

INITIATIVE  
ENERGIEN SPEICHERN

**INES**

# INES webinar on MAHS

Background, aim, methodology and results of the  
MAHS - Market Assessment for Hydrogen Storage

April 9<sup>th</sup>, 2024

# Organizational Information

## Questions

- Written questions can be submitted at any time via the Q&A function. Questions are answered directly after each section or collected for the Q&A session at the end.
- Verbal questions after the call for questions in the Q&A session. Please write "Question" in the Q&A area.

## Quotations

- Statements can be quoted freely (under one).
- Individual quotes are possible afterwards.

## Recording of the webinar

- The webinar will be recorded.
- Participant data will not be captured as long as the audio/video function remains switched off.

## Materials available afterwards

- Today's presentation slides (German/English)
- Recording of the webinar

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# Background and aim

## Legal background

In future, storage operators will be obliged under Article 8 ("Market assessment for renewable gas and low-carbon gas by LNG and storage system operators") of the EU Regulation on internal markets for renewable gases and natural gas and for hydrogen ("EU Gas Package") to carry out a market assessment for investments in storage facilities for renewable and low-carbon gases, including hydrogen, at least every two years.

## Market economy background

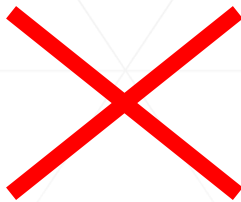
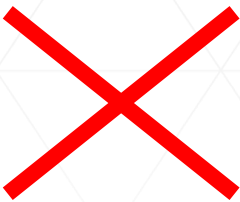
The "Long-term scenarios for the transformation of the energy system in Germany" of the Federal Ministry of Economics and Climate Protection (BMWK) quantitatively described the hydrogen storage demand required to implement the energy transition. Supplementing the long-term scenarios and identifying specific demand structures of the market players by surveying the market would appear reasonable.



## Aim of the MAHS (Market Assessment for Hydrogen Storage)

Survey of the demand for hydrogen storage in Germany and identification of the requirements of market players for hydrogen storage in order to create a basis for decision-making for politics and industry and to promote an efficient and demand-oriented development of hydrogen storage.

## Use of data

		Who?		
		INES-Employees	Storage operators and authorities	The public
How?	Company-specific entries	<ul style="list-style-type: none"> <li>• Plausibility check</li> <li>• Modeling</li> <li>• Aggregation and anonymization</li> <li>• Creation of key figures and diagrams</li> </ul>		
	Aggregated and anonymized entries	<ul style="list-style-type: none"> <li>• Generate documentation for storage operators, authorities and the public</li> </ul>	<ul style="list-style-type: none"> <li>• Basis for political and economic decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Information</li> </ul>



**This use of data is guaranteed in the downloadable [confidentiality agreement](#). Further explanations can be found in our [FAQ](#).**

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# Target group

- All companies from Germany or abroad that intend to store hydrogen in Germany in the future can participate in the MAHS.
- In order to participate in the MAHS, it is not absolutely necessary to be able to quantitatively estimate your own hydrogen storage demand. In addition to direct information, the MAHS also provides indirect ways for companies to report hydrogen storage demands by providing information on the volume of hydrogen and its intended use.
- Registration is required to take part, which can be done at the following link:

<https://energien-speichern.de/en/mahs-survey/>



## WELCOME TO THE MAHS – MARKET ASSESSMENT FOR HYDROGEN STORAGE!

We, at the INES, are conducting a market survey on future hydrogen storage demand. This survey is aimed at all companies that intend to store hydrogen in hydrogen storage facilities in the future. We are pleased to have you participate in our market survey. Participation is voluntary and non-binding. By taking part, you will help us to estimate future hydrogen storage needs and to derive requirements for hydrogen storage that you may have. In addition, storage operators will in future be obliged to carry out a market assessment for investments in storage facilities for renewable and low-carbon gases, including hydrogen. This results from Article 8 ("Market assessment for renewable gas and low-carbon gas by LNG and storage system operators") of the EU Regulation on internal markets for renewable gases, natural gas and hydrogen (from the EU gas package).

The MAHS will take place from April 2nd to May 31st. It is designed so that you can open one account per company. Within this account you can enter data, save it and submit at the end. You can edit your data until you submit it. All information is saved temporarily so that it is also possible to interrupt the market survey. After submitting, no further editing is possible.

