



AUSTRIAN ENERGY AGENCY

Austrian Energy Agency

Introduction of AEA

Chisinau 16th of February 2012

Petra Lackner

The Austrian Energy Agency In a nutshell

- Austria's national energy agency (founded 1977)
- 75 employees, 7 Mio. EUR annual turnover
- independent think tank from the basis for decision making to the implementation

President

Minister of Environment
Niki Berlakovich

Vice president 1

Minister of economy
Reinhold Mitterlehner

Vice president 2

Governor of Salzburg
Gabi Burgstaller



Responsibility

- to develop, to support & to implement
 - measures, that aim at a rational supply and use of energy
- to support on a scientific basis
 - innovative technologies
 - energy efficient systems and
 - renewable energy sources

Services

- Advice and studies for policy and companies
- Design and realisation of pilot projects
- Programme management & monitoring
- Advice for EU-proposers (in energy programmes)
- Cooperation & networking (EnR)
- Design and realisation of events/conferences
- Know-how transfer & communication
- Information service (websites, newsletters, ...)

Members

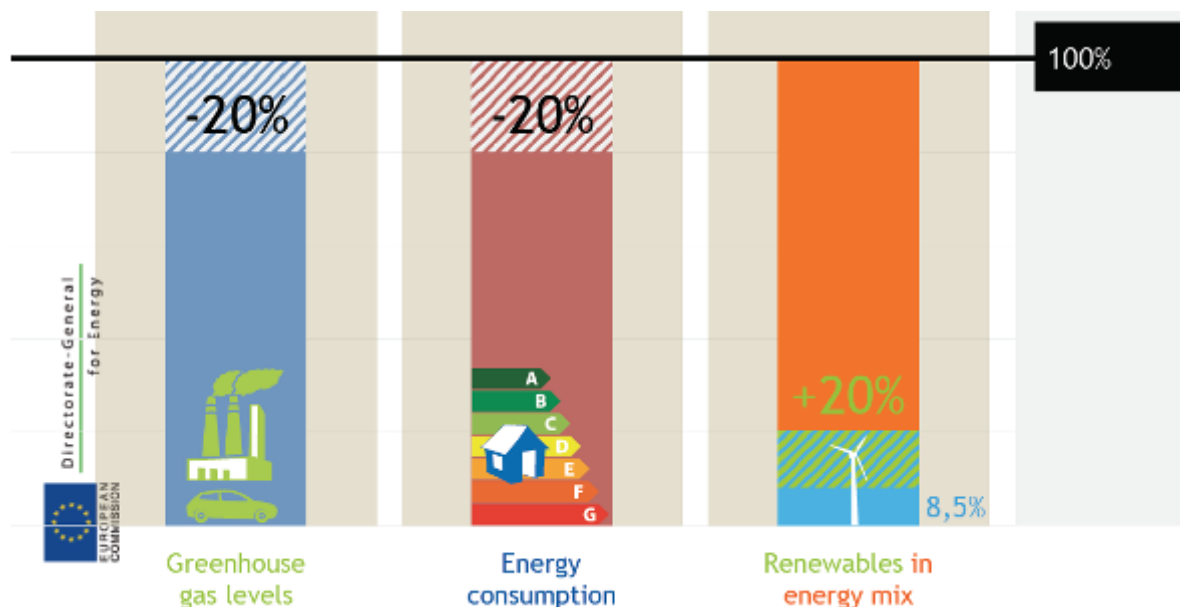
- **Politics:** the federal government, federal provinces, Municipalities
- **Economy:** OMV, OMV-Cogeneration, Wiener Stadtwerke Holding, Energie AG, TIWAG, VKW, Feistritzwerke-STEWEAG, A&B, E-Control, BEWAG, EVN AG, Linz AG, KWI, Ökoplan, Bundesforste AG, VAMED, ÖBB, Schiedel Kaminsysteme, ÖBf
- **Interest groups & Associations:** IV, WKÖ, Fachverbände, AEE, Austropapier, Biomasseverband, GBV, GDI, IWO, ÖAMTC, ÖEKV, ÖVE, ÖVFK, Städtebund, VKI, VÖWGW, u.a.
- **Banks & Insurance Companies:** KPC, S-Bank, Hagelversicherung
- **Scientific organisations & Institutes:** WIFO, EIV, LEV

