ENERGY KNOWLEDGE FOR YOU

PROGRESS REPORT 2025

KWS Energy Knowledge eG

Foreword

The Progress Report of KWS Energy Knowledge eG (KWS) at hand informs members about basic and advanced training measures conducted, further activities and projects as well as board and panel work during the report period of January 1st, 2025 to December 31st, 2025.

Remodeling the power generation structure for the purpose of decarbonization is a key goal of the new CDU-CSU/SPD coalition federal government. Unlike previous administrations, this government regards other energy policy objectives, namely safety of supply and affordability, as equally important. Given geopolitical developments, greater autarchy is becoming more critical steadily. The energy system is experiencing increasing stress because the expansion of renewable energies is outpacing system integration. This urgently necessitates speedier progress in grid expansion, storage facilities, flexible loads, and disposable gas-fired power plants, the only ways to ascertain safety of supply. KWS has been seeing more and more demand for training course from such power plants.

During the report period, enrollment in conventional power plant technology training courses for plant attendant, power plant operator, and power plant shift supervisor was very high. Once again, foreign and domestic members both used KWS's simulator courses for lignite-, hard coal-fired, and CCGT power plants to ensure practical, high-quality basic and advanced personnel training in 2025.

Our nuclear technology seminars focused on conveying fundamentals, business management, skill retention, and radiation protection.

One of the key activities in the field of renewable energies lay in the development of training courses for the use of hydrogen in power generation. Since the expansion of hydrogen usage is a highly important objective of Germany's energy policy, partnerships were founded to help establish KWS as a training provider in this field. The "H2-Bildungszentrum Duisburg" project had to be discontinued due to changes in the availability of grants, however.

Overall demand in the area of thermal waste treatment (TWT) was again very high. There is high demand for the updated training courses, and the new TWT simulator is being used more frequently.. Various members react to market demands by enacting change and optimization measures. KWS assists such measures at the operations and shift crew level with best practice workshops in the areas of social, methodical, and personal skills, for example. Our new "HPO" offering was readily accepted by customers in Switzerland and various nuclear technology facilities in Germany

In conclusion, we would like to express our heartfelt gratitude for your trust vested in us. As your competent provider of basic and advanced training of operating personnel, for organizational consulting and human resource development as well as for the construction and development of power plant simulators, we will continue to be at your service anytime today and in the future.

Ernst Michael Züfle
Board of Directors

Monika Bartels
Board of Directors

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Performance in 2025

Services of KWS Energy Knowledge eG: An overview

The range of KWS's services is best described with the terms basic training, continuing education, advanced training, qualification and consulting. KWS's training offerings operate within the legal framework of Germany's Vocational Training Act, the Ordinance on Industrial Safety and Health, and the Atomic Energy and Radiation Protection Law. Plant Attendant, Power Plant Operator and Power Plant Shift Supervisor courses are unequivocally designed to provide the entire power industry with qualified and certified personnel of the highest order. The wide range of KWS's advanced training offerings enables companies to maintain, adapt or enhance the professional skills of its operating personnel. This area of services comprises certified training courses, officially approved courses, but also customized instruction measures. KWS's comprehensive training simulator pool permits offering companies a wide range of in-depth training options for power plant operating pers-onnel. Organization development is the latest addition to KWS's training offerings and concerns itself with the topics of management consultation and human resources development. The newbie in our organizational development team since 2025 has been the Team HPO (Human Peformance Optimization) whose expertise lies in the establishment and evolution of the safety culture in businesses. Thanks to a unique, practice-based approach, we enhance the safety management that typically exists already so that managers and employees make rules and regulations a natural component of their workplce conduct and actively contribute to their implementation and improvement. Our approach is based on established psychological findings and has been recognized for years as a proven way to improving safety and availability in nuclear technology installations in Germany and Switzerland, for example.

NUMBER OF PARTICIPANTS, COURSES CONDUCTED, TRAINING MEASURES AND PARTICIPANT DAYS: ALL DEPARTMENTS

January 01 – December 31, 2025	Courses conducted	Number of Participants	Number of Participant Days
Conventional Power Plant Technology	121	1.770	45.966
Nuclear Technology/Radiation Protection	50	633	2.454
Simulator Training	78	305	1.260
Organization Development	46	127	256
Renewable Energies	13	110	247
International Activities	0	0	0
Total	**308**	**2.945**	**50.183**

Conventional Power Plant Technology

Basic and advanced theoretical training comprises all instruction measures designed to amplify, expand or renew the professional knowledge and skills of employees who have already completed a first stage of vocational training. Qualification demands on each individual power plant employee are increasing, as both technical and social skills are cornerstones of the modern requirements profile for employees. The concept of lifelong learning is part of working life, especially in a complex technical environment like a power plant. Many outside forces affect the flexible design of power generation, a fact that is reflected by short- and medium-term personnel demands. KWS conducts professional and practical courses and training for these personnel demands.

NUMBER OF PARTICIPANTS, COURSES CONDUCTED AND PARTICIPANT DAYS:
PPO, POWER PLANT SHIFT SUPERVISORS AND CUSTOMER-SPECIFIC ADVANCED TRAINING MEASURES

January 01–December 31, 2025	Courses conducted	Number of Participants	Number of Participant Days
Power Plant Operators (PPO)	15	373	14.359
Power Plant Shift Supervisors–Production	11	219	13.013
Power Plant Shift Supervisors–Production Electrical and Control Engineering	5	88	3.359
Thermal Waste Treatment (TWT)	19	299	9.650
Advanced Training Measures	33	456	3.480
Customer-Specific Advanced Training Measures	38	335	2.105
Total	**121**	**1.770**	**45.966**

Among others, the following courses were held during the report period:

Plant Attendants
128th training course (Essen/Germany)
Module Basic with 67 participants
Module Steam Generation with 70 participants
Module Turbines with 64 participants

129th training course (Essen/Germany)
Module Basic with 35 participants
Module Steam Generation with 37 participants
Module Turbines with 42 participants

Plant Operator TWT
16th training course with 24 participants
17th training course with 24 participants
18th training course with 26 participants
19th training course with 21 participants

Power Plant Operators
137th training course with 60 participants
138th training course with 28 participants
138th training course with 19 participants (online)
139th training course with 60 participants

Power Plant Shift Supervisors–Production
149th training course with 21 participants
150th training course with 37 participants

Power Plant Shift Supervisors – Production Electrical and Control Engineering
52nd training course with 11 participants

Power Plant Shift Supervisors–Thermal Waste Treatment
6th training course with 11 participants

Nuclear Technology/Radiation Protection

Nuclear Technology training is three-pronged:

1. Training of personnel from nuclear facilities
2. Nuclear facilities personnel skill retention and instruction, respectively
3. Radiation protection training

The training lineup comprises officially required courses for qualification acquisition of responsible personnel as well as officially approved courses for qualification acquisition and updates in radiation protection. Instruction measures for personnel otherwise employed in nuclear power installations follow the respective guideline of Germany's Federal Environment Ministry. In addition to skill acquisition courses, KWS's training measures also include a wide range of skill retention training options.

NUMBER OF PARTICIPANTS, COURSES CONDUCTED AND PARTICIPANT DAYS:
NUCLEAR TECHNOLOGY / RADIATION PROTECTION

January 01 – December 31, 2025	Courses conducted	Number of Participants	Number of Participant Days
Power Plant Shift Supervisors – Radiation Protection	2	8	16
Nuclear Basics	4	34	806
Skill Retention	24	206	273
Skill Acquisition in Radiation Protection	4	60	192
Special Courses Nuclear Technology/Radiation Protection	16	325	1.003
Total	**50**	**633**	**2.454**

Simulator Training

The KWS simulators are utilized to practice efficient power plant operations under normal operating conditions as well as handling malfunctions effectively. In addition to safe plant operations, process engineering technology interaction is immersively trained, if so required. The simulators facilitate quick, easy, and safe familiarization with current process engineering systems. By being able to deal with critical plant scenarios in this risk-free simulator environment, operating personnel is enabled to acquire confidence in managing such situations in the real-life installation.Crews from standby or reserve plants receive little exposure to actual operations due to infrequent operating times of their installations. It is therefore challenging to maintain operational practice, safety and skills of such personnel. KWS assists businesses with customized simulator training in all such cases. Aside from operations training, simulator sessions may be used to practice social skills like teamwork, leadership and communication as well as work out and establish decision-making strategies. KWS rich experience of many years in these areas contributes to an ongoing process of improvement in power plant operations. If so desired, simulator training may be conducted on location – at the power plant or the local training center – all around the world.

