

DC AND FACTS ENABLING CONTINUOUS GROWTH OF RENEWABLES

CIGRE B4-Meeting Vienna 2023 International Conference 11-15 September 2023



Vien Tourismus /Chrisitan Stempe

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AUSTRIA 💳

Photo: Wien Tourismus

Austria, a picturesque country nestled in the heart of Europe, is renowned for its stunning landscapes, rich history, and vibrant culture. From the majestic peaks of the Alps to the enchanting cities, Austria offers a diverse range of experiences for travellers and locals alike.

One of Austria's most iconic landmarks is the capital city, Vienna. Known as the "City of Music," Vienna is a cultural hub that has produced some of the world's greatest composers, including Mozart, Beethoven, and Strauss. The city's architectural splendour is evident in its grand palaces, such as Schönbrunn Palace and Belvedere Palace, which showcase the country's imperial past.

Beyond Vienna, Austria's natural beauty is awe-inspiring. The Alps dominate the landscape, providing breath-taking vistas and opportunities for outdoor activities. Skiing enthusiasts flock to the famous resorts of St. Anton, Kitzbühel, and Ischgl during the winter months, while hikers and nature lovers can explore the numerous trails and alpine meadows during the summer.

Salzburg, another gem of Austria, is famous as the birthplace of Mozart and the setting for "The Sound of Music." This charming city captivates visitors with its baroque architecture, winding streets, and the imposing Hohensalzburg Fortress overlooking the old town. The Salzburg Festival, held annually, attracts music and theatre enthusiasts from around the world, adding to the city's cultural allure.

Austria's love affair with the arts extends beyond music. The country is home to numerous world-class museums and galleries. In Vienna, the Museum of Art History houses an extensive collection of artworks from renowned masters, while the Leopold Museum showcases Austrian modern art, including works by Gustav Klimt and Egon Schiele. The Belvedere Museum is famous for its collection of Klimt's iconic painting, "The Kiss."

When it comes to culinary delights, Austria has a lot to offer. Traditional Austrian cuisine is hearty and flavoursome, with dishes like Wiener Schnitzel, Sachertorte, and Apfelstrudel being popular favourite's. The country's vibrant café culture is deeply ingrained in Austrian society, and a leisurely afternoon spent in a traditional Viennese coffee house, savouring a cup of coffee and a slice of cake, is a must-do experience.

Austria also takes pride in its strong commitment to environmental sustainability. The country is known for its efficient public transportation system, well-maintained cycling paths, and the use of renewable energy sources. Whether exploring the cities or venturing into the countryside, visitors can appreciate Austria's efforts in preserving its natural resources.

In summary, Austria is a captivating destination that seamlessly blends history, culture, and natural beauty. From the grandeur of Vienna to the charm of Salzburg and the majestic Alps, Austria offers a multitude of experiences for every traveller. With its rich heritage, culinary delights, and commitment to sustainability, Austria continues to enchant visitors from around the globe.



VIENNA

The capital of Austria is situated in the Eastern part of the country and home to two million inhabitants. The city is famous for its cultural events, imperial sights and coffee house culture.

Vienna's history dates back to around about the first century AD, when the Romans established the military camp Vindobona. Until the 19th century Veinna was the dynasty capital of the Habsburg monarchy, many well-known architectural sights were built during that time.





Vienna owes much of its international fame to the many celebrated composers who lived and worked here, including Strauß, Mozart, Beethoven and Haydn. The Vienna Philharmonic Orchestra is one of the world's best, the State Opera amongst the leading opera houses, not to forget the famous Vienna Boys' Choir.

For more information please visit the Official travel guide of the city (next page).





