

Network development plan 2023

for the transmission grid of Austrian
Power Grid AG (APG)

Planning period

2024-2033

Planning status September 2023

Österreich
braucht
Strom.



Vienna, September 2023

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Layout: APG

No.	Projects of national/European interest (380/220 kV) - grid level 1	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
23-1	Strategic area protection											
12-15	Supplements 380 kV Salzburg line section 1 (NK St. Peter - UW Salzburg)											
14-1	110 kV line Steinach - national border (Prati di Vizze / IT) - TINETZ	◇										
21-1 a.)	Load flow control elements for CEP-70% - East-West Danube grid area											
	UW Ybbsfeld 220-kV-PST and UW St. Peter 4. transformer 380/220 kV		◇	◇								
11-12	Resia Pass project - State border IT	◇										
	New Nauders 380/220 kV substation	◇										
11-10	380 kV Salzburg line NK St. Peter - NK Tauern			◇								
	Expansion of St. Peter UW 380 kV			◇								
	Expansion of Salzburg 380 kV substation			◇								
	New Wagenham 380/110 kV substation			◇								
	New Pongau 380/220/110 kV substation			◇								
	Adaptations UW Kaprun/Tauern 380 kV			◇								
	Dismantling (220 kV and 110 kV lines) and reworking						◇					
11-11	220 kV supply to the central region of Upper Austria (ZROÖ)				◇				◇			
	New UW Hütte South 220/110 kV				◇							
	New Pichling 220/110 kV substation					◇						
	Expansion of UW Kronstorf 380/220 kV							◇				
	New UW Wegscheid 220/110 kV							◇				
11-7	380 kV German power line St. Peter - national border DE (Ottenhofen/Isar)						◇					
	Expansion of St. Peter UW 380 kV						◇					
	Dismantling 220 kV (lines)						◇					
Cluster Grid Area Tyrol / UW West Tyrol												
11-9	West Tyrol substation: construction of 2nd 380/220 kV transformer and expansion/reinforcement of 380 kV system						◇					
21-1 b.)	West Tyrol substation: Construction of 3rd 380/220 kV transformer						◇					
19-7	UW Westtirol: General renewal of 220 kV system									◇		
14-3	220 kV line West Tyrol - Zell/Ziller (Tyrol grid area)								◇			
13-2	West Tyrol substation: 380 kV voltage conversion West Tyrol - Memmingen (system 411)								◇			
Cluster AT-Centre / Styria												
23-2	220 kV Hessenberg - Leoben line				◇							
	Expansion of UW Hessenberg 220 kV				◇							
19-2	General renewal of 220 kV line Reitdorf - Weißenbach						◇					
19-4	General renewal of 220 kV line Weißenbach - Hessenberg								◇			
19-3	General renewal of 220 kV line Lienz - state border IT (Soverzene)								◇			
	Expansion of Lienz 220kV substation (switchgear and phase-shifting transformers)								◇			
11-14	Carinthia grid area (380 kV ring closure)											◇
23-3	Grid area Burgenland North - Sarasdorf / Greater area south-east of Vienna										◇	
23-4	General renewal of 220 kV line Bisamberg - Vienna Southeast											◇

Table 1: Overview of project implementation periods (Part 1); the diamond marks the year of commissioning currently planned by APG; **Marked in green: new projects of the NEP 2023**

2023 grid development plan for the APG control area

No.	UW projects 380/220 kV (expansion and general renewal) - grid level 1	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
14-2	New 220 kV SW Weibern	◇										
19-6	Ernsthofen substation: General renewal of 220 kV system							◇				
23-5	Sarasdorf substation: short-circuit upgrade and expansion of 380 kV system								◇			
23-6	Vienna South East substation: general renewal/expansion of 380 kV system and modernisation							◇				
21-2	New 380 kV SW Seyring						◇					
23-7	Power-to-Gas for Austria (P2G4A)						◇					
23-8	Zaya substation: Expansion of 2nd 380/220 kV transformer (550 MVA)						◇					
23-9	UW Weißenbach: General renewal of 220 kV system							◇				
23-10	UW Südburgenland: General modernisation/expansion of 380 kV system							◇				
23-11	UW Kainachtal: General renewal of 380 kV system								◇			
23-12	St. Peter substation: General modernisation of 220 kV system and replacement of transformers									◇		
23-13	Vienna South-East substation: general modernisation of 220 kV system and replacement of transformers										◇	