During your registration, we ask you to name a contact person and to whom we can address any queries that may arise and to provide information about the company. These fields are the only mandatory fields, all other information is optional. To ensure that hydrogen storage systems can be developed according to your needs, the storage system operators would appreciate as comprehensive and complete feedback as possible.

INES assures you the confidential handling of your entries in a [confidentiality agreement!](#)

### REGISTER

Last Name

First Name

Company

Position in company

E-Mail-address

If you have any questions, please do not hesitate to contact us via the following e-mail address [info@energien-speichern.de!](mailto:info@energien-speichern.de)

Discover answers to frequently asked questions in our [FAQ!](#)



# Registration process

- Your registration is complete when the green-framed confirmation is displayed.
- INES checks incoming registrations for plausibility and activates the registrations (usually within one working day).
- After activation by INES, participants receive an e-mail with an individual participation link from [info@energien-speichern.de](mailto:info@energien-speichern.de).
- The link enables one-time participation. So please do not share this link!

## Auf der INES-Website

### REGISTER

Last Name  
Doe

First Name  
John

Company  
John Doe Company

Position in company  
Hydrogen Expert

E-Mail-address  
jd@hydrogen.com

Bei erfolgreicher  
Registrierung

Thank you for your registration. After successful verification, your access will be activated by INES. The check usually takes place within one working day. We therefore ask for your patience.

## E-Mail mit Teilnahmelink

Dear I

We would like to invite you to take part in the "INES-MAHS".

Our survey uses a personal, anonymous identifier, which ensures that it can only be completed once. You can pause the survey at any time, as interim results are automatically saved after each section.

INES assures you of the confidentiality of your entries with a [confidentiality agreement](#).

To take part in the survey, please click on the following link:

[INES-MAHS](#)

Thank you in advance for your time and contribution. Your participation is greatly appreciated!

If you have any questions, please contact [info@energien-speichern.de](mailto:info@energien-speichern.de).

Best regards

INES Initiative Energien Speichern e.V.  
Clockenturmstraße 18  
14053 Berlin

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# The MAHS questionnaire at a glance

## Struktur des Fragebogens

1. **Hydrogen storage demand**
2. **Requirements for the product "hydrogen storage capacity"**
  - 2.1. Injection capacity
  - 2.2. Withdrawal capacity
3. **Hydrogen volume**
  - 3.1. Hydrogen Volumes (Production/Supply)
  - 3.2. Hydrogen from renewable energies?
  - 3.3. Peak load of the hydrogen feed-in
4. **Usage**
  - 4.1. Usage of the hydrogen volume
  - 4.2. Peak load of the hydrogen demand
5. **Grid connection**
6. **Additional Information**

Indirect query of hydrogen storage demand.

Direct query of hydrogen storage demand.

Please note:  
Information enables modeling of hydrogen storage demand and plausibility checks.

# Participation can be interrupted at any time

## 1. Hydrogen storage needs

### Continue answering later

Please save the following link to continue answering later:

*Hier steht der individuelle Teilnahmelink*

Can you

Yes, fo

Yes, differentiated by year

No

Comments

[Continue answering later](#)

The MAHS can be reopened via the participation link (as long as it has not yet been completed). Entries already made are saved and are not lost when the survey window is closed.

### Please note:

The link displayed should be saved. Alternatively, the MAHS can also be reopened via the participation link in the e-mail.

After clicking on "Continue answering later", a window will open with the individual participation link.

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# Block 1: Hydrogen storage demand (1/4)

## 1. Hydrogen storage needs

Can you estimate your demand for hydrogen storage quantitatively?

Yes, for individual support years (2030, 2035, 2040, 2045)

Yes, differentiated by year

No

Comments

Next >



The selection determines  
the further input option

# Block 1: Hydrogen storage demand (2/4)

How can you quantitatively estimate your hydrogen storage needs?

Energy in MWh or MWh/h

Volume in Nm<sup>3</sup> or Nm<sup>3</sup>/h

Mass in kg or kg/h

**Table: Hydrogen storage demand (energy)**

Please enter your hydrogen storage demands<sup>1</sup> in this table. To obtain the most meaningful data, we have provided a distinction between "Base Estimate" and an "Optimistic Estimate". Under "Base estimate" we understand already concrete hydrogen storage needs, while "Optimistic Estimate" refers to less concrete demands that may not occur with great probability or cannot yet be precisely estimated.