Vienna | Visit Austria's Imperial Capital

Austria's capital Vienna offers a blend of imperial traditions and endearing charm. ✓Top 6 highlights ✓ Architecture ✓ Music ✓Coffee houses & wine taverns

https://www.austria.info/en/where-to-go/cities/vienna

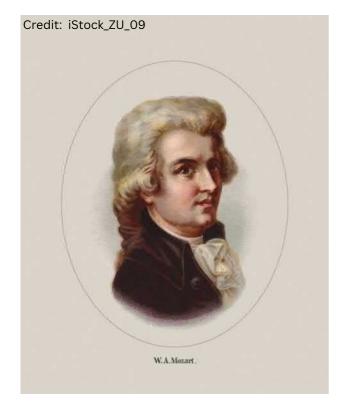




SALZBURG FOR TECHNICAL TOUR ONLY

Salzburg is unique – in every regard. Anyone who has ever immersed themselves in the magic of the worldfamous City of Mozart can never escape it again.

The harmonious interplay of landscape and architecture, art and culture, as well as traditional and modern, all within a surprisingly small area, merely adds to the special charm of this place.





Salzburg is the city where <u>W. A. Mozart</u> was born and the shooting location for "<u>The Sound of Music</u>". The narrow lanes and broad squares of this baroque city have taken their deserved place on the UNESCO World Heritage List.

The internationally acclaimed <u>Salzburg</u> <u>Festival</u>, the magnificent panorama and the countless temptations of Christmastime make Salzburg a complete artwork in its own right, and one that is quite beyond compare.



For more information please visit Salzburg Info: https://www.salzburg.info/en

Travel Guide to Salzburg, City of Culture

Salzburg city tourist board website: We provide you with useful information about affordable hotels, special events and sights in...

salzburg.info

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AND ACCOMODATION

The conference will be held at the Austria Trend Hotel Savoyen Vienna. The hotel is situated right at one of Viennas most famous tourist attractions - Schloss Belvedere.

AUSTRIA TREND HOTEL SAVOYEN VIENNA

RENNWEG 16

1030 VIENNA

AUSTRIA TREND HOTEL SAVOYEN VIENNA

PLEASE CONTACT MARIA.HAUF@AUSTRIA-TREND.AT WITH SUBJECT MATTER "OVEEL" FOR ROOM RESERVATIONS



Photo: Wien Tourismus







Most participants will stay directly at die venue's site at Rennweg 16 in the 3th district of Vienna. However there many other possible accommodation facilities nearby that can of course be chosen as well.

An impression about rooms at the Austria Trend Hotel Savoyen Vienna provides below picture.







Photo: Wien Tourismus

THE RAINS ILLAN

Rooms at the Austria Trend Hotel Salzburg Mitte have already been reserved for a limited number of rooms. Please contact the hotel under: reservierung.salzburg.mitte@austria-trend.at; Use the Keyword: "OVE"

