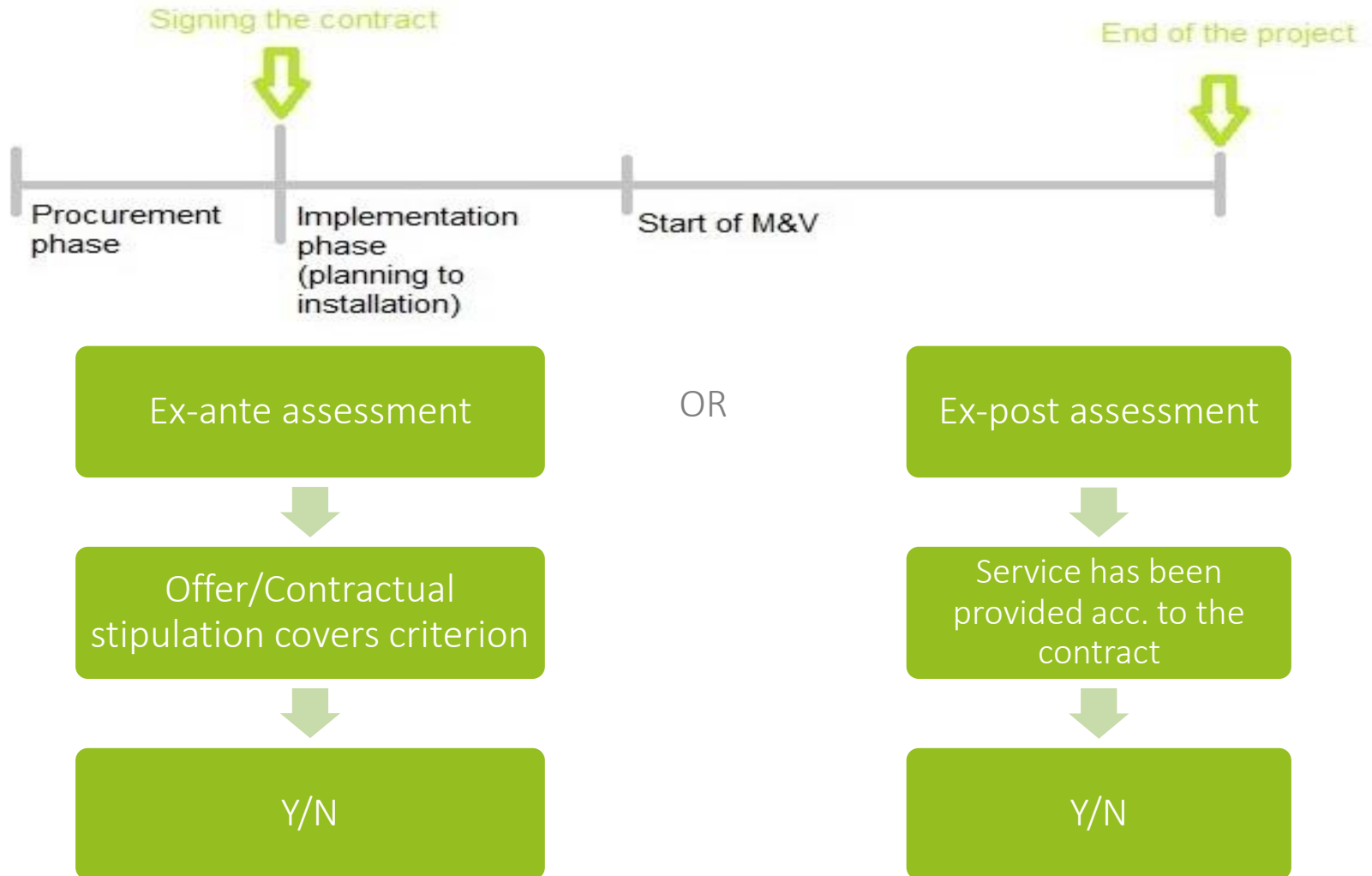


Assessment of quality criteria in the quality assurance process

- ✔ Participants receive information on the general procedure of criteria assessment of real energy efficiency service project examples

