

SciGRID – An Open Source Reference Model for the European Transmission Network

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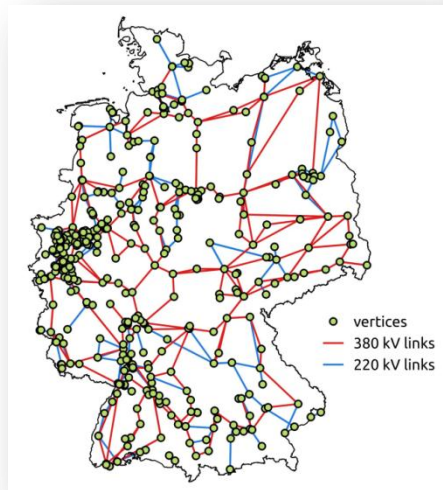
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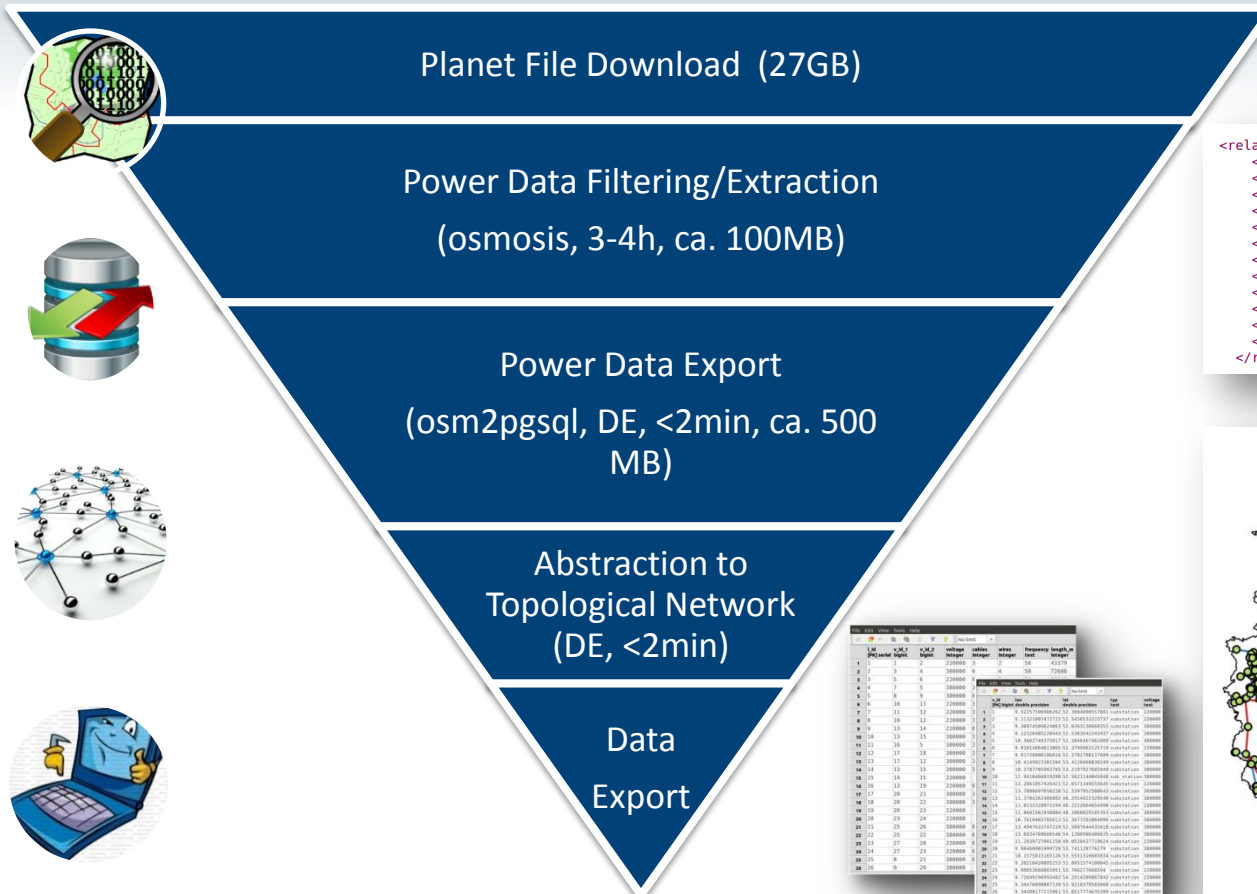
SciGRID

- | **What is SciGRID?**
 - » An Open Source (Reference) Model for the (European) Transmission Network
- | **Why?**
 - » Improve Data/Model accessibility in transmission network modelling
- | **How?**
 - » 3 steps: Extraction & Filtering, Abstraction, Export
- | **Funding?**
 - » BMWi, BMU and BMBF
- | **Time Line?**
 - » Project start (Oct 2014)
 - » First model released (June 2015)
 - » Currently: Update process
 - » Benchmarking Conference (2017)

