GLASS FUTURES and EME partner for a greener planet

Thanks to innovative technology provided by EME, global centre of excellence GLASS FUTURES is about to start installing capital process equipment to build its brand-new industry hub for R&D, innovation and training - all with the aim of eliminating carbon emissions from mass glass production.

Installation work is due to begin for Glass Futures' capital process equipment - a brand-new Global Centre of Excellence in St Helens, England. To discuss their plans for the exciting initiative, key project representatives met recently with EME, its contractor of choice, which is already hard at work with UK subcontractors as plans go ahead to install four huge silos at the site - all set for completion within 18 months.

PROJECT BACKGROUND AND EME INVOLVEMENT

At the meeting, EME Sales Director Dr Sebastian Woltz, responsible for the tendering phase of the project, explained: "I met and exchanged ideas with Glass Futures General Manager Aston Fuller during the Furnace Solution conference. It was then that I realised how the vision of installing such an R&D facility was entirely feasible. Indeed we were very happy to be awarded the engineering tender and we've been in continuous contact ever since."

Peter Liggett, Capital Projects Manager for Glass Futures, added: "We established a basic design specification that was used as part of a tendering process for the detailed design of the batch plant."

Liggett went on to describe how Glass Futures approached a number of well-known companies that are familiar with both materials handling technology and batch design and installation, specifically noting that EME was successful at completing the detailed design which was then used as the technical specification for the public procurement contract to supply and install the batch plant.

SEEKING THE RIGHT PARTNER

Liggett said that Glass Futures is essentially a collaborative effort that includes commercial glass making companies among its members, as well as end users of glass products. For this reason it's funded by government money and, as such, follows public procurement regulations for assigning contracts. Describing the synergy between EME and Glass Futures, he explained how the two are working together to improve the running of the process - jointly ensuring that the cost of activities are being well-managed while keeping in mind the high level of flexibility they both seek to achieve.

ANTICIPATED CHALLENGES

Here Woltz identified the main challenge being a need for flexibility, so that potential new technologies during or after the project could be integrated into the batch plant. Said Woltz: "This is why

we created a very flexible design that's upgradable and can be modernised at any time." As Technical Director Grant Bailey, who is to lead the installation, explained further: "We've put a lot of focus on 3D technology, creating models, flows and process analysis. This is extremely important because the batch house is being integrated into a mixed-use warehouse facility." Bailey went on to recount how they needed to consider pre-existing designs from other suppliers that would have to integrate with the equipment while not compromising on the operational and functional requirements of the facility.

ALLOWANCES MADE FOR TACKLING CHALLENGES

Said Bailey: "We believe we were selected because we're able to adapt and accommodate the challenges along the way. We spent a lot of time focusing on the needs of the industry from a technical and safety standpoint - really focusing on where we would see batch plants in the future."

Here Woltz added: "During the tendering phase, we contacted a lot of British sub-suppliers and chose two companies. One is for the secondary steel - they will install our equipment together with our supervisors. We also have a British partner who will make the electric installation and connect cabling with our cabinets."

CHOOSING EME AS BATCH HOUSE SUPPLIER

Liggett explained that each tender was asked how they'd apply quality control to the process and manage the contract. Answers from the evaluation were given a scoring matrix, with EME's tallying the highest. He said Glass Futures had built a great relationship with EME - describing how, right from the beginning, the understanding from the engineering group had matched Glass Futures' own ambition to look at the best ways to provide facilities with what they needed. In Liggett's own words: "They approached the project with an open mind, which is why we've been able to work together to identify the correct solutions." Said Bailey: "EME works globally. We have more than 20 projects at any one time anywhere in the world. Based on this we have vast experience in finding local partners and local resources to deliver projects in different countries."

EQUIPMENT SUPPLY FOR THE PROJECT

Bailey explained that EME will be supplying the batch house on a turnkey basis - supplying building infrastructure where equipment will be mounted and housed in access platforms, as well as installation services. It will also conduct control system training while supporting staff during start-up.

PROJECT TIMELINE

As to questions concerning the overall project timeline, Woltz clarifies that the furnace will be heated up in mid-2023 though the batch plant will be commissioned beforehand, with the installation of secondary steel in October of this year and equipment installation starting in early 2023.

THE IMPACT OF GLASS FUTURES UPON THE INDUSTRY

Concerning the importance of Glass Futures for the industry at large, Wolz observed that "the glass industry is very traditional and conservative," which led him to opine that "it's always hard to convince manufacturers to install new equipment and technologies." By that reasoning he spoke of seeing the initiative as beneficial for the whole glass world, stressing how it marks a unique opportunity to test new ideas - also for the younger generation, which, said Woltz, can be educated and trained there.

As Liggett corroborated: "What Glass Futures is trying to provide is an extremely flexible platform where we can try new materials, different compositions, new forms of energy and new ways of operating the plant." He concluded by underscoring the shared target of Glass Futures and EME, which is to take the commercial glassmaking world towards a position where glass can be generated with a low carbon footprint as well as high levels of energy efficiency, flexibility and adaptability. ■

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