



Topic 4 Arriving in Central Europe

Electrification of the Dresden-Görlitz-(Wroclaw) railway line



DB Netz AG | Project portfolio for Dresden/Zwickau (I.NI-SO-D) | Project management | Technical project manager: Ulrich Mölke
Dresden, 4 November 2020

Electrification of route: Dresden – Görlitz – German/Polish border

Project overview



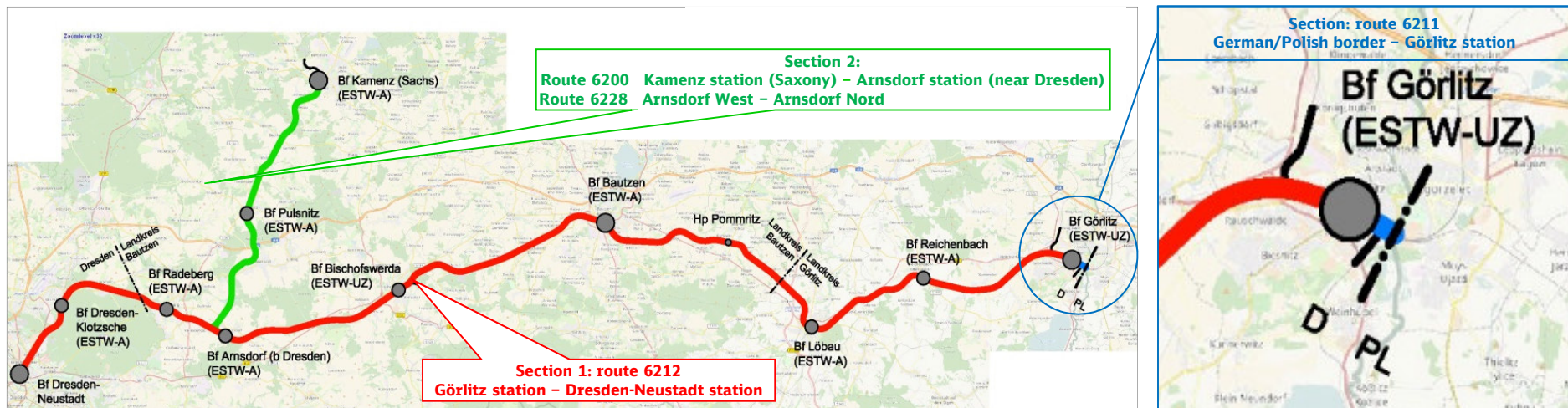
Planning sections

Electrification of section from German/Polish border to Görlitz

- Route 6211: German/Polish border – Görlitz

Electrification of (Dresden-Neustadt) – Dresden-Klotzsche – Görlitz route

- Route 6212: Dresden-Klotzsche – Görlitz
- Route 6200: Arnsdorf – Kamenz (and route 6228)



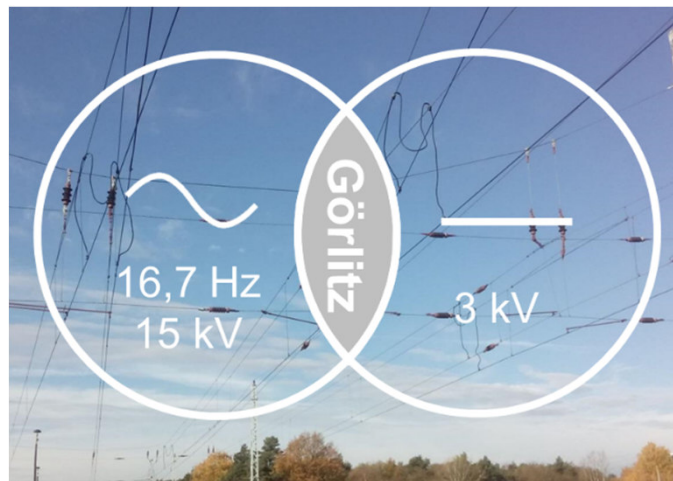
Electrification of route: Dresden – Görlitz – German/Polish border