Most important AEA projects for UNIDO GEF project

- Energy Efficiency Monitoring Body for ESD
- National climate protection program for industrial enterprises
- BESS – Benchmarking and Energy Management Schemes for SMEs

The EU climate and energy package “20-20-20 targets”

- A reduction in EU greenhouse gas emissions of at least 20% below 1990 levels
- 20% of EU energy consumption to come from renewable resources
- A 20% reduction in primary energy use compared with projected levels, to be achieved by improving energy efficiency.



Energy end-use efficiency and service directive 2006/32/EC (ESD)

The European Union (EU) has adopted a framework for energy end-use efficiency and energy services. Among other things, this includes

- an indicative energy savings target for the Member States,
- obligations on national public authorities as regards energy savings and energy efficient procurement and measures to promote energy efficiency and energy services.
- The aim of the ESD is to enhance the cost-effective improvement of energy end-use efficiency.

The Austrian Energy Efficiency Monitoring Body

- The Austrian Energy Agency (AEA) is assigned as the agency responsible for monitoring energy efficiency measures, verifying the energy savings, and reporting the results to the European Commission.
- AEA is the principal partner of the federal government in its effort to attain its energy policy objectives, which aim mainly at an macro-economically efficient production and a rational use of energy, at a stimulation of renewable energy sources and of innovative technologies.

www.monitoringstelle.at

The Austrian Energy Efficiency Monitoring Body

- The responsibilities of Energy Efficiency Monitoring in Austria include
- **developing methods** for the calculation of energy savings and applying them to already implemented energy efficiency measures in Austria,
 - **keeping record of energy savings** in order to document the progress towards reaching the national energy savings target according to Article 4 of the Energy Services Directive,
 - **analysing developments in energy efficiency** in a broader perspective and assisting the Ministry of Economy in preparing a detailed roadmap for future policies.

National Energy Efficiency Action Plans (NEEAPs)

- According to Article 14(2) of the Directive, Member States had to submit their first NEEAPs to the Commission by June 30, 2007.
- In their NEEAPs, Member States should show how they intend to reach the 9% indicative energy savings target by 2016.
- NEEAPs shall describe the energy efficiency improvement measures that are aimed at achieving the savings targets set out in Article 4(1) of the Directive.
- Furthermore the NEEAPs shall describe how Member States intend to comply with the provisions on the exemplary role of the public sector and the provision of information and advice to final consumers.
- 1st NEEA (2007) and 2nd NEEAP (2011) established by AEA

klima:aktiv

Programme for energy efficient companies

Petra Lackner, The Austrian Energy Agency

www.klimaaktiv.at

Initiative to combat climate change

- klima:aktiv is part of the Austrian climate protection and energy strategy
- klima:aktiv is the umbrella for the soft measures
- klima:aktiv strengthens and complements existing initiatives



klima:aktiv-Structure

Ministry of Environment
Strategic Control

Austrian Energy Agency
klima:aktiv Management
Strategic and Operative Management and Co-ordination

Training & Education

Public Relations

Partner Management

klima:aktiv Programs

Mobility

Energy
Saving

Renewable
Energies

Building
& Refur-
bishment

Objectives of the programme “energy efficient companies”

- Awareness Raising for Energy Efficiency in Industry
 - organizing information events in co-operation with sector associations
 - organizing an energy efficiency award
- Implementing energy management according ISO 50001
- Implementing energy efficiency measures in industrial enterprises in co-operation with partners
- Implementing standardized energy audits by organizing standardized trainings for energy auditors