In this table you can enter data for each year. The abbreviations contained in the table stand for working gas volume (AGV), injection capacity (ESL) and withdrawal capacity (ASL). By turnover rate we mean how often the required working gas volume is stored and withdrawn within a year.

<sup>1</sup>Please provide information with reference to the upper calorific value (3.54 kWh/Nm<sup>3</sup>)

	Base assessment				Optimistic Estimate			
	Working Gas Volume [in MWh]	Injection Capacity [in MWh/h]	Withdrawal Capacity [in MWh/h]	Churn Rate	Working Gas Volume [in MWh]	Injection Capacity [in MWh/h]	Withdrawal Capacity [in MWh/h]	Churn Rate
2030	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2035	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2040	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2045	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Data can be entered in different units.

If an entry is only required for support years, the MAHS only shows the years 2030, 2035, 2040 and 2045

# Block 1: Hydrogen storage demand (3/4)

	Base assessment				Optimistic Estimate			
	Working Gas Volume [in MWh]	Injection Capacity [in MWh/h]	Withdrawal Capacity [in MWh/h]	Churn Rate	Working Gas Volume [in MWh]	Injection Capacity [in MWh/h]	Withdrawal Capacity [in MWh/h]	Churn Rate
2027								
2028								
2029								
2030								
2031								
2032								
2033								
2034								
2035								
2036								
2037								
2038								
2039								
2040								
2041								
2042								
2043								
2044								
2045								

As an alternative to selecting support years, entries can also be made for other years.



# Block 1: Hydrogen storage demand (4/4)

Can you estimate your demand for hydrogen storage quantitatively?

- Yes, for individual support years (2030, 2035, 2040, 2045)
- Yes, differentiated by year
- No

Here you can describe your storage demand in text form:

Comments

If the storage requirements cannot (yet) be quantified, it is possible to verbalize them.

# Outline

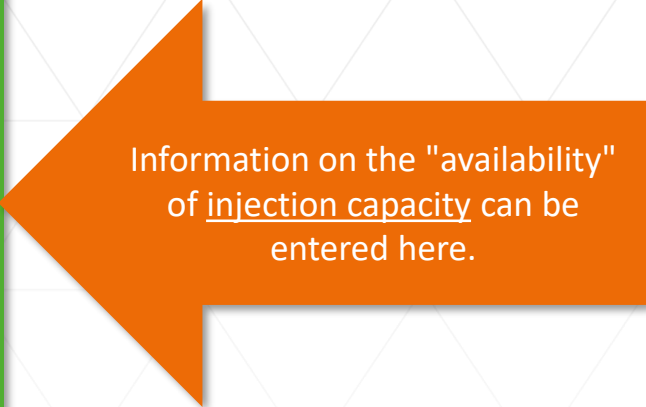
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## Block 2: Product requirements (1/2)

How should the **injection capacity** be best designed?

- Availability at all times must be ensured as far as possible ("Fixed Injection Capacity").
- The fact that the storage operator is allowed to interrupt storage at certain moments (e.g. when there is an appropriate discount) is acceptable to us ("Interruptible Injection Capacity").
- Not important for us
- No information / Cannot be estimated

Comments



Information on the "availability" of injection capacity can be entered here.

## Block 2: Product requirements (2/2)

How should the **withdrawal capacity** be best designed?

- Availability at all times must be ensured as far as possible ("Fixed Withdrawal Capacity").
- The fact that the storage operator is allowed to interrupt withdrawal at certain moments (e.g. when there is an appropriate discount) is acceptable to us ("Interruptible Withdrawal Capacity").
- Not important for us
- No information / Cannot be estimated

Comments

Information on the "availability" of the withdrawal capacity can be entered here.

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# Block 3: Hydrogen volume (1/4)

## How can you quantitatively estimate your **hydrogen volumes**<sup>1?\*</sup>

<sup>1</sup>Please provide information with reference to the upper calorific value (3,54 kWh/Nm<sup>3</sup>) or to standard cubic meters at 0 degrees Celsius.