Project overview



Project goals

- Close "gap" in electrified route between border and Görlitz (first implementation phase: Görlitz station)
- Electrify Dresden – Görlitz route
- Construct line suitable for increasing speed to $V_{max} = 160$ km/h
- Electrify Arnsdorf – Kamenz for local passenger services (optional) route
- Create conditions for international transport using electric traction
- Contribute to environmental protection, especially by reducing CO2 emissions from local transport



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Project overview



Project contents

- New 15 kV AC overhead line from Dresden-Klotzsche - Görlitz station
- 3 kV DC overhead line from Zgorzelec - Görlitz station, with system separation point at Görlitz
- New 110kV 16.7 Hz traction current line from Dresden – Löbau, new substation at Löbau
- New and modified engineering structures for accommodating overhead line
- Work on transport facilities in line with increase in speed
- Modify control-command and signalling technology in line with increase in speed
- Measures to counteract noise and vibrations in line with increase in speed



Electrification of route: Dresden – Görlitz – German/Polish border

Interim report on preliminary design



- The client for all planning services is the state of Saxony, represented by the SMWA. All financing is provided by the state of Saxony.
- The planning contract was awarded to DB AG in 2015. The goal was to prepare the project for inclusion in the German government's requirements plan for the rail sector. Planning started in 2016.
- The result: an overall plan as a preliminary design that looks at different variants based on HOAI phase 2. Planning is in accordance DB AG's requirements.
- DB Netz AG is responsible for project management.
- The final version of the plan is currently being prepared. The results of the quality check are being integrated. The plan will be handed over to the state of Saxony on 15 December 2020.
- The preliminary design phase includes variations for the traction current line from Dresden – Löbau (Pommritz), which is the most likely proposal from the ongoing regional planning procedure (RPP).
- Subsurface investigations are being performed as part of parallel work ahead of HOAI phase 3.
- The preliminary design phase will be finalised by September 2021 after the RPP concludes.
- Saxony has ordered more detailed planning for the first implementation stage at Görlitz station (facilities for incoming electric vehicles from Poland with 3 kV DC at tracks 3 and 4).
- The design does not yet incorporate additional requirements from inclusion as project no. 20 in the structural assistance legislation for the Lausitz coalfield (lignite).

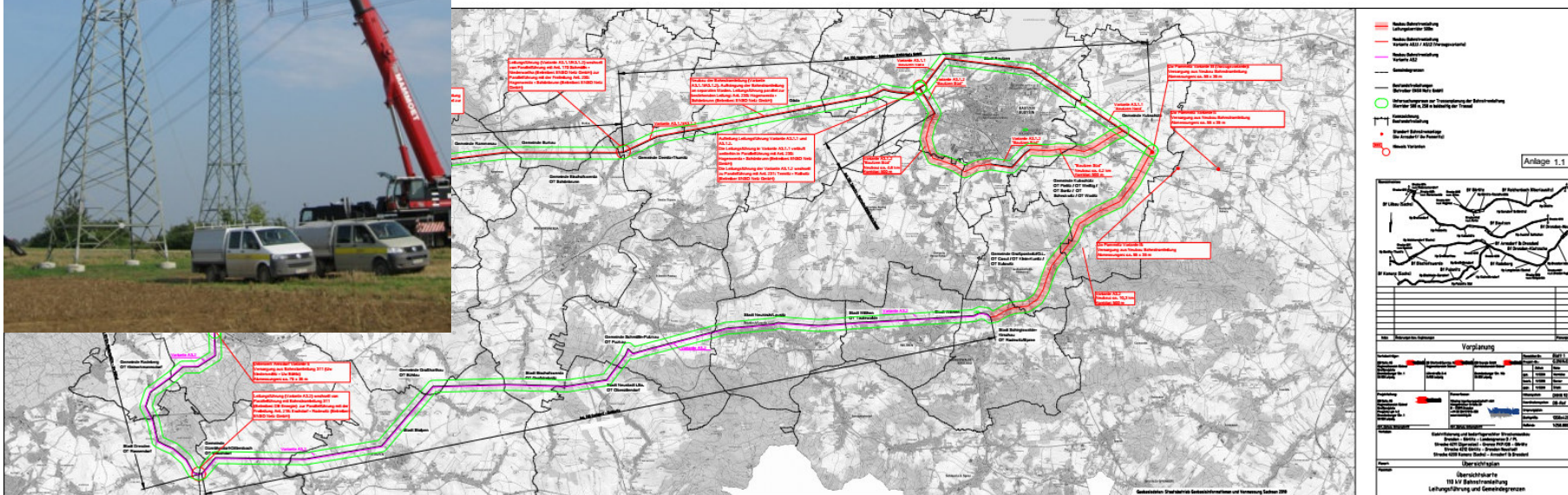
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Regional planning procedure (RPP)

