

Talk #137, 7/19/23

137th meeting of the Lyncean Group of San Diego

Date: Wednesday, 19 July 2023

Location: Southwestern Yacht Club
2702 Qualtrough Street, San Diego, CA 92106 (Point Loma)

Speaker: Dr. David Weisberg
Project Lead, Fusion Pilot Plant Design, DIII-D National Fusion Facility, General Atomics

Speaker bio is available here: https://lynceans.org/wp-content/uploads/2023/08/Speaker-Bio_Dr.-David-Weisberg-.pdf

Topic: Prospects for deploying fusion power plants to meet future US electricity demand

Abstract: In March of 2022 a Summit was held at the White House to launch the Bold Decadal Vision for Commercial Fusion Energy. Motivated by recent achievements in fusion and increased private investments, this agency-wide fusion initiative aims to accelerate the viability of commercial fusion for carbon-free energy security combining both the public and private sector. In this talk, we will provide an overview of fusion energy, the accomplishments, challenges, and path forward. Specific examples of recent record-breaking achievements in fusion energy production using both magnetic confinement and laser-based approaches have been made. The nuclear regulatory commission recently reached a decision to regulate fusion power production with a less restrictive framework than fission, clearing the path to commercial fusion energy production with a low cost and schedule regulatory burden. The Administration's recent request for fusion funding has hit an all-time high at just over \$1B, and despite the recent economic downturn, the private sector continues to raise capital with now over 40 private fusion companies worldwide. However, in order for fusion to deliver electricity to the grid, numerous scientific and technical challenges remain.

Prospects for Deploying Fusion Power Plants to Meet Future US Electricity Demand

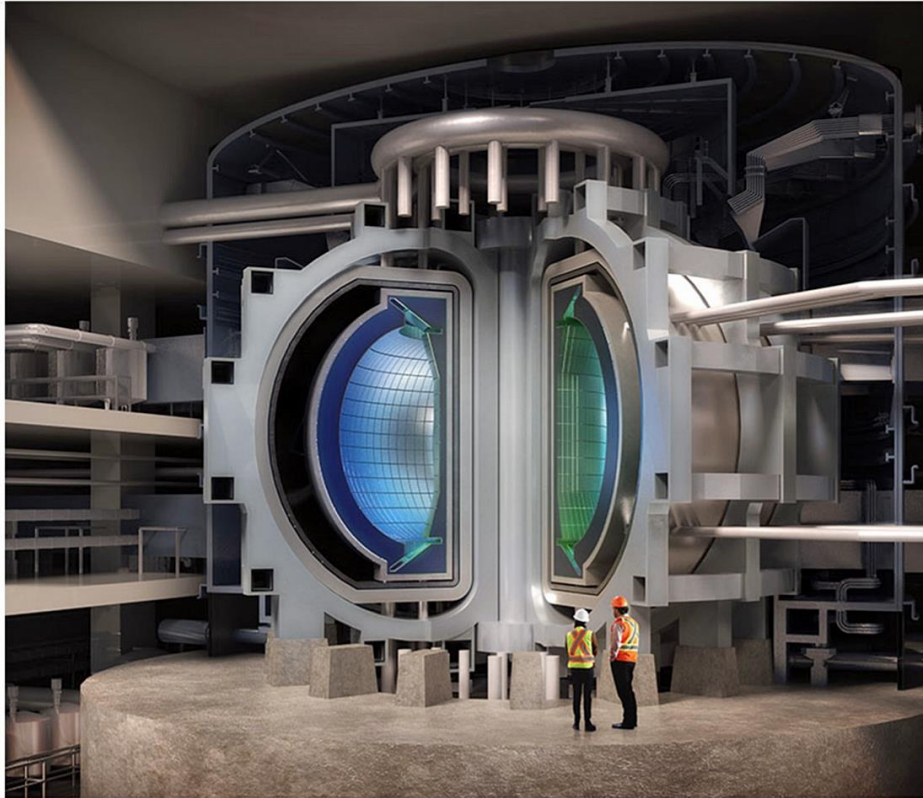
Presented at
the Lyncean Group of San Diego

David Weisberg
Senior Scientist, Fusion Pilot Plant Design Hub
General Atomics

July 19, 2023



Dr. David Weisberg's presentation is available for download here:
https://lynceans.org/wp-content/uploads/2023/08/Weisberg_Fusion-Presentation-Slides.pdf



Conceptual view of the General Atomics Grid-Connected Fusion Pilot Plant



37 Lyncean members and guests attended the July luncheon meeting.



Pete Lobner thanks our speaker and presents a Lyncean challenge coin.

Pete's meeting slides are available for download here:

<https://lynceans.org/wp-content/uploads/2023/08/Pete-Meeting-Slides-7-19-23.pdf>

For more information

- General Atomics – Fusion Power: <https://www.ga.com/energy-systems-and-products>
- U.S. Government Accountability Office, “Fusion Energy: Potentially Transformative Technology Still Faces Fundamental Challenges,” March 2023: <https://www.gao.gov/assets/gao-23-105813.pdf>