Schritte zur Verbesserung der Energieeffizienz in Betrieben
EIN LEITFADEN



Pump genau
Energiekosten senken – Wasser richtig lenken



klima:aktiv starting points

federal support programmes
for energy audits, chambers of
commerce

831 energy auditors
participated on 37
trainings since 2006

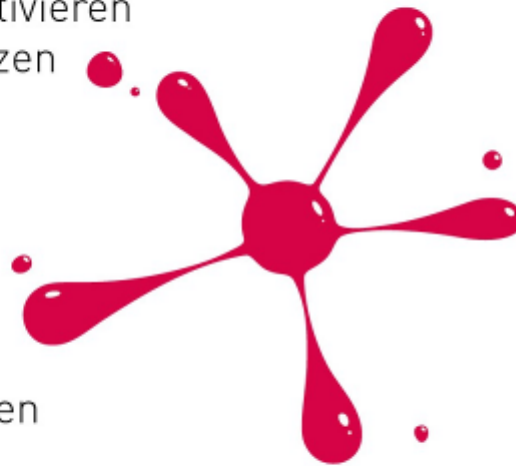
klima:aktiv Profis
aus- und weiterbilden

Akteure aktivieren
und vernetzen

• Standards entwickeln
und Qualität sichern

Beraten und
unterstützen

standards for an initial
audit and special audits



Informieren und
zum Umdenken anregen


trained auditors and
technical partners

energy award, newsletters, 102
best practice examples, branch
energy concepts

Objectives of the BESS Project

- BESS – **B**enchmarking and **E**nergy Management **S**chemes for **S**mall and Medium Enterprises

Supported by

Intelligent Energy  Europe

- Development of supportive tools to implement energy management into companies of the food & drink sector
- Development of an **international energy benchmarking scheme**
- Testing of support package within pilot companies (in Austria DAIRIES)

Pilot Companies BESS and ExBESS

Project	Country	Organisation	Dairy	Meat	Bakery	Brewery	Laundry	Textile dyeing	Textile drying	Total
			(15.51.00.00)	(15.10.00.00)	(15.81.00.00)	(11.05.00.00)	(96.01.00.00)	(13.30.13.00)	(13.30.19.00)	
BESS	Austria	EVA	8							8
BESS	Bulgaria	SOFENA	2							2
BESS	Finland	MOTIVA		4						4
BESS	Greece	CRES	2							2
BESS	Ireland	SEI		3						3
BESS	Lithuania	LEI			5					5
BESS	Netherlands	SenterNovem	15	21						36
BESS	Norway	NEPAS	45	31	6	5	6			93
BESS	Slovenia	JSI	2							2
BESS	Spain	IDAE	7							7
BESS	Sweden	STEM	5		4					9
ExBESS	Romania	Arce	1	1	1			5		8
ExBESS	Portugal	Citeve						2	3	5
ExBESS	Italia	CNA								0
ExBESS	Czech Republic	Enviros				3				3
ExBESS	Slovakia	ECB		2	4		2			8
ExBESS	Latvia	Ekodoma	2			1			1	4
ExBESS	Poland	Kape	1	3	1					5
ExBESS	Belgium	Centexbel							9	9
			90	65	21	9	8	7	13	213

BESS

ExBESS

Table: Breakdown of SME's per sector and per country participating in the BESS benchmark scheme

Pilot phase – first actions before visits

- data collection for business case and benchmarking
- filling out energy management checklist
- preparation of graphs with first benchmark results
- preparation of result of energy management checklist with suggestions for first energy management implementation activities
- preparation of the agenda for visit together with the pilot company (draft agenda from us)
- list of data and information needed from pilot company for visit

Pilot phase – visiting all dairies

- usually half day visit from AEA and consultant with responsible persons from top management, technical department, controlling and production
- presenting first results of business case and first analysis of benchmarks
- presenting energy management specification and suggest first steps
- discuss benchmarks and product categories
- present “first check tool“ of national programme
- visit production site