Energy supply: 110 kV traction power line

- Sept. 2018: Initial talks with the regional planning authority
- May 2019: Scoping performed
- Sept. 2020: Inclusion and evaluation of basic data
- Dec. 2020: Completion of potential conflict analysis
- Aug. 2021: Completion of RPP

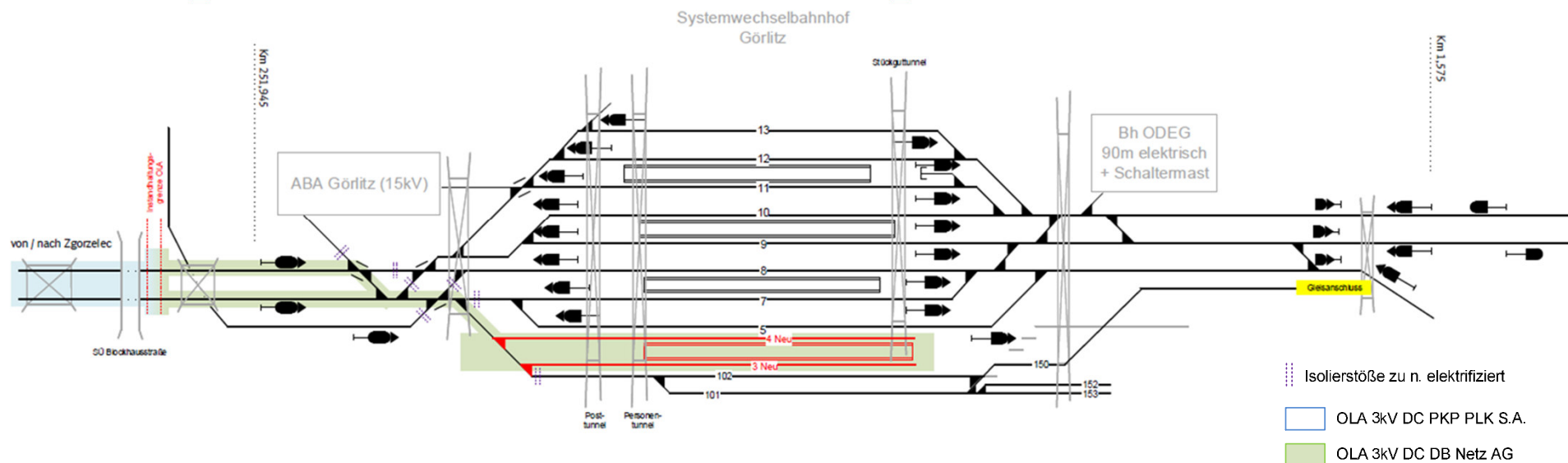


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Görlitz station – first implementation phase

Incoming electric vehicles with DC current from Zgorzelec station to



Construction of double-track facilities for trains coming from Zgorzelec with DC current, plus reactivation of tracks 3 and 4 with platform.

