



... for a brighter future

APS/User Monthly Operations Meeting

J. Murray Gibson

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U.S. Department
of Energy

UChicago ►
Argonne_{LLC}



A U.S. Department of Energy laboratory
managed by UChicago Argonne, LLC

Agenda

2:30 p.m. – Refreshments

2:45 p.m. – APS Update – Murray Gibson

3:05 p.m. – XOR Beamline Upgrade Updates and Future Plans - George Srajer

3:25 p.m. – Intermediate Energy X-ray (IEX) Beamline --
A New Beamline at the APS - Juan Carlos Campuzano

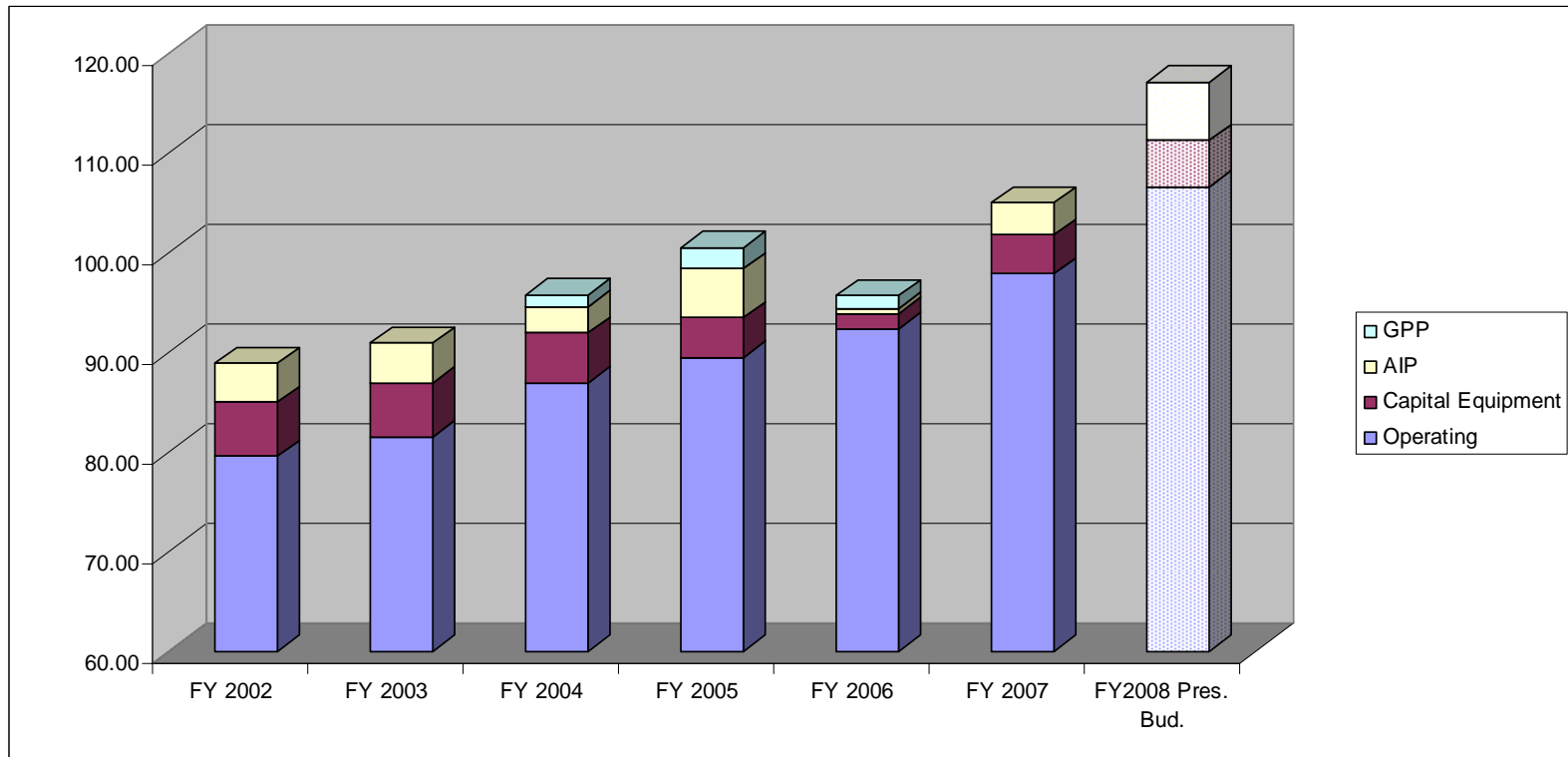
3:45 p.m. – Adjourn

Safety moment

- Tornado warning recently on a Sunday evening at APS
 - Concerns that users did not properly use the tornado shelters
 - Important that resident users and APS staff shepherd process