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Chrisitan Stemper

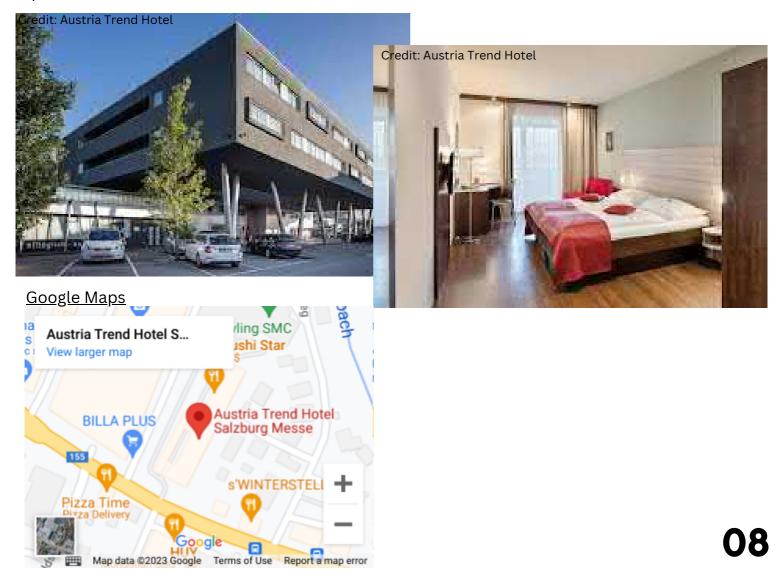




Photo: Wien Tourismus

DATE	VENUE	TECHNICAL PROGRAMME	SOCIAL EVENT START	REMARK
Saturday, Sept. 09, 2023	OVE	Working Group Meetings		
Sunday, Sept. 10, 2023	OVE / Hotel Savoyen	Working Group Meetings	Welcome Cocktail 6:00 pm	Hotel Savoyen Vienna
Monday, Sept. 11, 2023	Hotel Savoyen	SC-B4 Meeting	SC B4 Dinner 7:00 pm	Heuriger Mayer am Pfarrplatz
Tuesday, Sept. 12, 2023	Hotel Savoyen	Colloquium	Soiree 7:00 pm	Vienna City Hall
Wednesday, Sept. 13, 2023	Hotel Savoyen	Colloquium / READY4DC & InterOPERA Meeting		
Thursday, Sept. 14, 2023	Hotel Savoyen	Tutorial		Transfer to Salzburg in the afternoon
Friday, Sept. 15, 2023	Salzburg	Technical Tour to Kaprun	Scenic Tour 7:45 am	Pumped Storage Power Plant

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Saturday – Monday

Time	Saturday, September 9, 2023	Sunday, September 10, 202	23	Monday, September 11, 202	Monday, September 11, 2023				
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Room	Rooms	Rooms		Mancini 1					
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19:30 - 20:00			Welcome Reception Start		, g				
20:00 - 20:30				SC B4 Dinner	19:00				
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									





Tuesday – Friday

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08:30 - 09:00			<u> </u>											
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18:00 - 18:30														Approx. End of Technical Visit
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Patiette

Date: Mond	ay, 11/Sept/2023	Dutor Duna	-j,				
		8:00	Working Group Meetings at Hotel Savoyen on Sunday				
8:30	B4 SC Meeting Monday Morning		Location: Savoyen Olympia Mancini 1				
-	Location: Savoyen Olympia Mancini 1 Chair: Jingxuan (Joanne) Hu, RBJ Engineering Corporation	10:00	Chair: Jingxuan (Joanne) Hu, RBJ Engineering Corporation				
12:30		9:00	Working Group Meetings at Hotel Savoyen on Sunday				
12:30	Lunch Break Monday	5.00	Location: Savoyen Paris&Wien				
	Location: Savoyen Lobby	11:00	Chair: Bruno John Bisewski, RBJ Engineeering Corp				
13:30							
13:30	B4 SC Meeting Monday Afternoon	9:00	Working Group Meetings at Hotel Savoyen on Sunday				
-	Location: Savoyen Olympia Mancini 1	-	Location: Savoyen Olympia Mancini 3				
17:00	Chair: Jingxuan (Joanne) Hu, RBJ Engineering Corporation	13:00	Chair: Kamran Sharifabadi, Equinor				
Date: Tuesd	lay, 12/Sept/2023	9:00	Working Group Meetings at Hotel Savoyen on Sunday				
8:20	Opening of Colloquium	-	Location: Savoyen Olympia Mancini 3				
8:20	Location: Savoyen Olympia Mancini 2	17:00	Chair: Hong Rao, China Southern Power Grid				
8:30	Chair: Jingxuan (Joanne) Hu, RBJ Engineering Corporation	10:30	Coffee Break Sunday Morning				
		10.50	Location: Savoyen Lobby				
8:30	VSC-Design Location: Savoven Olympia Mancini 2	11:00	Location. Garoyen Lobby				
10:30	Chair: Christian Winter, Minnesota Power						
		10:30	Working Group Meetings at Hotel Savoyen on Sunday				
10:30	Coffee Break Tuesday Morning Location: Savoyen Lobby		Location: Savoyen Olympia Mancini 1 Chair: Rebecca Ostash, Transgrid Solutions inc.				
10:50	Location. Savoyen Lobby	11:30	Chair: Rebecca Ostash, Transgrid Solutions Inc.				
		13:00	Working Group Meetings at Hotel Savoyen on Sunday				
10:50	V SC-Technologies Location: Savoven Olympia Mancini 2	-	Location: Savoyen Olympia Mancini 3				
12:30	Chair: Carsten Bartzsch, Siemens Energy	17:00	Chair: Zhiyuan He, State Grid Smart Grid Research Institute Co.,Ltd.				
		14:00	Working Group Meetings at Hotel Savoyen on Sunday				
12:30	Lunch Break Tuesday Location: Savoyen Lobby		Location: Savoyen Olympia Mancini 1				
13:30	Location, savoyen Lobby	17:00					
		15:00	Coffee Break Sunday Afternoon				
13:30	V SC-Performance Location: Savoyen Olympia Mancini 2	15.00	Location: Savoyen Lobby				
15:30	Chair: Nigel Shore, Hitachi Energy	15:30	Location. Savoyen Lobby				
	· · · · · · · · · · · · · · · · · · ·						
15:30	Coffee Break Tuesday Afternoon Location: Savoyen Lobby	18:00	Cocktail Reception Sunday				
15:50	Location. Savoyen Lobby		Location: Savoyen Lobby				
		20:00					
15:50	Presentation READY 4DC and Interopera Location: Savoyen Olympia Mancini 1						
16:10	Location. Savoyen Olympia Manchil T						
16:10	STATCOM/DC Equipment						
17:30	Location: Savoyen Ölympia Mancini 2 Chair: Ricardo Tenorio, ONS						
	Item is a second secon second second sec						
Date: Wednesday, 13/Sept/2023							