\*mandatory question

- Energy in MWh or MWh/h
- Volume in Nm<sup>3</sup>
- Mass in kg

### Table: Volumes

Please indicate in the table below where the hydrogen is sourced from or how the hydrogen is produced and how much hydrogen is involved. The sources are listed in the rows and the base years are listed in the columns. Please provide information about the sources that apply to you. If you are unsure about the sources from which you will obtain the hydrogen, please use the "Unknown" row.

Information in selected unit per year

	2030	2035	2040	2045
Electrolysis from wind onshore domestic				
Electrolysis from wind offshore domestic				
Electrolysis from photovoltaics domestic				
Grid-compatible electrolysis from surplus domestic electricity				
Other domestic production				
Pipeline imports				
Ship imports				
Procurement on the commercial market				
Other (please explain in the comments)				
Unknown (please explain in the comments)				

You can decide again for the volume in which unit you want to make the entries.

If entries are made for "Other domestic production", "Pipeline imports" or "Ship imports", follow-up questions appear.

If the hydrogen requirement is procured on the market in future, details can be provided under "Procurement on the trading market".

## Block 3: Hydrogen volume (2/4)

Can you distribute your pipeline import information over months?

Yes

No

Table: Pipeline imports distributed over months

Information in selected unit

	2030	2035	2040	2045
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

Follow-up question using the example of "pipeline imports". The follow-up question is identical for "other domestic production" and "ship imports".

If "Yes" is selected as the answer to the above question, this table will appear.

Here, the entry for "Pipeline imports" (see previous slide) can be split into months. The monthly entries should correspond in total to the entry for "Pipeline imports".

Please note:  
The information on the structure of the volume is of particular importance for modeling.

## Block 3: Hydrogen volume (3/4)

Is the hydrogen brought into the market area by your company predominantly obtained from renewable energies?

Yes

No

Unknown

Comments

Funding programs for the development of hydrogen storage systems sometimes place increased requirements on the origin of the stored hydrogen (e.g. only green hydrogen). This data helps operators to assess whether such funding programs could be used for development.



## Block 3: Hydrogen volume (4/4)

What peak performance does your company expect from its **hydrogen feed** into the grid in MWh/h?

MWh/h

2030	<input type="text"/>
2035	<input type="text"/>
2040	<input type="text"/>
2045	<input type="text"/>

Comments

Information on the maximum hydrogen feed-in per hour (peak output) is particularly important for deriving the required storage options.

Please note:  
Information is requested in the unit previously selected for the volume.

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# Block 4: Usage (1/4)

## For what purpose does your company use the hydrogen quantities?

Please select from the possible answers and enter the approximate percentage in the boxes opposite

	For what purpose does your company use hydrogen?	Please indicate the approximate percentage for the applications selected on the left.
	Industry (material use)	<input type="checkbox"/> _____ %
	Industry (energy use)	<input type="checkbox"/> _____ %
	CHP plants	<input type="checkbox"/> _____ %
	Power plants	<input type="checkbox"/> _____ %
	Heat supply	<input type="checkbox"/> _____ %
	Control energy (hydrogen network)	<input type="checkbox"/> _____ %
	Transport	<input type="checkbox"/> _____ %
	Trading market	<input type="checkbox"/> _____ %
	Export	<input type="checkbox"/> _____ %
	Other	<input type="checkbox"/> _____ %

The specification of the intended use (multiple selection possible!) helps to assess which requirements result from the possible storage use (e.g. nomination times, degree of purity).

# Block 4: Usage (2/4)

## How can you quantitatively estimate your **hydrogen usage**<sup>1</sup>?

<sup>1</sup>Please provide information with reference to the upper calorific value (3,54 kWh/Nm<sup>3</sup>) or to standard cubic meters at 0 degrees Celsius.

\*mandatory question

Energy in MWh

Volume in Nm<sup>3</sup>

Mass in kg

### Table: Usage

Please indicate in the table below how the hydrogen will be used or what structure is expected for use, according to your previous information.

	Information in selected unit per year			
	2030	2035	2040	2045
Fixed proportions	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Variable components: Production dependent	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Variable components: Outside temperature	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Variable components: High electricity price/low renewable energy production	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other (please explain in further comments)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Unknown (please explain in further comments)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You can decide again for the usage in which unit you want to make the entries.