Necessary input from companies

- energy consumption
- production output according product classes
- average annual boiler efficiency (%)
- results of energy management checklist

optional

- capacity utilization (e.g. in case of a plant breakdown)
- basic energy consumption (energy used independently of the production volume like lighting, PCs, heating etc.)
- heating degree days



BESS | European Energy Benchmarking

Supported by

Intelligent Energy Europe

Einleitung

Spezifischer Energieverbrauch

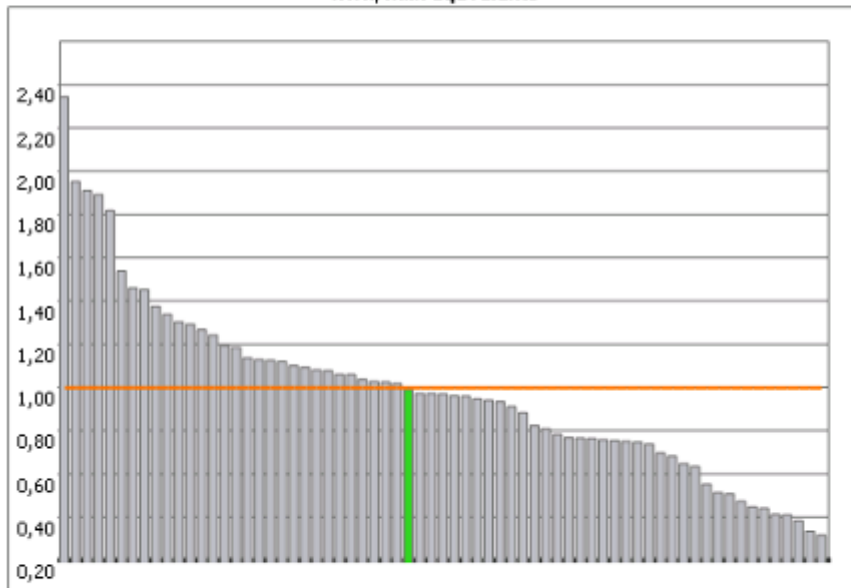
% Verbesserung

Historische Entwicklung

Qualitätskennzahl

Wählen Sie das Benchmarking-Jahr

kWh/milk equivalents



- Ihr Unternehmen: 0,99
- Andere Unternehmen des Sektors. Bester Wert: 0,32
- Arithmetischer Durchschnittswert: 1

Industriesektor: **Dairy industry**

Am Benchmark beteiligte Länder

- Netherlands Ireland
- Greece Spain
- Norway Sweden
- Finland Austria
- Lithuania Bulgaria
- Slovenia

Energieeinheit

- kJ
- kWh

Anpassungsfaktoren

- Produktionsmix mit Äquivalenzfaktoren
- Kesselwirkungsgrad
- Kapazitätsauslastung
- Klimatische Anpassung

Aktualisierung Benchmark

Output:
specific energy consumption (SEC)
of total sector with
normalization
factors



