PSM
a Hanwha company

June 29, 2024

Dear USCIS Officer,

This letter is a recommendation for Mr. Masoud Valinejadshoubi, a distinguished expert in zero-energy buildings. His specialization lies in integrating advanced solar technologies and sustainable materials to create highly efficient, environmentally friendly structures. Mr. Valinejadshoubi's research has yielded innovations in solar wall systems, energy-absorbing windows, and recycled material applications, positioning him as an invaluable innovator leading sustainable building design.

To substantiate my claims, let me briefly outline my credentials. I hold a bachelor's degree in heat transfer and combustion from Shahid Rahaee Teacher Training University along with a master's doctoral degree in fluid dynamics from the University of South Florida. After completing my education, I held a professional position at the University of South Florida as a thermal research engineer and technical team leader. I am currently working as a senior engineer at Power Systems Mfg (PSM) a Hanwha company. While I have never had the opportunity to work with Mr. Valinejadshoubi, I am aware that his research is closely related to my own interests in thermal fluid sciences, fluid systems, and multiphase flow. This overlap allows me to provide an expert assessment of his contributions to the field of zero-energy buildings.

Mr. Valinejadshoubi has made a significant contribution to sustainable architecture by developing innovative solar technologies and sustainable materials for zero-energy buildings. He recognized the growing need for energy-efficient and environmentally friendly construction methods, an issue he was equipped to address due to his proficiency in advanced solar systems and sustainable materials. To address this need, he devised novel approaches for integrating recycled materials and solar technologies into building components, creating structures that optimize energy efficiency and reduce environmental impact. This is exceptionally challenging, as sustainable building design requires balancing multiple factors, including thermal insulation, energy generation, and aesthetic appeal. As evidence of the effectiveness of his innovations, he achieved significant improvements in thermal insulation and energy efficiency while maintaining structural integrity and reducing construction costs. To implement these technologies, Mr. Valinejadshoubi created a range of solutions, including a solar wall system, an energy-absorbing window structure, and a kinetic solar window. As these technologies needed to be both functional and practical, he designed them for easy installation and adaptability to various building types, ensuring they are suitable for retrofitting. Additionally, he developed new methods for assessing the thermal and structural properties of materials incorporating recycled plastic bottles. He combined sophisticated engineering techniques with sustainable design principles to create building components that enhance energy efficiency, promote circular economy practices, and improve occupant comfort.

As a testament to Mr. Valinejadshoubi's outstanding work in zero-energy buildings, his research has been published in prestigious journals such as the *International Journal of Science, Engineering and Technology Research,* the *International Journal of Journal of Civil Engineering and Urbanism,* and the *Journal of Green Building*. These journals only

accept the highest quality of work, so their selection of Mr. Valinejadshoubi's evidently denotes his position as a prolific researcher in zero-energy buildings.

To conclude, Mr. Valinejadshoubi's project is of paramount importance for the advancement of zero-energy buildings. Unlike traditional building materials, his innovative use of recycled plastic bottles enhances thermal insulation and structural integrity without the need for manufacturing, offering a cost-effective and sustainable construction solution. It also promotes active participation in recycling programs by financially incentivizing the repurposing of plastic waste. His solar energy-absorbing window structures provide dual benefits of energy efficiency and aesthetic appeal, making them ideal for modernizing older buildings. The kinetic solar window system's adaptive features significantly improve occupant comfort and energy efficiency by optimizing light and heat distribution. These technologies offer substantial economic benefits through cost savings and job creation in the renewable energy sector while also contributing to the modernization of infrastructure in the United States, enhancing building performance and sustainability. Mr. Valinejadshoubi's wide-reaching and highly practical zero-energy building solutions exemplify the significant merit of his ongoing research and signify that he is a significant national research asset.

Respectfully,

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6/29/2024 | 22:40 EDT

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Senior Engineer
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