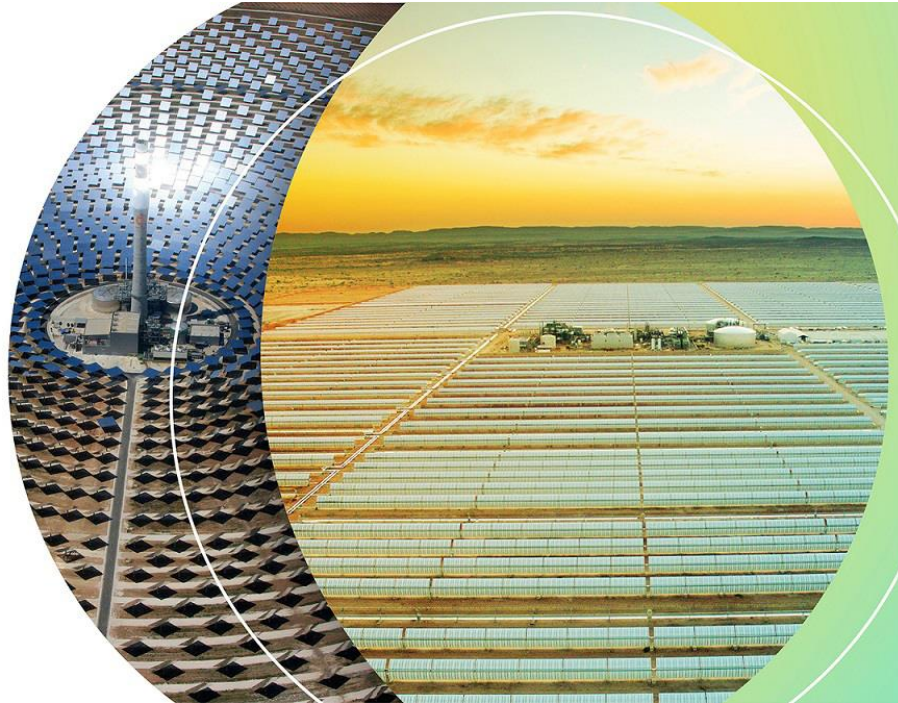




HORIZON  
STE

Implementation of the Initiative for Global  
Leadership in Solar Thermal Electricity

## NEWSLETTER



## ISSUE 8

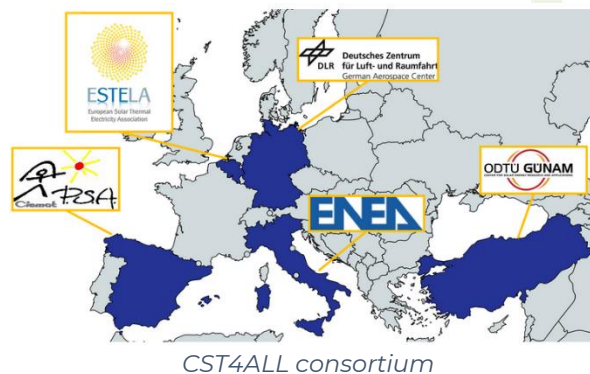
28<sup>th</sup> March 2023, Brussels

### State of Play

Six months after the conclusion of the HORIZON-STE project, the consortium members are pleased to present the eighth and final newsletter. Following the submission, approval and publication of project's final deliverables, the HORIZON-STE consortium has moved on to its newest adventure - already announced project "Support to the activities of the Concentrated Solar Thermal Technology area of the SET Plan", hereafter CST4ALL, which started on 1 October 2022.

CST4ALL will aim to broaden the applicability domain and concept of concentrated solar thermal technologies to include electricity, heat and fuels, expanding the concept of CSP/STE, which is closely related to electricity. The CST4ALL consortium will work to raise the awareness of the benefits that hybridisation of CST with other energy technologies can provide to key stakeholders, the general public and national and European policy makers.

The workshops to be organised within this new project will bring together, better coordinate and stimulate the interaction between main industry and R&I stakeholders of CST and other energy technologies at key technology interfaces with the CST sector building on combined technological and non-technological improvements.