NUMBER OF PARTICIPANTS, TRAININGS CONDUCTED AND PARTICIPANT DAYS: SIMULATOR TRAINING

January 01 – December 31, 2025	Trainings conducted	Number of Participants	Number of Participant Days
Simulator for Fossile Fired Power Plants	5	20	77
Thermal Waste Treatment (TWT)	4	19	82
Lignite 600/1100 MW	20	74	305
Hard Coal 800 MW	21	75	269
Hard Coal 1100 MW	1	3	18
CCGT 750-3 (SPPA-T2000)	1	3	15
CCGT 750-3 (SPPA-T3000)	26	11	494
Total	**78**	**305**	**1.260**

Construction Committee "Simulator for Lignite-Fired Power Plants"

The Construction Committee "Simulator for Lignite-Fired Power Plants" was founded in 2008 for the implementation of the respective simulator. Since then, the committee has been assisting and advising KWS in carrying out and developing the different variants of the lignite simulator. During the report period, the committee convened for its 38th session on September 29th, 2025. The focus was on the continued maintenance and development of the BoA3 und NiaG simulator variants in order to ensure a steady high quality of simulator training with the goal of skill retention. Control engineering upgrades and the integration of existing systems into the main control engineering technology of the reference plants made it necessary to install the current control engineering codes for both simulator variants in the simulator in order to be able to conduct future simulator training at the most up-to-date level of automation

Elements from the area of cybersecurity in power plants are to be incorporated in simulator training in the future to create operator awareness of this topic and to act accordingly when necessary.

Organization Development

The transition from power and heat producers to sustainable energy managers and partners that interact eye to eye with customers and the industry is in full swing at our member businesses.
This process challenges every business to address the transition dynamically and proactively as a "learning organization" so that customer needs may be met dependably and economically both in the short and in the long run.
We assist you in personnel selection, team development, conflict management, leadership coaching, and especially organization development with our services.
The newbie in our organizational development team since 2025 has been the Team HPO (Human Peformance Optimization) whose expertise lies in the establishment and evolution of the safety culture in businesses. Thanks to a unique, practice-based approach, we enhance the safety management that typically exists already so that managers and employees make rules and regulations a natural component of their workplce conduct and actively contribute to their implementation and improvement. Our approach is based on established psychological findings and has been recognized for years as a proven way to improving safety and availability in nuclear technology installations in Germany and Switzerland, for example.
We are at your disposal as your partner in organizational change guidance to help your business integrate into the new structures evolving.

NUMBER OF PARTICIPANTS, COURSES CONDUCTED, MEASURES AND PARTICIPANT DAYS: ORGANIZATION DEVELOPMENT (OD)

January 01 – December 31, 2025	Courses/Measures conducted	Number of Participants	Number of Participant Days
OD Consulting and Workshops	46	127	256

Renewable Energies

Hydropower:
Base and immersion courses enjoyed stable demand and were held as planned.
Wind power:
In 2025, KWS was able to establish the foundation for long-term qualification measures in addition to renting out the wind power training installation and conducting a number of short-time seminars. Very encouraging are incoming bookings from RWE Offshore Wind GmbH for their apprentices and future electricians. KWS gained a higher profile outside the circle of its members thanks to intensified efforts to work relevant associations.
Hydrogen:
In the field of hydrogen, KWS performed a strategic reorientation toward organic growth with a focus on more specific advanced training offerings. As part of this effort, necessary infrastructure measures were launched for the future conveyance of practical training contents in the area of hydrogen. Aside from these developments, the team has adopted a wider strategic stance in order to assist the activities of the members in new technologies, specifically by introducing a pertinent training course covering power-to-heat (large heat pumps) and power storage systems (BESS).

NUMBER OF PARTICIPANTS, COURSES CONDUCTED AND PARTICIPANT DAYS:
RENEWABLE ENERGIES

January 01–December 31, 2025	Courses conducted	Number of Participants	Number of Participant Days
Renewable Energies	13	110	247

International Activities

In November 2025, a delegation of Indian power industry representatives paid KWS a visit. The visitor's agenda covered the topic of "Flexibilization of the Power Supply" and was organized in collaboration with Gesellschaft für internationale Zusammenarbeit (GIZ) and vgbe energy e.V. The schedule incorporated, among other things, visits to power plants and load dispatching centers and a day at the KWS simulator for hard coal-fired power plants. Subsequent workshops conducted on location in India complemented the visit.

NUMBER OF PARTICIPANTS, COURSES CONDUCTED, MEASURES AND PARTICIPANT DAYS: INTERNATIONAL ACTIVITIES

January 01 – December 31, 2025	Courses conducted	Number of Participants	Number of Participant Days
International Activities	0	0	0

Organization

Board of Supervisors

The Board of Supervisors is tasked with monitoring the Board of Directors' management of KWS. Its job is to examine the annual financial statement, the status report, and the use of the annual net profit and to convey the results of its examination to the General Assembly. The Board of Supervisors directs the General Assembly that approves the annual financial statement and the investment, financial and business plan. Furthermore, the Board of Supervisors appoints and recalls the Board of Directors.

The Board of Supervisors convened twice during the report period:
11th meeting May 20th, 2025
12th meeting November 11th, 2025

Giehl, Martin, (Chairman)
Member of the Board of Directors of Mainova AG and Frankfurt/Germany

Gruber, Karl Heinz, Dipl.-Ing., Dr. (Deputy Chairman)
Member of the Management of VERBUND Hydro Power AG, Vienna/Austria

Engels, Klaus, Dr.
Direktor Wasserkraft Deutschland
der Uniper Kraftwerke GmbH, Düsseldorf
(from June 2025)

Hacheney, Carsten
Director HR & Interface Management RWE Nuclear GmbH, Essen

Lücker, Guido
Technical Manager of EEW Energy from Waste Hannover GmbH, Hannover/Germany

Reinhard, Volker
Head of HR Production Department (P-AE),
EnBW Energie Baden-Württemberg AG, Stuttgart/Germany

Waniek, Jörg
Member of the Board of Directors
of Lausitz Energie Kraftwerke AG/of Lausitz Energie Bergbau AG, Cottbus/Germany

Board of Directors

Ernst Michael Züfle Monika Bartels

Financial and Legal Committee

The Financial and Legal Committee of KWS Energy Knowledge eG assists and advises the Board of Supervisors and the Board of Directors in all financial and legal matters.
The committee discussed the audit report which was compiled by Genoverband e.V. on the financial statement for 2024, the review of operation including the attachment and recommended that the board approve KWS's financial statement for 2024 as is. Consultation of the economic, investment and financial plans for the business year 2026 was carried out by the Financial and Legal Committee. It recommended to the Board of Supervisors that it submit them in the General Assembly in 2025.
The Finance and Legal Committee also concerned itself with the plans for the erection of a new canteen with attached hydrogen laboratory and additional classrooms.

