

Establishing the Austrian Energy CERT (AEC)

Best Practice from a Member State

Walter Fraissler, Brussels, Oct 11th, 2018

Agenda

- Personal Introduction
- About Austria and its Electricity and Energy Sector
- Why Establishing the Austrian Energy CERT?
- Who or What is the Austrian Energy CERT (AEC)?
- Austrian Energy CERT Timeline
- The Goals of the Austrian Energy CERT ...
and How to Reach Them
- Benefits of the Austrian Energy CERT
- Summary

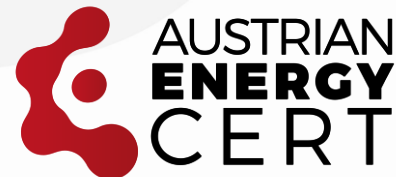
Personal Introduction

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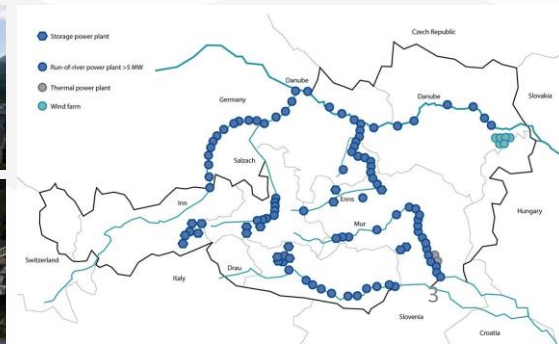
Vice Chairman of ARGE E-CERT



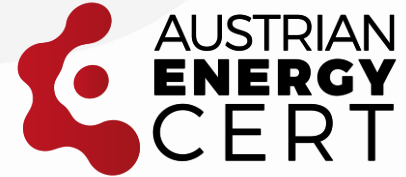
VERBUND

~ 95 % production from renewable sources
approx. 3,000 employees
128 hydro power plants
Austria's leading electricity company
strategic focus on Austria and Germany
51 % owned by the Republic of Austria
Austria-wide charging infrastructure for electric vehicles
social responsibility: € 2.2 million support for „VERBUND-Stromhilfefonds“ of Caritas since 2009
environmental measures - € 280 millions to be invested until 2027
quoted on the Vienna Stock Exchange with excellent compliance culture

approx. 447,000 residential customers – market leader in the industrial customer segment
No. 1 in climate change mitigation among European power supply companies
first green bond in German-speaking Europe
largest hydro power producer in Bavaria
more than 2,000 apprentices trained in the past 60 years
energy related products and services
environmental management – top-10-position of 160 energy companies analysed by oekom research



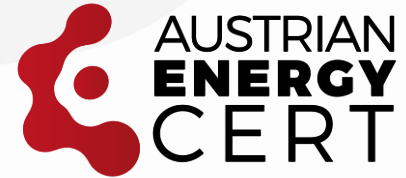
About Austria and its Electricity and Gas Sector



- Federal Republic of AUSTRIA:
Constituted by 9 federal states, subsidiary structure
Population: 8,8 Mio
- Electricity Sector:
140 companies: very fragmented structure of the sector
20.000 employees
65 TWh generation (~ 90 % of domestic consumption)
75 % renewables
- Natural Gas Sector:
Domestic gas consumption 100 TWh (2017)
Natural gas production 13,5 TWh
Total gas storage capacity 95 TWh
Total physical gas transport: 500TWh
Approx. 3.000 km transmission lines and 43.000 km distribution grid



Who are ...



Oesterreichs Energie (OeE)

- Is the **Association of Austrian Electricity Companies** and represents the industry's interests to political and administrative bodies and the public since 1953
- Represents more than 130 member companies
- Member companies generate more than 90 percent of the total domestic electricity production and maintain 250,000 km of power lines
- Negotiates and concludes the collective agreements with the employee representatives

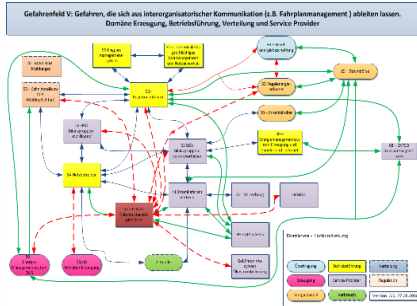
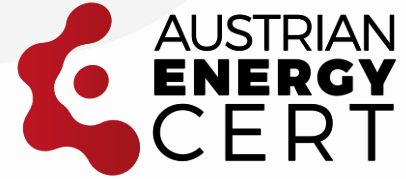


Fachverband Gas Wärme (FGW)

- **Association of Gas- and District Heating Companies** is representing the Austrian gas and district heating industry since 1947.
- Legally commissioned representative for app. 400 gas and district heating supply companies in Austria
- 75 gas companies, including gas grid operators
- Range of services
 - Industry representation
 - Knowledge transfer
 - Business promotion
 - Information services



Why Establishing the Austrian Energy CERT?