Usage can be differentiated according to "fixed" and "variable" proportions. Variable components are specified depending on the relevant influencing factor (e.g. "outside temperature").

Information on a production-dependent use of hydrogen lead to two follow-up questions.

# Block 4: Usage (3/4)

Can you already name production days? (Multiple choice)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
2030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2035	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2045	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Can you already name the number of production shifts per day?  
(Single Choice)

	1-Shift	2-Shift	3-Shift
2030	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2035	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2040	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2045	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments

These two follow-up questions are shown when entries are made for "Variable shares: Production-dependent".

Please note:

In order to derive a consumption structure from the production-dependent usage shares, it is helpful to specify the production days and shifts.

## Block 4: Usage (4/4)

What peak load does your company expect for its **hydrogen demand** in MWh/h?

MWh/h

2030	<input type="text"/>
2035	<input type="text"/>
2040	<input type="text"/>
2045	<input type="text"/>

**Comments**

Information on the maximum hydrogen consumption per hour (peak load) is particularly important for deriving the necessary storage options.

Please note:  
Information is requested in the unit previously selected for use.

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## Block 5: Grid connection (1/2)

### Is there already a hydrogen grid connection for the **sources mentioned in Block 3**?<sup>1</sup>

<sup>1</sup>If you know the project names from the core network planning, these can be specified. If there are several project names in a category, they can be separated with a “,”.

	Sources		
	None	Connection exists	Connection planned (e.g. in the core network)
Electrolysis from wind onshore domestic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electrolysis from wind offshore domestic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electrolysis from photovoltaics domestic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grid-compatible electrolysis from surplus domestic electricity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other domestic production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pipeline imports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ship imports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Procurement on the commercial market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please explain in the comments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unknown (please explain in the comments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For the sources previously specified in block 3, entries can be made for a possible connection to a hydrogen network. The project name is requested as soon as "Connection planned" has been selected for a source.



## Block 5: Grid connection (2/2)

### Is there already a hydrogen grid connection for the **sources mentioned in Block 4?**<sup>1</sup>

<sup>1</sup>If you know the project names from the core network planning, these can be specified. If there are several project names in a category, they can be separated with a “,”.

	Applications			Project name in the core network planning
	None	Connection exists	Connection planned (e.g. in the core network)	
Industry (material use)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="text"/>
Industry (energy use)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
CHP plants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Power plants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Heat supply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Control energy (hydrogen network)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Trading market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Export	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

Entries can be made for a possible connection to a hydrogen network for the purposes previously specified in block 4. The project name is requested as soon as "Connection planned" has been selected for a source.

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## Block 6: Additional Information (1/1)

You can provide additional notes or comments here if you wish.

By clicking on "Submit data", your data will be transmitted to INES. It is no longer possible to change your data afterwards.

[< Back](#) [Submit data >](#)

Here you can provide information that could not previously be entered.

Click on "Submit data" to complete and submit the entry.

