

PPPL Institutional Presentation

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Budget and Planning Meeting
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PPPL Participates in almost all Facets of the OFES Program

- *Science*

- Tokamak Exp. Research

- DIII-D, C-Mod

- Int. Tokamaks,

- Alternative Concept Exp. Res.

- NSTX, NCSX, QPS

- LTX, FRC

- Univ. Support

- Inertial Fusion Energy

- Diagnostic Development

- Theory

- Fusion Plasma Theory

- Advanced Computing

- General Plasma Science

- MRX, MRI, MNX, Paul Trap....

- *Facility Operations*

- DIII-D, C-Mod

- NSTX

- NCSX, QPS

- Burning Plasma Exp.

- GPP/GPE

- *Enabling R&D*

- ARIES

- Socio-economic studies

- APEX

Budget Requirements to Support OFES Programs

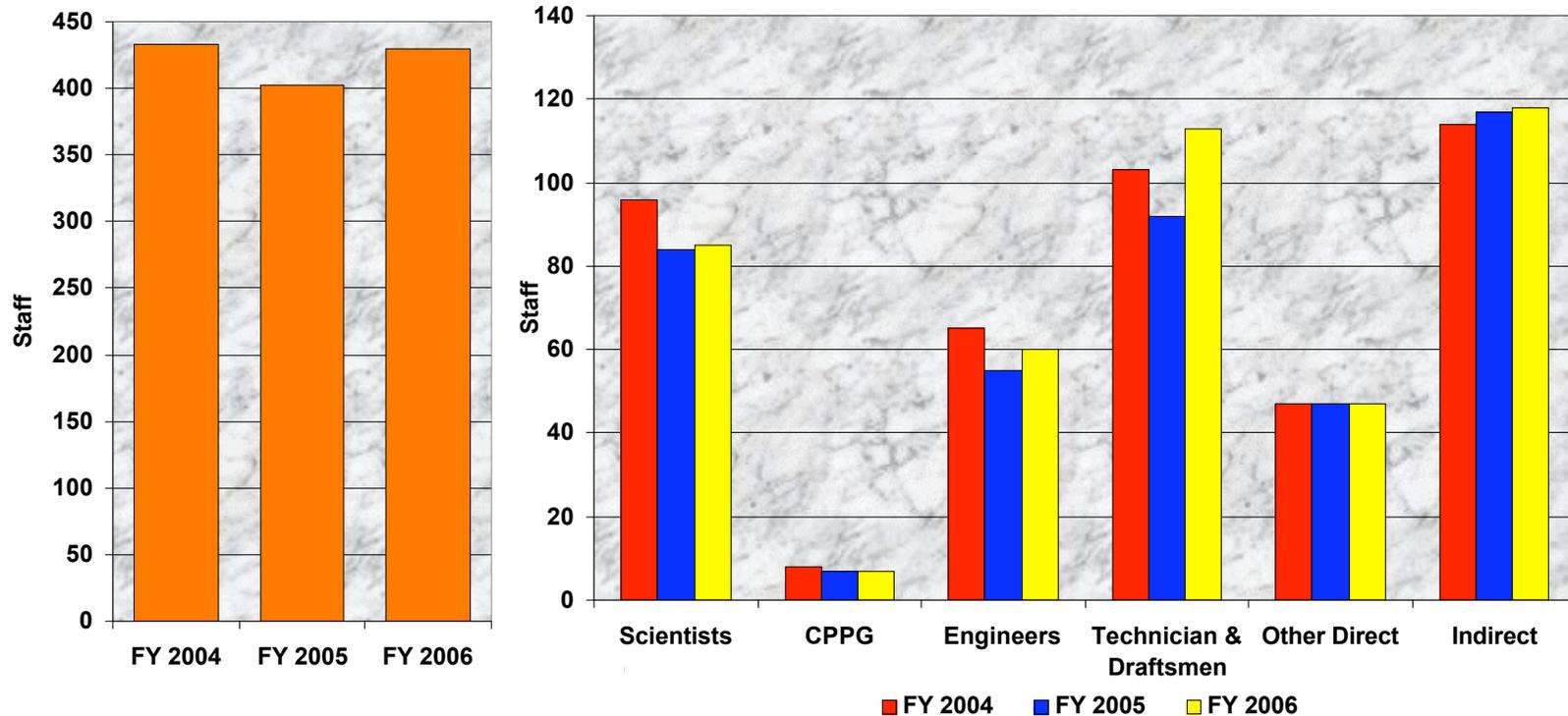
	FY 2004	FY 2005		FY 2006	
	BA *	BASE	Inc.	BASE	Inc.
NSTX	\$ 29.8	\$ 28.5	\$ 3.0	\$ 28.5	\$ 4.0
NCSX	14.3	14.9	4.9	21.7	-
QPS	0.3	0.3	-	0.3	2.2
FIRE/ARIES/Socio-econ. studies/APEX	0.7	0.2	0.2	0.2	0.1
DIII-D/C-MOD Collaborations	6.5	6.4	0.7	6.4	1.0
International Collaborations	2.7	2.7	0.6	2.7	0.6
ITER Costing Studies	0.6				
THEORY/SciDAC	6.5	6.2	1.5	6.2	1.7
PS&T (LTX, MRX, MNX, Univ. Off-site,....)	4.3	4.2	0.6	4.2	0.6
HIF	1.4	1.2	0.4	1.2	0.4
DIAGNOSTIC DEVELOPMENT	0.8	0.6	0.3	0.6	0.3
SCIENCE EDUCATION	0.6	0.6	0.1	0.6	0.1
GPP	1.4	1.6	-	1.6	-
ALL OTHER	0.6	0.6	0.2	0.6	0.4
TOTAL OFES	<u>\$ 70.5</u>	<u>\$ 68.1</u>	<u>\$ 12.3</u>	<u>\$ 74.8</u>	<u>\$ 11.0</u>