Analyzing dependencies and communication within the processes and between systems

		Risiken				
Eintrittswahrscheinlichkeit	häufig	5		12		
	ofters	6	7		7	
	gelegentlich	8	2	5	8	
	selten	15	3			
	unwahrscheinlich					
		katastrophal	sehr hoch	hoch	mittel	gering
		5	4	3	2	1
		Schwere der Auswirkung				

Aggregated risk portfolio

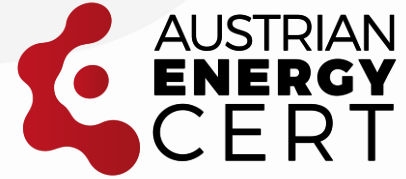
2013 start of a public-private project, initiated by the regulator (E-Control): Experts from energy companies and public authorities worked together in **identifying the risks** and examining them in detail.

This led to a **risk analysis process** concerning information and communication technologies (ICT) used in the electricity and gas sector. And resulted in a successful joint initiative in the form of a continuing public-private partnership (PPP).

This partnership further enhanced **mutual understanding and trust**. It also increased awareness and acceptance of preventative measures.

One of the most important measures was to create and operate a Computer Emergency Response Team (CERT) for the Austrian electricity and gas sector.

Who or What is AEC, the Austrian Energy CERT?



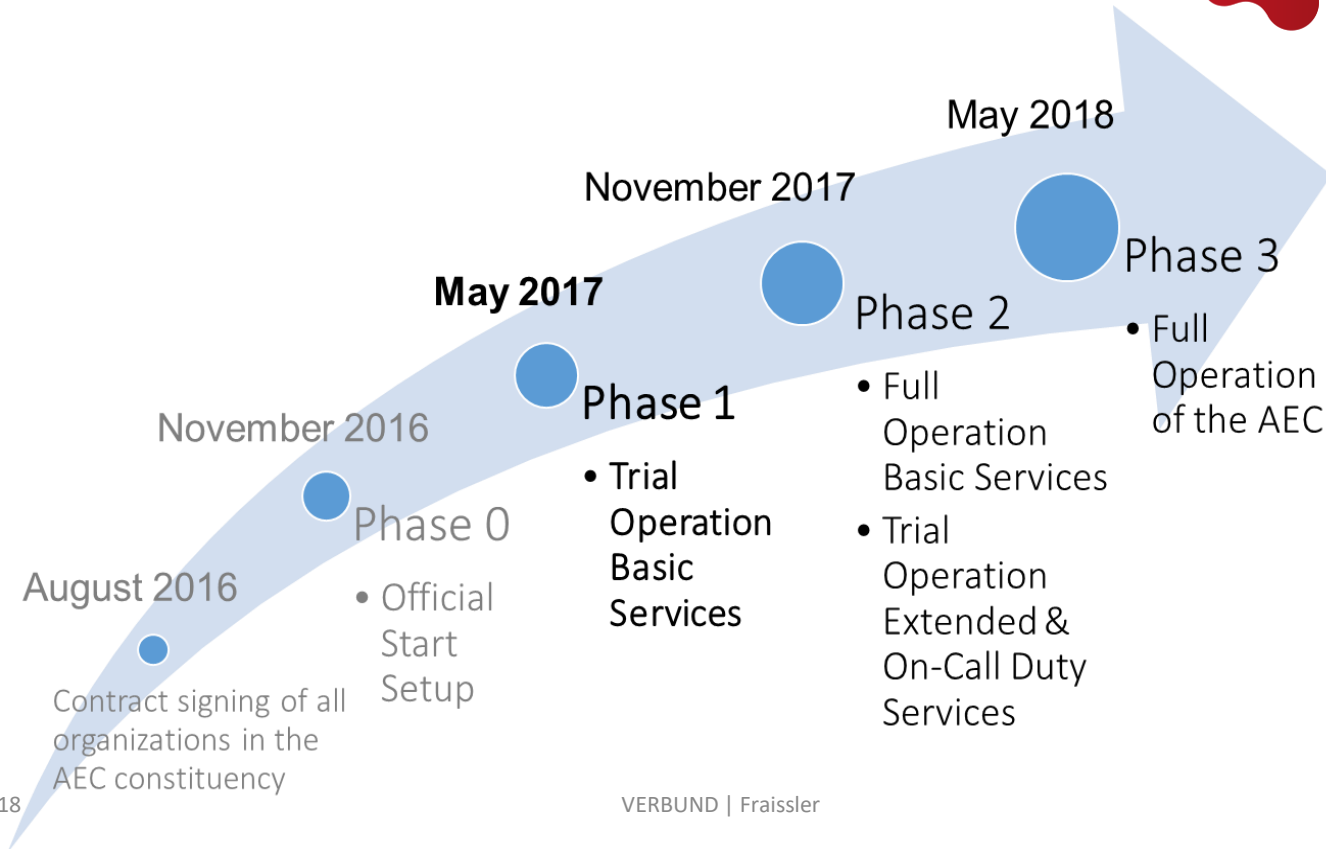
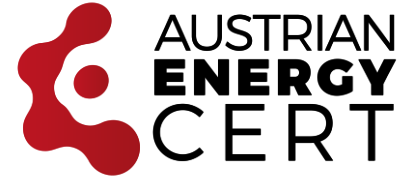
AEC ist the **Austrian Energy CERT**, the Computer Emergency Response Team (CERT) for the Austrian energy (electricity and natural gas, as well as oil) sector.