Photo: Wien Tourismus

ANTIE RAINS

READY4DC & InterOPERA Workshop Location: Savoyen Paris&Wien Chair: Nina Mavrogeorgou, WindEurope

Grid Forming Location: Savoyen Olympia Mancini 2 Chair: Michael Hartmann, TU Graz

Coffee Break Wednesday Morning Location: Savoyen Lobby

DC Grid (1) Location: Savoyen Olympia Mancini 2 Chair: Ilka Jahn, RWTH Aachen University

DC Grid (2) Location: Savoyen Olympia Mancini 2 Chair: Kees Koreman, TenneT TSO BV

Coffee Break Wednesday Afternoon Location: Savoyen Lobby

DC/PE-Planning.Operation&Maintance Location: Savoyen Olympia Mancini 2 Chair: Zhibo Wang, Mitsubishi Electric Power Products, Inc

Coffee Break Thursday Morning Location: Savoyen Lobby

unch Break Thursday

Solid state transformer Location: Savoyen Olympia Mancini 1 Tutorial presented by Markus Makoschitz from Austrian Institut of Technology

generation Location: Savoyen Olympia Mancini 1 Tutorial presented by Carl Barker from GE Renewable Energy. Part of GE Vernova

B4.84: Feasibility study and application of electric energy storage systems en Location: Savoyen Olympia Mancini 1 Tutorial presented by Hani Saad from ACDC Transient LLC

B4.87: Voltage Source Converters (VSC) HVDC responses to disturbances and faults in AC syste

B4.81: Interaction between nearby VSC-HVDC converters, FACTs devices, HV power electronic devices and conventional AC equipment Location: Savoyen Olympia Mancini 1 Tutorial presented by Karman Sharlabadi from Equinor

Lunch Break Wednesday

8:00 12:30

8:30 10:30

10:30 10:50

10:50 12:30 12:30

13:30

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15:10 15:10

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11:25

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13:30

13:30 14:50

Date: Thursday, 14/Sept/2023

Working Group Meetings at Hotel Savoyen on Sunday Location: Savoyen Olympia Mancini 1 Chair: Leslie Neil Brand, Amplitude Consultants Pty Ltd

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/Chrisitan Stemper

Access to Paper Sessions Details:



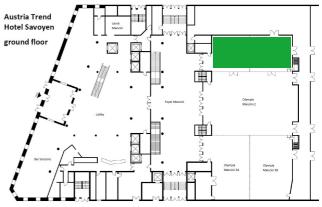
TUTORIAL

Photo: Wien Tourismus

I BALIN

The last day of the SC B4 Meeting and Colloquium in Vienna is reserved for technical tutorials. The Tutorials are available to registered participants only. They will be held in room Olympia Mancini 1 and there will be a coffee break of 15 Minutes between the second and third tutorial. The 45 min lunch break will start at 12:45 am.