Unfortunately, the ongoing energy crisis and continuation of the Russian war in Ukraine has made it painfully clear that Europe urgently needs to secure its energy supply. Renewables that are secure, reliable, dispatchable and non-intermittent are already available to ensure continent's security. We hope the outcomes of CST4ALL, i.e., future synergies between CST and other energy technologies, will further help to ensure Europe's energy security.

Finally, HORIZON-STE would like to take this opportunity to thank all the readers who followed project's updates via the Newsletters, project's website and social media activities and helped us to achieve our project's goals. To stay on top of CST-related news, we invite you to sign up for the CST4ALL newsletter [here](#).

## Work Package 1: "Implementation Plan (IP) initial and yearly status update"

Throughout the project life, HORIZON-STE has continued monitoring the initiatives and legislative measures taken at EU level relevant for the CSP/STE sector that have been reported annually in the project deliverables D1.5 to D1.7 "Report on yearly update of current framework and market conditions" for project years 1 to 3. The third and last yearly update of framework and market conditions is a confidential deliverable submitted on 30 September 2022. However, the following public deliverables are available on the project's website:

- o [D1.1 "Report on countries relevance for the IP"](#).
- o [D1.4 "Report on options for financing instruments and schemes"](#).

Since the closure of the project, the update of the CSP Implementation Plan in the framework of the Strategic Energy Technology Plan (SET-Plan) has reached its final stage, i.e., the Plan has been submitted to the Steering Group of SET Plan for approval, following which the Plan will be published.

Furthermore, on 25 October 2022, the third auction of the Renewable Energy Economic Regime (REER) was held in Spain. With a total quota of 520 MW for solar thermal, biomass and photovoltaic, this auction had the following key boundary conditions:

- o Pay as bid regime.
- o The 520MW comprised a quota of 380MW, shared between biomass, solar thermal and some other renewable technologies, with a minimum reserve of 220MW for CSP and with a minimum capacity of 6 hours of full load storage. In addition, a quota of 140MW was reserved for distributed PV (to complete the 520 MW).
- o Between 2,600 and 4,500 hours of CSP operation per year.
- o Possibility of hybridization with photovoltaics as long as it does not exceed 10% of the CSP installed capacity, or biomass if the thermal boiler capacity is below CSP installed capacity.





- o A 20-year revenue scheme.
- o Market exposure of 15%.
- o Revenues based on the following formula:  $\text{Price}_{\text{tender}} + 15\% \times (\text{Price}_{\text{market}} - \text{Price}_{\text{tender}})$

The result of the auction in Spain was void, as all the bids were above the maximum allowed price fixed by the national regulatory authority for this auction. The main reason behind such undesired result was the inadequate overall design of the process, as the auction rules, the existing high inflation, high interest rates and high commodity prices, the current high costs for transportation of goods and the uncertainty around grid access (among other reasons), did not reflect the real optimal cost of electricity of CSP.

The degree of interest of the CSP players has exceeded the minimum volumes of participation required by the auction regulation. In addition to the qualified bids, there have been others, totalling more than 500 MW, which have not been finally submitted to the auction due to the uncertainty in getting grid access. As they do not have visibility on the date on which to opt for grid access, the candidates for the auction assume the risk that the auction is not called within a reasonable time to obtain grid access and the guarantee presented in the auction can be lost. Had the Spanish regulator given better visibility of its technology roadmap and greater certainty in getting grid access capacity, the auction would have probably reached a volume greater than 700MW, which shows the true interest and commitment to CSP.

In addition to the above, the project consortium has continued monitoring the initiatives and legislative measures taken at EU level relevant for the CSP/STE sector:

- o Following the [campaign by RES associations](#), in September 2022 the European Parliament officially adopted 45% renewables target for Europe by 2030. Following the backtrack of the European Council to return to 40% RES target at EU level, on 29 March 2023 [EU ministers are expected to negotiate](#) with the European Parliament and the EC on the EU renewable energy target for 2030.
- o In September 2022 ESTELA and other RES associations were contacted by the EC in order to discuss the possibility to establish a large-scale partnership on onshore renewables skills. Since then, two bilateral meetings have been held and initial framework of the partnership has been established. A *Pact for Skills for the Renewable Energy Sector* has been drafted and will be disseminated shortly.
- o On 18 October 2022 the EC adopted its 2023 Working Program. It includes a plan to propose a comprehensive reform of the EU electricity market in early 2023, including decoupling the effect of gas prices on electricity prices. Following the adaptation, ESTELA, DCSP and PROTERMOSOLAR established a Working Group to prepare a [CSP sector response](#) to the public consultation on the matter. Public consultation was published on 23 January 2023 with the deadline of 13 February 2023. On 14 March 2023 EC published the proposal for a regulation to improve the electricity market design, which is open for [public feedback](#) from 16 March 2023 till 12 May 2023.





