# RUN 11 RHIC MACHINE/EXPERIMENTS MEETING

11 Jan 2011

Agenda:

- Updates

# RUN 11 RHIC MACHINE/EXPERIMENTS MEETING

# DECISIONS

11/23/2010

- Agreed to new APEX schedule, 12 hour sessions (0800-2400) every other week away from maintenance days.

http://www.bnl.gov/cad/esfd

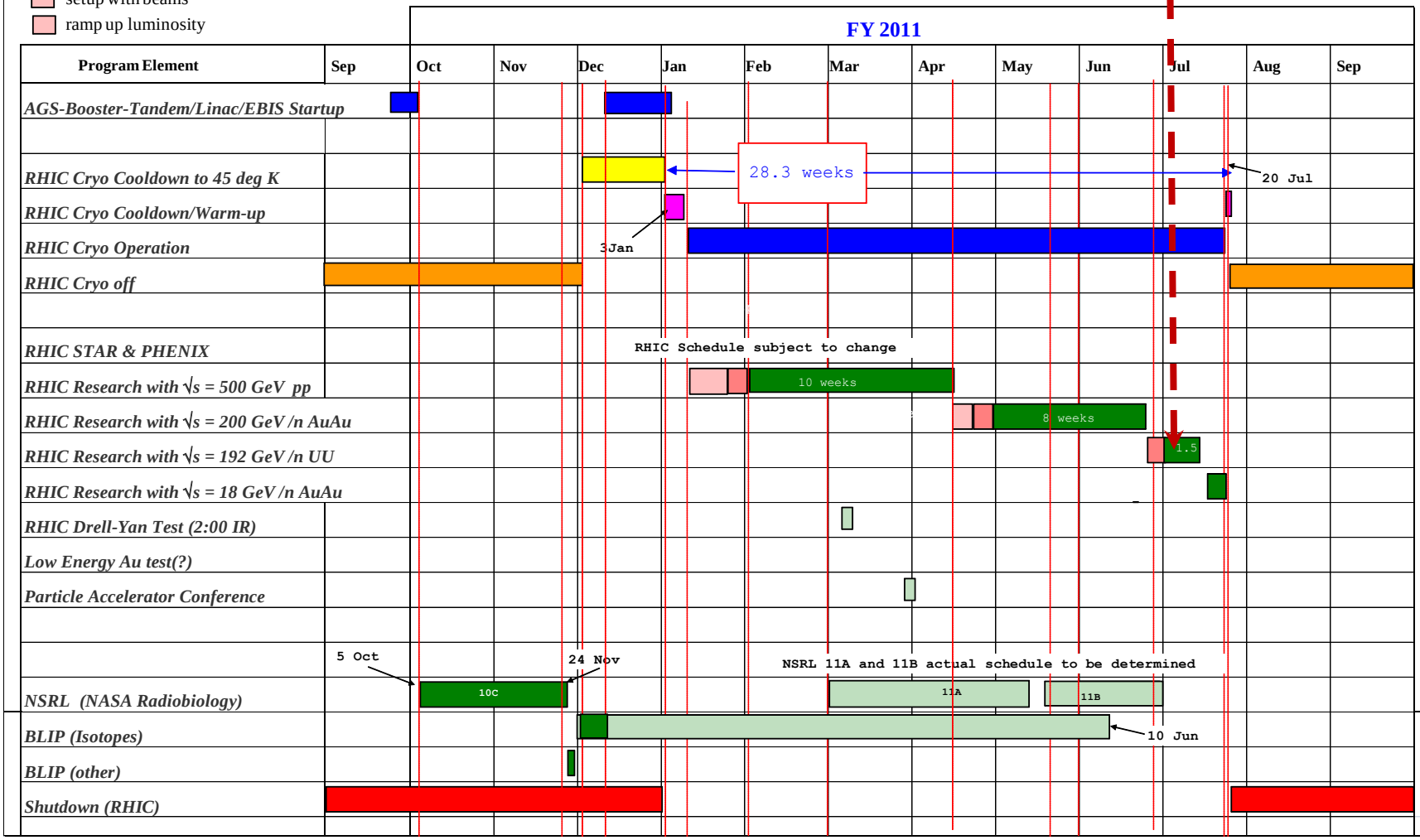