The following activities took place during the report period:
74th meeting April 9th, 2025
75th meeting September 24th, 2025

Schlingensiepen, Daniel (Chairman)
RWE Nuclear GmbH, Essen/Germany

Becker, Jörn
Lausitz Energie Kraftwerke AG, Cottbus

Hauleitner, Andrea
VERBUND Hydro Power GmbH, Vienna/Austria

Pollak, Torsten
EnBW Baden-Würtetemberg AG, Stuttgart/Germany

Schulze-Darup, Martin
Uniper Kraftwerke GmbH, Düsseldorf/Germany

Sous, Martin
Mainova AG, Frankfurt/Germany

Training Committee

The KWS Training Committee advises and assists the Board of Supervisors and Board of Directors in their task, such as determining admission criteria for training courses, admission to courses (if so determined in the admission criteria), collaboration during examinations conducted by KWS with regard to examination regulations. Other activities of the committee involve filing applications to the incorporated society upon which KWS is legally based for the procurement of instruction materials and equipment as well as managing various other school- and training-related affairs.
In its sessions during the report period, the Training Committee concerned itself with the results of the admission exams for the 151st and 152nd Power Plant Shift Supervisor–Production training course, for the 53rd Power Plant Shift Supervisor–Production Electrotechnology/Control Engineering training course and those of the 7th Power Plant Shift Supervisor–Thermal waste treatment training course.
Other consultations topics during sessions were

- KWS reports on current training activities and new projects,
- Exchange of basic and advanced training program information and experience,
- Quality control of power plant shift supervisor training,
- Impact of the energy crisis on continuing and advanced training.

The Training Committee convened twice during the report period:
143rd meeting July 10th, 2025
144th meeting November 27th, 2025

Bieder, Markus (Chairman)
Stadtwerke Münster GmbH, Münster/Germany

Kurzmann-Friedl, Christof, DI (Deupty Chairman)
VERBUND Thermal Power GmbH & Co KG, Mellach/Austria

Ahmann, Maria
RWE Generation SE, Emsland Power Plant, Lingen/Germany

Dünster, Frank
RWE Generation SE, Industrial Power Stations Duisburg-Huckingen/Gersteinwerk Power Plant, Duisburg/Werne/Germany

Fielenbach, Christian, Dr.
RWE Power AG, Bergheim/Germany

Iven, Franz-Wilhelm
Ministry for the Economy, Industry, Climate Protection and Energy of the State of Northrhine-Westphalia, Düsseldorf/Germany
(until May 2025)

Kirstein, Klaus-Dieter
KDK Consulting, Düsseldorf/Germany
(until May 2025)

Klein, Käthe
Chamber of Industry and Commerce, Essen/Germany

Kunz, Christoph
Siemens Energy Global GmbH & Co. KG, Munich/Germany
(until May 2025)

Lang, Martin, Prof. Dr.-Ing.
University Duisburg-Essen/Germany

Langner, Gunnar
Lausitz Energie Kraftwerke AG, Spremberg/Germany
(from May 2025)

Paus, Christoph
UNIPER SE, Essen/Germany

Röpell, Hauke
Hamburger Energiewerke GmbH, Hamburg/Germany

Schuknecht, Michael, Dr.-Ing.
TÜV NORD Systems GmbH & Co KG, Essen/Germany

Spurmann, Sven
Ministry for the Economy, Industry, Climate Protection and Energy of the State of Northrhine-Westphalia, Düsseldorf/Germany
(from May 2025)

Stegemann, Denis
OXEA Chemicals GmbH, Oberhausen/Germany
(from May 2025)

Stenzel, Oliver
Lausitz Energie Kraftwerke AG, Schwarze Pumpe Power Plant, Spremberg/Germany
(until June 2025)

Klaus Talleur
KWS Energy Knowledge eG, Essen/Germany

Then, Oliver, Dr.
vgbe energy e.V., Essen/Germany

Volkmann, Peter
KNG Kraftwerks- und Netzgesellschaft mbH, Rostock/Germany

Von Gehlen, Sebastian, Dr.
PreussenElektra GmbH, Emmerthal/Germany

Wagner, Karsten
EnBW Energie Baden-Württemberg AG, Karlsruhe/Germany

Ernst Michael Züfle
KWS Energy Knowledge eG, Essen/Germany

Consultant:
Nina Woydack
KWS Energy Knowledge eG, Essen/Germany

Facts and Figures

Members

KWS Energy Knowledge eG Membership

KWS Energy Knowledge eG is a partnership of power industry companies. It strives to promote and assist the businesses of its members through basic and advanced training events for expert operations and management personnel of installations dedicated to power and/or heat generation and supply, heat extraction and desalination by maintaining locations for holding such events and conducting examinations as well as offering room and board for trainees. The cooperative assists its members within the framework of said vocational training in the area of environmental protection, in pollution control and water conservation, and also in the field of occupational health and safety and accident prevention. Furthermore, it acts as consultant for personnel and organization development.
In order to ensure that the KWS can continue to serve in the long-term it is necessary that all power plant operators and other interested organizations support them by becoming members.
According to the KWS' statutes it differentiates between ordinary members, affiliated members and sponsoring members.
The KWS would be pleased to assist you in any questions regarding the organization and membership as well as its statutes and subscription fee regulations. Further information can be found on the internet at "www.kws-eg.com" or "international.kws-eg.com".

Ordinary Members

Abfallwirtschaftsgesellschaft mbH Wuppertal, Wuppertal
AGR Betriebsführung GmbH, Herten
AMK Abfallentsorgungsgesellschaft des Märkischen Kreises mbH, Iserlohn
AVEA Entsorgungsbetriebe GmbH & Co. KG, Leverkusen
AVG Abfallentsorgungs- und Verwertungsgesellschaft Köln mbH, Cologne

Basell Polyolefine GmbH, Wesseling Site, Wesseling
BASF SE, Ludwigshafen
Bayer AG, Berlin (Group Membership)
Berliner Stadtreinigungsbetriebe, Abfallbehandlungswerk Nord, Berlin
BEW Berliner Energie und Wärme GmbH, Berlin
Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim am Rhein
Bremerhavener Entsorgungsgesellschaft mbH, Bremerhaven
BS|Energy Braunschweiger Versorgungs-AG & Co. KG, Braunschweig

Cargill Deutschland GmbH, Krefeld
CCF Cassella Chemiepark Frankfurt GmbH, Cassella Offenbach Site, Frankfurt am Main
Cerdia Produktions GmbH, Freiburg
CURRENTA GmbH & Co. OHG, Leverkusen

Deutsche Windtechnik GmbH & Co. KG, Erkelenz
DREWAG Stadtwerke Dresden GmbH, Dresden
DSM Nutritional Products GmbH, Grenzach-Wyhlen

EEW Energy from Waste Helmstedt GmbH, Helmstedt
EGK Entsorgungsgesellschaft Krefeld GmbH & Co. KG, Krefeld
EnBW Energie Baden-Württemberg AG, Stuttgart
EnBW Kernkraft GmbH, Obrigheim
enercity AG, Hanover
Energie AG Oberösterreich Erzeugung GmbH, Linz/Austria
Energie und Wasser Potsdam GmbH, Potsdam
Energie- und Wasserversorgung Bonn/Rhein-Sieg GmbH (SWB), Bonn
Energieversorgung Oberhausen AG, Oberhausen
Energieversorgung Offenbach AG, Offenbach
Engie Towers Brüssel, Brussel/Belgium
ENTEGA AG, Darmstadt
Erlanger Stadtwerke AG, Erlangen
Essity Operations Mannheim GmbH, Mannheim
EVN AG, Maria Enzersdorf/Austria

Fernwärme Ulm GmbH, Ulm
FORTE Energie GmbH & Co. KG, Cuxhaven

Gemeinschafts-Müllverbrennungsanlage Niederrhein GmbH, Oberhausen
GfA Gemeinsames Kommunalunternehmen für Abfallwirtschaft, Olching
GKS-Gemeinschaftskraftwerk Schweinfurt GmbH, Schweinfurt
Grosskraftwerk Mannheim AG, Mannheim

Hamburger Energiewerke GmbH, Hamburg
Hamburger Rieger GmbH, Hamburg
Hamburger Stadtentwässerung AöR, Hamburg
HEB GmbH, Hagener Entsorgungsbetrieb, Hagen
Henkel AG & Co. KGaA, Düsseldorf

