

OUTPUT FACT SHEET

Tools

Version 2.1

Project index number and acronym	CE1344 Store4HUC
Output number and title	O.T 3.2: Autarky Rate Tool to evaluate the impact of energy storage on HUC
Responsible partner (PP name and number)	4ward Energy Research GmbH (PP4) Reiterer & Scherling GmbH
Project website	https://www.interreg-central.eu/Store4HUC
Delivery date	30.09.2021

Summary description of the key features of the tool (developed and/or implemented) and of its transnational added value

The Autarky Rate Tool is a simple but very useful online tool which is available for everyone who is interested in the installation of electrical storage solutions in combination with renewable energy sources. By adding only a few numbers, the user will get an evaluation of the

- technical,
- economical and
- ecological

effects of the chosen system configuration. The main output is of course the autarky rate, which is a figure for the independency of the public grid. If the autarky rate is high, this means, that the user is able to self-supply major parts of his energy demand. As the economical perspective is always a substantial fact for every investment decision, the energy cost savings as well as a rough estimation of the amortization period are shown too, to give the user an idea if this configuration is economically feasible or not. To evaluate the ecological impact, the CO₂ savings, based on the national electricity mix are calculated.

Another major part of the tool is the so-called checklist, which can be created as pdf-file. On the one hand, the idea of the checklist is to give the user a possibility to save the calculation results and, on the other hand, it should serve as a further explanation how to make results understandable. The tool results are valid in general and not only for historical urban buildings. For the users who are planning the integration of a storage in a historical urban center (HUC), a further page is added, which provides them with additional information and advices from the Store4HUC project.

The tool does of course not replace an individual technical configuration assessment, but it gives a good overview what positive influence the installation of a storage solution in combination with renewable energy sources might have and will possibly motivate more people to consider such installations on their own. It has been tested within several national workshops from internal and external stakeholders and was validated with the knowledge from the Store4HUC pilot plants. The tool is available on: <https://store4huc-autarky.4wardenergy.at>

NUTS region(s) where the tool has been developed and/or implemented (relevant NUTS level)

The Autarky Rate Tool was mainly developed in Austria but contains data for all other partner regions too. The tool is available in English, German, Italian, Slovenian and Croatian.

NUTS regions: Austria, Germany, Slovenia, Croatia, Italy - all NUTS 0

Expected impact and benefits of the tool for the concerned territories and target groups

The target of the Autarky Rate Tool is to show the user the positive influence of the installation of electrical storage solutions in combination with renewable energy sources. The Autarky Rate Tool can be used by everyone who is interested in the installation of such systems. The tool should motivate more people to consider the installation of storages on their own, especially, but not only, within historical urban centers. A wide range of different consumer types have been included in the tool. Therefore, private household owners as well as different types of companies, offices or shops can benefit from using the tool.

Moreover, the tool serves as a kind of advertiser for the whole Store4HUC project, as it includes findings from many deliverables and links interested users to the right places on the project homepage. Many organizations are interested in using the tool and see its added value. Some of them have already signed the letter of intent (D.T 3.3.4).

Sustainability of the tool and its transferability to other territories and stakeholders

The Autarky Rate Tool will be freely available online for at least five years after the project ends. The used numbers for the calculation, like the energy costs or the information regarding funding opportunities, will be updated at least once per year, to ensure that the tool always corresponds to the state of the art. At the moment the tools include country specific figures for Austria, Germany, Italy, Slovenia and Croatia. This list could be expanded in the future with moderate effort, so that the tool could also be used in other territories/countries.

The most important learning was, that figures like energy costs and funding opportunities are changing very fast, especially if many different countries are involved. Therefore, constant updates are very important to get meaningful results. Moreover, the feedback was recorded that an “advanced mode”, where the more experienced user can upload own load profiles and adjust some background numbers would be of interest. Even if this is already partially covered by the other Store4HUC tools, it could be an interesting further development.

References to relevant deliverables and web-links If applicable, pictures or images to be provided as annex

The Autarky Rate Tool is available on: <https://store4huc-autarky.4wardenergy.at>

A short video tutorial is available on: <https://www.youtube.com/watch?v=kWwXoHm7UuM>

Relevant Deliverables:

- D.T1.1.4: Documentation on decisions of 3rd “deployment desk meeting” (including questions about the tool) - [Link](#)
- D.T3.2.1: Development of a checklist to evaluate the various performance of the autarky rate of the HUC (combined with D.T3.2.2) - [Link](#)
- D.T3.2.2: Documentation of the creation process of the checklist (combined with D.T3.2.1) - [Link](#)
- D.T3.2.3: Establishment of the autarky rate tool & the checklist (Tool itself) - [Link](#)
- D.T3.2.4: Validation report and establishment of the autarky rate tool & the checklist (including background information of the tool) - [Link](#)
- D.T3.3.1: Online guide for tools (included in the tool + video tutorial) - Links see above
- D.T3.3.2 Workshop “Train the trainers” on the tools - [Link](#)
- D.T3.3.3 Workshop with partners and members of the “deployment desks” ([IT](#), [HR](#), [DE](#), [AT](#) and [SI](#))
- D.T3.3.4 The official acceptance of the tools (ongoing)
- D.C.2.2: 1st infographic (about the Autarky Rate Tool) - [Link](#)