No.	Grid connection projects for distribution system operators (DSO feed-ins) - NE 1&2	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
20-1	Ernsthofen substation: Expansion of 6th 220/110 kV transformer - <i>Upper Austria grid</i>	◇										
21-3	Zaya substation: Expansion of 3rd 380/110 kV transformer - <i>Lower Austria grid</i>		◇									
21-4	Wagenham substation: expansion and 2nd 380/110 kV transformer - <i>Upper Austrian grid</i>			◇								
16-4	New Matrei substation: 380/110 kV grid support - <i>TINETZ</i>			◇								
17-2	New Klaus substation: 220/30 kV grid support - <i>Netz OÖ</i>				◇							
19-1	Sarasdorf substation: expansion of 3rd and 4th 380/110 kV transformer - <i>Netz NÖ</i>				◇							
21-7	New Leoben substation: 220/110 kV grid support - <i>Energienetze Steiermark (VASD)</i>				◇							
12-9	New Mürztal substation: 220/110 kV grid support - <i>Energienetze Steiermark</i>					◇						
20-2	New Spannberg substation: 380/110 kV grid support - <i>Netz NÖ</i>					◇						
21-8	UW Südburgenland: Transformer replacement and expansion of 3rd and 4th 380/110 kV transformer - <i>NEB</i>		◇			◇		◇				
23-14	New Sachsenburg substation: 110/20 kV grid support - <i>Kärnten Netz</i>					◇						
21-14	UW Wien Südost: Expansion of a 380/110 kV transformer - <i>Wiener Netze</i>						◇					
21-6	New substation building: 220/110 kV grid support - <i>Energienetze Steiermark</i>						◇					
18-5	New Vienna East substation (Deutsch Wagram): 380/110 kV grid support - <i>Wiener Netze</i>						◇					
18-4	New Innkreis substation: 220/110 kV grid support - <i>Netz OÖ</i>							◇				
18-2	UW Ybbsfeld: Expansion of 110 kV grid support - <i>Netz NÖ</i>							◇				
21-10	New Mattersburg substation: 380/110 kV grid support - <i>Netz Burgenland</i>							◇				
21-9	New Prottes substation: 380/110 kV grid support - <i>Netz NÖ</i>								◇			
21-11	New Trumau substation: 380/110 kV grid support - <i>Wiener Netze</i>									◇		
23-15	Ranshofen substation: expansion of 110 kV grid support - <i>Upper Austrian grid (AMAG)</i>									◇		
23-16	New Parndorf substation: 380/110 kV grid support - <i>Netz Burgenland</i>										◇	
23-17	UW Oststeiermark: Expansion of the 3rd 380/110 kV transformer - <i>Energienetze Steiermark</i>										◇	
23-18	New Lavanttal substation: 220/110 kV grid support - <i>Kärnten Netz</i>											◇

Table 2: Overview of project implementation periods (Part 2); the diamond marks the year of commissioning currently planned by APG; **Marked in green: new projects of the NEP 2023**

2023 grid development plan for the APG control area

No.	Grid connection projects for power plants and customers	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
14-5	110 kV line Obersielach - Schwabeck (grid reinforcement)				◇							
21-12	Restructuring of 110 kV grid area UW Malta / Reißbeck - VHP			◇								
21-13	Kaprun substation: 380 kV grid connection PSP-KW Limberg 3 - VHP			◇								
14-4	UW St. Andrä: Integration of WP Koralpe - wind power grid connection						◇					
11-24	New SW Molln: 220 kV grid connection - Bernegger energy storage facility							◇				
23-19	UW Wien Südost: Expansion of 380 kV grid connection - OM V							◇				
23-20	New Würmlach substation: Grid connection Merchantline Würmlach - Somplago (IT) - AAE							◇				
23-21	New Prutz substation: 380/220 kV grid connection - TINETZ										◇	

Table 3: Overview of project implementation periods (Part 3); the diamond marks the year of commissioning currently planned by APG; **marked in green: new projects in the NDP 2023**