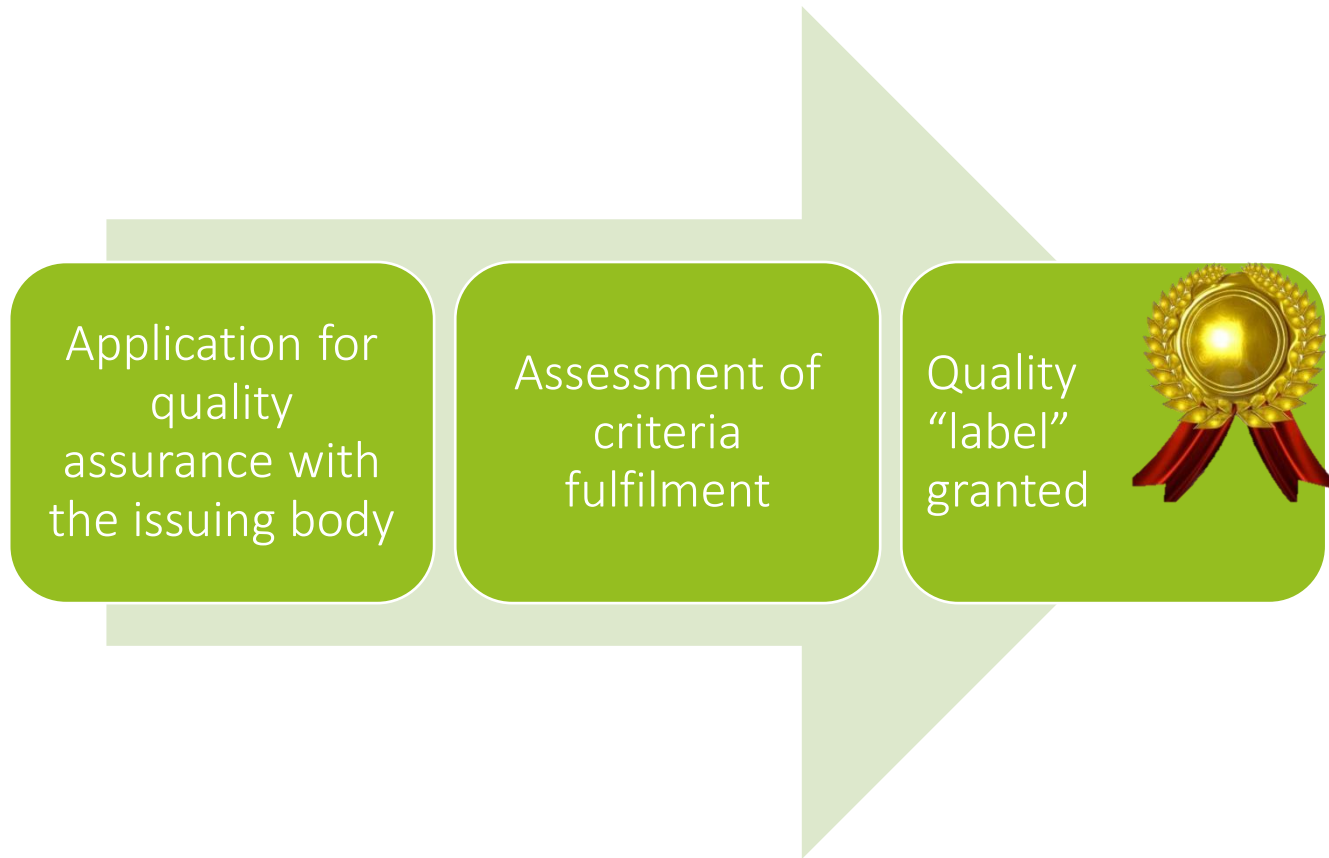


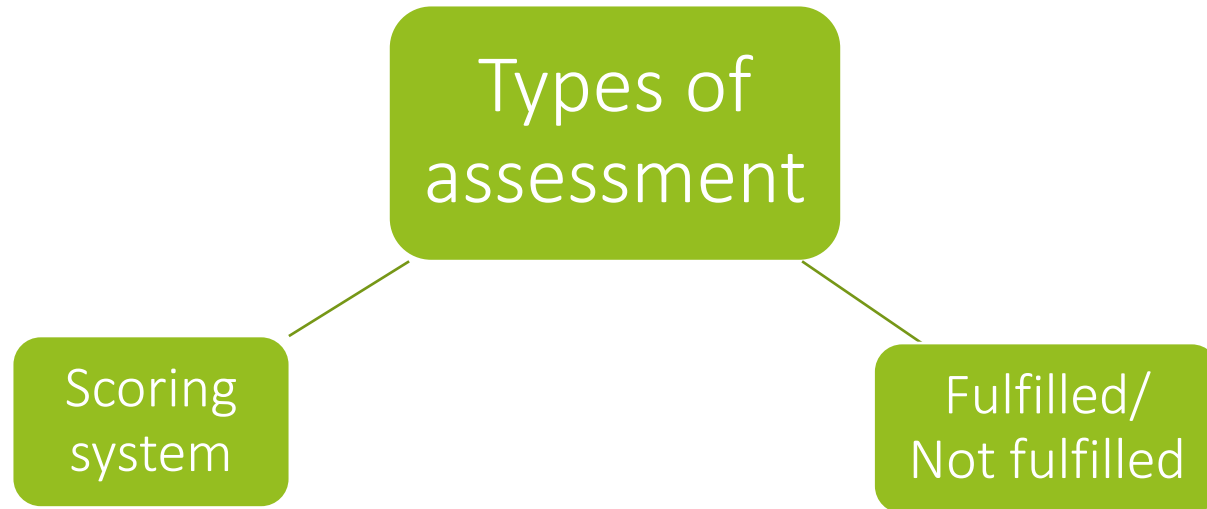
General procedure





General procedure of quality assurance





Definition of compulsory criteria	Definition of compulsory criteria
Score for each criterion	-
Definition of minimum score to acquire quality assurance	Definition of a threshold to acquire quality assurance
Assessment of criteria based on tender documents, offer, contract, etc. (based on criteria scoring)	Assessment of criteria based on tender documents, offer, contract, etc. (fulfilled/not fulfilled)
Total score of assessment (Threshold exceeded)	Assessment result (fulfilled: Y)
Quality “label” granted	Quality “label” granted





Criterion 1-1: Agreement on the process of energy analysis pursuant to EN 16247-1

- ☑ Is the analysis in line with the standard? Is this reflected in the analysis report? Does the analysis report describe the analysis process comprehensible?
- ☑ Does the analysis have all standardized parts:
 - 1) Introductory contact
 - 2) Opening consultation
 - 3) Fixation of the scope of services and design and the framework conditions
 - 4) Data recording
 - 5) External operation/On-the-spot inspection
 - 6) Analysis
 - 7) Report
 - 8) Final consultation



Criterion 1-1: Agreement on the process of energy analysis pursuant to EN 16247-1

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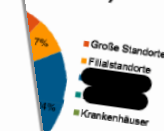
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Executive Summary Energieaudit