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AFFILIATION	THURSDAY, SEPT. 14	TITLE	PRESENTED BY				
Austrian Institut of Technology	08:30 am - 09:50 am	Solid state transformer	Markus Makoschitz				
ACDC Transient LLC	09:50 am - 11:10 am	B4.84: Feasibility study and application of electric energy storage systems embedded in HVDC systems	Hani Saad				
GE	11:25 am - 12:45 am	B4.87: Voltage Source Converters (VSC) HVDC responses to disturbances and faults in AC systems which have low synchronous generation	Carl Barker				
12:45 am - 01:30 pm lunch break							
Equinor 01:30 pm - 02:50 pm		B4.81: Interaction between nearby VSC-HVDC converters, FACTs devices, HV power electronic devices and conventional AC equipment	Kamran Sharifabadi				

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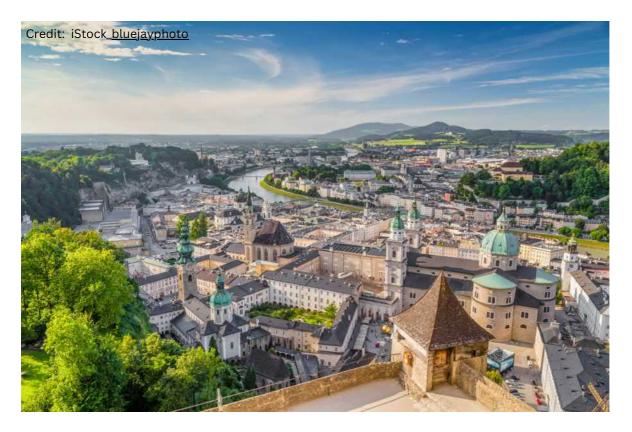
TECHNICAL VISIT SALZBURG & KAPRUN

AIR

The B4 Colloquium concludes with a Technical Tour to Salzburg and the Kaprun-Pump-Storage-Power plant. This is for registered persons only.

Photo: Wien Tourismus

TE RAINS



Chrisitan Stempe



DATE	PROGRAMME				
Thursday, September 14, 2023	In the afternoon, after the tutorial, individual transfer to Salzburg with public train. Tickets will be handed over during Colloquium.				
Thursday, September 14, 2023	Check in at the Austria Trend Hotel Salzburg. Please book your room on your own. See page <u>10</u> .				
Friday, September 15, 2023	7:45 a.m. Meeting point in front of the hotel. 7:50 a.m. Departure by bus to Power Plant Kaprun.				
Friday, September 15, 2023	4:00 p.m. Departure by bus back to the Hotel. 6:30 p.m. end of the Cigre B4 Technical Tour.				
Included in the price: Train Transfer from Vienna to Salzburg (2h), Bus to Kaprun, Technical Visit of Kaprun- Pump-Storage Power Plant, Lunch and Breaks					





<u>Source: https://www.bloomberg.com/features/2018-kaprun-hydroelectric-station-battery/#xj4y7vzkg</u>



SOCIAL EVENTS









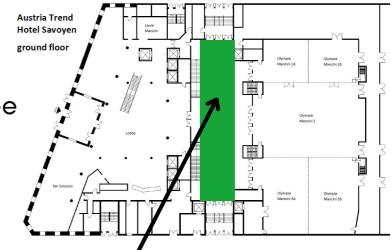
Welcome Reception

Date: Sunday, September 10, 2023

Start: 18:00 (6:00 pm)

Dress Code: Business Casual

Finger food and drinks are servered within the first 2h free of charge.









SC B4 Dinner

Only for SC B4 Members and invited guests

Date: Monday, September 11, 2023

Start: 19:00 (7:00 pm)

Dress Code: Business Casual

Location:

Mayer am Pfarrplatz



Home

Pleasant wintertime at Mayer. The winter season is officially opened: From Old...

pfarrplatz.at

From Hotel Savoyen use U4 Stadtpark to Heiligenstadt and take Bus 38A to the Grinzinger Str.