BESS | European Energy Benchmarking

Einleitung

Spezifischer Energieverbrauch

% Verbesserung

Historische Entwicklung

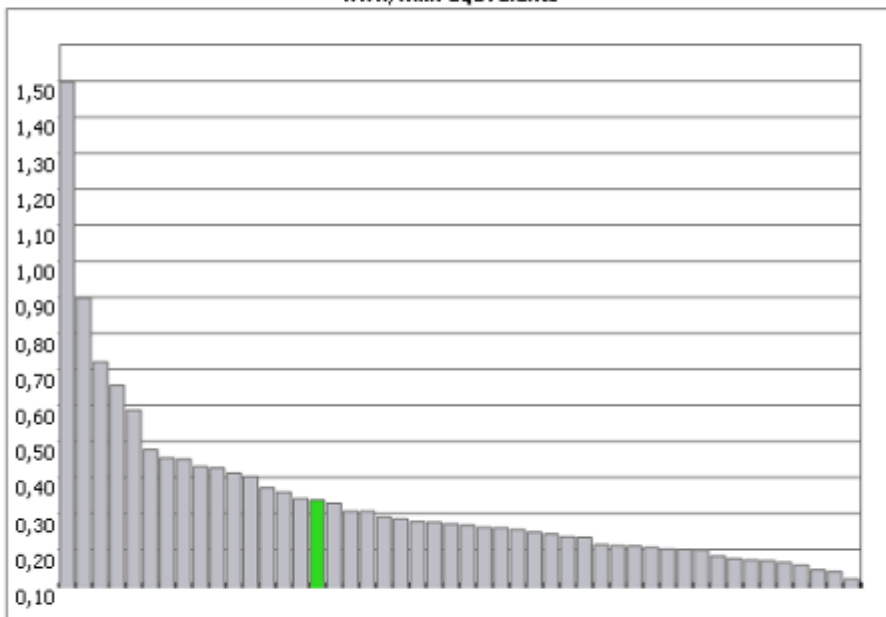
Qualitätskennzahl

Supported by

Intelligent Energy Europe

Wählen Sie das Benchmarking-Jahr

kWh/milk equivalents



■ Ihr Unternehmen: 0,34
■ Andere Unternehmen des Sektors. Bester Wert: 0,12
■ Arithmetischer Durchschnittswert: 0

Industriesektor: **Dairy industry**

Am Benchmark beteiligte Länder

- Netherlands Ireland
- Greece Spain
- Norway Sweden
- Finland Austria
- Lithuania Bulgaria
- Slovenia

Energieeinheit

- kJ
- kWh

Anpassungsfaktoren

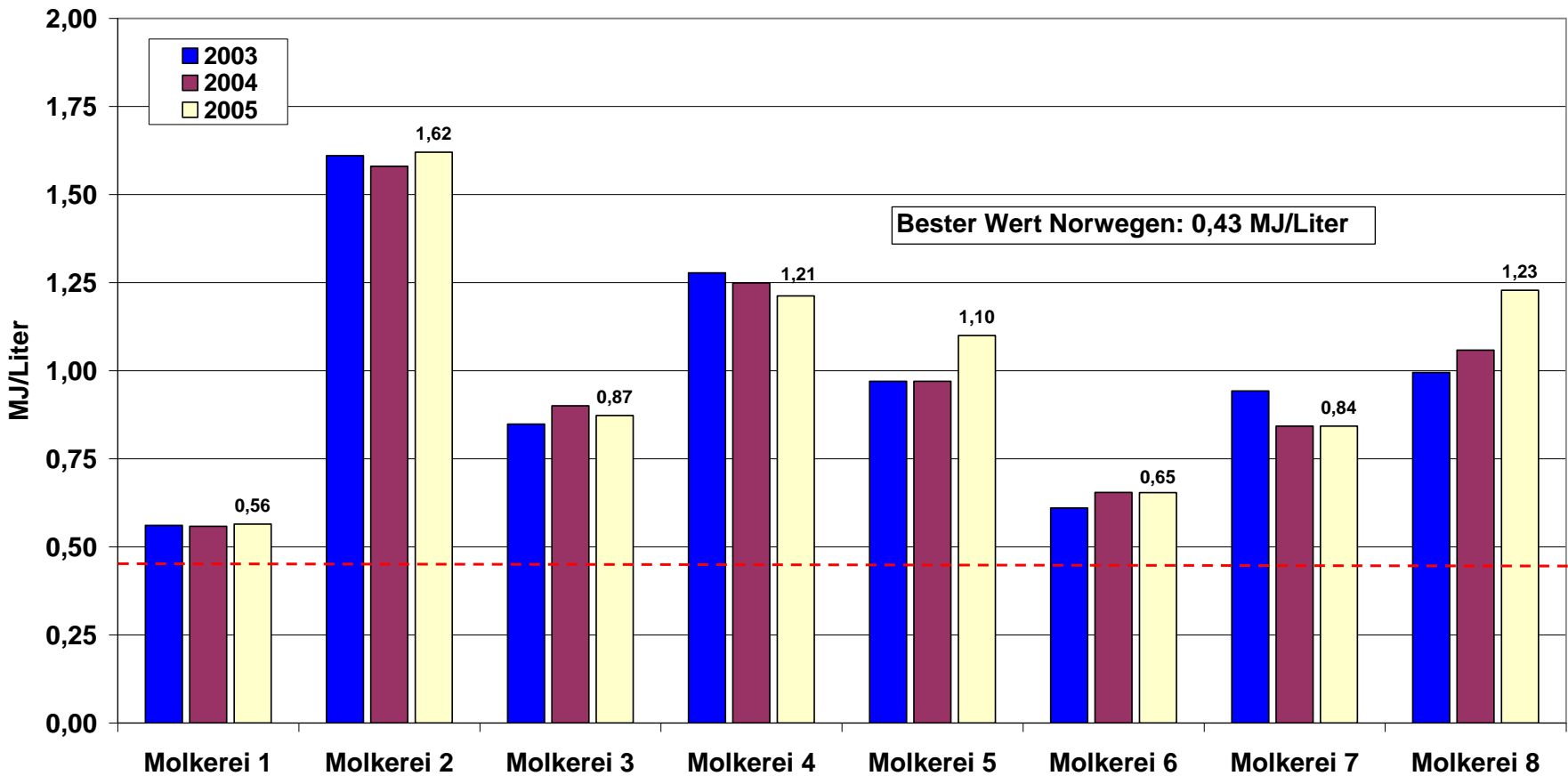
- Produktionsmix mit Äquivalenzfaktoren
- Kesselwirkungsgrad
- Kapazitätsauslastung
- Klimatische Anpassung