IHKW Industrieheizkraftwerk Andernach GmbH, Andernach
InfraServ GmbH & Co. Gendorf KG, Burgkirchen
InfraServ GmbH & Co. Höchst KG, Frankfurt am Main
InfraServ GmbH & Co. Wiesbaden KG, Wiesbaden

K + S Minerals and Agriculture GmbH, Philippsthal
(Group Membership)
Kämmerer Energie GmbH, Osnabrück
Kernkraftwerk Gösgen-Däniken AG, Däniken/Switzerland
Knapsack Power GmbH & Co. KG, Düsseldorf
Kraftwerke Mainz-Wiesbaden AG, Mainz-Wiesbaden
Kraftwerk Obernburg GmbH, Obernburg
Kraftwerk Schwedt GmbH & Co. KG, Schwedt
Kreis Weseler Abfallgesellschaft mbH & Co. KG, Kamp-Lintfort

Lausitz Energie Kraftwerke AG, Cottbus
Linz Strom Gas Wärme GmbH für Energiedienstleistungen
und Telekommunikation, Linz/Austria

MAINOVA AG, Frankfurt am Main
Group Membership for
Biomasse-Kraftwerk Fechenheim GmbH,
Frankfurt am Main
Mark-E AG, Hagen
Maxauer Papierfabrik GmbH, Karlsruhe
Mercedes-Benz AG, Sindelfingen
MHB Hamm Betriebsführungsgesellschaft mbH, Hamm
MHKW Müllheizkraftwerk Frankfurt am Main GmbH, Frankfurt
MHKW Wiesbaden GmbH, Wiesbaden
MIBRAG GmbH, Zeitz
Mohn media Mohndruck GmbH, Gütersloh
Moritz J. Weig GmbH & Co. KG, Mayen
Müllheizkraftwerk Rothensee GmbH, Magdeburg
Müllverbrennung Kiel GmbH & Co. KG, Kiel
Münchener Stadtentwässerung, Munich
Munksjö Unterkochen GmbH, Aalen
MVA Weisweiler GmbH & Co. KG, Weisweiler
MVV Umwelt Asset GmbH, Mannheim

N-ERGIE Kraftwerke GmbH, Nuremberg
Norske Skog Bruck GmbH, Bruck an der Mur/Austria

OMV Downstream GmbH, Vienna/Austria
Onyx Kraftwerk Farge GmbH & Co. KGaA, Bremen
A member of the ONYX Power Group
Onyx Kraftwerk Wilhelmshaven Betriebs GmbH & Co. KGaA,
Wilhelmshaven, A member of the ONYX Power Group
Onyx Kraftwerk Zolling GmbH & Co. KGaA, Zolling
A member of the ONYX Power Group
OXEA GmbH, Ruhrchemie Site, Oberhausen

Palm Power GmbH & Co. KG, Aalen
Powerplant Rotterdam B.V.,
A member of the ONYX Power Group,
LB Maasvlakte Rotterdam/Netherlands
PreussenElektra GmbH, Hanover
PreZero Energy Bernburg GmbH, Bernburg

Raubling Papier GmbH, Raubling
RheinEnergie AG, Köln
RWE AG, Essen
Group Membership for
- RWE Generation SE
- RWE Nuclear GmbH
- RWE Generation NL B.V., Netherlands
- RWE Generation UK plc, Didcot B CCGT Power Station,
Oxfordshire/Great Britain

Saale Energie GmbH, Schkopau
Salzburg AG, Salzburg/Austria
Salzgitter Flachstahl GmbH, Salzgitter
Sappi Austria Produktions-GmbH & Co. KG, Gratkorn/Austria
Sappi Ehingen GmbH, Ehingen
Schluchseewerk AG, Laufenburg
Smurfit Westrock Zülpich Papier GmbH, Zülpich
Solvay GmbH, Hanover
Solventum Germany GmbH, Wuppertal
SRS Eco Therm GmbH, Salzbergen
Stadtwerke Augsburg,
Elektrizitäts- und Fernwärmeversorgung,
Wärme- und Stromerzeugung, Augsburg
Stadtwerke Bielefeld GmbH, Bielefeld
Group Membership for
- MVA Bielefeld-Herford GmbH
- Enertec Hameln GmbH
Stadtwerke Düsseldorf AG, Düsseldorf
Stadtwerke Flensburg GmbH, Flensburg
Stadtwerke Heidelberg Netze GmbH, Heidelberg
Stadtwerke Karlsruhe GmbH, Karlsruhe
Stadtwerke Leipzig GmbH, Leipzig
Stadtwerke Münster GmbH, Münster
Stadtwerke Rosenheim GmbH & Co. KG, Rosenheim
Stadtwerke Rostock AG, Rostock
Stadtwerke Schwerin GmbH, Schwerin
Stadtwerke Würzburg GmbH, Würzburg
Städtische Werke Energie + Wärme GmbH, Kassel
STEAG GmbH, Essen
Group Membership for
- RKB Raffinerie-Kraftwerks-Betriebs GmbH, Essen
- Gemeinschaftskraftwerk Bergkamen A OHG, Bergkamen
swb Entsorgung GmbH & Co. KG,
Müllheizwerk Bremen, Bremen
swb Erzeugung AG & Co. KG, Bremen
SWE UmweltService GmbH, Erfurt
SWM Services GmbH,
Strom- und Wärmeerzeugung, Unterföhring
SWP Stadtwerke Pforzheim GmbH & Co. KG, Pforzheim
SYNEQTGmbH, Marl

TEAG Thüringer Energie AG, Erfurt
Technische Betriebe Solingen (TBS), Solingen
Thermische Verwertungsanlage Schwarza (TVS), Eigenbetrieb des Zweckverbandes Abfallwirtschaft Saale-Orla, Pößneck
Thyssen Krupp Steel Europe AG, Duisburg
T-Power Energie Services BV, Tessenderlo/Belgium
TWL Technische Werke Ludwigshafen AG, Ludwigshafen am Rhein

Uniper Benelux N.V., Rotterdam/Netherlands
Uniper Kraftwerke GmbH, Hannover

Vattenfall Europe Nuclear Energy GmbH, Hamburg
Vattenfall Wasserkraft GmbH, Berlin
Venator Germany GmbH, Duisburg
Veolia Industriepark Deutschland GmbH, Heinsberg
VERBUND Hydro Power GmbH, Vienna/Austria
VERBUND Thermal Power GmbH & Co. KG, Fernitz-Mellach/Austria
voestalpine Stahl GmbH, Linz/Austria
Vulkan Energiewirtschaft Oderbrücke GmbH, Eisenhüttenstadt
VW Kraftwerk GmbH, Wolfsburg

WIEN ENERGIE GmbH, Vienna/Austria
WSW Energie & Wasser AG, Wuppertal

ZAK Energie GmbH -Müllheizkraftwerk-, Kempten
Zweckverband Abfallverwertung Südostbayern, Burgkirchen
Zweckverband für Abfallwirtschaft in Nordwest-Oberfranken, Dörfles-Esbach
Zweckverband Müllheizkraftwerk Stadt und Landkreis Bamberg, Bamberg
Zweckverband Müllverwertung Schwandorf, Schwandorf
Zweckverband Müllverwertungsanlage, Ingolstadt
Zweckverband Restmüllheizkraftwerk Böblingen (RBB), Böblingen

Affiliated Members

Bartels, Monika, Duisburg
h2-netzwerk-ruhr e.V., Herten
Kerntechnik Deutschland e.V., Berlin
Lücker, Guido, Schöningen
Technical University of Munich, FRM II: Research Neutron Source Heinz Maier-Leibnitz, Garching
vgbe energy e.V., Essen
VIK Verband der Industriellen Energie- und Kraftwirtschaft e.V., Berlin
Züfle, Ernst Michael, Hamburg