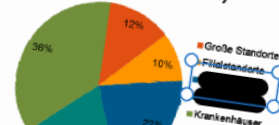
Ergebnisse aus dem Energieaudit

- Die Systemgrenze des Energieaudits der [redacted] umfasst neben den Gebäuden des [redacted] auch das [redacted] sowie die fünf Krankenhausgebäude [redacted] 51.060.000 kWh, was Energiekosten in der Höhe von 4.700.000 EUR entspricht.
- Im Jahr 2014 betrug der gesamte Energieverbrauch [redacted] 12.500 t CO₂e. Das kommt dem Ausstoß von 5.200 Mittelklassewagen mit 20.000 Jahreskilometern gleich.
- Dieser Verbrauch entspricht einem CO₂-Ausstoß von 12.500 t CO₂e. Das kommt dem Ausstoß von 5.200 Mittelklassewagen mit 20.000 Jahreskilometern gleich.
- Im Zuge des Energieaudits wurden konkrete Effizienzmaßnahmen im Ausmaß von 12,7 % des Gesamtenergieverbrauchs identifiziert. Insgesamt wurde dazu ein Katalog von 95 konkreten Einzelmaßnahmen erarbeitet und in den Auditberichten für die einzelnen Unternehmen bzw. Gebäude detailliert beschrieben.
- Allein durch die Umsetzung von low-cost und no-cost Maßnahmen mit einer Amortisationszeit von weniger als einem Jahr kann eine Reduktion des Energieverbrauchs von mehr als 5,5 % erwartet werden, verbunden mit einer Reduktion der jährlichen Energiekosten von rund 270.000 EUR.
- [redacted] stellen zwei sehr komplexe Gebäude dar, die trotz ihres geringen Baualters hohe Einsparpotenziale aufweisen.
- [redacted] sind sehr unterschiedlich hinsichtlich ihrer technischen Eigenschaften und weisen eine große Bandbreite im Energieverbrauch auf.
- [redacted] weisen trotz ihres unterschiedlichen Alters und Ausstattungsstandards ähnliche Energieverbrauchsstrukturen auf. Im Vergleich zu Krankenhäusern anderer Träger liegen die Privatkliniken im Mittelfeld.
- Die [redacted] wurden bereits im Zuge des Audits umgesetzt. Besonders erfolgreich ist, dass bereits während der laufenden Audits zahlreiche Effizienzmaßnahmen in den einzelnen Unternehmensgruppen umgesetzt wurden.
- Im Zuge der Nachweiskontrolle von im Jahr 2015 umgesetzten Energieeffizienzmaßnahmen konnten im Bereich [redacted] jährliche

Energieverbrauch (Wärme & Strom)



Energiekosten (Wärme & Strom)



und -kosten, Aufteilung nach Standorten (Datenauswertung und Grafik e7)

Energieverbrauch und die entsprechenden Gesamtenergiekosten und -kosten (elektrische Energieverbraucher, hinaus sind Energieverbrauch und -kosten auf die Fläche des Gebäudes. Spezifische Verbrauchswerte ermöglichen bedingt

nach Standorten und Verwendung (Datenauswertung e7)			
Verbrauch [kWh]	Kosten [€]	spez. Verbrauch [kWh/m²]	spez. Kosten [€/m²]
2.146.314	283.684	70	9
2.898.157	305.325	94	10
1.108.790	229.176	43	9
2.476.959	218.391	96	8
2.614.03	632.402	116	12
961.780	419.877	118	8
26.836	793.336	222	24
18.820	128.267	91	4
1.064	1.087.021	185	17
1.851	611.313	139	9
174	4.708.812		

verbrauch auf. Dies ist auf die einfachere Ausstattungsstruktur auf. Im Vergleich zu Krankenhäusern anderer Träger liegen die Privatkliniken im Mittelfeld.

Im Zuge der Nachweiskontrolle von im Jahr 2015 umgesetzten Energieeffizienzmaßnahmen konnten im Bereich [redacted] jährliche

Criterion 1-1 fulfilled



Criterion 2-2: On-schedule delivery

- ✔ Stipulation of schedules for the implementation of technical measures
- ✔ Compliance with the stipulated schedules
- ✔ The processes of adjustment of schedules are clarified with the client and contractually agreed



Criterion 2-2: On-schedule delivery

Year	Service provider		Client
Month	Installation and implementation of defined energy efficiency measures	Implementation phase	
Month			
	Finalisation date		
Month	Trail operation		Acceptance of operation
Month	Training of in-house staff		
Month	Operation - Measurement & Verification - Maintenance - User motivation	Operational phase	
Month			
Month			
Month			
Month			Regular reports
Month			⋮
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			
Month			Final presentation



Criterion 2-2 fulfilled



Criterion 3-1: Dependency of remuneration on adherence with savings guarantee

- ✓ The reduction of remuneration is, at least, commensurate with the level of the non-attainment of a guaranteed energy savings.
OR
- ✓ The achieved savings are shared between the EE service provider and the client in a specific proportion.

