



Science Program Office – Office of Science

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Symbol: SPO-SC: 18-001
Date: February 15, 2018

Dr. J. Stephen Binkley
Deputy Director for Science Programs
Office of Science, SC-2
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Dr. Binkley:

On January 30, 2017, you charged the Fusion Energy Sciences Advisory Committee (FESAC) to develop a report to “identify the most promising transformative enabling capabilities for the U.S. to pursue that could promote efficient advance towards fusion energy, building on burning plasma science and technology.” FESAC is pleased to submit that report, and would like to thank Dr. Rajesh Maingi, Dr. Arnold Lumsdaine, and the other members of their subcommittee of experts from within and outside of the fusion energy sciences community in answering your charge. A broad swath of relevant capabilities were considered with input from academia, National Laboratories, and industry through white papers and presentations at workshops in Rockville, Chicago, and Princeton.

Sixteen of the twenty FESAC members were present at the February 1-2, 2018 public meeting. They reviewed and discussed the subcommittee report, and voted unanimously to endorse the report with minor revisions voiced by FESAC members at the meeting. All revisions were promptly implemented and are now included in this report.

Sincerely,

Donald J. Rej
Program Director
Office of Science Programs at Los Alamos National Laboratory
Chair, Fusion Energy Sciences Advisory Committee



SPO-SC:
Sent to Dr. J. Stephen Binkley

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cc: J. Van Dam (DOE/FES)
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FESAC:

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S. Close (Stanford University)
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S. Knowlton (Auburn University, Emeritus)
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B. Wirth (University of Tennessee, Knoxville)

Ex-officio Members

J. Cary (APS-DPP, University of Colorado)
A. Lumsdaine (ANS-FED, ORNL)
J. Verboncoeur (IEEE-NPSS, Michigan State University)