

# WORKSHOP WITH PARTNERS AND MEMBERS OF THE "DEPLOYMENT DESKS" - CROATIA

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Title	Workshop with partners and members of the "deployment desks" - Croatia
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## 1. Summary

The workshop was carried out to transfer the participants of the Croatian Store4HUC deployment desk the ways and possibilities of usage of the developed tools within Store4HUC - Optimal Sizing Calculator (Module 1), Autarky Rate Tool and Optimal Heat Source Scheduler (Module 2).

As the workshop was held just after the presentation of operations and current results obtained on all the Store4HUC pilots, including also the Croatian pilot, they could well assess what benefits the first two tools can bring in the investments planning and assessment. The participants were very much interested in the possibility to assess the regular cost of the investments and periods of the investment return through the tool where a regular situation is considered, without sometimes very high extra costs due to the constraints of the cultural heritage protection regulations. This gives them a possibility to be aware how the cultural heritage protection requirements affect the economics of the planned energy renovation measures. Concrete figures for the Bračak pilot were analysed through the tools. The simple interfaces of the tools - excel-based or web-based - were appreciated.

The representatives of the deployment desk were very keen to spread further the words about the tool to the set of stakeholders with whom they are in contact and perform their expert operations.

## 2. Date and place

The workshop with members of the deployment desk for the case of the deployment desk in Croatia was held in the Energy Centre Bračak, the Croatian Store4HUC pilot, on 30 September 2021.

## 3. Number and types of participants/target groups

Besides partners of the project - UNIZGFER and REGEA - present were also the representatives of the associated strategic partners Krapina-Zagorje County (1 representative) and Croatian Association of Historical Towns (1 representative) as well as the representative of the cultural heritage conservation office in Krapina (under Croatian Ministry of Culture and Media) who is responsible for the Krapina-Zagorje County area.

## 4. Topics tackled and Expected effects and follow up

All three tools were presented - the Optimal sizing calculator (Module 1), the Autarky Rate Tool and the Optimal Heat Source Scheduler (Module 2).

Mr. Filip Rukavina, the main developer of Module 1 and Module 2 held this workshop.

He has shown how each of the tools can be accessed and the usage of the tools through the Excel tables for modules 1 and 2 and through the web interface for the Autarky Rate Tool. The presenter has used the example of the pilot site Bračak to explain the operation of Module 1 and of the Autarky Rate Tool which gave the participants a very good insight how the tool can help them in the assessment of different investment possibilities for a particular site - in terms of sizes, costs, return on investment and the expected performance and effects.

For Module 2 the case of scheduling a heat source with storage similar for the case existing in the Store4HUC pilot in Weiz was shown. The possibility to assess the gains in scheduling with respect to classical automatic control based on top level storage temperature was clearly emphasized.



The simplicity of the tools usage from the IT perspective was shown - from the tool download/access to set-up of the calculation parameters and outputs preview.

At the end of the workshop the letter of interest was presented to the stakeholders by Prof. Mario Vašak. The representatives of the deployment desk were very keen to spread further the words about the Store4HUC tools. The procedure how to do that was agreed, starting with a simple e-mail giving access links to the tools and explaining them shortly.

## 5. Annexes

Documentation of the workshop;

### 5.1. Invitation and Agenda

Screenshot of the agenda:



Treći sastanak dionika pri provedbi investicije u spremnike energije na zaštićenoj lokaciji dvorca Bračak (HR deployment desk meeting - D.T1.1.4) te radionica s dionicima i partnerima (Workshop with partners and members of DD - D.T3.3.3)

Datum: 30.9. 2021.