Erfolgsabhängiges Entgelt

Das Entgelt des Auftragnehmers für umgesetzte Maßnahmen beträgt 70% der erreichten Energieeinsparungen über den Zeitraum von 12 Monaten (voraussichtlich ab Maßnahmenumsetzung), für den vereinbarten Projektzeitraum von 24 Monaten maximal (exkl. MWSt.). Die pekuniäre Bewertung der Energieeinsparungen erfolgt auf Basis der im Zeitpunkt der Maßnahme geltenden Energietarifs.

Criterion 3-1 fulfilled



Criterion 4-3: Clear Definition of the baseline (reference consumption)

- ✓ Determination and justification of a baseline based on a separate assessment of baseline data

1.3. Nachweis der Energieeinsparung

Die Bestimmung der Energieeinsparung erfolgt unter Beachtung der EN 16212 (Berechnung von Energieeinsparungen) auf Basis der Trendreihen aus dem von [REDACTED] betriebenen Monitoringsystem, wobei die aktuellen Zeitreihen (mit Start Anfang März [REDACTED]) als Referenzwerte herangezogen werden. Für die Analyse wird das [REDACTED] von [REDACTED] herangezogen. Änderungen in der Nutzung oder technischen Ausstattung, die Einfluss auf den Energieverbrauch haben (z.B.: neue Beleuchtung), werden vom Auftraggeber [REDACTED] und einvernehmlich berücksichtigt. Für die Klimabereinigung wird die [REDACTED] (März [REDACTED]) herangezogen. Der [REDACTED] des Baseline-Zeitraums [REDACTED] er bereitet die Maßnahmen darüber hinaus so auf, dass sie gegenüber der [REDACTED] werden können.



Criterion 4-3 fulfilled



Criterion 5-4: Clear definition of responsibilities of the service provider with respect to maintenance and repair

- ✓ Contractual stipulations that define the duties of the service provider with respect to maintenance and repair are in place: Illustration of interfaces in system diagram and potentially through labelling on-the-spot.

8. INSTANDHALTUNG UND ÜBERPRÜFUNG DER ABNEHMERANLAGE UND ZUTRITT DES LIEFERANTEN

- (1) Der Kunde ist verpflichtet, für die ordnungsgemäße Instandhaltung der Wärmeverteilungsanlage jenseits der Übergabestation Sorge zu tragen. Voraus mit dem Lieferanten abzusprechen. Wird der Lieferant auch mit der Wärmeverteilungsanlage beauftragt, so ist darüber ein gesonderter, eigenständiger Wärmelieferungsvertrag stehender Wartungsvertrag abzuschließen.
- (2) Der Lieferant ist berechtigt, die Kundenanlage jederzeit zu überprüfen. Der Lieferant hat den Kunden zu erkennen Sicherheits- und Funktionsmängel aufmerksam zu machen. Er kann deren Beseitigung verlangen.
- (3) Werden Mängel festgestellt, welche die Sicherheit gefährden oder erhebliche Störungen erwarten lassen, so ist der Lieferant berechtigt, den Anschluss oder die Versorgung zu verweigern.
- Maßnahme der Überprüfung der Kundenanlage. Unbeschadet davon bleiben anders lautende Vereinbarungen in

Criterion 5-4 fulfilled



Criterion 6-1: Disclosure of contact persons

- ✓ Determination of contact persons in a proper document where respective tasks are described in detail as well as tracking in case of a change of contact persons or the scope of their tasks

Festlegung der Ansprechpersonen

Hauptansprechpartner ist [REDACTED], Kommunikation läuft über ihn. [REDACTED] sind bei wesentlichem Schriftverkehr CC gesetzt.

[REDACTED] ist zuständig für Qualitätsmanagement und stellt Schnittstelle zu [REDACTED] Arbeit und Top Management dar. Im Laufe des Projekts soll eine Information zum [REDACTED] m [REDACTED] erfolgen.



Criterion 6-1 fulfilled



Criterion 7-1: Determination and regular verification of users' requirements

- ✓ User requirements shall be verified and recorded with respect to the following parameters, as long as the respective parameters are affected by the EES:
 - Room temperature
 - Humidity (only in case of special buildings)
 - Air exchange rate
 - Sound level
 - Illumination levels
 - Water temperature
 - Disclosure of stipulated operating hours
 - Reaction time during fault reports
 - Etc.