## Work Package 2: “Re-launching STE Industry in Europe”

Throughout the project, WP2 objective was to assess the conditions for replicating in European countries the commercial cost levels already achieved by the industry on CSP/STE world markets. The consortium believes the objective was achieved successfully.

The respective WP was completed with the submission of the project deliverable D2.4 “Final Country Reports” on 31 July 2022. Following the European Commission’s approval of all HORIZON-STE deliverables, the following public deliverables are made available on the project’s website:

- o [D2.2 “Draft country reports – Industry perspective”](#).
- o [D2.3 “Integrated country/regional reports”](#).
- o [D2.4 “Final Country Reports”](#).

## Work Package 3: “R&I Impact Maximization”

WP3 was focused on the research and innovation activities that may contribute to the realization of the SET-Plan. The activities carried out during the final months of the HORIZON-STE resulted in the submission, approval and subsequent publication of [D3.3 “Report on options for future European Joint Programme for the CSP sector”](#). Within this WP, another public deliverable, [D3.2 “Develop indicators and methodology for monitoring success of the execution of the IP”](#) is available on project’s website.

The last public event in the frame of HORIZON-STE resulted into [ID3.1 Report Contributing to WP3 Objectives](#), related to the Proceedings of the European webinar on Concentrating Solar Thermal Technologies & The CST Funding Programmes Survey Results.

The implementation of a second survey opened on 13 September 2022 and runned to 23 September 2022, was complementary to the conduct of the webinar. This survey gathered the stakeholders’ opinions in order to assess the success of the various CST R&I funding programs in Europe, given that most of the survey participants were key experts that have experience with research and development projects on CST topics.

Therefore, expert opinions resulting from the survey led to the following outline recommendations:

- o A European Joint Programme for the CST Sector can offer transnational benefits to deliver cost-effective dispatchable clean energy facilitating the clean energy transition.
- o Currently there is no existing instrument or structure that can support a European Joint Funding Programme that fully fulfils the needs of the European CST sector.







- The increased harmonization among all European key stakeholders, will increase their ability to communicate to key decision makers, the unique value that technology specific joint funding programmes would bring to Europe's clean energy transition.

Outreach should be performed to the other European renewable energy sectors that would benefit from technology specific joint funding programmes, and a natural platform for these activities is the Horizon Europe CST4ALL project, and the consortium partners are willing to move closer to the intended harmonization outcome.

## Work Package 4: “Communication and Events”

Within HORIZON-STE WP4 was dedicated to project communication activities and event organisations. Following a busy final period of the project, WP4 was completed with the submission of the following public deliverables, which, after the approval by the European Commission, were published on the project's website:

- [D4.4 “Newsletters”](#).
- [D4.8 “Proceedings of the EU Cooperation Event”](#).
- [D4.9 “Proceedings of the Final conference”](#).
- [D4.10 “Final Report on Dissemination and Communication Activities”](#).

The following public deliverables, published during the lifecycle of the project, are also available on the project's website:

- [D4.1 “Plan for Exploitation and Dissemination of the Project Results \(“PEDR Report”\)”](#).
- [D4.2 “Project Identity, website, social media channels”](#).
- [D4.3 “Brochures/flyers, posters/roll-ups”](#).
- [D4.5 “Infographic/Factsheets”](#).
- [D4.6 “Videos”](#).
- [D4.7 “Proceedings of the Joint Industry and R&I Events”](#).

## Previous Newsletters

For previous newsletters, please check them out [here](#) or visit our website: <http://www.horizon-ste.eu/media-outreach/>

