# Energy scenarios

Source: <https://perspective2050.energyville.be/>

## Propose scenario for BELGIUM

Data needed for simulating premise database:

* Production (PJ/year)
* Transmission/distribution losses (%)
* Efficiencies (%)

Procedure: Similar to Electricity mix of Switzerland (<https://github.com/premise-community-scenarios/energy-perspective-2050-switzerland/tree/main>)

Proposed scenario mapping table

|  |  |
| --- | --- |
| IAM scenario | PATH2050 scenario |
| IMAGE SSP2-RCP26 | Central Scenario Concept |
| IMAGE SSP2-RCP26 | Electrification Scenario Concept |
| IMAGE SSP2-RCP26 | Clean Molecules Scenario Concept |
| IMAGE SSP2-RCP19 | Central Scenario Concept |
| IMAGE SSP2-RCP19 | Electrification Scenario Concept |
| IMAGE SSP2-RCP19 | Clean Molecules Scenario Concept |
| REMIND SSP2-PkBudg1150 | Central Scenario Concept |
| REMIND SSP2-PkBudg1150 | Electrification Scenario Concept |
| REMIND SSP2-PkBudg1150 | Clean Molecules Scenario Concept |
| REMIND SSP2-PkBudg500 | Central Scenario Concept |
| REMIND SSP2-PkBudg500 | Electrification Scenario Concept |
| REMIND SSP2-PkBudg500 | Clean Molecules Scenario Concept |

## Costs:

Only annual costs are included and no ‘future electricity prices’ are provided. The provided costs include:

* Yearly annuities to cover capital expenditures
* Operating costs
* Changes in fuel costs

Applying those costs in our calculations will significantly underrepresent the electricity prices of the end users, as no taxes and distribution/transmission costs are included.

## Terlouw et al. (2023)

* <https://doi.org/10.1016/j.apenergy.2022.120362>
* Future electricity price: increase by 1.3% annually
* Remuneration of PV grid injection: linearly decrease to zero in 2050.

## Load profiles for different use cases

* Send email to Scholz-Moenninghoff and ask for the load profil
* Utility?