Criterion 7-1: Determination and regular verification of users' requirements

- ❌ No information available in contract or annex to the contract

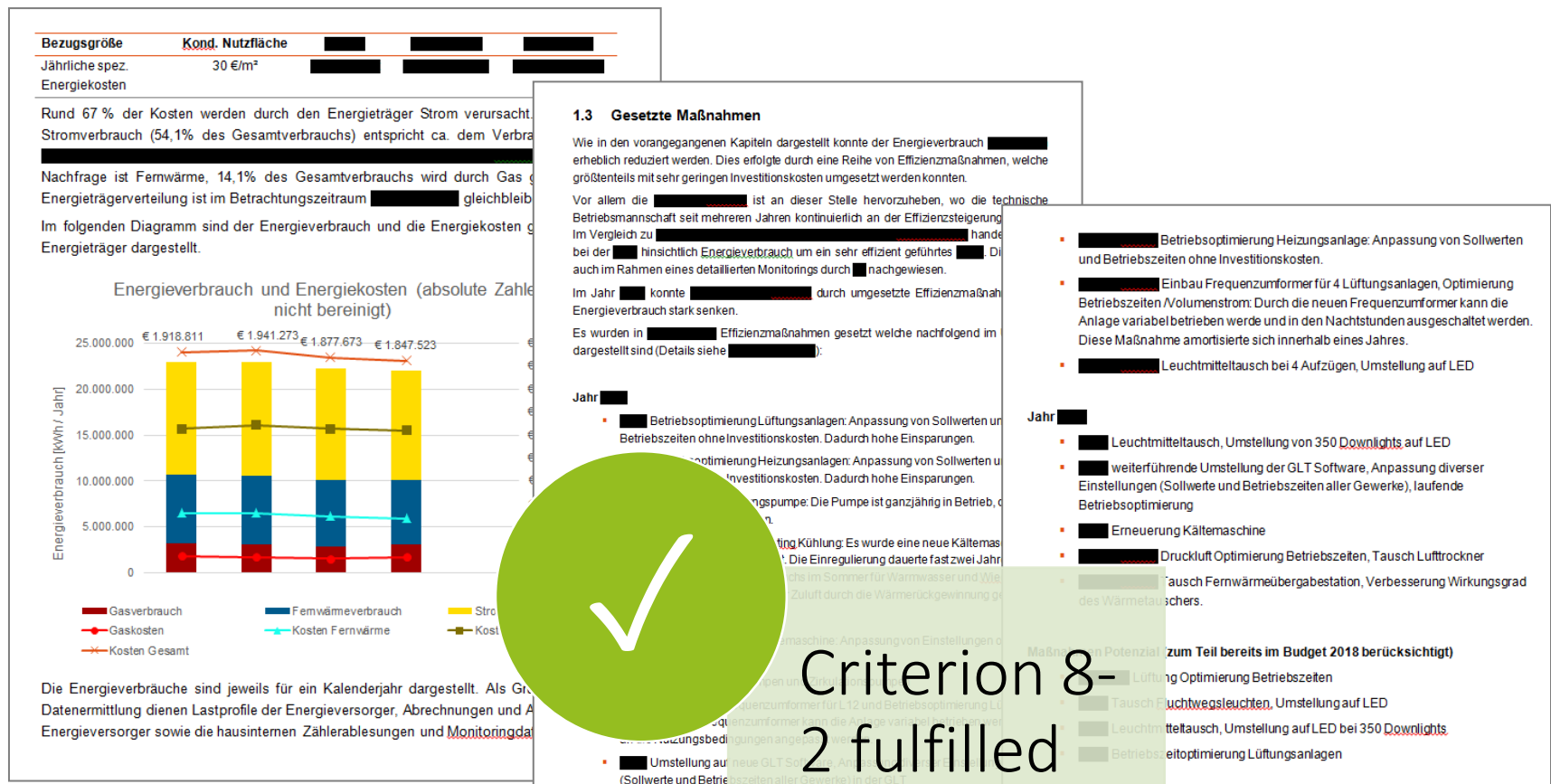


Criterion 7-1 not fulfilled



Criterion 8-2: Publication of an annual report on savings achieved and actions executed