Tracks 3 and 4 are terminal tracks. Arrivals are therefore possible with special permission without PZB (no additional vehicle equipment required).

Planning approval procedure necessary (due to nearby bird sanctuary in Neisse valley (DE 4454-451), noise mitigation, vibration mitigation, relocation of supply lines).

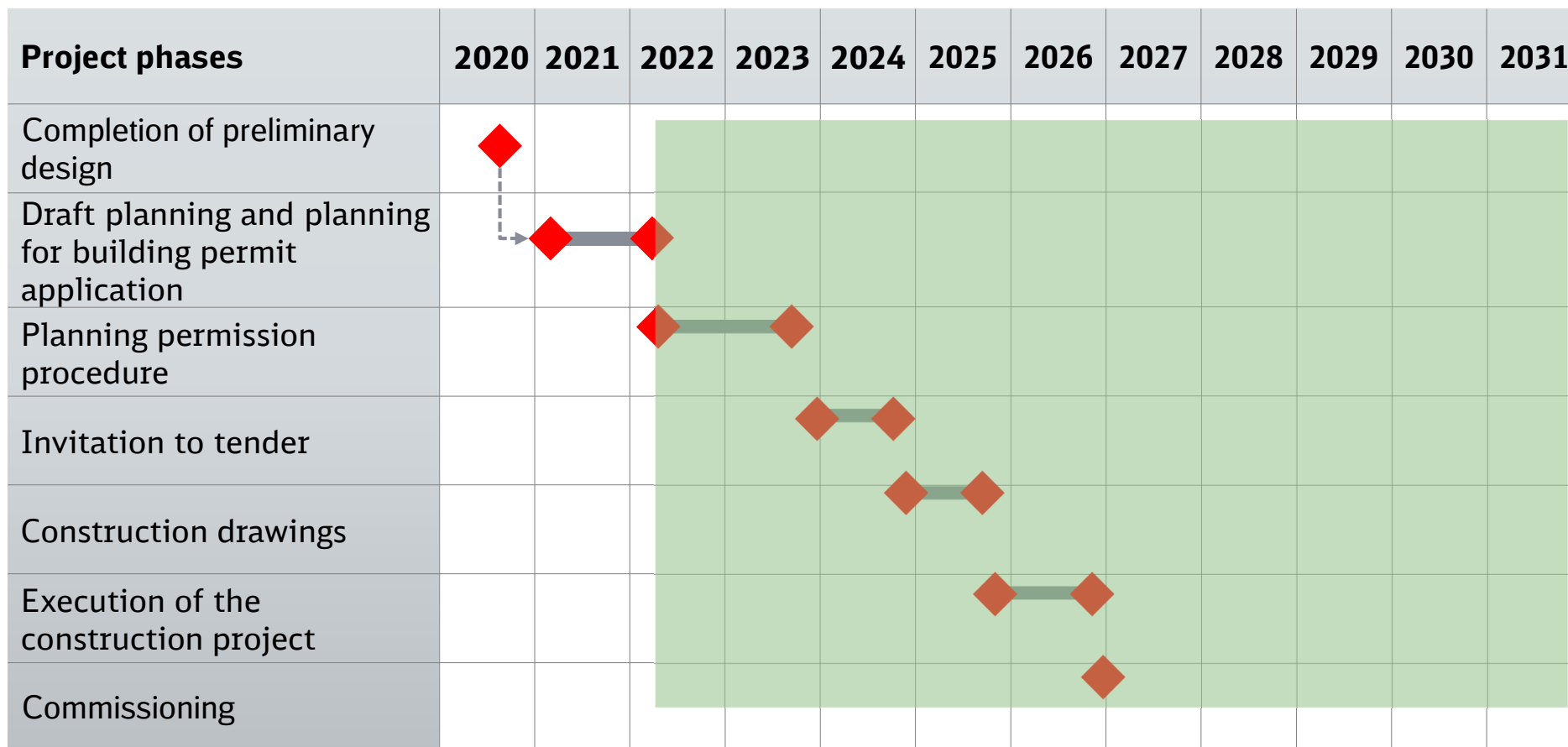
The cross-border town of Görlitz is responsible for building/replacing the overpass on Blockhausstrasse.