Lokacija : Energetski centar Bračak - dvorac Bračak; Bračak 4

Vrijeme: 11:30 h

#### Terminski plan događanja

- 11:30: Doček sudionika ispred Energetskog centra Bračak
- 11:40: Pozdravni govor domaćina (REGEA)
- 11:45: Prezentacija - Investicije i pilot projekti koji se provode u sklopu projekta Store4HUC (FER)
- 12:00: Prezentacija pilot projekta Bračak - Novoizgrađeni fotonaponski sustav sa baterijskim sustavom te integracija u Centralni nadzorni upravljački sustav (REGEA)
- 12:15: Prezentacija razvijenih Store4HUC alata (FER):
  - Alat za izračun stope samodostatnosti instalacije s obnovljivim izvorom električne energije i baterijskim spremnikom za krajnjeg potrošača
  - Alat za optimalno dimenzioniranje kombinacije fotonaponskog i baterijskog sustava
  - Alat za dnevno planiranje rada generatora topline povezanih s toplinskim spremnikom
- 13:00 Diskusija, predstavljanje obrasca potvrde o korištenju Store4HUC alata
- 13:10: Obilazak dvorca, fotonaponske elektrane i baterijskog sustava uz prezentaciju rada, pitanja i odgovore (REGEA)
- 13:30: Druženje uz ručak

Agenda translation for the workshop part:

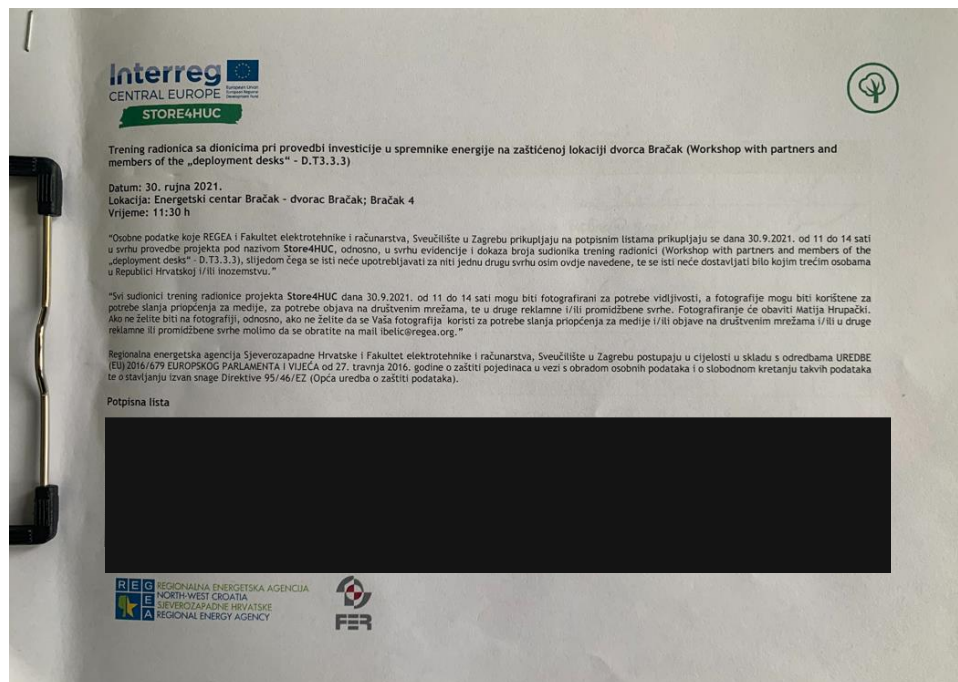
- 12:15: Presentation of the developed Store4HUC tools (FER):

