## Demo 2 Special Workshop



# Maximising multivendor interoperability in HVDC systems

5 June 2018 - 8:30 -17:00 - Paris La Défense (France)

This 4<sup>th</sup> Special Workshop of the EU funded Best Paths project will show the results of **Demo 2**, which aims to assess and maximise **interoperability for multivendor HVDC systems** based on Voltage Source Converters (**VSC**) technology.

During the workshop, participants will see live demonstrations as well as presentations of the methodology and final results of this work, which is **the first attempt to perform systematic investigation on multivendor VSC interoperability with world-leading HVDC manufacturers**, using offline and real-time simulation.

Register here for this workshop to meet experts from TSO, manufacturers and academia involved in this project.

	Agenda
8h30 – 9h00	Registration and coffee at Coeur Défense
9h00 - 9h15	Welcome speech Olivier Despouys (RTE)
9h15 - 9h30	Introduction Olivier Grabette, Executive Vice President, Member of the Board, RTE
9h30 - 9h45	Overview of the Best Paths project Miguel Lorenzo (Red Eléctrica de España)
9h45 - 10h15	<b>Demo 2: Multi-vendor interoperability in HVDC-VSC systems</b> Olivier Despouys (RTE)
10h15 - 10h45	Results observed with offline models Pierre Rault (RTE) and Dimitrios Vozikis (University of Strathclyde)
10h45 - 11h15	Coffee break/poster session
11h15 - 11h45	Experience with control cubicles Christian Wikstrom (ABB) and Pierre Rault (RTE)
11h45 - 12h15	Overall interoperability learnings and recommendations Alexandra Burgos (Red Electrica de España) and Olivier Despouys (RTE)
12h15 - 13h15	Lunch
13h15 - 14h00	Transfer to RTE real-time lab
14h00 – 16h00	Live demonstrations and equipment presentation  3 forty-minute workshops will take place in parallel (max. audience: 25 persons per workshop):  Workshop 1: real-time simulation: DEMO 2 hardware presentation and TSO experience  Workshop 2: real-time live demonstration on multi-vendor HVDC cubicle interoperability  Workshop 3: EMT study demonstration on multi-vendor HVDC converter interoperability
16h00 - 16h10	Conclusions RTE
16h10-17h00	Refreshment and informal discussion with Demo 2 experts





## **Event venue [morning]**

Paris la Défense, Conference Centre, Coeur Défense, **Artemis room (in the basement)** 

#### **COEUR DEFENSE**

100 ESPLANADE DU GENERAL DE GAULLE

92932 - PARIS LA DEFENSE CEDEX

RER OR METRO - EXIT F: Calder Miro



















Map available here: <a href="http://www.coeurdefense.com/acces/?lang=en">http://www.coeurdefense.com/acces/?lang=en</a>

Or here: <a href="https://goo.gl/maps/PU8ZBSFJWqo">https://goo.gl/maps/PU8ZBSFJWqo</a>









**Event venue [afternoon] and transfer to RTE's real-time lab (Tour Marchand)** 

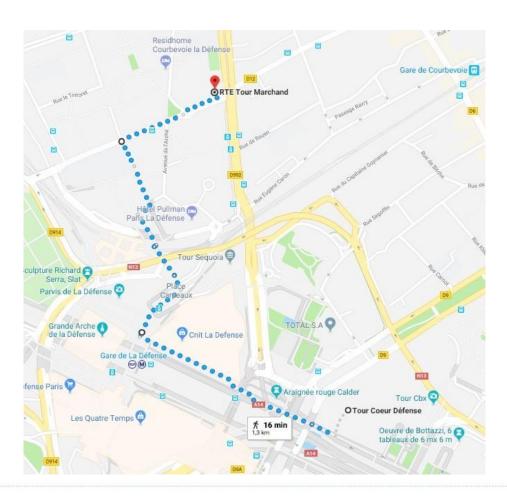
RTE real time lab, Tour Marchand

#### **TOUR MARCHAND**

41 RUE BERTHELOT
92400 COURBEVOIE



After lunch, a 30-minute walk is planned from the Coeur Défense Conference Centre to reach RTE's real-time lab and attend the live demonstrations and equipment presentation. Should any participant need specific help for this transfer, please contact Madeline PAILLEY (<a href="mailto:madeline.pailley@rte-france.com">madeline.pailley@rte-france.com</a>) for support.