ID	U_kV	U_kV_2	voltage	status	status	frequency	length	name
1	1	2	220000	1	2	50	43279	
2	3	4	380000	1	6	50	7246	
3	3	5	380000	1	6	50	7246	
4	3	5	380000	1	6	50	7246	
5	3	5	380000	1	6	50	7246	
6	3	5	380000	1	6	50	7246	
7	3	5	380000	1	6	50	7246	
8	3	5	380000	1	6	50	7246	
9	3	5	380000	1	6	50	7246	
10	3	5	380000	1	6	50	7246	
11	3	5	380000	1	6	50	7246	
12	3	5	380000	1	6	50	7246	
13	3	5	380000	1	6	50	7246	
14	3	5	380000	1	6	50	7246	
15	3	5	380000	1	6	50	7246	
16	3	5	380000	1	6	50	7246	
17	3	5	380000	1	6	50	7246	
18	3	5	380000	1	6	50	7246	
19	3	5	380000	1	6	50	7246	
20	3	5	380000	1	6	50	7246	
21	3	5	380000	1	6	50	7246	
22	3	5	380000	1	6	50	7246	
23	3	5	380000	1	6	50	7246	
24	3	5	380000	1	6	50	7246	
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26	3	5	380000	1	6	50	7246	
27	3	5	380000	1	6	50	7246	
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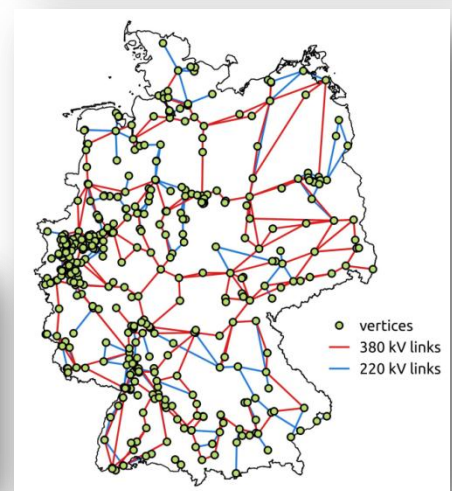


SciGRID Structure



```
<relation id="3756858">
  <member type="way" ref="89176939" role="sub_station"/>
  <member type="way" ref="89176928" role="line"/>
  <member type="way" ref="89176929" role="line"/>
  <member type="way" ref="89176956" role="sub_station"/>
  <tag k="cables" v="3"/>
  <tag k="from" v="Bauler (DE)"/>
  <tag k="name" v="Bauler (DE) - Vianden (LU)"/>
  <tag k="note" v="Capacity 732 MVA"/>
  <tag k="route" v="power"/>
  <tag k="to" v="Vianden (LU)"/>
  <tag k="type" v="route"/>
  <tag k="voltage" v="220000"/>
</relation>
```

id	type	name	power	length
1	node	1000000000000000000	1000000000000000000	1000000000000000000
2	node	1000000000000000000	1000000000000000000	1000000000000000000
3	node	1000000000000000000	1000000000000000000	1000000000000000000
4	node	1000000000000000000	1000000000000000000	1000000000000000000
5	node	1000000000000000000	1000000000000000000	1000000000000000000
6	node	1000000000000000000	1000000000000000000	1000000000000000000
7	node	1000000000000000000	1000000000000000000	1000000000000000000
8	node	1000000000000000000	1000000000000000000	1000000000000000000
9	node	1000000000000000000	1000000000000000000	1000000000000000000
10	node	1000000000000000000	1000000000000000000	1000000000000000000
11	node	1000000000000000000	1000000000000000000	1000000000000000000
12	node	1000000000000000000	1000000000000000000	1000000000000000000
13	node	1000000000000000000	1000000000000000000	1000000000000000000
14	node	1000000000000000000	1000000000000000000	1000000000000000000
15	node	1000000000000000000	1000000000000000000	1000000000000000000
16	node	1000000000000000000	1000000000000000000	1000000000000000000
17	node	1000000000000000000	1000000000000000000	1000000000000000000
18	node	1000000000000000000	1000000000000000000	1000000000000000000
19	node	1000000000000000000	1000000000000000000	1000000000000000000
20	node	1000000000000000000	1000000000000000000	1000000000000000000
21	node	1000000000000000000	1000000000000000000	1000000000000000000
22	node	1000000000000000000	1000000000000000000	1000000000000000000
23	node	1000000000000000000	1000000000000000000	1000000000000000000
24	node	1000000000000000000	1000000000000000000	1000000000000000000
25	node	1000000000000000000	1000000000000000000	1000000000000000000
26	node	1000000000000000000	1000000000000000000	1000000000000000000
27	node	1000000000000000000	1000000000000000000	1000000000000000000
28	node	1000000000000000000	1000000000000000000	1000000000000000000
29	node	1000000000000000000	1000000000000000000	1000000000000000000
30	node	1000000000000000000	1000000000000000000	1000000000000000000



Network Analysis, Power Flow, etc.

SciGRID

[General information](#)
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more info @
www.scigrid.de

© SciGRID – Theme based on Sundown by [orderedlist](#)

Latest news:

Power Relations in OpenStreetMap

[Thu 02 July 2015](#) | -- ([permalink](#))

The transmission power data used as input in the **SciGRID** model is based on the data available in *OpenStreetMap*. The "power" data is represented by three data types, called **data primitives**, and they are defined in the context of power transmission as follows:

- **nodes**: defining points in space, representing transmission ...

[read more...](#)

First Release of the SciGRID Transmission Network Model

[Mon 15 June 2015](#) | -- ([permalink](#))

We are very pleased to announce the first release of the "abstracted" **SciGRID Transmission Network Model**. The **SciGRID** model is released as version V0.1 and is available for the German transmission network. It can be downloaded [here](#).

Version 0.1 of the **SciGRID** model includes:

- The **SciGRID** model code ...

[read more...](#)

First SciGRID Workshop

[Fri 15 May 2015](#) | -- ([permalink](#))

The **first SciGRID Workshop** was organized at NEXT ENERGY in Oldenburg on the 20th of April 2015. The workshop addressed experts in energy system and transmission system modelling. The **SciGRID** project was presented to around 20 participants from different research institutions and universities. A live demo of the first version ...