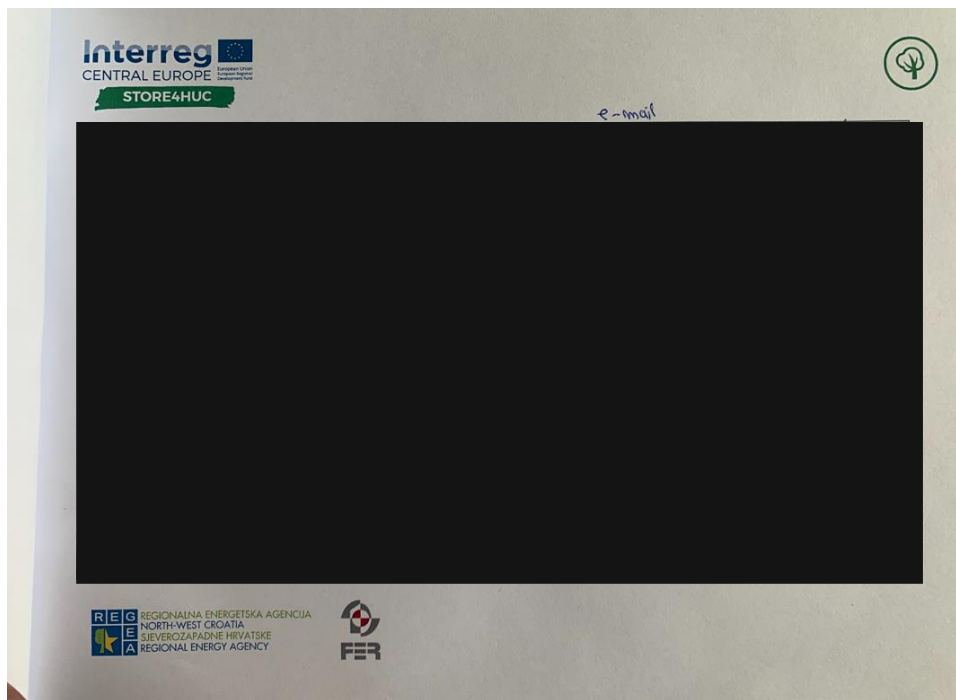


- o Tool for autarky rate assessment of the installation with a renewable energy source and battery storage for an end consumer
- o Tool for optimal dimensioning of a combination of the photovoltaic and the battery system
- o Tool for daily scheduling of a heat source connected to a heat storage
- 13:00 Discussion, introducing the letter of interest form for the Store4HUC tools usage
- 13:10: Manor tour, including the photovoltaic power plant and the battery system with presentation of their operation and Q&A (REGEA)
- 13:30: Working lunch

## 5.2. List of participants

- Paste the scan of the list of participants (have in mind the brand manual); if there was a Zoom workshop, please extract the list of participants from the Zoom ‚Report‘ section.





### 5.3. Pictures

- Add some representative pictures (max. 2 and take care for the size of the files) or share the Zoom screen.



### 5.4. Media coverage

- Indicate some media announcements if available.



## 5.5. Web-links

The stakeholders for the workshop, as part of the deployment desk, were invited through e-mail communication:

Poštovani,

Nastavljamo sa aktivnostima na projektu te nam je zadovoljstvo pozvati Vas na treći sastanak koji se provodi u sklopu projekta **Store4HUC: Integration and smart management of energy storages at historical urban sites** sufinanciran kroz program Interreg Central Europe. Osnovni cilj projekta je poticanje ugradnje sustava obnovljivih izvora energije u zgradama koje imaju status kulturnog dobra, a kroz provedbu pilot projekata.

Pilot projekt u Hrvatskoj se odnosi na instalaciju fotonaponskog sustava za proizvodnju električne energije te ugradnju baterijskog sustava za pohranu energije sa pretvaračem u dvorcu Bračak te integraciju sustava u postojeći napredni ICT sustav upravljanja zgradom u svrhu optimalnog upravljanja proizvodnjom, potrošnjom i skladištenjem energije u zgradi, sa mogućnošću predikcije i upravljanja troškovima. Slični piloti pokreću se kroz Store4HUC projekt i u Sloveniji, Italiji i Austriji.

Sastanak će se održati **30. rujna 2021. godine s početkom u 11:30h u Energetskom centru Bračak**, Bračak 4, 49210 Zabok. Agendu događanja, možete vidjeti u prilogu ovog mail-a.

Molimo potvrdite Vaš dolazak najkasnije do **21. rujna 2021. godine na e-mail adresu [mhrupacki@regea.org](mailto:mhrupacki@regea.org)**  
U ime Store4HUC projektnog tima,

Matija Hrupački mag. gosp. ing. (REGEA),  
Prof. dr. sc. Mario Vašak (UNIZGFER)

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**Matija Hrupački** mag.gosp.ing.  
Voditelj projekata / Project Leader

Tel. 00385 (0)91 8823 705



Regionalna energetska agencija Sjeverozapadne Hrvatske  
North-West Croatia Regional Energy Agency

> 1 attachment: AGENDA.pdf 158 kB

Save

The e-mail was sent to 16 members of the deployment desk.