



# **Energy Management Centre**

### ...making Energy Management easy

Findings from Audit R	eport				]
Dashboard	Monitoring Tasks		Energy team		
Actions for "Steam System"		Steam System	•	Upcoming Tasks	
, to not it		Citam Oyoto		Find Supplier	
Economizer in Steam System Static Pay-Back time (years): 2.0 Internal Rate	<ul> <li>Action: Economizer</li> <li>In 13 Days</li> <li>Assigned</li> <li>Responsible: Ricardo</li> </ul>				
► Insulation of Boiler in Steam Systatic Pay-Back time (years): 17.0 Internal Ra 1000.0	<b>rstem</b> ate of Return (%) :40.0 Required Investment (EUR		Implement!	Find optimal time for insta • Action: Economizer • In 20 Days • Assigned • Responsible:	allation

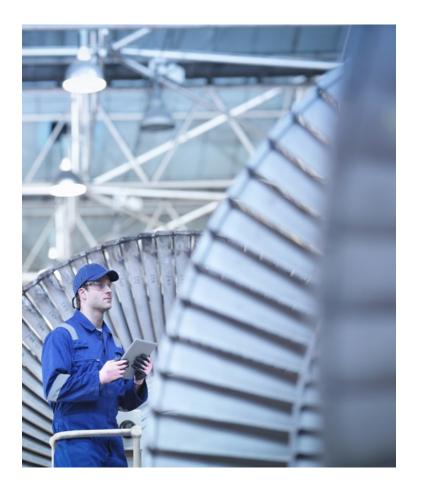
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## **Energy Management Centre**

- 1. What is it good for?
- 2. How does it look like?
- 3. Who can participate?



# STEAM UP



### Most Energy Audit Reports offer:

- Detailed technical descriptions of facilities and Energy Saving Potentials
- Limited Information on profitability concentrating purely on Energy Cost
- A static reporting format (usually a PDF document with many pages)

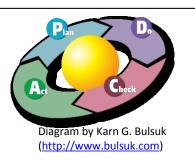
Energy Managers need to:



- Extract relevant information to develop brief "Action Plans" on what has to be done
- Take all benefits of an investment into account to convince Top Management
- Plan responsibilities and deadlines for realisation and make quick adjustments



### EnMC in Steam-UP provides:



- Ready prepared Action Plans on 2 Pages directly applicable for Energy Management
- Cash-Flow Charts and Indicators on Energy and Non-Energy Benefits
- An interactive Gantt-Chart for allocating and tracking responsibilities and deadlines

Energy Managers therefore:



- Save time as they can quickly select and edit the measures they want to implement
- Have less effort to present the Business case to Top Management
- Can easily document and adjust responsibilities and deadlines with a few clicks





	Ms. Auditor Mr. Energy Manager	Energy Manag	ger receives a Link to EnMC from	n the Auditor
Cc: Betref	f: Audit Report / Login to Energy M	anagement Centre	🔁 Audit Report.pdf (60 KB)	
	ear Mr. Energy Manager			

In the appendix you find the complete report on the Steam-UP Audit from 16<sup>th</sup> July 2016. We want to make realisation of measures as easy as possible. Therefore we provide you with the Energy Management Centre (EnMC). It is an easy hands-on management software.

The EnMC offers e.g. an overview over all recommended measures with key financial figures (e.g. pay-off, investment costs), an interactive realization-planner (Gantt-Chart) for planning deadlines and responsibilities, a reminder for upcoming tasks an Energy Network, where we can communicate directly and share documents. You can also share experience with the other participating companies.

It is important that your privacy is protected. Nobody shall except you and me be able to allocate the data to your company. Therefor we do not use your real name, but an Alias. As discussed we used the following Alias.