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Timeline* of first implementation stage

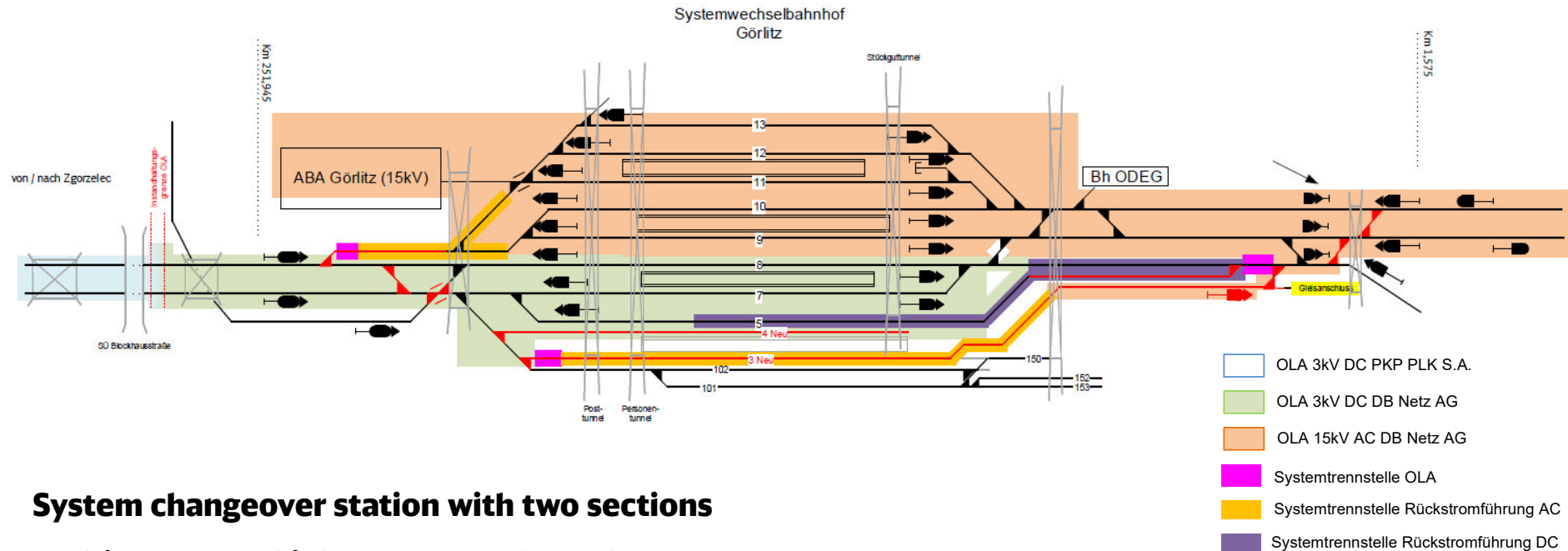
Gap closure with 3 kV DC from border to Görlitz station, tracks 3 & 4



* ideal schedule, **subject to ability to secure financing as of phases 3 and 4**