# C-A Operations-FY11

23 Nov 10

26 weeks

*planned (budget permitting)*

concurrent with RHIC
setup with beams
ramp up luminosity



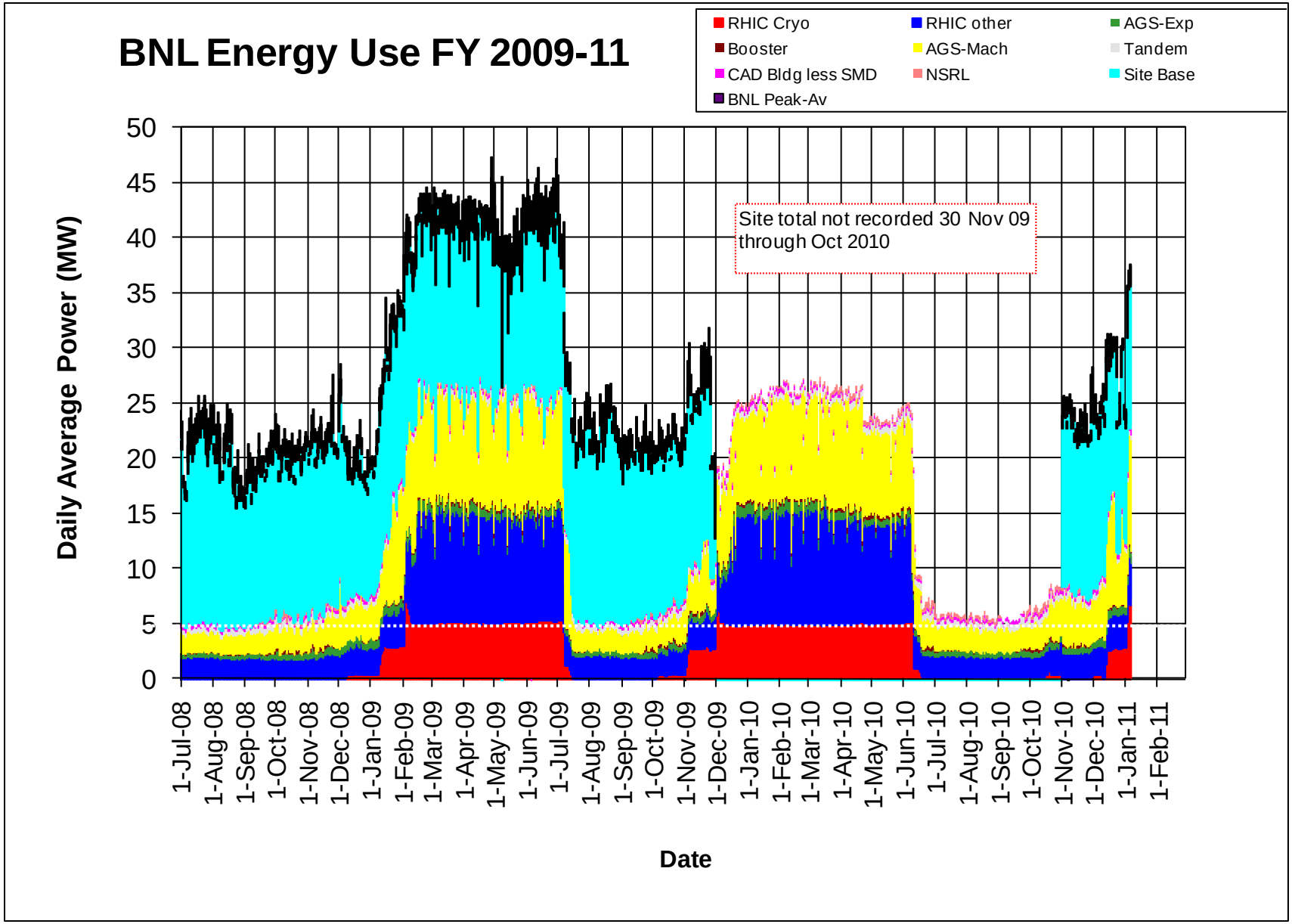
**Run 11 Plan based on PAC recommendation/ALD Guidance and 28.3 weeks cryo operation**
**11/23/10 update**