#### Alias: StName

When you click on the following link, you can create your account and set a password: <a href="https://www.energy-management-centre.eu/go/confirm/XpdpoFRmt3cVdZwm2IaV12nUKenuXEA3">https://www.energy-management-centre.eu/go/confirm/XpdpoFRmt3cVdZwm2IaV12nUKenuXEA3</a>

Best Regards

Ms. Auditor



#### **Energy Manager gets a brief overview over all measures**

Findings from Audit R	eport			
Dashhoard	Monitoring Tasks			Energy team
Actions for "Steam System"		Steam System	•	Upcoming Tasks
	Find Supplier			
Economizer in Steam System Static Pay-Back time (years) : 2.0 Internal Rat	<ul> <li>Action: Economizer</li> <li>In 13 Days</li> <li>Assigned</li> <li>Responsible: Ricardo</li> </ul>			
➤ Insulation of Boiler in Steam Sy Static Pay-Back time (years): 17.0 Internal Ra 1000.0	<b>stem</b> ate of Return (%) :40.0 Required Investment (EUF	Impleme ?) :	nt 🗆 🚔	Find optimal time for installation <ul> <li>Action: Economizer</li> <li>In 20 Days</li> <li>Assigned</li> <li>Responsible:</li> </ul>

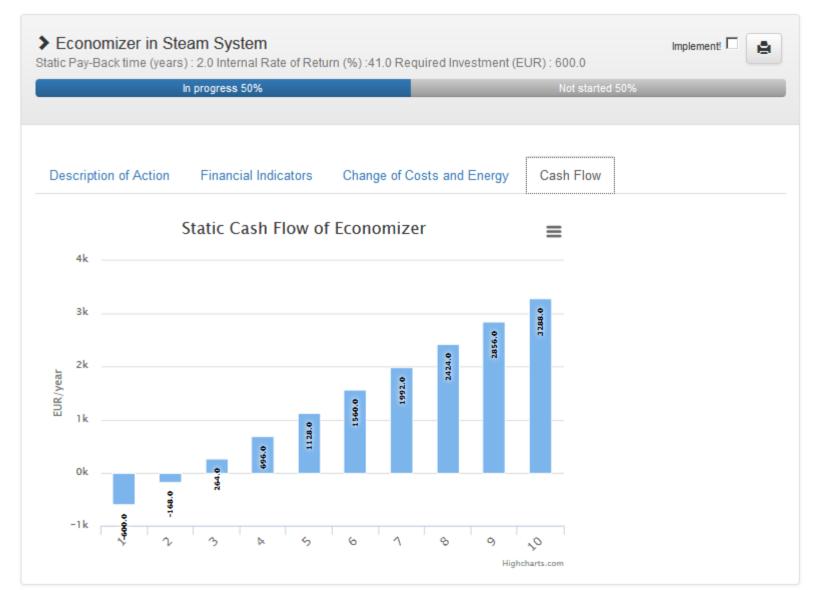
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### **Energy Manager can get more detailed view with one click**

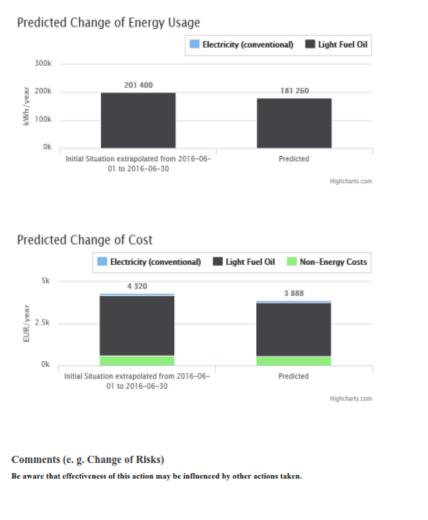




#### **Energy Manager can export Action Plans (as a 2-pager)**

ina	ncial	Indicators (a)	Value (a)	Financial Indicators (b)	Value (b)
Required Investment (EUR)		600.0	Static Pay-Back time (years)	2.0	
inter	nal R	nal Rate of Return (%) 41.		Life Cycle Costs	
Dyna	amic	Pay-Back time (years) Net Present Value (EUR)			
Assu	med	Discount Rate (%)			
EUR/year	4k 3k 2k			2424.0	2886
EL	1k 0k	284.4	0° 969	111860.0	
	-1k	46600.8 -158.0 24	▶ 4	5 6 1 8	9 -\$ <u>9</u>
here i	is no l	ption of Action Economizer installed. This n for Implementation	neans unnecess	ry heat losses	Highcharts.com

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Be aware that effectiveness of this action may be influenced by other actions taken.