Sponsoring Members

CSA – Certified Safety Academy GmbH, Berlin
EFLA Consulting Engineers, Reykjavik/Island
GESTRA AG, Bremen
KONRAD Meß- & Regeltechnik GmbH, Gundremmingen
SHE Solution Bergmann GmbH & Co. KG, Enger
Siemens Gas and Power GmbH & Co. KG, Essen (Group Membership)
S.T.E.P. Consulting GmbH, Aachen
Urenco Deutschland GmbH, Gronau

Membership Development

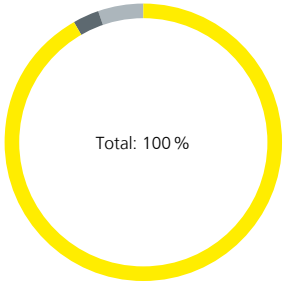
On December 31st, 2025, the KWS Energy Knowledge eG had 162 members, 146 of which were ordinary, eight were affiliated and eight were sponsoring members.
During the report period, two companies joined KWS as ordinary members and one company as a sponsoring member. In addition, three members (two ordinary, one sponsoring) left KWS.
In accordance with the membership contribution ordinance, individual membership fees are assessed based on net nominal installed electrical capacity in megawatts as listed by the German Federal Network Agency.
The total amount of installed electrical capacity of all ordinary members during the report period stands at 83,610 MW.

17 member companies are based outside of Germany, namely:

- ten companies in Austria,
- two companies in Belgium,
- two companies in Island,
- two companies in the Netherlands,
- one company in Switzerland.

The net nominal installed electrical capacity of the foreign member companies adds up to 19,655 MW or approximately 24 % of the total amount of all ordinary members.

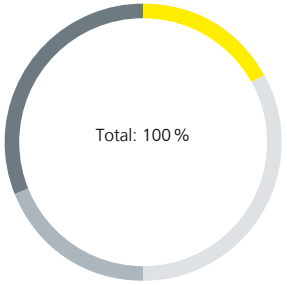
MEMBERS



Ordinary Members:	146	90,00%
Affiliated Members:	8	5,00%
Sponsoring Members:	8	5,00%

Listing of all members (As at December 31st, 2025) Fig. 1

COMPOSITION OF THE GROUP OF ORDINARY MEMBERS



Energy Supply Companies:	17%
Public Utilities:	33%
Thermal Waste Treatmant Companies:	19%
Industrial Companies:	31%

Listing of all ordinary members (As at December 31st, 2025) Fig. 2

BREAKDOWN OF NET NOMINAL ELECTRICAL CAPACITY OF ALL ORDINARY MEMBERS:

	Ordinary Members		Net nominal electrical capacity	
	Number	Percentage %	MW	Percentage %
up to 250 MW	101	69,18	4,783	5,72
251 – 500 MW	15	10,27	5,349	6,40
501 – 1.000 MW	11	7,53	7,800	9,33
1.001 – 2.500 MW	13	8,90	18,605	22,25
2.501 – 5.000 MW	1	0,69	2,684	3,21
5.001 – 8.500 MW	2	1,37	14,468	17,30
above 8.500 MW	3	2,06	29,921	35,79
Total	**146**	**100**	**83,610**	**100,00**

KWS in General

Renewable Energies

Wind energy training

2024 saw more KWS activities to assist the wind power industry through targeted training events and qualifying measures.

Training events

The "Electric Specialist for Defined Duties" and "Electrotechnology Specialist in Wind Power Installations" training courses were upgraded by their certification through the Chamber of Industry and Commerce (CCI).

Existing contacts to RWE Offshore Wind GmbH were intensified and lead to assignments for three newly developed schoolings, two of which were conducted in 2025.

- In August, six participants completed the "Occupational Safety Week for Trainees at Wind Power Installations in Accordance with GWO".
- For the first time, six staff members of the Trident wind park passed the prep week for "Electrotechnology Specialist in Wind Power Installations" training course with emphasis on mathematics and physics in December. The "Electrotechnology Specialist in Wind Power Installations" course with its 12-week training schedule will commence on January 5th, 2026 and will be conducted in cooperation with Certified Safety Academy GmbH (CSA).

WindTrainingTower: Safety trainings & rentals

Various businesses from the industry used the opportunity to rent the KWS WindTrainingTower (WTT) plus all associated classrooms in order to train their personnel on their own. The KWS training site is a particular favorite of fire departments that rehearse different rescue scenarios at wind power installations and train under real-life conditions.

Hydrogen

In 2025, KWS has once again been accompanying the ongoing development of its members and customers in the field of hydrogen very intensely. Some hydrogen production projects have been progressing closely toward implementation while overall interest in new projects and therefore in basic training inquiries saw a slight decline relative to 2024. Consequently, the 2.5-day seminar "Basic Skills in Hydrogen Technology" was conducted only once in January 2025 (10 participants).

A milestone regarding plant-specific qualification demands in 2025 was a preparatory hydrogen instruction measure for the operating personnel of swb Erzeugung GmbH in Bremen, Germany. This training served as a preliminary to actual operational management and subsequent manufacturer-conducted instruction for the startup of a 10-MW-PEM electrolysis as part of the HyBit project. The instruction measure so conceived was aimed at linking topical fundamentals of a hydrogen electrolysis installation closely with the specifically implemented plant concept by means of the manufacturer's available documents. All in all, more than 60 staffers were trained on location in Bremen. Currently, there are talks with other businesses that are also interested in plant-specific training. Moreover, KWS is working on a cooperation agreement with the German subsidiary of HydrogenPro, a manufacturer of alkaline water electrolysis installation, headquartered in Porsgrunn, Norway.

Parallel to these activities, the development of framework plans and instruction documents for the CCI-certified qualification of "H2 Technician" was expedited. This advanced training course is designed to enable the acquisition of multidivisional skills in the areas of gas and electrical technology at the proficiency level of a Specialist for Defined Duties. The first pilot course, scheduled for the second quarter of 2026, is to take place as a special six-week training measure for a specific customer, in part on location, in order to qualify expert personnel for operations management of a 100-MW-PEM-electrolysis. Another training campaign for "H2 Technician" is timetabled for the fall of 2026 and can be booked via the usual basic and advanced training lineup of KWS.

In the course of these developments and training activities to come, KWS is pursuing the expansion of hands-on knowledge transfer through the acquisition of a so-called hydrogen training path so that the necessary practical skills may be rehearsed. This path will be non-stationary in order to be employed at customer sites and to be available for training in the second quarter of 2026.

Furthermore, KWS assisted instructors in the fourth quarter of 2025 in conducting the pilot module of H2!Academy's "Hydrogen Technology Fundamentals for Industry Foremen". This pilot has been drafted as a pre-course based on which a comprehensive supplementary module for industry foremen in a variety of specializations in the hydrogen field will be developed in the coming years. In this context, our instructors have taken over basic training encompassing some 40 hours of instruction.

For the coming year, the plan is to upgrade the collaboration with partners in industry and education and to provide assistance for additional training modules of the H2!Academy. The focus lies on hands-on training and the development of expert knowledge for the safe and efficient employment of hydrogen technologies.

Large-scale heat pumps

Large-scale heat pumps are increasingly gaining importance as the energy transition in heating progresses, especially with regard to the decarbonization of district heating networks as well as industrial heat processes. They represent a key technology in the efficient integration of renewable energies into the heat supply system and the gradual replacement of fossil fuels. Against this backdrop, KWS has been expanding its basic and advanced training lineup with a two-day seminar on the topic of large-scale heat pumps. The seminar conveys fundamentals on functions, systems concepts, design parameters as well as operational and regulatory frameworks. It aims especially at experts and managers from energy providers, industry, planning, and operations.

With this offering, KWS accommodates increasing demand for qualifications and assists the development of expert skills in the area of modern heat technologies.

Battery storage

Battery storage systems play an increasingly important role in the integration of renewable energies, grid stability as well as the flexibilization of energy systems. They are a key building block in the successful implementation of the energy transformation and safe power network operations.