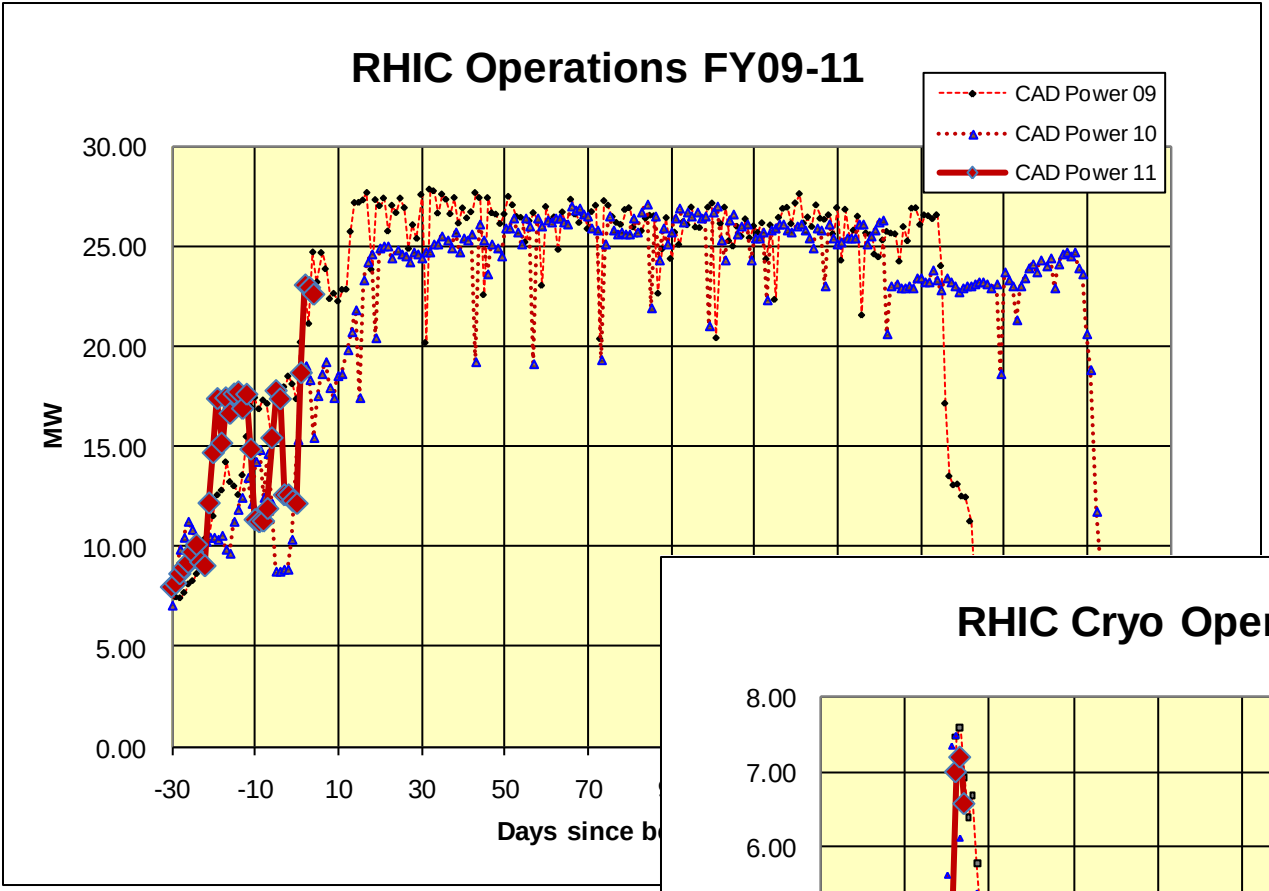
- 3 Jan, Begin cool-down to 4.5K
- 9 Jan, Cool-down to 4.5K complete in both rings
- 11 Jan, 2 ½ weeks beam setup for √s = 500 GeV pp in RHIC begins.
- 27 Jan (Thursday), 1 week Ramp-up with 8 hr/night beam to experiments
- **3 Feb, begin 10 week physics run (√s = 500 GeV pp)**
- **4 March – Continuing Resolution Ends**
- **28 March – 1 April, PAC 2011**
- **14 Apr, end 10 week physics run at √s = 500 GeV pp run**
- 14 Apr, begin 1 week setup for √s = 200 AuAu
- 21 Apr, begin 1 week Ramp-up with 8 hr/night beam to experiments
- **28 Apr, begin 8 week physics run at (√s = 200 AuAu)**
- **23 Jun, end 8 week √s = 200 AuAu run**
- 23 Jun, begin setup for √s = 192 GeV UU
- **30 Jun, begin 1½ week physics run (√s = 192 UU)**
- **4 July – completed 26 weeks of cryo operation, may be out of $$'s**
- **10 Jul, end 1½ week physics run at √s = 192 GeV**
- 10 Jul, begin setup for √s = 18 GeV AuAu
- **11 Jul, begin 1 week physics run (√s = 18 AuAu)**
- **18 Jul, end 1 week physics run at √s = 18 GeV**
- 20 Jul, warm-up complete (28.3 weeks)

Possible additions:

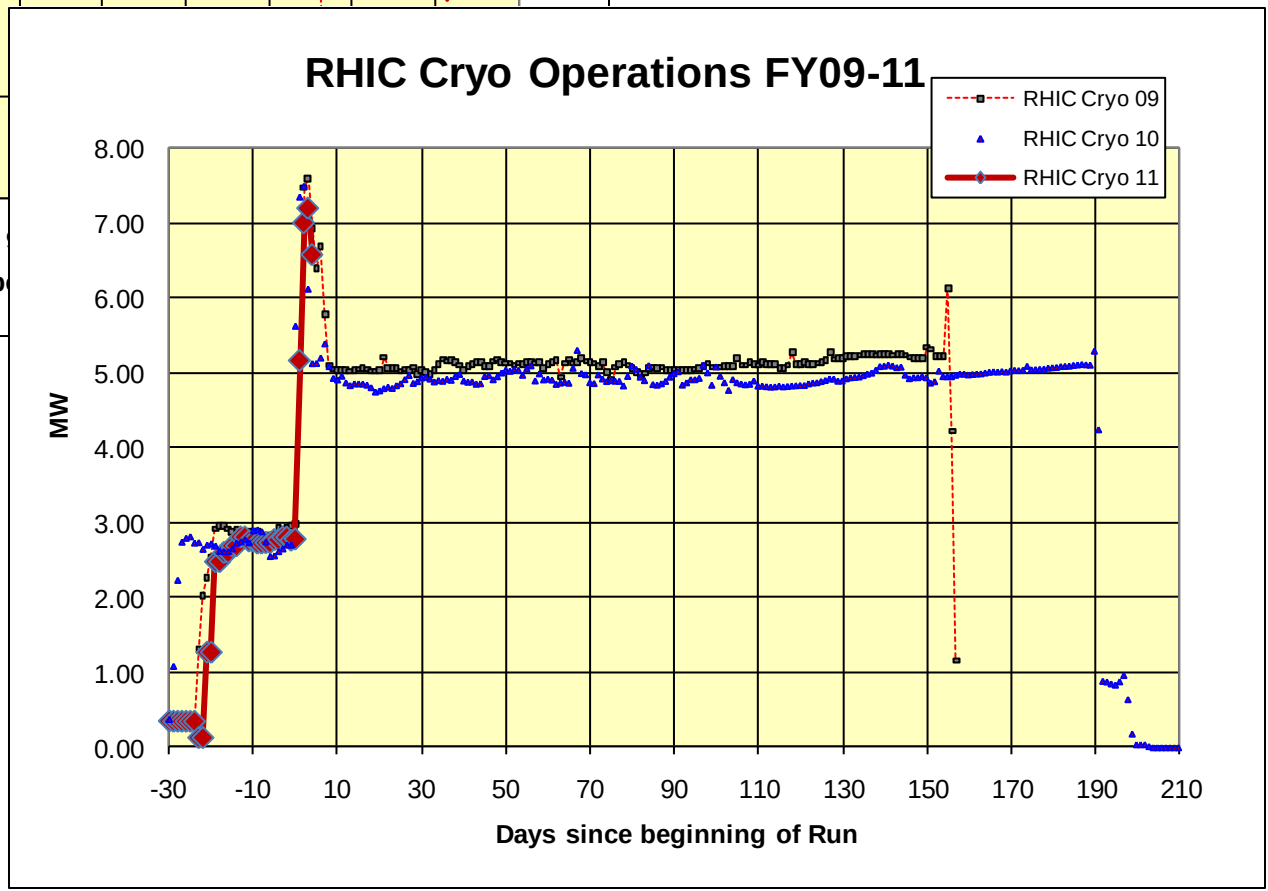
- Low energy test run

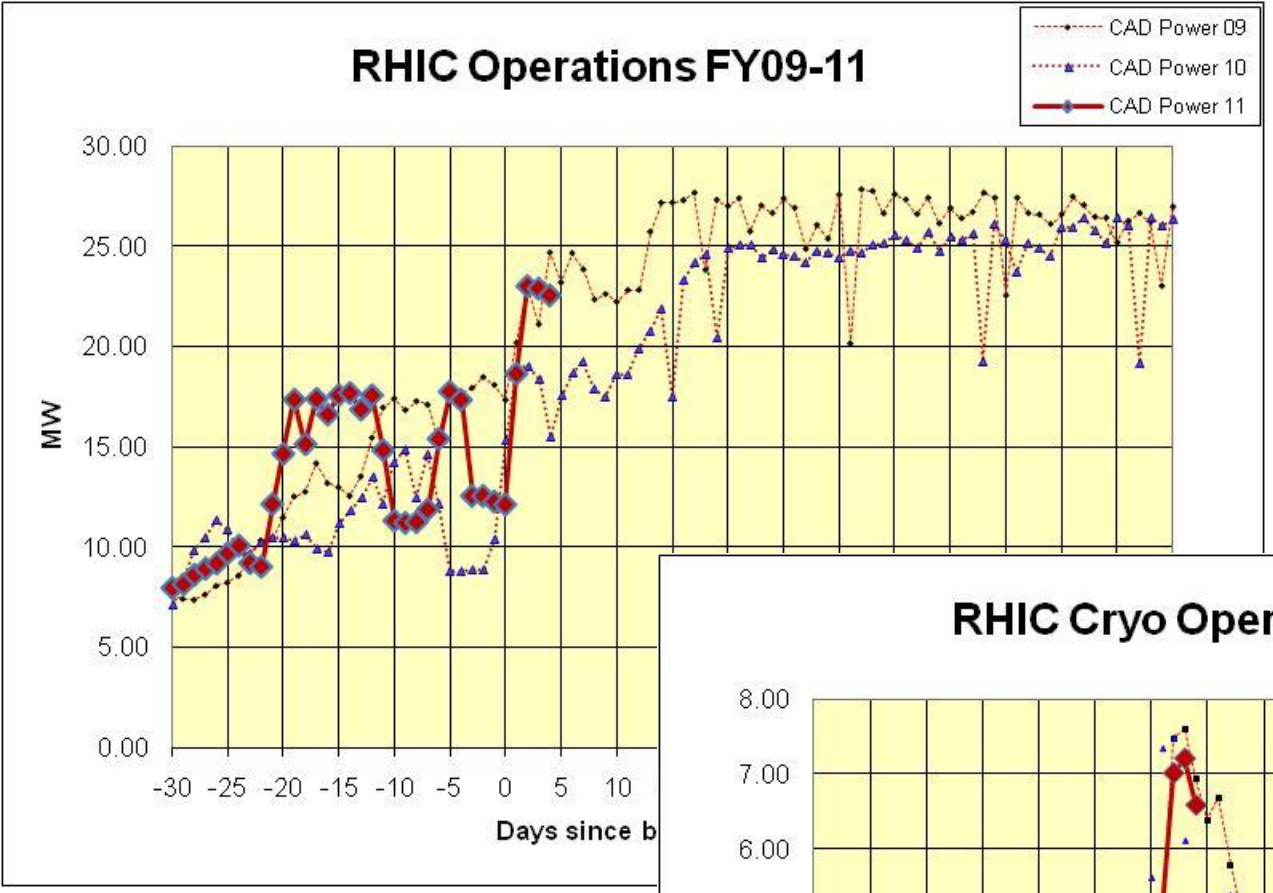
Through 6 Jan 2011