The AEC has been **established by a consortium** (“Arbeitsgemeinschaft”, ARGE) consisting of 20 partners, and **representing all companies of the Austrian electricity and gas Industry:**

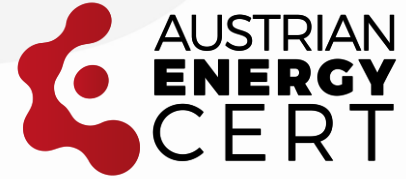
- 13 major companies of the electricity industry
(distribution of electricity and gas – DSO, partly integrated with generation business units),
- Austria's largest producer and trader of electricity,
- The Austrian electricity and two gas transmission grid operators (TSO),
- Two large gas network operators (transmission and distribution network operators),
- The largest oil company in Austria joined the AEC in 2018.

Further information: www.aec.arge.or.at/index.php/en/
https://cert.at/about/aec/content_en.html

Austrian Energy CERT Timeline

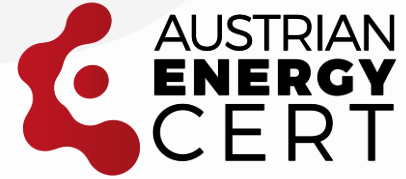


The Goals of the Austrian Energy CERT



- Improving **resilience**:
Detection of security incidents (collecting indicators)
Reaction on security incidents
Reduction of the effective damage of a security incident by accurate, fast and coordinated reaction
- A **single point of contact** in case of national or international security incidents affecting the Austrian energy sector.
- A **trusted partner** for the communication with national and international IT security experts or authorities within the energy industry.
- It supports voluntary **information sharing** within the sector and mandatory **reporting** to the authorities.

How to Reach the Goals of the Austrian Energy CERT



Improving resilience and strengthening the IT security expertise for the energy sector. This includes

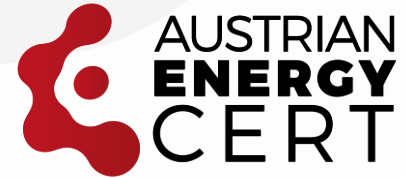
- Providing situation reports for the IT security in the energy sector:
Sector specific knowledge in the team
- Supporting security incident management (processing daily incoming requests)
Exclusively dedicated resources to analyse and handle security incidents in the energy sector
- Conducting trainings and attending international and national cyber exercises
- Supporting in the creation of security concepts for the Austrian energy industry

The Austrian Energy CERT supports **raising awareness** and strengthening the cyber capabilities of the energy sector.

Voluntary **information sharing**, organized by the energy sector itself

Mandatory and voluntary **reporting**: SPoC for the member companies (NIS Directive)

Benefits of the Austrian Energy CERT



- A **dedicated team** with specific knowledge of the energy sector (e.g. IT - OT, specific infrastructure within the sector, sector specific risks and threats), on-call duty 24/7 and on-site-support in the case of incidents.
- Supporting **sectoral analysis** and consideration of sector-specific processes and technologies like smart meters or the implications of the NIS directive
- Forum for **information and cooperation** when cross-company incidents occur
- Synergies through the close **collaboration** with CERT.at and govCERT.at
- A very high level of trust within the energy sector (**trusted community**)
- and **with the public sector** (,Operative Koordinierung‘, ,Cyber Sicherheits Plattform‘, etc.); mandatory and and voluntary reporting services (based on NIS directive) for the energy sector
- Establish and care for relationship with vendors; **preliminary information** (vulnerabilities in products etc.)

Summary

The AEC (Austrian Energy CERT) is a pioneer in

- **Voluntary cooperation** of companies within the energy sector
- Establishing a **private-public dialogue** on security in ICS
- Advancing **information sharing** within a trusted community
- **Trusted cooperation** and communication with public authorities

Depending on the specific situation within member states it may be a positive **role model** for cooperation and trust in sectors that provide essential services for their societies.

Establishing the Austrian Energy CERT (AEC)

Computer Emergency Response Team
for the Austrian Energy Sector

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