1. There are some transmission lines which consist of expansion (new route) and renovation (on existing line). The length is (somehow) available for both, but the connection between renovation and refining is a punk (mostly). How to combine them or else?
   1. 50HzT-007,
2. There are TL which constructed inside of a substation, using same name for start and end as well as the short length of line.
   1. 50HzT-003, 50HzT- P413, AMP-P154,
3. What about the transmission lines which has small length such as
   1. 50HzT-035 (Netzanschluss PSW (Pumpspeicherwerk) Leutenberg)

24 July 2023 updates

**Just for information**

The remaining row has been checked and modified.

The required columns from PgAdmin4 were added to the working table, and some available data has been updated in.

It has been found that there are some transmission lines which the name in PDF text is different than what has been wrote in the map, considering that the map shows the name of substation, for these rows the name of substation is taken from pdf map.

A total review has been done, and below rows rechecked and modified.

57 the location name modified, still some issue existing with row number 58 and 59.

129 and 130, the location name modified according to the map.

134 the location name modified.

141-143 the location name modified, and unnecessary rows deleted.

P119 modified according to the pdf map.

P170 modified according to the pdf map.

**Below points need clarification and maybe discussion:**

The below row needs to be rechecked 153 and 154, the end and start of TL are not shown in the map in pdf and are different in the text?

Project P450 has a point connection in map which didn’t mention in pdf text, this could increase the line, and due to existing of this point the connection between two point is not straight.

The P161 needs to be checked, there is point connection between start and end in the map

About the green highlighted rows number 79&80, which located between P33 and P46, I can’t find such line between these two code in pdf?

The green highlighted row, 129-139, is there any relation between them to combine?

Clarification about row 109 which highlighted orange?

# Update 26July2023

## Progress

1. Searching for substation name which was not available for PgAdmin4 in pdf, internet and google map
2. BBPIG -13 three points mentioned to divide the project which is not necessary the main substation names are from Pulgar – Vieselbach
3. Parchim has only one substation, we could remove Sud from Parchim
4. Realizing to remove “/” from the the substation name.
5. Updating the python codes (MV, HV, TS)
6. In total 20 substation name in start and 26 in endpoint is exist which is only showing the point.
7. Total Start point 244, 156 name of substation are found, 20 names are punk, therefore 68 substation name is unknown
8. Total end points 244, 140 name of substations are available, 26 names are punkt, therefore 78 substation name is not found

## Tasks that might be useful for further step

1. Renaming “NEP\_tables\_V2 - first table26July2023” to a permanent name and adding correct name of substation in Deutsch language. And not using this file for python process. This file will be used to store the data which is surely correct.
2. Considering that substation names extracted for all the table from HV, TB, and MV, starting from first row of table, all result of substation name need to be checked manually to
   1. Firstly, find out if the extraction of substation names are correct or not, for instance in row 15 of test file (26July) the length calculated between two substation 663 km which is wrong and need to be rechecked with pdf and internet.
   2. Secondly, the substation name which couldn’t be found in PgAdmin4 tables, needs to be checked again with pdf file first and then internet. For example, check the “BBPIG -13” in pdf file map, in table it shown 3 transmission line but in map it is only two substation and other are just section of project which create to divide the project work to three sections. These kind of issue might still exist in our table and pdf
3. QGIS could help to find the substation names as well. For example name of substation mentioned Weida (Abschnitt Ost) by matching the pdf map location with qgis map location, screen shots are attached to the whatsapp, it is clear that the name of substation is only Weida and not Weida ost

Update 26.07.23

progress:

* Adjusting the python code for MV and HV, that we can give manually input without getting overwritten
* Checking the lenth from pdf with calculated length (in TableV2-26Jul\_test) for filtering out what matches has to be checked manually (marked orange in new Inputfile) , but probably there are few more cause of missing from many subtation data
* Renaming “NEP\_tables\_V2 - first table26July2023 to “NEP\_tables\_Input\_July2023 “ as an general Input file, we can put there information about substation, that we found manually. THIS FILE SHOULDN’T BE OVERWRITTEN
* bus\_ids and coordinates of international substation are already integrated into Input file

TO DOS:

* I will continue tomorrow with searching manually in pgadmin and qgis for missing substation data
* we have to discuss about the Length type column again, I think for some NOVA\_types we have to change from “bestand” to “ausbau” like for NOVA-TYP: Parallelneubau
* filling up the table with other