Photo: Wien Tourismus

Only for registered and invited guests

Date: Tuesday, September 12, 2023

Start: 19:00 (7:00 pm)

Dress Code: Business Casual

Location: Vienna City Hall – Wappensaal

Entrance via Lichtenfelsgasse

Kindly supported by
City of
Vienna

<u>From Hotel Savoyen use Tram 71 to Parlament and walk to the</u> <u>Vienna City Hall</u>



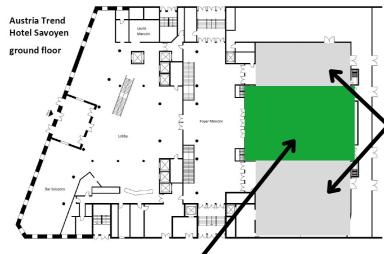


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CONFERENCE ROOMS



Olympia Mancini 2

Olympia Mancini 1+3



Austria Trend Hotel Savoyen – 1st floor

20







REGISTRATION DESK



Registration desk is in the lobby in front of the Main conference Hall of the Hotel Savoyen Vienna.

Opening hours:

Sunday, September 10, 2023:	2 PM – 5 PM
Monday, September 11, 2023:	8 AM – 12 PM
Tuesday, September 12, 2023:	8 AM - 12 PM



Photo: Wien Tourismus

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Meetings for Workinggroups

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READY4DC Workshop

Meetings at Hotel Savoyen

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Meetings at OVE

- **30** Vienna Public Transport
 - Companion Tour

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32 Contact Information

Chrisitan Stempe



MEETINGS Working Group Meetings

Only for Working Group Members and invited guests

Saturday, September 9, 2023

WG	TITLE	CONVENER	TIME SLOT	LOCATION
B4.89	Condition Health Monitoring and predictive maintenance of HVDC Converter Stations	Nadine Chapalain	09:00 am - 05:00 pm	OVE Turmzimmer
B4/C4.93	Development of Grid Forming Converters for Secure and Reliable Operation of Future Electricity Systems	Dechao Kong	09:00 am - 05:00 pm	OVE Galerie
B4.94	Application of VSC-HVDC in a System Black Start Restoration	Arash FazelDarbandi	09:00 am - 05:00 pm	OVE Sitzungszimmer
B4.AG04- TF4	Reliability Performance of Multi-Terminal DC Grid Systems	Sergio E. Santo	05:00 pm - 08:00 pm	OVE Turmzimmer



Sunday, September 10, 2023

WG	TITLE	CONVENER	TIME SLOT	LOCATION
B4.81	Interaction between nearby VSC- HVDC converters, FACTs devices, HV power electronic devices and conventional AC equipment	Kamran Sharifabadi	09:00 am - 01:00 pm	Savoyen Olympia Macini 3B
B4.87	Voltage Source Converters (VSC) HVDC responses to disturbances and faults in AC systems which have low synchronous generation	Carl Barker	09:00 am - 05:00 pm	OVE Galerie
B4.90	Operation and maintenance of HVDC and FACTS Facilities	Les Brand	09:00 am - 05:00 pm	Savoyen Olympia Macini 1B
B4.94	Application of VSC-HVDC in a System Black Start Restoration	Arash FazelDarbandi	09:00 am - 05:00 pm	OVE Sitzungszimmmer
B4- AG01	Strategic advisory group	Joanne Hu	08:00 am - 10:00 am	Savoyen Olympia Macini 1A
B4- AG04	HVDC/FACTS System performance	Lyle Crowe	09:00 am - 01:00 pm	OVE Turmzimmer
B4.WiE	B4 Women in Energy	Rebecca Ostash	10:30 am - 11:30 am	Savoyen Olympia Macini 1A
Green Book	Green Book on HVDC	Stig Nilsson	02:00 pm - 05:00 pm	Savoyen Olympia Macini 1A