Please note

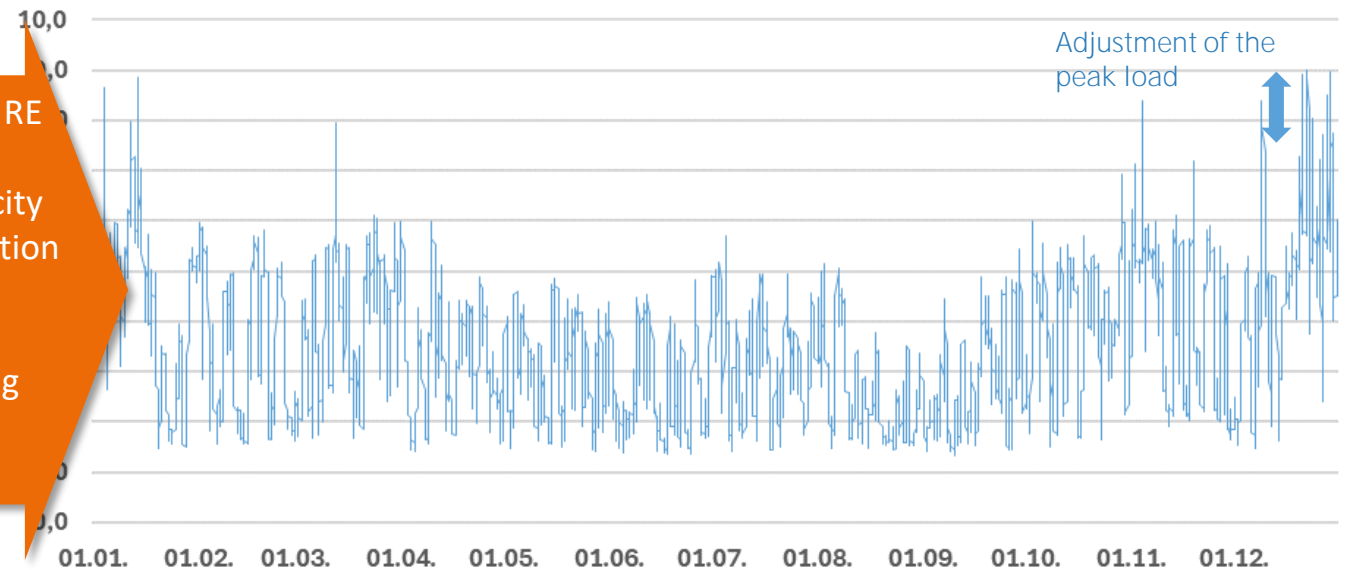
It is no longer possible to edit or change the entries afterwards! If entries need to be corrected, please contact us: [info@energien-speichern.de](mailto:info@energien-speichern.de)

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# Modeling volume (according to block 3)

- Electrolysis from domestic RE (onshore/offshore/PV)
- Electrolysis surplus electricity
- Other domestic H2 production
- Pipeline imports
- Ship imports
- Procurement on the trading market
- Other



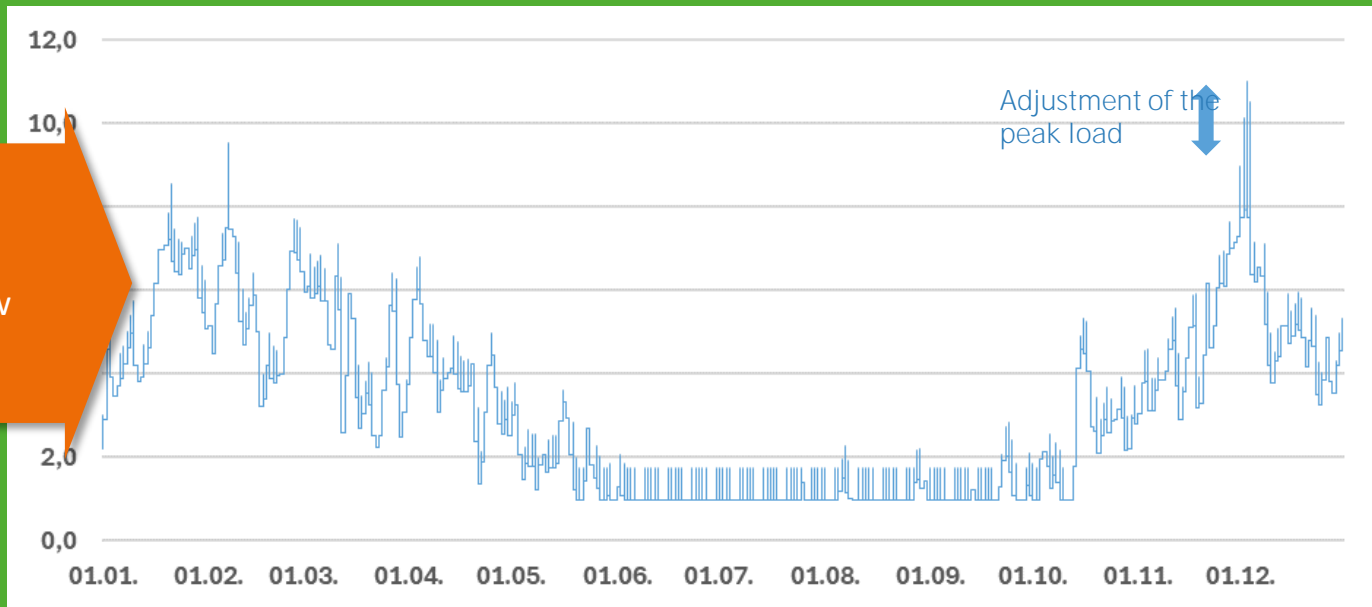
- Average/economic vs. company-specific hourly profile depending on data availability
- Weighting of corresponding standard profiles for the various sources



