U.S. Fusion Energy Sciences Program

Fusion Program Leaders Conference Call

February 3, 2003

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Excellent Science in Support of Attractive Energy

Fusion Energy Sciences

The President has decided the U.S. should join negotiations to build ITER to provide a sustained, burning plasma experiment

ITER ($12M for new direct expenses related to ITER participation, are redirected within the Science Technology and Facilities operations subprograms)

Science ($144.7M, $+2.1M)

- Broad consensus that a burning plasma experiment is the next step (FESAC, NRC, SEAB)
- Conduct ITER-specific experiments on DIII-D and C-MOD
- Refocus SciDAC on an integrated simulation project supporting burning plasma physics
- Establish fusion plasma science "Centers of Excellence"
- Curtail international collaborations in order to support ITER
- QPS design efforts continue

Facilities Operations ($87.7M, $+9.1M)

- Operate 3 national facilities at 84% of full utilization
- Increase funding for NCSX MIE project, as planned, to complete final design and procure long lead items
- Support ITER transitional activities

Enabling R&D ($24.9M, $-11.2M)

- Focus plasma technology on needs of ITER
- Curtail longer range technology activities, in particular chamber technologies, in order to focus on directly supporting preparations for ITER construction and experiments
- Redirect FIRE and other advanced design efforts to ITER transitional activities

Fusion Program Elements Addressing ITER Needs

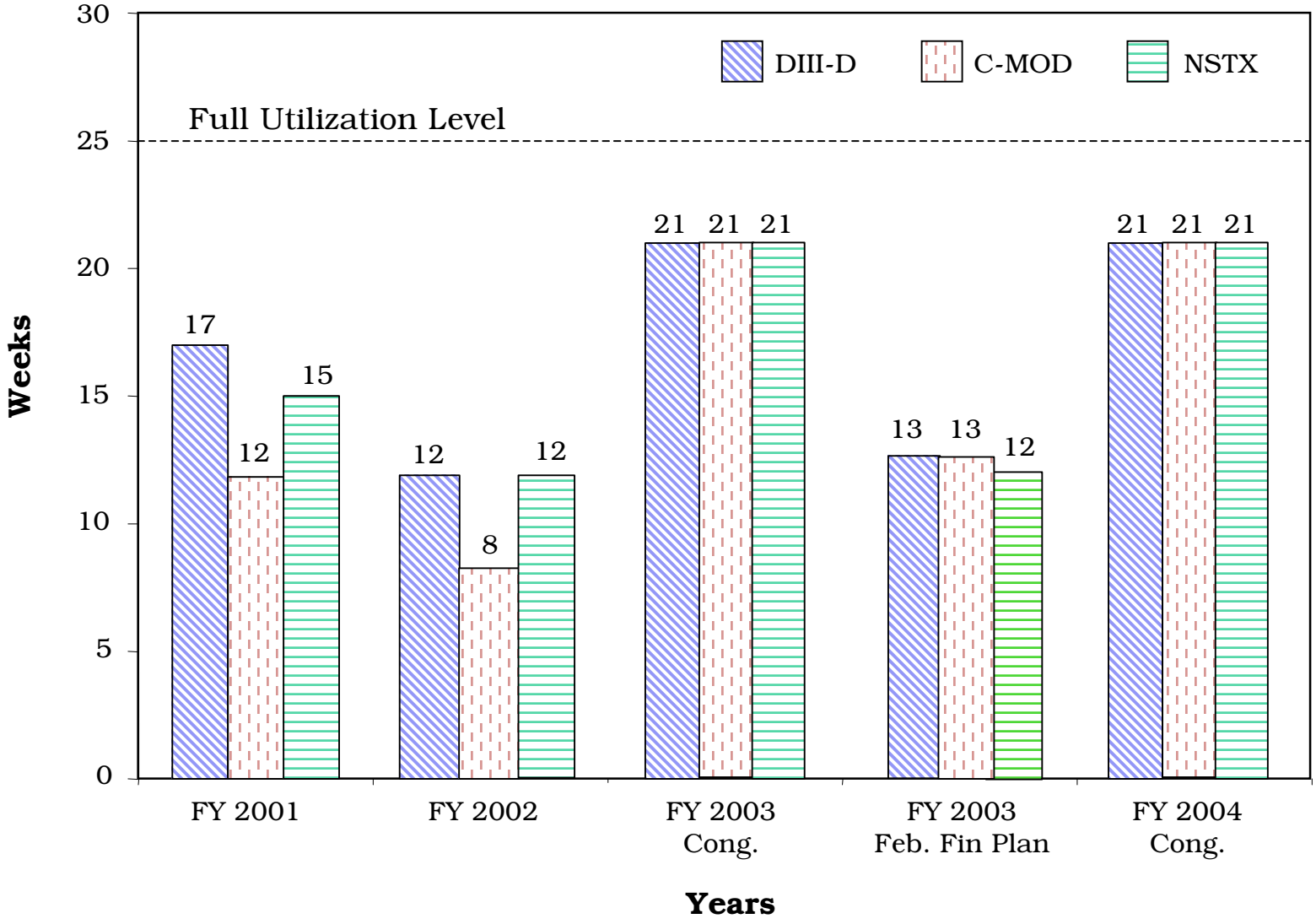
Elements	FY 2004 Resources
DIII-D Experimental Program	$5,000,000
Alcator C-Mod Experimental Program	2,000,000
Fusion Plasma Theory and Computation (SciDAC)	3,000,000
ITER Preparations	2,000,000
Total	*$12,000,000*

FY 2004 Fusion Energy Sciences Congressional Budget Request

	FY 2002	FY 2003 Cong.	FY 2003 Feb. Fin Plan	FY 2004 Cong.
Science	134.3*	142.6	144.0	144.7
Facility Operations	70.8	78.6	67.0	87.7
Enabling R&D	36.0	36.1	37.5	24.9
OFES Total	*241.1*	*257.3*	*248.5*	*257.3*
DIII-D	50.9	55.6	52.3	56.6
C-Mod	17.6	22.3	19.2	22.8
NSTX	28.0	33.1	30.4	35.2
NCSX (MIE)	5.4**	11.0	11.7	16.7

*Without SBIR
**Operating Only

Major Fusion Facilities Operating Times



02/03/03

Fusion Energy Sciences Budget by Institution

($ in Millions)

Institution	FY 2003 Congressional	FY 2003 Feb. Fin Plan	FY 2004 Congressional
General Atomics	48.3	46.5	49.6
Lawrence Berkeley National Lab	5.8	6.2	5.7
Lawrence Livermore National Lab	14.4	14.1	13.4
Los Alamos National Lab	7.3	6.8	3.8
Oak Ridge National Laboratory	19.3	20.5	18.7
Princeton Plasma Physics Lab	63.6	61.9*	70.6*
Massachusetts Institute of Technology	25.2	22.6	26.7
Other Universities	46.9	46.1	44.8
All Other	26.5	23.8	24.0
Total	***257.3***	***248.5***	***257.3***

*Includes $0.5M in FY 03 and $2M in FY 04 for ITER Transitional Activities, much of which will be passed through to as yet undetermined organizations