Sunday, September 10, 2023

WG	TITLE	CONVENER	TIME SLOT	LOCATION
B4.AG04 - TF4	Reliability Performance of Multi- Terminal DC Grid Systems	Sergio E. Santo	01:00 pm - 05:00 pm	OVE Turmzimmer
B4.79	Hybrid LCC/VSC HVDC Systems	Hong Rao	09:00 am - 05:00 pm	Savoyen Olympia Macini 3A
B4/A3.8 6	Fault Current Limiting Technologies for DC Grids	Zhiyuan He	01:00 pm - 05:00 pm	Savoyen Olympia Macini 3B
JTF B4B1B3 C4D1.95	Harmonization of voltage designations and definitions across different HVDC component technologies	Bruno Bisewski	09:00 am - 11:00 am	Savoyen Paris&Wien





READY4DC Workshop

Only for Working Group Members and invited guests

Wednesday, September 13, 2023

WG	TITLE	CONTACT	TIME SLOT	LOCATION
READY4DC & InterOPERA	READY4DC will create a community of experts to work out recommendations on how to plan and build an interoperable and expandable direct current grid in Europe. READY4DC paves the way for InterOPERA and the first HVDC multi-terminal, multi- vendor, multi-purpose real- life projects in Europe.	Nina Mavrogeorgou	08:00 am - 12:30 am	Savoyen Paris & Wien



Meetings at Hotel Savoyen

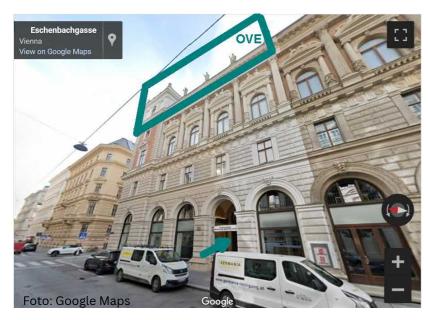
Meeting rooms with classroom seating and video projector

SUNDAY, SEPTEMBER 10, 2023	Time	Olympia Macini 1A	Olympia Macini 1B	Olympia Macini 3A	Olympia Macini 3B	Paris &Wien
WG	08:00 am - 01:00 pm	B4-AG01 & B4.WiE	B4.90	B4.79	B4.81	JTF B4B1B3C4D 1.95
WG	01:00 pm - 05:00 pm	Green Book	B4.90	B4.79	B4/A3.86	
WEDNESDAY, SEPTEMBER 13, 2023						
Meeting	08:00 am - 12:30 am					READY4DC & InterOPERA



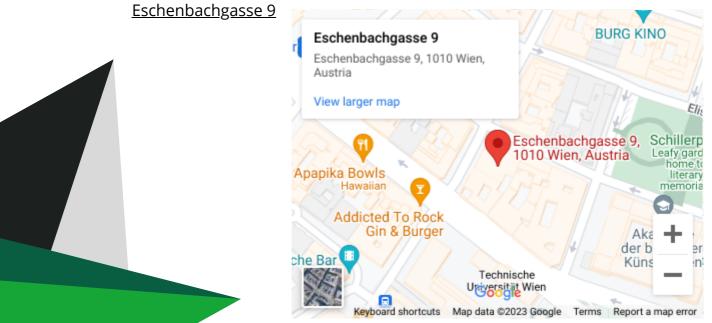
Meetings at OVE

All rooms fully equipped with video conference equipment



Contact during WG-meetings Christian Gasser OVE Österreichischer Verband für Elektrotechnik Eschenbachgasse 9 | 1010 Wien T +43 1 587 63 73-535 M +43 664 968 04 85 c.gasser@ove.at | www.ove.at

From Savoyen use Tram 71 from Rennweg to Burgring and walk to





Meetings at OVE

1th Eleor

All rooms fully equipped with video conference equipment

4th Floor:							
	SATURDAY, SEPTEMBER 9, 2023	Time	Turm- zimmer	Galerie	Sitzungs -zimmer		
	WG	09:00 am - 01:00 pm	B4.89	B4/C4.9 3	B4.94		
	WG	01:00 pm - 05:00 pm	B4.89	B4/C4.9 3	B4.94		
FEUERLÖSCHER / EXTINGUISHER ERSTE HILFE KASTEN / FIRST AID KIT Besprechungsraum - Turmzimmer / Meeting Room - Turmzimmer Besprechungsraum - Galerie / Meeting Room - Galerie 3rd Floor: Sitzungszimmer	WG	05:00 pm - 08:00 pm	B4- AG04 TF4				
	SUNDAY, SEPTEMBER 10, 2023						
	WG	09:00 am - 01:00 pm	B4- AG04	B4.87	B4.94		
	WG	01:00 pm - 05:00 pm	B4- AG04 TF4	B4.87	B4.94		
					29		

