Geographical resolution and time resolution:

Category	Parameter	Enertile 1	Enertile 2	Enertile 3	Enertile 4	Enertile 5	Enertile 5.1
Scope	Germany	√	√	√	√	√	√
	Europe	√	√	√	√	√	√
	MENA	•	√	√	√	√	√
	Flexible regions	•	•	•	•	√	√
Resolution of results for renewable technologies	Results on country level	√	√	√	√	√	√
	Results on a grid < 50 km	•	•	√	√	√	√
	Results on a grid < 10 km	•	•	•	√	√	√
Time resolution	Representation of one year	8760 h	8760 h	8760 h	8760 h	8760 h	8760 h

Algorithm

Category	Parameter	Enertile 1	Enertile 2	Enertile 3	Enertile 4	Enertile 5	Enertile 5.1
Algorithm	Type of problem	linear	linear	linear	linear	linear	linear
Temporal dependency	Myopic	√	•	•	•	•	•
	Perfect foresight	•	√	√	√	√	√

Representation of the electricity grid

Category	Parameter	Enertile 1	Enertile 2	Enertile 3	Enertile 4	Enertile 5	Enertile 5.1
Type	Transport model (NTC)	√	√	√	√	√	√
Dispatch	Hourly dispatch	√	√	√	√	√	√
Investment	Dynamic Expansion	√	√	√	√	√	√
	Dynamic Expansion in defined steps	•	•	•	•	√	√
Cooperation with grid experts	Link to external distribution grid models	•	•	•	•	√	√
	Link to external transmission models	•	•	√	√	√	√

Renewable Potential Calculation:

Category	Parameter	Enertile 1	Enertile 2	Enertile 3	Enertile 4	Enertile 5	Enertile 5.1
Endogenous potential calculation	Wind onshore	•	√	√	√	√	√
	Wind offshore	•	√	√	√	√	√
	CSP	•	√	√	√	√	√
	PV	•	√	√	√	•	•
	PV rooftop	•	•	•	•	√	√
	PV utility scale	•	•	•	•	√	√
Site specific plant dimensioning	CSP	•	•	•	√	√	√
	Wind onshore	•	•	•	•	√	√
Weather dataset	Version	1	2	3	4	5	5

Interlinking Energy Sectors:

Category	Parameter	Enertile 1	Enertile 2	Enertile 3	Enertile 4	Enertile 5	Enertile 5.1
Flexibility	Aggregate Load Flexibility	•	•	√	√	√	√
Heat grid	Hourly representation industrial grid	•	•	•	√ (DE)	√ (DE)	√ (DE)
	Hourly representation municipal grid	•	•	•	√ (DE)	√ (DE)	√ (DE)
	CHP Plants	•	•	•	√ (DE)	√ (DE)	√ (DE)
	Heat Storages	•	•	•	√ (DE)	√ (DE)	√ (DE)
	Power to heat	•	•	•	√ (DE)	√ (DE)	√ (DE)
Residential heat	Dispatch of Heat pumps	•	•	•	√ (DE)	√ (DE)	√ (DE)
Mobility	Dispatch of load cycles of electric cars	•	•	•	•	√ (DE)	√ (DE)

Output:

Category	Parameter	Enertile 1	Enertile 2	Enertile 3	Enertile 4	Enertile 5	Enertile 5.1
Generation, Fuel Consumption, CO_2 Emissions	Generation technology	√	√	√	√	√	√
	Construction year	√	√	√	√	√	√
	Output	●	●	●	●	√	√
	Plant Efficiency category	●	●	●	●	●	√
Cost	Capital Cost	√	√	√	√	√	√
	Fuel Cost	√	√	√	√	√	√
	O&M Cost	√	√	√	√	√	√
Endogenous shadow prices	CO_2	√	√	√	√	√	√
	Electricity	●	●	●	●	√	√

Note: All output data is available on hourly and annual level for every modelled region