Trash

Print

### **Energy Manager can quickly create time plans with responsibilities**

Findings from Audit Report							
Dashboard	Monitoring	Tasks	Energy team				

Actions for "Steam System"

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Steam System

#### Realization Management (Gantt-Chart)

All Tasks Half Year One Year Ty	vo Years			April	Jųly	October	2017	April	July	October	2018
			Jun 26	Jul 03	Jul 10	Jul 17	Jul 24	Jul 31	Aug 07	Aug 14	Aug 21
conomizer ) 18. July 2016		0									
Find Supplier (© 11.07.2018)  Ricardo	₫ 🛛	<b>H</b> • Z		ASSIGNED	÷	Find Sup Start: 29. End: 11. J	June 2016				
Find optimal time for installation © 18.07.2018 L Not assigned	1				ASSIGNE						
sulation of Boiler		0									



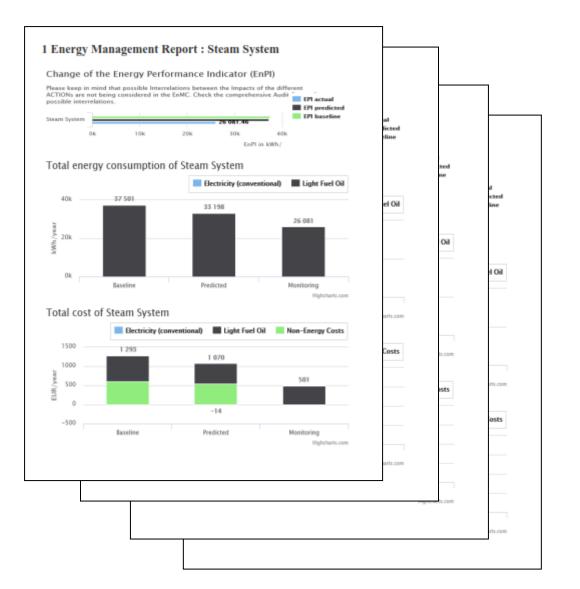
### **Energy Manager can track achieved Savings**

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Findings from Audit R	eport		
Dashboard	Monitoring	Tasks	Energy team
			✓ Print
Evaluation for "Steam Syste	em"	Steam S	System 💌
Change of the Energy Performan	ce Indicator (EnPI)		=
Please keep in mind that possible Interrelations interrelations. Steam System 0k 2.5k 5k 7.5k	between the Impacts of the different ACTIONs are 10k 12.5k 15k 17.5k 20k	not being considered in the EnMC. Check the con 22.5k 25k 27.5k 30k 32.5	EPI actual EPI predicted EPI baseline
			🖍 Edit
Total cost of Steam System	=	Total energy consumption of	
1000	Light Fuel Oil Non-Energy Costs	40k 37 501	Light Fuel Oil
500 0 Baseline	530 481 Predicted Monitoring Highcharts.com	20k Ok Baseline	33 198 26 081 Predicted Monitoring Highcharts.com



#### **Energy Manager can generate Energy Management Reports**



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#### **Structure of the Report**

- Information on the Company
- Information on the Systems in the Company (e. g. Steam production)
- Actions for optimisation of the Systems (e. g. Economizer, new Boiler)
- Status of the Tasks to organise the Actions (e.g. select supplier, prepare installation)





### **Energy Manager can access a Help-Desk and exchange experience**

- Directly contact the Auditor, ask questions, share documents
- Share experience with other Energy Managers in "public" rooms

Steam Up Home Profil+ Energy Network Benchmarking	English 🔽 Logout
Energy Network	
✓ Room just für Company: Fruits Inc. and Auditor: Ms. Auditor	add topic O
Room for all Auditors and Companies: UK	add topic O
Room for all Auditors and Companies: International	add topic O

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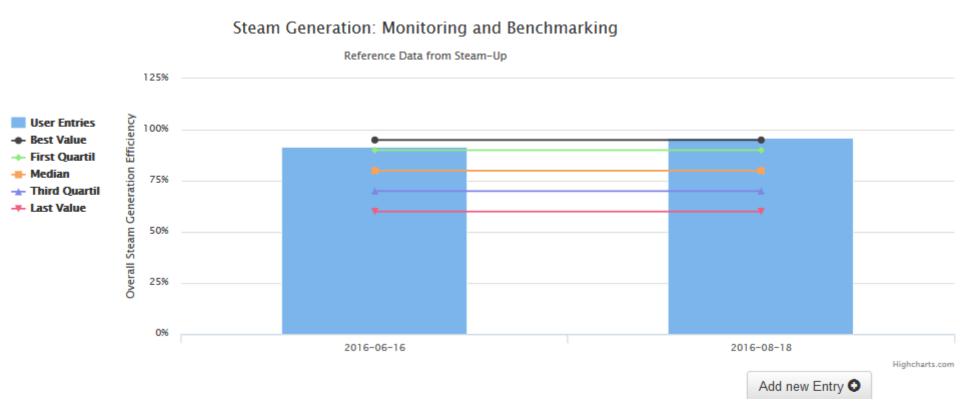