Budget update

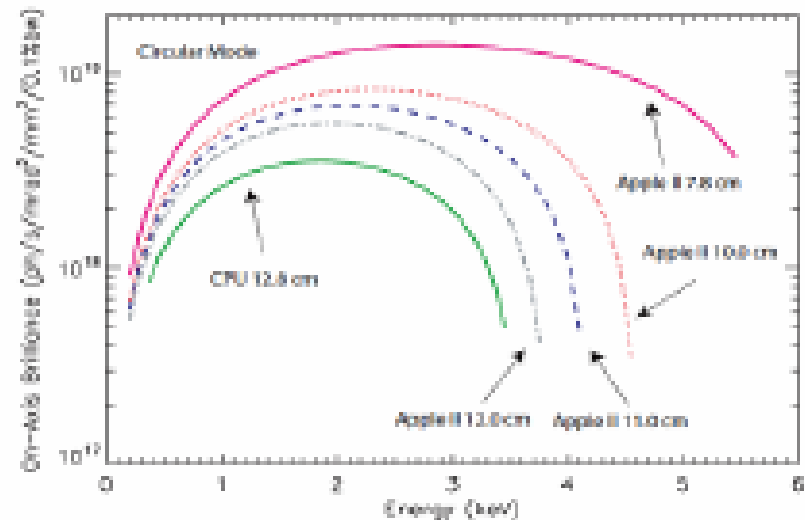


The good news: House and Senate E&W committees have reported out with president's budget; President signed America COMPETES act and Energy bill authorizing doubling of Office of Science;

The bad news: election politics offers major uncertainty – likely CR at best for 3-4 months...

New IEX beamline to be funded by NSF and DOE

- Will bring brilliant source of polarized soft x-rays to APS, useful for studies of electronic structure
 - High-energy ARPES and low-energy RIXS
- Proposal led by Juan-Carlos Campuzano, Pete Abbamonte and Jim Allen
- Only 3 sectors to go!
 - This was one of the ideas which emerged from the 2004 strategic planning workshop
 - Others proposals under development
 - Expect ~1 start per year for next couple years
 - Prelude to the upgrade



2008 update to the OS Facilities plan recently discussed by Ray Orbach



Status of Facilities in 20-Year Outlook

By the end of FY 2008

Priority	Program	Facility	R&D	Conceptual Design	Engineering Design	Construction	Operation
1	FES	ITER					
2	ASCR	UltraScale Scientific Computing Capability					
Tie for 3	BER	HEP	Joint Dark Energy Mission				
		BES	Linac Coherent Light Source				
		BER	Protein Production and Tags → Bioenergy Research Centers*				
		NP	Rare Isotope Beam Facility (previously RIA) #				
Tie for 7	BER	NP	CEBAF Upgrade				
		ASCR	ESnet Upgrade				
		ASCR	NERSC Upgrade				
		BES	Transmission Electron Achromatic Microscope				
12	HEP	BTeV #	Terminated				
13	HEP	Linear Collider					
Tie for 14	BER	NP/HEP	Analysis/Modeling of Cellular Systems → Bioenergy Research Centers*				
		BES	SNS 2-4 MW Upgrade				
		BES	SNS Second Target Station				
		BER	Whole Proteome Analysis → Bioenergy Research Centers*				
Tie for 18	NP/HEP	FES	Double Beta Decay Underground Detector				
		FES	Next-Step Spherical Torus				
		NP	RHIC II				
Tie for 21	BES	HEP	National Synchrotron Light Source Upgrade*				
		HEP	Super Neutrino Beam				
Tie for 23	BES	FES	Advanced Light Source Upgrade				
		FES	Advanced Photon Source Upgrade				
		NP	eRHIC or eRHIC or Electron Ion Collider				
		FES	Fusion Energy Contingency				
		FES	HFIR Second Cold Source and Guide Hall				
	FES	Integrated Beam-High Energy Density Physics Experiment					

75-100% 50-75% 25-50% > 0% complete

*technological readiness change
changed due to planned facility abroad

Latest on the APS Upgrade

- APS upgrade remains on the Office of Science map
 - Still considering options, tho' we favor ERL
- CMMP report came out endorsing the importance of ERLs and seeded FELs for the future of the field
 - Recommended major R&D support
- BESAC will plan a study of how new capabilities (facilities) will facilitate grand challenges
- Preparing an R&D proposal for BES this month, and expecting lab LDRD support
 - Key issues: LINAC cavity design
 - Cathode development (esp. lifetime)
 - Possible 100-200MeV test facility in next couple years
- Exciting new possibility of a “cavity” x-ray laser with an ERL beam (Kim and Shvydko)
- LDRD also hoped to support science for upgrade e.g. imaging and ultrafast science



User workshop?
Retreat in 2008?

Update on IG Audit of Proprietary Rates (good news)

- I shared with you all the report, and the proposed management response
- Useful input was provided by several groups
- We have been told that the Office of Science will support our position (“Management response”)
 - No back charges
 - Transition to “actuals” in 2009

- There are no guarantees, but here is what we expect:
 - *Note DOE would review the setting of these rates and proprietary usage policy implementation on an annual basis*

PROPRIETARY RATES (per hour)

<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>
		<i>(Estimated)</i>	
\$225.80	\$255.87	\$303.69	\$317.22

Operational Beam Lines Used in Calculation

70	68	62	65
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Note: FY09 will be the first year using actual number of beam lines in operation

Other news

- APS review by UC LLC
 - ASD/AES already held (very positive, I sent you all report)
 - Safety review on Monday/Tuesday this week was very positive
 - Science review, and overall summary review, in September (17-19)
- DOE review of APS expected next year
- APCF facility expected to be constructed adjacent and to the S. of APS
- “Comp” time for exempt staff (e.g. beamline, engineers, physicists) possible with supervisory approval (APS Info message to go out, supervisors have been informed)