✓ Availability of the respective document





Criterion 9-2: Risk transfer

✓ Availability of the respective contractual regulation

11.6. Haftung und Schadenersatz

11.6.1. Haftungen des Contractors für die vertragliche garantierte Einsparung

Der Contractor haftet für die von ihm abgegebene vertragliche Einspargarantie. Die Haftung ist auf die wirtschaftliche Sicherstellung der garantierten Einspargarantie und somit der Höhe nach auf den sich aus Punkt 9.5.5 Garantiehaftung des Contractors ergebenden Erstattungsbetrag begrenzt. Im Übrigen sind die Haftungs- und Mängelansprüche auf die Höhe der Versicherungssumme gemäß Punkt 11.8.1.2 Haftpflichtversicherung beschränkt.

11.6.2. Haftungen des Contractors für seine vertraglich festgelegten Pflichten

Hat der Contractor in Verletzung seiner vertraglichen Pflichten dem AG einen Schaden zugefügt, hat der AG Anspruch auf Schadenersatz unabhängig vom Grad des Verschuldens. Der Contractor haftet desweiteren für den entgangenen Gewinn (volle Genugtuung) unabhängig vom Grad des Verschuldens.

Der Contractor hat seine Leistungen nach dem Letztstand der allgemein anerkannten Regeln der Technik mit der von ihm als Fachmann zu erwartenden Sorgfalt (§1299 ABGB) zu erbringen.

Zahlungen des AG gelten nicht als Verzicht auf die Geltendmachung irgendwelcher der oben angeführten Ansprüche.

Alle durch ihn oder seine Erfüllungsgehilfen (Dienstnehmer, Subunternehmer etc.) durch seine Handlungen verursachte Schäden, die gegen den AG gerichtet sind. Wird der AG für einen Schaden genommen oder wird auf Grund einer Handlung oder Unterlassung des Contractors ein Verwaltungsverfahren gegen den AG eingeleitet, hat der Contractor den AG zu entschädigen.

Der Contractor ist verpflichtet, die Kosten einschließlich aller Verfahrenskosten, die in dieser Sache aus der Verurteilung vor Gerichten und/oder Verwaltungsbehörden entstehen, zu ersetzen. Der Contractor ist verpflichtet, Maßnahmen sicher, dass eine Geschäftsführung dem AG nicht in Anspruch genommen wird.

Der Contractor trifft bzw. Handlungen beabsichtigt durchzuführen, welche offenbar gegen die geltenden Regeln der Technik verstoßen. Hat der Contractor zu seiner Haftung im Falle der Verletzung der Pflichten durch diese Haftungsbegrenzung nicht beschränkt. Der Contractor haftet für die von ihm verursachten Schäden aufseiten des Contractors nur bei Vorsatz und grober Fahrlässigkeit. Diese Einschränkung gilt nicht bei Personenschäden.

11.6.3. Haftungen des AG für seine vertraglich festgelegten Pflichten

11.6.3. Haftungen des AG für seine vertraglich festgelegten Pflichten

Der AG haftet für die von ihm verursachten Schäden aufseiten des Contractors nur bei Vorsatz und grober Fahrlässigkeit. Diese Einschränkung gilt nicht bei Personenschäden.

11.7. Sonstige Pflichten

Ein

Einpar-Contracting: Mustervertrag

zu Vertragselementen

Ministeriums für Wissenschaft, Forschung und

bmwf
Bundesministerium für
Wissenschaft, Forschung und Wirtschaft



Criterion 9-2 fulfilled

Quelle: Einsparcontracting Mustervertrag Vorlage, Österreichische Gesellschaft für Umwelt und Technik (ÖGUT) im Auftrag des Bundesministeriums für Wissenschaft, Forschung und Wirtschaft, 2012



Total result (example)

- ✓ 35 of 38 criteria fulfilled
- ✓ All mandatory criteria fulfilled
- ✓ Quality “label” granted





QualitEE pilot projects

- ✔ These criteria are being tested on real pilot projects



Thank you

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