



U.S. Fusion Energy Sciences Program

Presented at the

ARIES Meeting

Princeton, New Jersey

By

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Office of Fusion Energy Sciences

Office of Science

Department of Energy

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FY 2003 FES Budget

- o President's Request \$257.3M
- o House Mark \$248.5 M
 - \$2.5 M ear marks for NSTX and NCSX
- o Senate Mark \$259.3 M
 - \$2.0 M ear mark for evaluating “fast ignition”
- o Initial Fin Plan \$248.5 M
- o Conference not yet scheduled
- o Department appealing to President's Request

FY 2003 Budget Highlights

- o Initial Fin Plan
 - House Mark **\$248.5 M**
 - Includes \$2.0 M General Reduction

- o NCSX Project Start (\$11.7M)
 - **TEC \$73.5 M**; First Plasma 3rd Qtr FY 2007

- o Facility Run Time (42 wks) down 33% from FY 2003 Congressional (63 wks)

- o Enabling R&D Increased compared to FY 2003 Congressional
 - Added \$1 M for ITER Cost Estimating task
 - Transferred \$750 k + tasks from Science (IFE Target Fabrication)

FY 2003 Budget

	FY 2002 <u>Aug AFP</u>	FY 2003 <u>CONG</u>	FY 2003 <u>IFP</u>
Science	133.9	142.6	141.6
Facility Operations	71.2	78.6	69.2
Enabling R&D	<u>36.0</u>	<u>36.1</u>	<u>37.7</u>
<i>Total</i>	<i>241.1</i>	<i>257.3</i>	<i>248.5</i>
DIII-D	50.9	55.6	50.8
C-Mod	17.6	22.3	19.9
NSTX	27.5	33.1	29.6
NCSX	5.4	11.8	11.7

Status of U.S. Participation in ITER

- o Administration is considering invitation to join ITER Negotiations
- o U.S fusion research community supports U.S. participation in ITER Negotiations
- o FESAC and NRC reviewing burning plasma strategy and will make recommendations on whether U.S. should participate in ITER

ITER Cost Estimating Effort in FY 2003

- o Cost of possible U.S. ITER roles needed to aid in developing negotiating position
- o Preliminary estimate 9 months, about \$1 million
- o PPPL will lead this multi-organization effort, bringing both key people and contracting infrastructure.

NRC Burning Plasma Assessment

- o Assess importance of BP program to:
 - Fusion energy sciences and technology
 - Development of fusion as an energy source
 - Plasma science
 - Science in general

- o Assess readiness to proceed

- o Review Snowmass/Austin BP strategy

- o Co-Chairs
 - John Ahearne, Sigma Xi
 - Ray Fonck, U. of Wisconsin

- o Schedule
 - First meeting September 17-18
 - Letter Report December 2002
 - Final Report mid-2003