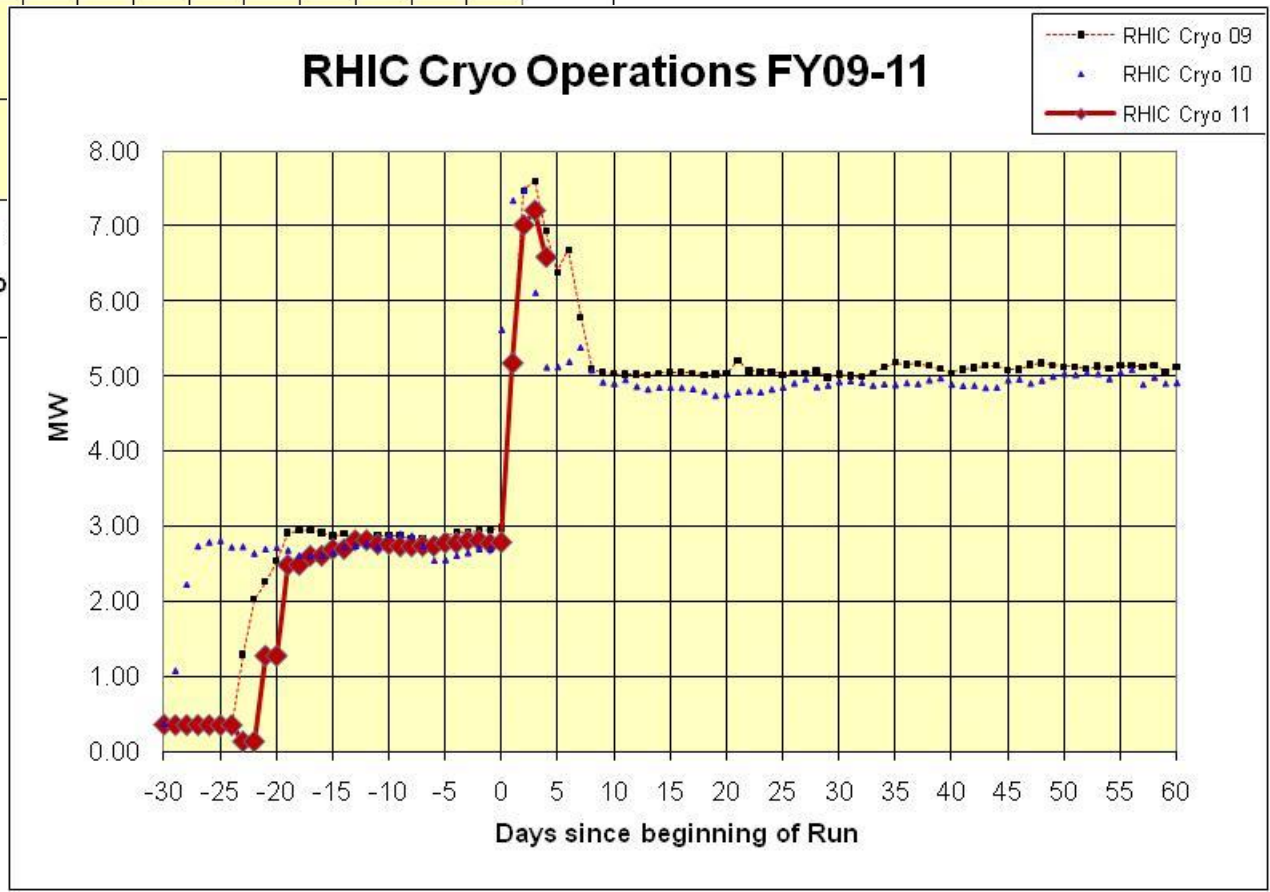


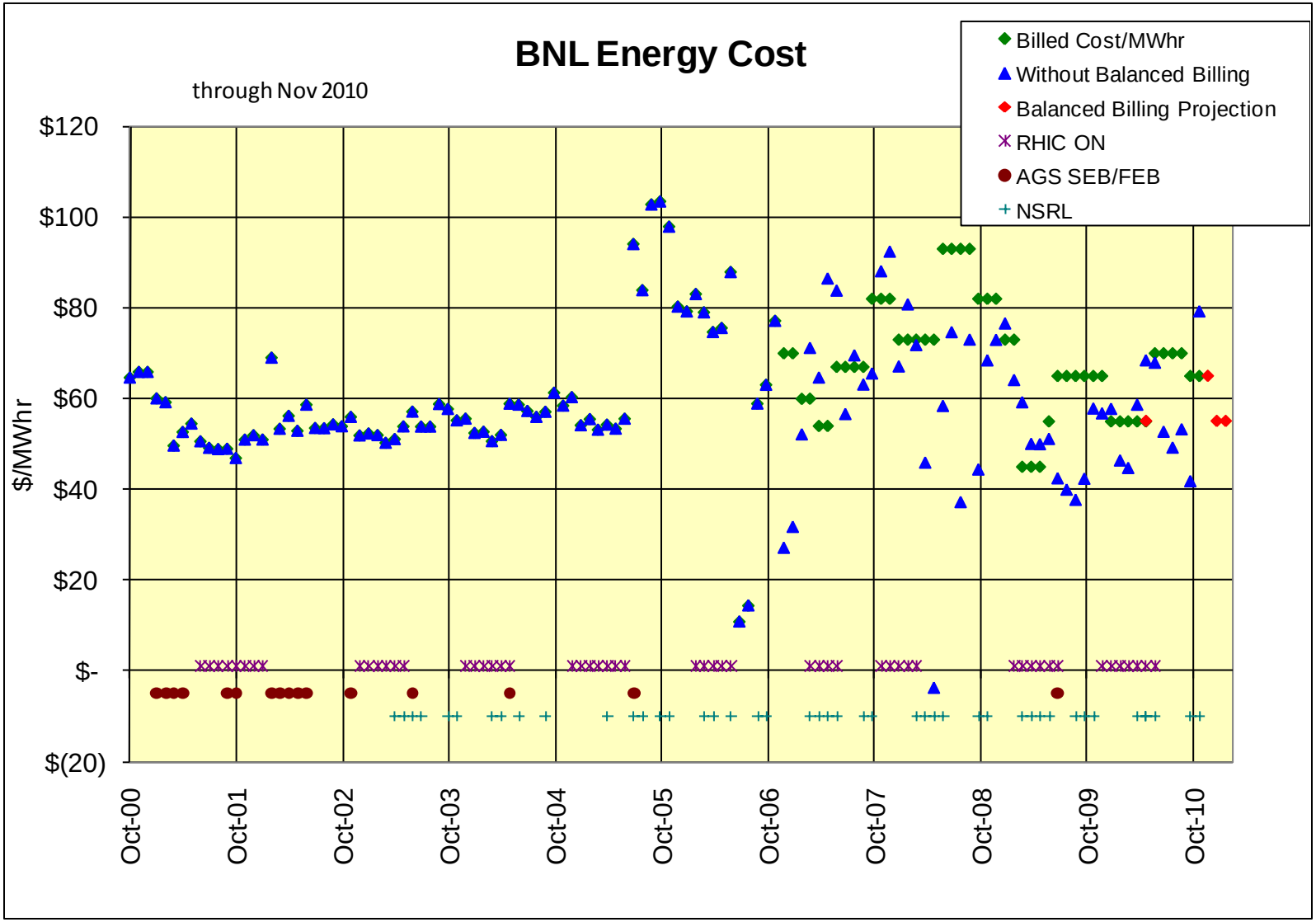

Through 6 Jan 2011





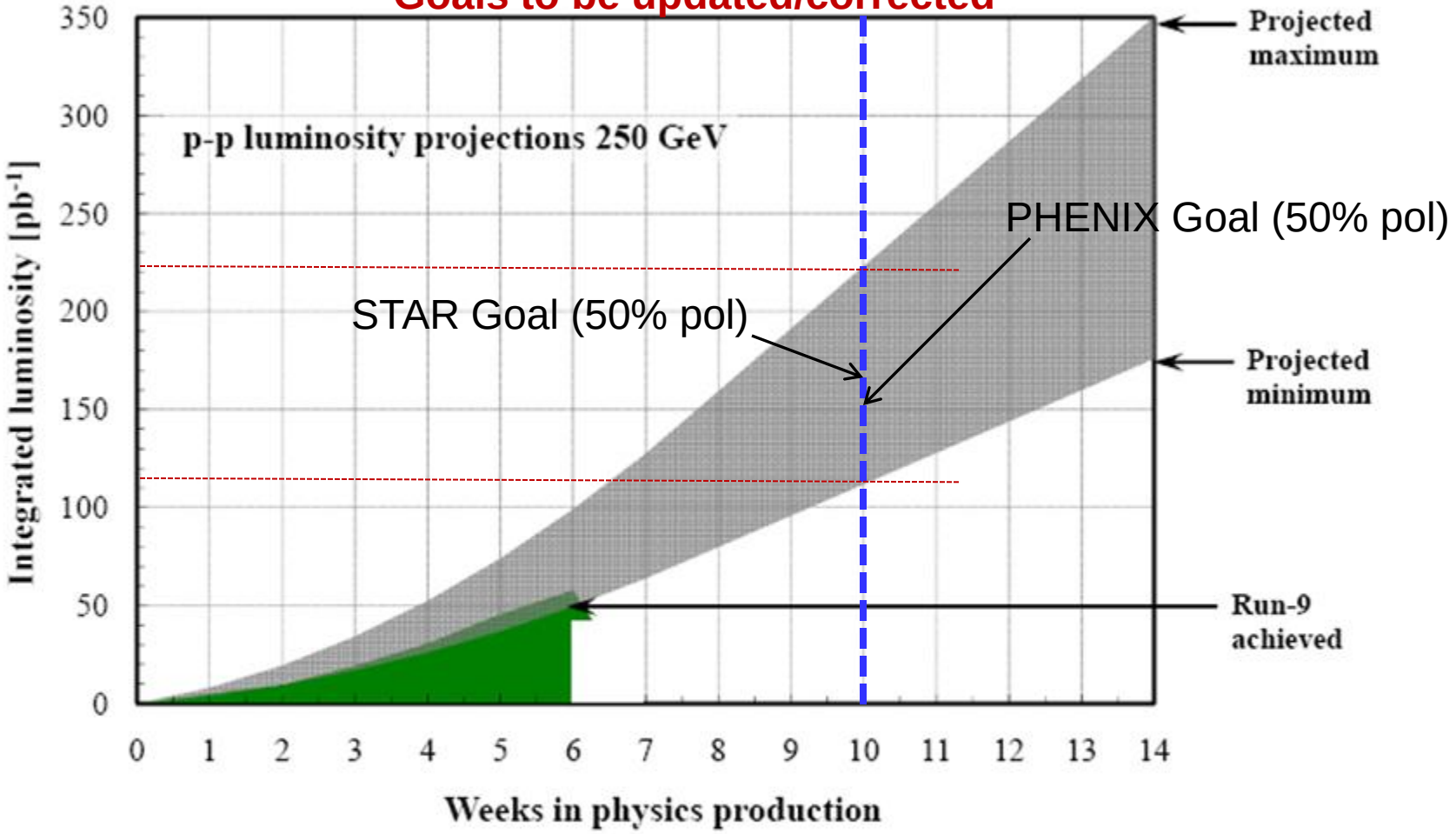

Through 6 Jan 2011




BNL Energy Cost
through Nov 2010
Billed Cost/MWhr
Without Balanced Billing
Balanced Billing Projection
RHIC ON
AGS SEB/FEB
NSRL
$120
$100
$80
$60
$40
$20
$-
$(20)
$/MWhr
Oct-00
Oct-01
Oct-02
Oct-03
Oct-04
Oct-05
Oct-06
Oct-07
Oct-08
Oct-09
Oct-10