Aktualisierung Benchmark

Output:
specific energy consumption (SEC)
of total sector
without
normalization
factors

Specific energy consumption without normalization factors

Spezifischer Gesamtenergieverbrauch, nicht angepasste Produktion
(Österreichische Molkereien)



Quelle: Österreichische Energieagentur

www.energymanagement.at

Benchmarking Tool - Online since January 2008



BENCHMARK

Dateneingabe für Mikrokategorie

Energieträger Gas	5000	m ³
Energieträger Heizöl	0	Liter
Energieträger Strom	60000	kWh
Verarbeitete Rohstoffe	70	Tonnen
Umsatz	50000	EUR
Energiekosten gesamt	0	EUR
Wasser	2000	m ³

Zur Branchenwahl

branchenwahl - Windows Internet Explorer

- ehrdienstleistungswirtschaft
- Büro
 - Büro Rechenzentrum
 - Büro ohne Klimaanlage
 - Büro 500 - 4.000 m²
 - Büro 4.000 - 20.000 m²
- Druckerei
- Handel
 - Großhandel <= 1 Mio Umsatz
 - Großhandel 1 bis 10 Mio Umsatz
 - Großhandel > 10 Mio Umsatz
 - Großhandel gesamt
 - Lebensmittelhandel
- Holz- und Verarbeitung
 - Tischlerei < 0,5 Mio Umsatz
 - Tischlerei 0,5 - 2 Mio Umsatz
 - Tischlerei > 2 Mio Umsatz
 - Tischlerei gesamt
 - Holzindustrie
 - Sägewerk mit Hobelwerk - ohne Trocknung
 - Sägewerk mit elektrischer Trocknung
 - Sägewerk mit Trocknung ohne Hobelwerk
 - Sägewerk mit Hobelwerk und Trocknung
- Hotellerie und Gastronomie
 - Gastronomie gesamt
 - Hotel 1-2 Stern
 - Hotel 3-4 Stern
 - Hotel 5 Stern
 - Hotellerie gesamt
- IT-Z-Workstätten
- Mikrokategorie