**Derivation of an hourly structure of the hydrogen volume, Adjustment of the hourly structure to the hydrogen peak output**

# Modeling usage (according to block 4)

- Fixed share
- Production
- Outdoor temperature
- High electricity price or low RE generation
- Other

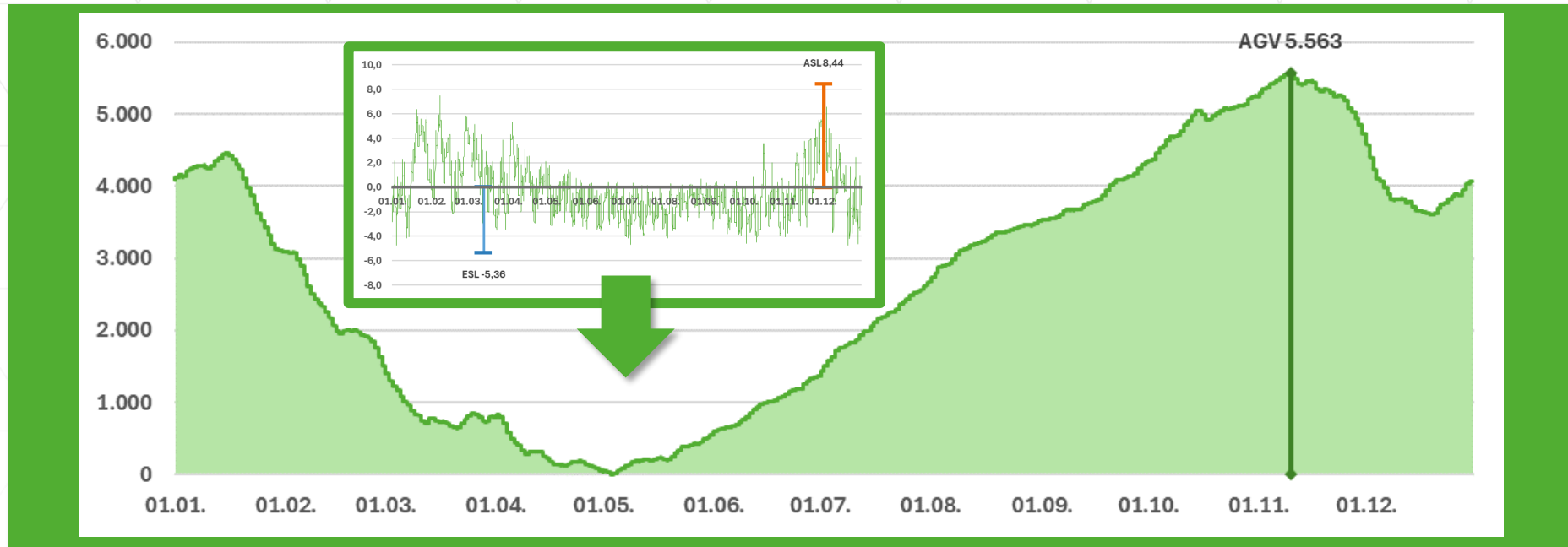


- Average/economic vs. company-specific hourly profile depending on data availability
- Weighting of corresponding standard profiles for various fixed and variable influencing factors