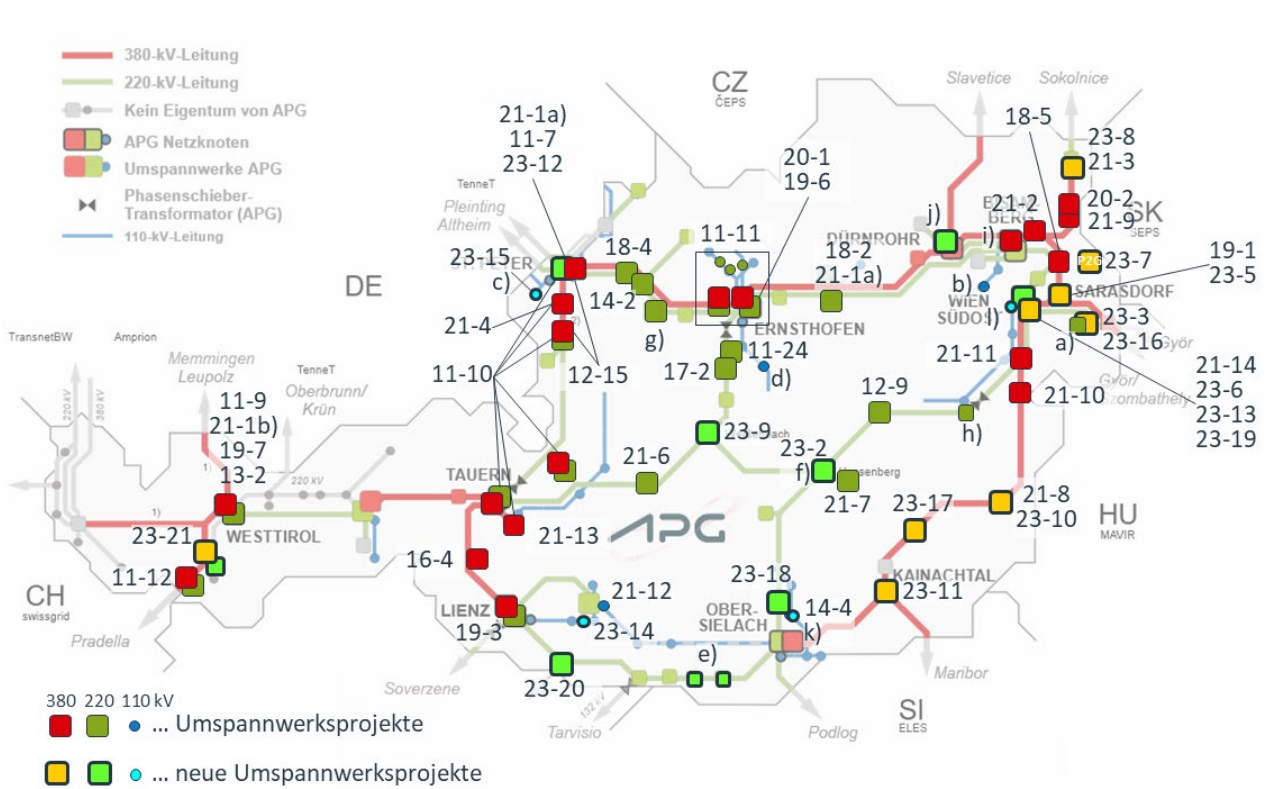


Figure 1: NEP projects 2023: Substations and switchgear

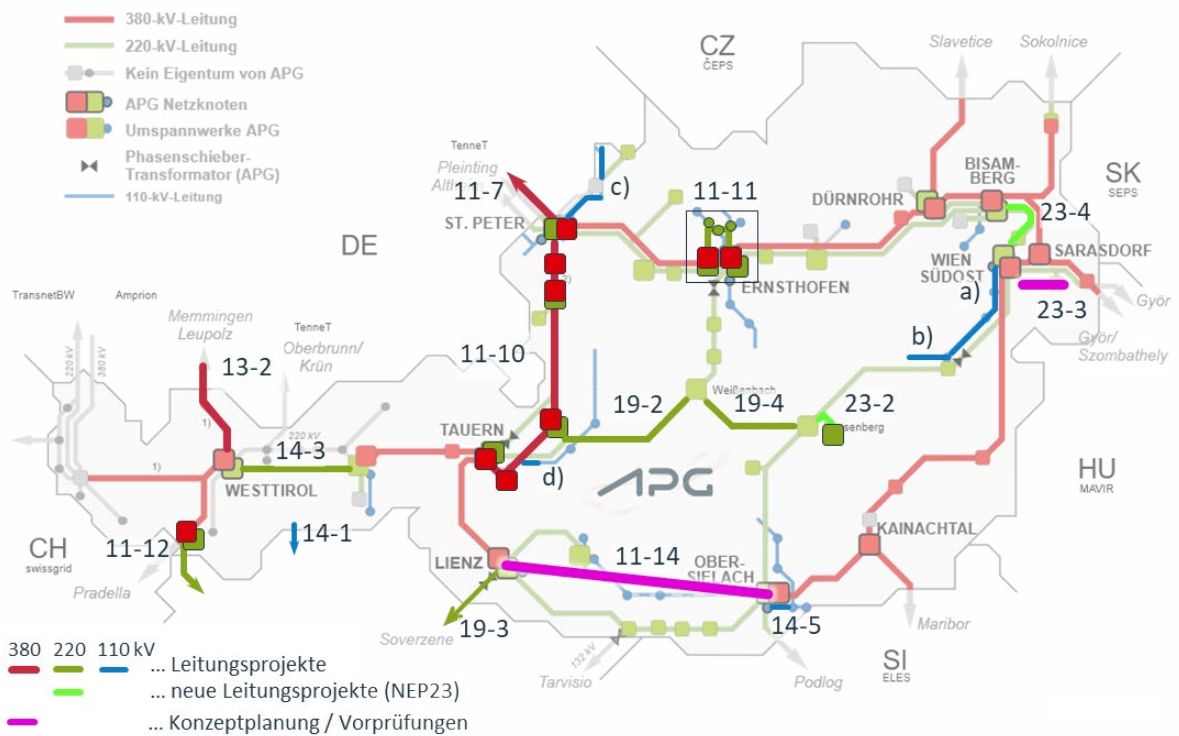


Figure 2: NEP projects 2023: Transmission line projects and major transmission line projects