Electrification Dresden - Görlitz - German/Polish border

Görlitz station - Second implementation state Final state



System changeover station with two sections

Multi-system vehicles can pass through

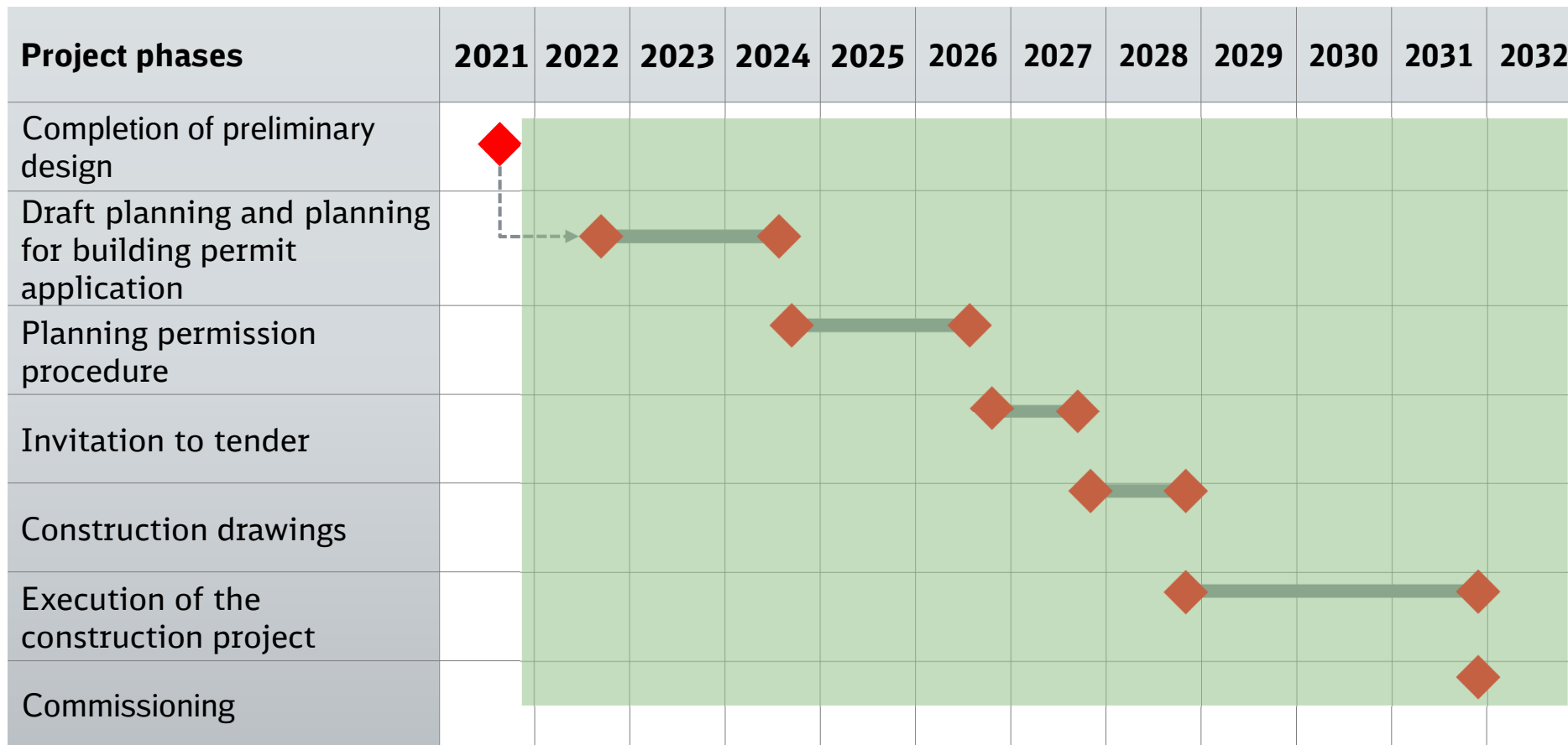
- **3 platform edges for DC (incl. diesel trains to Zittau)**
- **4 platform edges for AC (Dresden / Cottbus/Berlin)**
- **1 sorting siding for 740-m freight train as bypass en route to Germany**
- **1 sorting siding for 740-m freight train as bypass en route to Poland**

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Total timeline* for electrification of route Dresden – Görlitz

Does not factor in changes to project requirements and financing as project no. 20 in structural assistance legislation



* ideal schedule, **subject to ability to secure financing as of phases 3 and 4**



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