# Run-11 p↑-p↑ luminosity projections

**Goals to be updated/corrected**



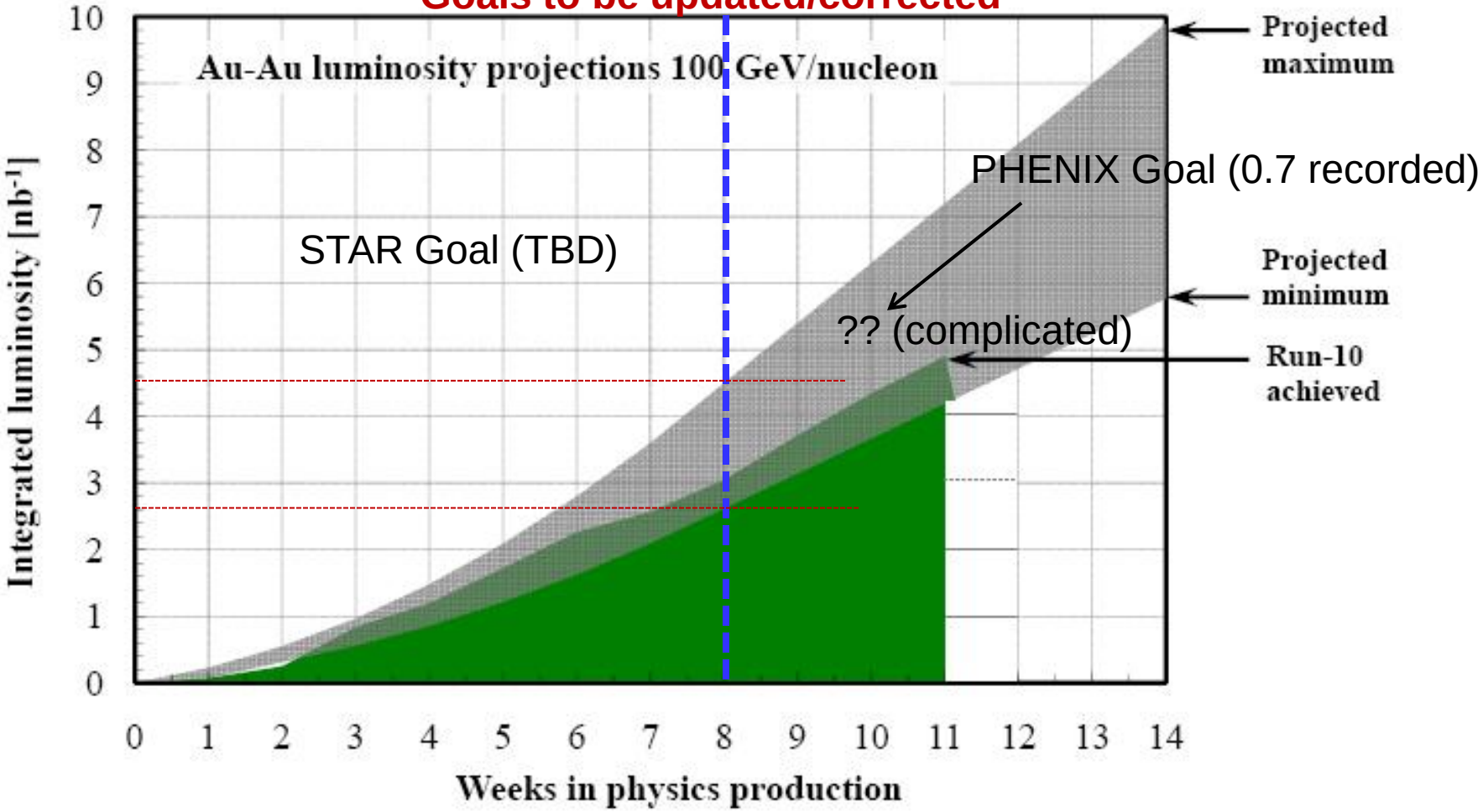

Assume 8 weeks to ramp-up for max.

**Expect store $P_{avg}$ = 35-50%, $L_{avg}$ up to 100x10$^{30}$cm$^{-2}$s$^{-1}$ (+80%).**

**[from Run-9 to max projection: $\beta^*$ = 0.7 → 0.6 m, $N_b$ = 1.1 → 1.4x10$^{11}$]**

# Run-11 Au-Au luminosity projections 100 GeV/nucleon

**Goals to be updated/corrected**




Assume 6 weeks to ramp-up for min, and 8 weeks for max (stoch. cooling re-commissioning).

**Expect $L_{avg}$ up to 25x10$^{26}$cm$^{-2}$s$^{-1}$ (+25%).**

**[from Run-10 to max: $\beta^*$ = 0.75 ➔ 0.65 m, $N_b$ = 1.1 ➔ 1.1x10$^9$, more cooling]**