### **Energy Manager can do Steam Benchmarking**

- Quick check on Efficiency of Steam Boiler

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- Steam Monitoring by adding several Datasets



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#### www.energy-management-centre.eu





#### Who can use the EnMC?

All Energy Managers and their external Auditors who plan an Energy Audit with Focus on Steam

#### What does it cost?

- Use of EnMC and Steam-Up Materials is free of charge
- Extra effort for Energy Auditors to report findings in EnMC is covered by Steam-Up (2500 € in Germany)

#### How can I participate?

- Fill out the Letter of Interest, you get it on <u>www.steam-up.eu/de</u>, or write a short E-Mail to Juliane Schröer (<u>schroeer@adelphi.de</u>)
- 10 Audits are available for Germany. First come, first served!
- Other EU countries: check <u>www.steam-up.eu</u>

STEA	NUP Concerning the function and the function and the function of the function
Energy Ma	anagement Centre:
	anagement Centre (EnMC) ist eine Web-Anwendung, die Unternehmen beim Planen, d der Erfolgskontrolle von Energieeffizienz Maßnahmen unterstützt.
Empfehlungen Maßnahmen vi – und Sie kön	aus Energia-Audits gehen im Betriebsallag of lurter, weil die Planung und Urnesbung der al Zul erfordert. Mit dem EnACK som hir Einregeleberter seine Engebnisse digital berüchten nen die Engebnisse direkt für das betriebliche Energiernanagement weiterverwenden. Mit and sie wertrelie Zeit bei der Planung und behalten dem Staht der Umsetzung im Blick.
Der EnMC wur werden Audits	de für das Projekt, Skeam-Up' der Europäischen Kommission entwickeit. In "Steam-Up" zu Dampfsystemen durchgeführt, die sich mit Energieaudits nach DIN 16247 sehr gut seen. Nährer Informationen erhalten Sie auf der Projektwebeisteit hittig/siteamung eu/
Bis zu 10 kostenfre	
Georg Ra	Senden Sie diese unverbindliche Interessensbekundung unterschrieben
ratjen@a Tel: 030 (	per E-Mail an: ratjen@adelphi.de oder per Fax an: +49 (0)30 89 000 68 10
Mit dem	
Empfehle schneller entschei	Unverbindliche Interessensbekundung
<ul> <li>Übers klaren und Ei</li> </ul>	onverbinditche interessensbekundung
<ul> <li>Gute 8 das M Maßni sollen</li> </ul>	Wir haben Interesse im Rahmen eines Energieaudits am Projekt "Steam-Up" teilzunehmen.
- Durch Pseud	Reservieren Sie für unser Unternehmen einen Platz:
Maßnahr organisie	Name des Unternehmens:
<ul> <li>Komfo Arbeiti Veran</li> </ul>	Schätzung Energieverbrauch/Jahr:
- Schne	Name Ansprechpartner:
- Aktuel Umsel Erinne	E-Mail Ansprechpartner:
Einspare	
- Abglei	Für das Audit ist folgender Energieberater vorgesehen:
- Energ	(sofern noch kein Energieberater bekannt ist, dieses Feld bitte freilassen)
Hilfe eini	Name der Beraterfirma:
<ul> <li>Direkt</li> <li>Erfahr</li> </ul>	E-Mail des Beraters:
	Diese Interessensbekundung ist unverbindlich und kann jederzeit widerrufen werden.
	Ort, Datum Unterschrift

Flyer & Template for Letter of Interest



# Thanks for your attention!



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#### Development Team: We may add new features on a voluntary basis

Specification and	Back-End and	Front-End and
Management	Automated Tests	Functional Control
Georg Ratjen	Yusuf Canbay	Silas Schürmann
ratjen@accua.de	canbay@accua.de	Schuermann@accua.de

accua is the free network for developers of green efficiency software in Berlin-Neukölln (www.accua.de)