VIENNA PUBLIC TRANSPORT

Photo: Wien Tourismus

All attendees have access to easy and reliable transportation options during their stay. To that end, the organization teams provide a link to the public transport system in the area. This system offers a variety of options for getting around, including buses, trains, and light rail. With frequent service and convenient routes, it's the perfect way to explore Vienna and get to the conference on time.

To access the public transport system website, simply click on the following link or scan the QR-Code. It is recommend to purchase tickets in advance.







COMPANION TOUR

Extra special for Vienna SC B4 Meeting companions:

On Monday morning, September 11, 2023, a guided Vienna city tour will be organized. The number of individuals is limited to 25 persons and the fee is 25€. First come, first served and registration is therefore absolutely necessary. Please send your details as soon as possible to c.gasser@ove.at / alexander.gaun@coilinnovation.at.





CONTACT INFORMATION

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Technical Committee

Joanne Hu

Rebecca Ostash Member of the technical committee <u>rostash@tgs.biz</u>



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Mosaic Grid Solutions

Mosaic Grid Solutions is an internationally operating and highly specialized consulting and engineering service provider based in Karlsruhe, Germany. We support all stakeholders involved in the energy transition as a trustworthy and independent partner. Our expertise lies in the grid integration of large-scale power electronic projects such as high-voltage direct current transmission (HVDC), flexible ac transmission systems (FACTS), large-scale battery storage and electrolysers. We identify requirements for converter-dominated power grids and perform design and system integration studies for next-generation assets.



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Mosaic Grid Solutions GmbH Haid-und-Neu-Str. 7 76131 Karlsruhe, Germany info@mosaic-gridsolutions.com

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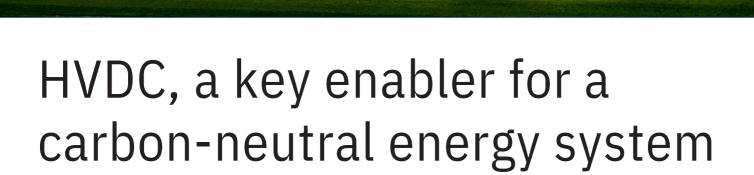
- Hosting, Performance & Analysis of Grid-Integration and Interaction Studies
- Transient Stresses, Lightning Studies & Insulation Coordination
- Electromagnetic Interference Studies of Power Cables & Parallel Infrastructure
- Customized Workshops & Trainings dealing with Power Electronics-Dominated Grids





Photo: Wien Tourismus





We are developing and deploying technologies and solutions that are advancing the world's energy system to be more sustainable, flexible and secure.

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C SubCon[™]

ABOUT PLP

Founded in 1947, PLP is a global designer, manufacturer, and supplier of high-quality products and services for the electric power industry. With 25 global locations and customers in more than 140 countries, PLP is recognized around the world as a market leader in developing innovative and dependable solutions for transmission, distribution, and substation systems. This combination of local presence and global reach enables PLP to provide superior customer service, timely product delivery, and unmatched technical support to all our customers and industry partners.

SUBCON

SubCon is PLP's line of substation connectors, including designs for all voltage levels up to 1100 kV AC and DC. The SubCon product range includes standard connectors, busbar couplers, bimetallic and copper clamps, and insulator string sets for specialized connectors. In addition, a complete set of complementary accessories, including stranded and tubular conductors, insulators, and grounding materials is available. And with more than 4,000 existing products and 1,000 tailor-made products designed each year, SubCon offers customizable solutions for any application.

Connector Bolted Type	Connector Bolted/ Compressed Type	Busbar Coupler	Busbar Support
		1555	S

Expansion Connector	Copper/Bimetallic Connector	Suspension String	Special HVDC Connector
	SEDE		