**Derivation of an hourly structure of hydrogen use, Adaptation of the hourly structure to the hydrogen peak load**

# Determining the residual load

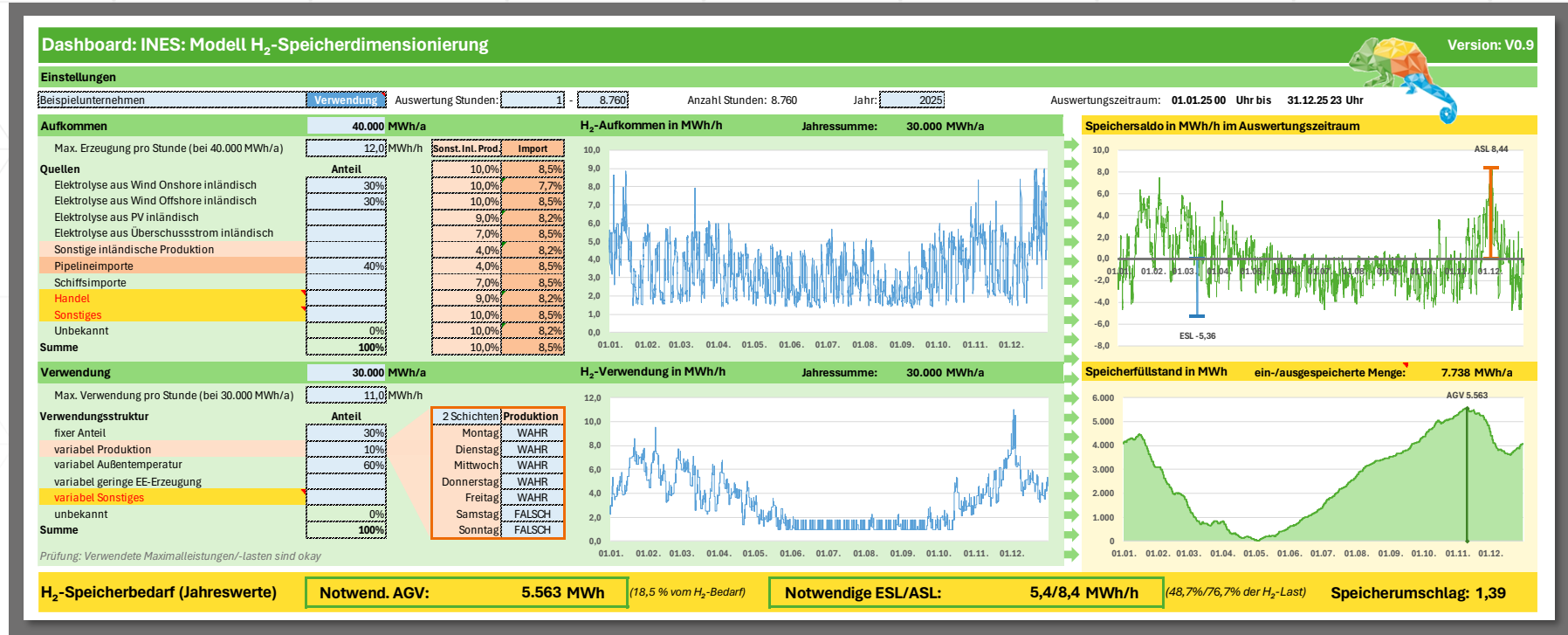


- Calculation of the hourly storage balance to determine the storage curve and the necessary cumulative injection and withdrawal for the hydrogen supply.
- First determination of the storage curve with the assumption storage level = 0 on January 1 and subsequent parallel shift (so that no negative storage levels occur).



**Comparison of hydrogen production and use ("hydrogen balance") to derive the storage process, working gas volume, injection and withdrawal rate, storage turnover**

# Result of modeling



## Results

The modeling describes the hydrogen storage demand in concrete terms via the required working gas volume, the necessary injection and withdrawal capacity as well as the expected storage turnover and level development.



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# Documentation and quality requirements

## „Direct“ hydrogen storage demand

Direct data reports on hydrogen storage demand do not require any further modeling. Data for blocks 3 and 4 are used for plausibility checks.

## „Indirect“ hydrogen storage demand

Data for blocks 3 and 4 are used in the modeling to derive residual loads. Hydrogen storage demands are calculated on the basis of the residual loads.

## Documentation

Aggregation and anonymization of direct and indirect hydrogen storage demands and preparation of the results as part of a documentation (bundled for Germany).

## Feedback with participants

Each participant receives their own input in edited form and in the context of the documentation (bundled for Germany). This enables final feedback.

## Quality requirement

As complete and concrete/specific a description of the hydrogen storage demands as possible.

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Round of questions

You can now ask your questions...

... via the Q&A function

or

verbally after a request. Please write "*Question*" in the Q&A area.

INITIATIVE  
ENERGIEN SPEICHERN

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