(\$ Millions)

PPPL Science Budget is down by \$2.6 million in FY 2005



Staffing Covered by Funding Plan



Budget shortfall in '05 being addressed by:

- attrition, canceling procurements/travel, and
- seeking incremental funding to address key issues, and help sustain key expertise for fusion.

Exacerbating Factors

- **Ratio of sum of labor, fixed and long-lead procurements costs to total funding continues to trend up.**
 - 70% in '99 and 88% in '05
 - Loss of flexibility to accommodate budget cuts.
- **Office of Science contractual requirements for increased support of Laboratory infrastructure**
 - \$1.5M increase to maintenance budget required for “Outstanding” rating.
 - \$0.4M increase in budget planned - consistent with “Excellent” rating.
- **Guidance on Safeguards and Security funding for FY 2006 not finalized,**
 - FWP assumes direct funding
 - If changed to indirect funding in FY 2006, “Equitable Adjustment” will be required to offset increased overhead rates.

Impact of a 10% Reduction in '05

- **Staffing Impact**
 - Reduction of ~40 staff (research, engineering, technical, and administration) in addition to the planned reduction in '05 in the base case.
 - ~60 additional losses if severance is not funded separately.
 - Loss of multiple core competencies.
- **Programmatic Impact (if “only” ~40 additional staff reduced)**
 - Reduce NSTX run weeks from 14 to 11
 - First plasma on NCSX slips by ~2 months in one year!
 - Impact is built up by individual projects.
 - Skill mix issues and synergies between projects have not been fully addressed. Impacts could be substantially greater.
 - Increase in Laboratory's deferred maintenance backlog by 10-15%.
 - Increase risk to the Laboratory's ability to meet environmental and other regulations.

Summary

- **PPPL participates in, and supports, the broad portfolio of research activities in OFES**
 - We construct and operate collaborative facilities for the community.
 - We collaborate on other national and international off-site facilities.
- **PPPL research and engineering staff can support a greater level of effort on: NSTX, NCSX, ITER, SciDAC, and off-site collaborations.**
 - Currently planned funding does not support existing staff.
- **Impact of a 10% cut would be devastating.**