KWS has been taking this topic into account with the development of a two-day seminar on battery storage. Its contents encompass technological basics, storage technologies, systems integration, safety aspects as well as economic and regulatory considerations, among other things. The seminar targets expert staff from energy providers, industry and adjacent branches.

With this new training offering, KWS enhances its portfolio in the field of renewable energies by a specific topic relevant for the future and furthers knowledge transfer in a dynamically growing market environment.

Association-related activities

- For many years, KWS has been a member of WAB e. V., a network for the wind power industry headquartered in Bremerhaven, Germany. With managing director Markus Nölke and his new team, WAB increasingly addresses onshore in addition to offshore wind power as well as usage and operations of hydrogen installations directly linked to wind farms. Cooperation efforts have therefore been intensified so that joining the "Windkraft & Wasserstoff" (wind power and hydrogen) innovation circle is scheduled for 2026.
- In late summer 2025, KWS applied for membership with Bundesverband WindEnergie e. V. (BWE), which was granted in the fall of 2025. Here, too, active involvement is timetabled for 2026 for the purpose of intensified networking with industry representatives. The ultimate goal is to match KWS's training roster even more closely to market demands and to increase its profile through the business networks.

Networking activities

During the 2025 report period, several events for the advancement of the hydrogen economy in the Ruhr region took place on the premises of KWS Energy Knowledge eG. Of particular importance were the get-together of the members of h2-netzwerk-ruhr e. V. on September 11th, 2025, and the Hydrogen Metropole Ruhr (HyMR) Forum on December 8th, 2025.

Participants of the members' evening of h2-netzwerk-ruhr e. V.

The h2-netzwerk-ruhr e. V. event brought members from businesses, municipalities, research institutions, associations, and private individuals together. The participants discussed current challenges and future perspectives of the region's hydrogen economy. At the center stood the question of how to design the Ruhr region's transformation towards a hydrogen economy in a sustainable way. To specifically convey the importance of practical basic and advanced training offerings, KWS presented its comprehensive portfolio of basics courses and certified instruction in the areas of hydrogen, renewable energies, and energy management. Showcasing successful examples like the tie-in of a modified wind power setup and the medium-voltage lab in the qualifying measures emphasized the hands-on attributes of KWS training. The participants pointed out the importance of close cooperation between educational institutions, businesses, and practitioners for the run-up of the hydrogen economy.

The HyMR Forum also focused on practice-oriented expert skill development for hydrogen technologies. Representatives from businesses, education, and trade associations jointly developed pragmatic solutions for expert staff training independent of existing national regulatory rules and standards. On display were advanced training offerings from the fields of electric and systems engineering, and mechatronics as well as programs from KWS, the CCI of North Rhine-Westphalia, and H2!Academy. Participants had the opportunity to experience at different stations on the KWS Energy Campus how hands-on training sites like simulators, exercise laboratories, and a modified wind power setup are integrated into qualification measures. The high number of 3,000 trainees annually and more than 50 courses on offer underline the key role of KWS in expert training.

Both events promoted regional networking and gave concrete impulses to implementing joint projects and advanced training initiatives for the hydrogen economy in the Ruhr region. Once again, KWS Energy Knowledge eG was able to position itself as a key platform for innovation, knowledge transfer, and action learning and to actively contribute to the lasting evolution of the Ruhr hydrogen region.

Simulator Training

Simulator training on the topics Simulator training covering "plant operation in home supply island, blackout scenarios, electrical grid restoration"

On March 24th and 25th, 2025, a simulator training event on the topics "**plant operation in home supply island, blackout scenarios, electrical grid restoration**" took place at KWS. Four experienced foremen and team leaders from Uniper Power Plant GmbH's Franken power plant took part in the training.

The topics mentioned above describe operational scenarios that fortunately occur only very rarely. KWS's simulators therefore offer the ideal setting to rehearse managing such challenging situations realistically yet safely.

The off-grid situation required limiting high-pressure turbine venting, the blackout scenario prioritized protection targets as well as restarting with restricted EB, whereas network recovery was dominated by voltage and speed stability.

Participant feedback was very positive. What followed was scheduling and conducting another training session that even lasted a day longer. Two more 3-day training events on these topics will be held in 2026.

Simulator training for Engie Thermique France – DK6 power plant (Dunkirk/France)

In 2024, KWS had welcomed participants from France for simulator training for the first time in 20 years. These training events saw a successful follow-up in 2025. Once again, the courses were held in French. The instructor in charge is fluent in the language and has been schooling participants from Belgium (Wallonia) on the simulator for many years. The simulator also switches to French for these training sessions. The simulator employed belongs to the 300 MW class with drum-type steam generator and gas firing. The DK6 power plant itself uses blast furnace gas supplied by the neighboring Arcelor Mittal steelworks.

Since the 2024 courses had been very satisfactory, DK6 management had opted to send a second group of trainees to Essen. It was decided in agreement with the plant's operations manager to preserve the 2024 course program. Therefore, training focused intensely on malfunctions in various power plant components. The operations manager also paid a visit to KWS prior to the conclusion of the event in order to personally inspect the training.

Simulator training for Engie Electrabel – Flemalle CCGT power plant (Wallonia, Belgium)

In late 2025, Belgium's largest CCGT power plant went online at Flemalle, near Liège by the Meuse River. That way, Belgium counterbalanced the impending shutdown of three nuclear power plants in a timely manner after two other nuclear facilities had already been taken off the grid in previous years. The new 875 MW CCGT installation (Siemens) is designed to close the control energy gap in the Belgian grid caused by the shutdowns. Flemalle consequently follows Engie's energy policy for safeguarding Belgium's electricity supply with solar installations, wind power, battery storage parks, and of course CCGT power plants.

KWS takes pride in being able to assist Engie Electrabel in advanced training of new crews with simulator instruction. Thanks to the linguistic proficiency of our instructor and the fact that the simulator employed is multilingual, training was conducted in French, the mother tongue of the participants. With the 2024 basic courses serving as a foundation, a course with a new program was conceived and conducted in 2025. Once again, a total of four groups with five individuals each were trained. Coordinating the training contents was a joint effort incorporating the client's training department and the management on location. The diverse levels of pre-existing

knowledge of the participants were taken into account. Key aspects of simulator training were the consolidation of handling the new Siemens SPPA-T3000 control technology, process engineering, as well as professional malfunctions management under adverse conditions.
Further training events are scheduled for 2026.

Simulator training for EDF Luminus – Seraing CCGT power plant (Belgium-Wallonia)

Since other Belgian power industry players are modernizing their fleets of plants, Luminus has decided to erect a new 870 MW CCGT power plant (GE) at Seraing near Liège by the Meuse River. This plant will go online in the course of the year 2026. The legacy CCGT power plant on location with its two 150 MW silo-type combustion chamber gas turbines and one 150 MW steam turbine, fed by two dual-pressure process heat recovery boilers without reheating, was no longer state of the art and rarely used due to its low efficiency and high gas consumption. Luminus has decided to dismantle the two steam generators as well as the steam turbine and to retain the gas turbines as peak load units and for black starts.
To prepare the shift crew, which Luminus staffs with qualified engineers, the initial training sessions were conducted on the KWS simulator in 2025.
Despite, or rather, because of the fact that the KWS CCGT simulator employs the Siemens SPPA-T3000 control system whereas the new installation in Seraing uses GE technology, Luminus deliberately chose to conduct training at KWS. The crucial factors in this decision were KWS's good reputation and a customized course program that was compiled in close coordination between the KWS instructor and the Seraing management. The learning objectives to be rehearsed on the simulator were general process and control engineering principles irrespective of specific power plants and control systems. KWS accepted the challenge and conducted instructive training sessions for all parties involved. Three groups with a total of 16 engineers were schooled in these basic courses.
This proves once again that a customized training program and complementary didactics permit conducting successful instruction even when a simulator employs technology that deviates from the customer's installation.
Another course for novices is scheduled for 2026. Refresher courses are already slated for 2027 once the new plant goes online in late 2026.