#### **Accommodation**

## MELIA Paris La Défense (hôtel \*\*\*\*)

4 Esplanade du General De Gaulle/3 Boulevard de Neuilly 92400 COURBEVOIE

https://www.melia.com/fr/hotels/france/paris/melia-paris-la-defense/index.html

Metro Ligne 1 : Esplanade de la Défense

## **NOVOTEL Paris La Défense (hôtel \*\*\*\*)**

2 Boulevard de Neuilly 92081 PARIS LA DEFENSE Cedex

https://www.accorhotels.com/fr/hotel-0747-novotel-paris-la-defense/index.shtml

Metro Ligne 1 : Esplanade de la Défense

## MERCURE La Défense Grande Arche (hôtel \*\*\*\*)

17/20 Esplanade Charles de Gaulle, 92000 NANTERRE

https://www.accorhotels.com/fr/hotel-1982-hotel-mercure-paris-la-defense-grande-arche/index.shtml

RER A : Gare de Nanterre Préfecture

#### Please note that accommodation and travel are at the expense of participants

## Getting to the meeting from your hotel

If you choose:

- Melia Paris la Défense, you just have to walk in the direction of the Grande Arche. The Coeur Defense Building will be on the right after the Mond Restaurant, and the Starbucks.
- Novotel Paris la Défense you just have to walk in the direction of the Grande Arche. The Coeur Defense Building will be on the right after the Mond Restaurant, and the Starbucks.
- Mercure La Défense Grande Arche, you have to take the RER in Paris direction and stop to La Défense – exit F : Calder Miro

## **Getting to Paris**

Paris is served by **six train stations situated in the centre of the capital**. From these, you can take a metro or one of the taxis parked in front of every station. If you are arriving by plane, then there are **several ways** of getting to the city centre.









#### **By Plane**

#### Charles de Gaulle Airport

23 km to the north of Paris by the A1 motorway Airport: +33 1 70 36 39 50

## 4 options:

- RER B
- Roissy Bus
- Bus
- Taxi / Uber

https://en.parisinfo.com/practical-paris/getting-to-paris/from-paris-charles-de-gaulle-airport

It takes roughly an hour from Charles De Gaulle Airport to La Défense. You can make a simulation on: <a href="http://www.ratp.fr/itineraires/">http://www.ratp.fr/itineraires/</a>

From Charles de Gaulle airport, you first have to take a train to Paris (RER B). Get off at "Châtelet-Les-Halles" station. There take another train (RER A) up to "La Defense (Grande Arche)" station.

#### **Orly Airport**

 $14\ km$  to the south of Paris by the A6 motorway. Information Arrivals/departures – Flight Schedule Airport: +33 1 70 36 39 50

## 4 options:

- Bus
- Orlybus
- Orlyval
- Taxi / Uber

https://en.parisinfo.com/practical-paris/getting-to-paris/from-paris-orly-airport

It takes roughly an hour from Orly Airport to LA DEFENSE, you can make a simulation on: http://www.ratp.fr/itineraires/

## By train

Paris can be reached by train in a few hours from elsewhere in France and all major European cities. All 9 stations bring you right into the heart of the city. They are situated in different areas of Paris and are **well connected to the public transport network (metro, RER, bus).** Make sure you don't forget to validate your train tickets by inserting them in the orange machines located in the concourse and in front of the platforms.

More info about trains: **SNCF** 

Travel at the best rate in France and in 20 European countries by booking your tickets on Trainline

## By Bus

https://en.parisinfo.com/practical-paris/getting-to-paris/by-coach

## **By Car**

https://en.parisinfo.com/practical-paris/getting-to-paris/by-car





#### Metro and RER

In the RER, as long as you remain within the city limits, **tickets and prices are identical to the metro** (RER stations also have their own ticket offices and machines). If you are travelling beyond the city limits, you need to ensure that you have a ticket or a pass that covers your whole journey up to your destination in the Ile-de-France region. If not, you will not be able to go through the automatic barriers on arrival and you may be liable to a fine. The RER ticket also covers your journey and any connections within Paris (zones 1 and 2), on your outward and return journeys.

#### Bus

On the buses, you use the same tickets as in the metro, with no limit of distance (including suburbs), except on the Balabus, Noctilien and routes 221, 297, 299, 350 and 351. The bus driver can sell single tickets, be sure to have the correct change. On the bus, your ticket is only valid for a single journey, with no connections. You will need another ticket if you change on to a different bus route or connect with another form of public transport. If you plan to travel around a lot, it would be better value to buy a pack of ten tickets ("carnet") or a travel pass (see "Passes and reductions").

https://en.parisinfo.com/practical-paris/how-to-get-to-and-around-paris/fares-travel-passes-reductions

## **Paris sightseeing**

Paris, capital of France (2.2 million inhabitants), is a big European city and a world centre of art, fashion, gastronomy and culture. Its nineteenth-century cityscape is crossed by wide boulevards and the river Seine. In addition to monuments such as the Eiffel Tower and the Gothic Notre-Dame cathedral of the 12th century, the city is famous for its cafes and luxury shops lining the rue du Faubourg-Saint-Honoré.

More information about sightseeing in Paris can be found here: https://en.parisinfo.com/

## **Cultural highlights**

- Eiffel Tower
- Louvres museum
- Orsay museum
- Versailles Estate
- Garnier Opera
- The Arc de Triomphe
- Notre Dame de Paris Cathedral towers
- Bateaux Mouches River cruise

And many others: <a href="https://en.parisinfo.com/">https://en.parisinfo.com/</a>

## **Contact details**

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