Successful launch of the TWT simulator for training operations

In June 2023, KWS acquired a simulator for thermal waste treatment installations (TWT) from Powerspex in Hengelo, Netherlands.
Following the technical implementation and the configuration of the training contents and scenarios, the simulator was successfully integrated in training operations.
The initiation of simulator training with participating plant attendants, TWT control room operators, TWT foremen as well as engineers was very successful and confirmed the high practical use of this training format.
During training, operating conditions may be reproduced in detail, signals tracked in logic diagrams, and insight gained into the foundational process model.
The two simulator variants emulate different flue gas treatment systems, like SCR and SCNR, and also have a district heating setup. This permits realistic training of various operational conditions, load changes, and malfunctions scenarios.
Beginning at an early stage of the project, pilot courses were successfully conducted in cooperation with EEW Energy from Waste GmbH. These pilot trainings served as active trial runs for the simulators and for optimizing training contents. The lessons learned were directly incorporated into the ongoing evolution of the simulator and the compilation of a structured course program.
On that basis, the first three regular courses were subsequently held, which proceeded very successfully and were universally rated positively by the participants.
The simulator was used specifically for training plant attendants, TWT control room operators, TWT foremen, and engineers.
The opportunity to rehearse complex and unusual operational scenarios and disturbances risk-free and grasp operational processes was particularly emphasized. Its successful usage confirms the simulator's role as a lasting and effective tool for qualifying operations crews.
An equally successful continuation of the simulator training is timetabled for next year. Ten courses have already been booked and scheduled. In addition, a variety of training options were conceived and actively advertised. Several concrete inquiries for more TWT simulator courses are on hand, underlining the high demand and acceptance of this training offering.
The simulator will continue to evolve in the coming year with numerous alterations of the control strategies and the underlying process model in the pipeline. This will add more operational scenario options to the simulator and match customer needs even better.

Modernization of the KWS CCGT simulator

In a joint effort, KWS and Powerspex have begun to revise the existing CCGT simulator. The objective is to port the control engineering technology into a new system for greater long-term flexibility and optional tie-ins of external modules. The proven high quality of our simulations will be preserved.

Simulator training for Hamburger Energiewerke HEnW in the context of the new Dradenau CCGT installation

Hamburger Energiewerke are currently building a new CCGT installation at their Dradenau location. In order to prepare staffers, many of whom are currently working at hard coal-fired installations, for their new assignments and the new technology, KWS conducted a total of six simulator instruction events for introductory training. Besides the new Siemens SPPA-T3000 control engineering technology, unfamiliar components like gas turbines and drum-type steam generators and their operations were covered. Among other things, plant startup and shutdown, load operation as well as initial malfunctions management were trained.

Training took place on location at the Wedel CHP plant. KWS only provided the computers and network components necessary for the simulation while peripheral parts like screens and keyboards were supplied by the client.

Trainee feedback was universally positiv.

In the course of staff preparation, KWS conducted six intro training events at the emerging installation, giving participants insight into the different operating modes of the new co-generation plant. The focus was on power-driven, heat-driven, and combined operations. Also, trainees were introduced to the power plant's key components, which could be viewed directly on-site.

Detailed instruction covering operations, control engineering as well as plant maintenance will be conducted in 2026 by KWS on behalf of the builder, ARGE (Consortium Uniper/ENKA).

Leadership Seminar for Urenco Deutschland GmbH

Last year's Progress Report had pointed out that KWS had incorporated parts of the former KSG|GfS's HPO team including all relevant technical equipment. For these colleagues, their first big project under new management began as early as January 10th, 2025:

As part of a joint project dedicated to nurturing a safety culture, Urenco Deutschland GmbH had given KWS an assignment to develop a lineup of seminars for managers and persons responsible for workplace safety. Urenco currently registers significant growth in payroll strength. Its challenge is to familiarize these new employees with the demanding safety culture at Urenco as quickly as possible.

KWS's first step towards that goal was to go into seclusion with the complete upper management of Urenco Deutschland GmbH on said January 10th, 2025, in order to define their expectations of the company's workforce as precisely as possible. This resulted in a binding guideline that will define the concrete safety culture of the whole enterprise in the future and apply to all employees equally, from trainees to managers.

Step two saw our HPO team provide Urenco Deutschland GmbH's management with the necessary tools during a total of five two-day seminars held in the course of 2025 so that the expectations defined in January would come to life: What do these expectations mean for my area of responsibility precisely? What is my responsibility and which options do I have in this process? How do I as a manager motivate my teams to practise safety culture? How do I deal with deviations from my expectations?

Participants and trainers of the leadership semiar for Urenco Deutschland GmbH

All these questions and a great many more became tangible in hands-on exercises with answers subsequently worked out jointly.
The final result of the leadership seminars was rated a complete success by our partners at Urenco Deutschland GmbH so that our HPO instructors are now preparing for their next challenge: In the three years to follow (2026-2028), workplace supervisors and other responsible individuals – representing the interface between the management level and the front desk – are to get their own specific set of seminars tailored to their relevant questions.
We are looking forward to this assignment!

Training Committee

The 143rd session of the Training Committee brought members to Graz, Austria, on July 10th, 2025. As usual, the participants gathered one day earlier and enjoyed a most interesting guests' program. First, there was an opportunity to learn about AVL List GmbH by taking a guided tour of the company. This tour provided interesting insight into the future of e-mobility. Visitors were particularly receptive to offerings in the field of power industry engineering. A round-trip walk through the old town of Graz was in order, of course, as was viewing the picturesque Schlossberg mountain. While in session, the committee reviewed and evaluated the results of the power plant shift supervisor entry exam. In addition, other topical subjects relevant to expert training were discussed.
The 144th session took place on November 27, 2025, at KWS in Essen, Germany. On the day before, a tour of Essen's renowned Villa Hügel, erected by Alfred Krupp from 1870-73, served as an appetizer of sorts. With the focus on the topic of architecture, noteworthy insights emerged, not only with regard to the current condition of the building, but also to changes brought about by remodeling in the course of its 153-year history. The guests' program was rounded out by an introduction to the Krupp family history and some related anecdotes. Contemporary marketing and Villa Hügel's role in that context were also covered. On the next day, the committee convened for its session, discussing the results of the power plant shift supervisor entry exam and a variety of other relevant topics.

Transformation Project

The transformation project comprises advancements in various areas. One of them is the restructuring and supplementation of the lineup of expert training offerings with regard to the needs of the industry. This includes heat networks as an optional key aspect of future power plant operator training, gas and steam turbines using different fuels, as well as basic training modules covering modern technologies like cogeneration units, for example. Another area is the modularization and optimization of the training lineup to provide even power plant operators with extensive basic knowledge in a variety of disciplines like energy management, IT control, or the power industry in general. This helps to better prepare individuals for a changing and more demanding workplace reality. Beyond that, even though our offerings, based on long-term positive feedback from participants, are primarily designed as classroom instruction, yet digital elements like web-based training or digital conference tools (Vitero) are already in the development and/or test phase in order to enhance the instruction experience through these media.
One next step will be the integrative development of training contents, instruction methodology, and instruction media toward the Blended Learning concept. This takes the power industry's wish to create a location-flexible offering into account, making dispatching trainees to Essen optional. From KWS's perspective, the same scaling opportunities that digitization is already offering other branches of the economy emerge here. Finally, the modular concept establishes the foundation of an education system that cross-links a variety of stakeholders. While prospective power plant operators and shift supervisors follow their instruction modules consecutively, external interested parties may book and attend individual modules for further training at KWS. That way, we create additional attractive flexibility for the industry, first and foremost addressing individuals who have already studied at KWS and are now seeking additional knowledge for their personal further and advanced training. The concept thereby offers maximum agility and transparency in order to be able to react swiftly and timely to changes in training requirements among power industry businesses. This will also be facilitated by interconnected cooperation between experts from diverse disciplines within the subdivisions of KWS as well as external business departments. Lastly, the transformation project takes into account the consecutive and content-related links between associated training topics within the totality of the advanced training lineup of all KWS teams. This creates long-term sustainable sales opportunities that are closely oriented toward

the needs of the people in the power industry and maintain and advance KWS's high esteem in this industry.
Due to its uniform organizational background structure, the concept also offers administrative agility. Training course contents or the development of new modules are worked out following a consistent logic through the so-called "idea master". Employing 15 key points during the development phase, this document looks into technical, legal, and operational determining factors, thereby ensuring completeness. Consequently, all master instruction plans that are being compiled may be submitted to the approval of auditing or certifying bodies (e.g. CCI/TÜV) and offer a clear overview of core examination topics in a given field of expertise. In turn, these master plans are a blueprint for the development of a didactically substantiated training framework plan that lays out the subjects to be taught transparently and intersubjectively including the instruction media required and the finishing training goals to be pursued. The training framework plans facilitate an optimization of stand-in arrangements since all training contents are designed for expert instructors. The necessity of an exclusive lectureship and the resultant bond between KWS department and contractor may thereby be optimized to a certain degree. Lastly, modern instruction media are created whose contents are up-to-date (e.g. publications) and linked with other media (web-based training/tutorials/additional materials/Moodle).
Currently, a six-person team combining different key areas of expertise is working on the implementation of the project. The focus is on the partnership of said experts in the industry and at KWS for the purpose of first determining the contents of the training modules and then to develop these contents further using the structures described (master instruction plans – training framework plans – instruction media). In order to attain the greatest possible benefit, the first modules developed are those most in demand in the industry, but that are not yet part of the KWS portfolio and may be sold through many different channels. This approach optimizes networking within KWS's teams since contents can be developed jointly, using established structures and procedures for sharing and improvement.
The following contents are currently undergoing testing in their finalization phase: Block-release and team building in the power plant operator prep course; AI-based learning assistant (Study Buddy) for German studies; enhanced digital contents in the "Professional Conduct" and "Large Heat Pumps" areas for specific customers. At the moment, digital instruction media in the fields of materials and documentation are being created and detailed didactic concepts on the subjects of control room management (supervisors) and turbines (power plant operators) compiled.
The working group coordinates its progress with the Board of Directors regularly and thereby receives feedback and support in its workflow process, which helps optimize the group's efforts regarding benefit and scope.

E-Learning and Media

During the last report period, several system conversions have taken place at KWS.

Internet page

In May, the KWS internet page switched from Typo3 to Joomla. The conversion was conducted to simplify content upkeep and to make maintenance more efficient long-term. Contents and structures were set up new and adapted to the latest system. Up until recently, the training course database had been integrated in Typo3, which had caused problems. The database and the contents of the internet page were then separated and are now being managed using two stand-alone systems. The new database enables a more structured data management as well as a better tie-in with the web page.
In the past, errors used to occur occasionally during the transmission of the registration forms. Since the switch, such malfunctions no longer happen.

Learning platform

In order to ensure the future viability of the Moodle learning platform, a complete software re-installation had to be conducted in August for technical and organizational reasons. Thanks to this effort, a solid system foundation has been established, eliminating outdated configurations, redundant modules or faulty settings. This will reduce malfunctions in the future, simplify maintenance, and improve long-term stability. The installation comprised the transfer of course data and structures as well as user accounts. Following the installation, comprehensive performance tests were run for the purpose of safeguarding accessibility, user login, and course functions. The switch was concluded without significant downtime.

Virtual classroom

Until May 2025, KWS had been using the GoTo software for live online events. This software is a proven tool for webinars and meetings, yet has its limitations when it comes to interactive teaching and learning scenarios and centralized administration.

The new software offers smoother administration on top of improved role and rights management as well as functions that exceed classical online meeting software. It is now possible, for example, to hold group assignments in adjoining rooms, to employ whiteboards, and to share documents.

The switch necessitated setting up space management and users, accompanied by introductory schooling for in-house and external instructors. With Vitero, KWS now has a solution conceived as a virtual classroom and offering specific functions for trainers, trainees, and administrators.

In general, all systems conversions went according to plan. The new systems offer a steady base for ongoing operations, future enhancements, and an improved user experience.

Quality Management at KWS

First-class quality all around is what we strive for every day. One important component in that strife is our quality management system. To make sure that the system does not gather dust on the shelf, but determines and sustainably assists our actual workplace efforts, it was designed by KWS itself and is constantly evolving. While the management provides a general framework and concept, a multitude of staffers worked out concrete processes and procedures. This lays the groundwork for high acceptancy and sustainable application.

The first monitoring audit in accordance with DIN EN ISO 9001:2015 standard and the fourth educational institution monitoring AZAV license (Accreditation and Licensing Ordinance for the Promotion of Employment) took place from September 30th – October 1st, 2025.

The audit criteria derive from quality management system requirements, the AZAV Accreditation and Licensing Ordinance, the recommendations from the accreditation advisory board on the AZWV of May 23rd, 2011, and the recommendations of the board in accordance with Sec. 182 SGB III in its respective current version. The scope of application encompasses advanced training in the field of power plant technology, simulator training, and organization development.

The audits conducted pursued the following objectives:

- Assessment of conformity of the management system of the client in full or in part with the audit criteria listed above
- Assessment the fitness of the management system, ascertainment of meeting applicable legal, regulatory, and contractual requirements, albeit the audit does not rate compliance with legal provisions
- Evaluation of the effectiveness of the management system with regard to making sure that the client's organization meets its stated goals lastingly and
- where applicable, identifying areas for possible management systems improvements

Two individual deviations were identified whose corrections of will be a key activity in 2026:

1. One part of the processes documented in the quality management system is not up to date. Also, there is no systematic and regular process monitoring.
2. The process of "Training", defined as a core process, does not adequately map actual work procedures in individual areas. Currently, it does not provide practical support for maintaining procedures. This indicates a lack of a centralized process structure and insufficient integration of the "Training" core process into operational practice.

Public Appearances

Trade fairs are an important communication platform for exchanging information and one of the most vital marketing tools for a company. For KWS, trade fairs and conventions offer the opportunity to cult~~ivate existing contacts, make new ones and get fresh impulses for ist ongoing evolution.

During the report period, KWS Energy Knowledge eG was present at the following trade fairs and conventions:

- E-world energy & water, Essen/Germany
- vgbe Conference "Gas Turbines and Operation of Gas turbines 2025", Wesel/Germany
- HUSUM Wind, Husum/Germany
- KONTEC 2025, Dresden/Germany
- 57th Colloquium on Power Plant Technology (Kraftwerkstechnisches Kolloquium), Dresden/Germany
- vgbe-Conference "Thermal Incineration of Waste and Sewage Sludge and/ including Fluidized Bed Combustion 2025"
- 37th VDI-/ITAD-Symposium "Thermial Waste Treatment", Würzburg/Germany
- 33nd Wind Energy Days, Linstow/Germany

Apartment Building

The apartment building with its 55 modern furnished apartments of approx. 21 square meters each enables residents to live and study in the immediate neighborhood of KWS's training center.

Apartment building of the KWS

Generously equipped kitchens on each floor, gyms and leisure areas as well as group study chambers complete with audiovisual equipment round out accommodations on the premises.
Spacious outer premises offer plenty of diversion thanks to a variety of leisure time activity options.
Featuring an innovative energy concept, this architecturally successful object blends in perfectly with its Deilbachtal surroundings and complements the Energy-Campus Deilbachtal.
An occupancy rate of 83,9% in 2025 shows that living facilities, space to relax and proximity to the training center are important components for the time spent learning at KWS Energy Knowledge eG.

KWS Conference Center

KWS has been offering all members an option of using the training center facilities as a convention center. Convention and seminar rooms are available for up to 130 participants and equipped with all modern media and optional videoconferencing. Meals may be supplied by the staff restaurant. During the report period, KWS's facilities were booked twelve times by external hosts of seminars or conventions.

Conference room

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