

# Run 13 RHIC Machine/Experiments Meeting

5 Feb 2013

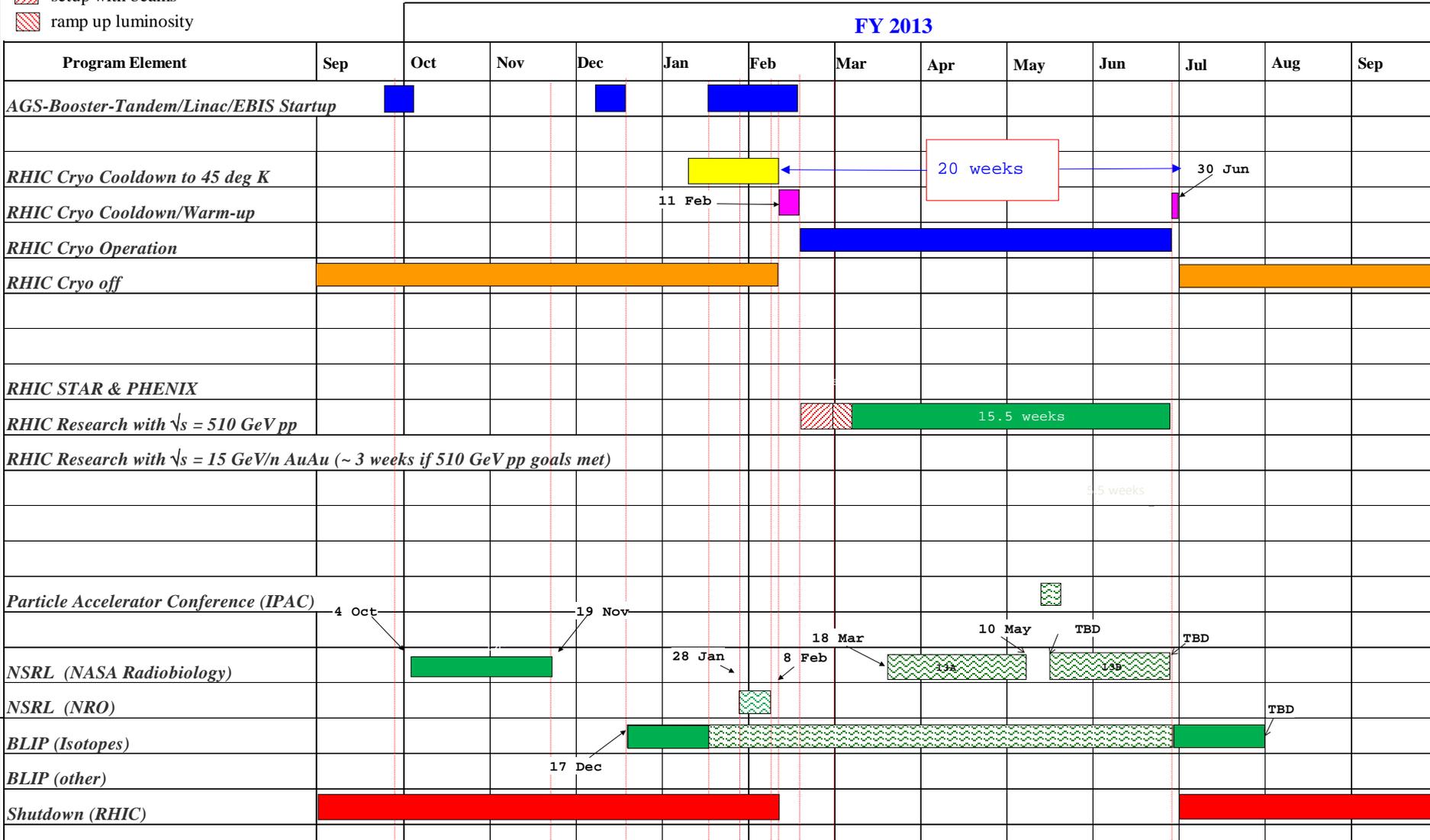
## Agenda:

- Status reports

# C-A Operations-FY13

*planned, budget permitting, Preliminary*

- concurrent with RHIC
- setup with beams
- ramp up luminosity



# Run 13 plan based on 20 weeks cryo operation

and Fischer et.al. RHIC Collider Projections (FY 2013 – FY 2017), 27 Sep 2012

- 11 Feb, Begin cool-down to 4.5K
- 15 Feb, Cool-down to 4.5K in Blue and Yellow Ring complete, begin magnet setup
- 15 Feb -1 Mar, RHIC  $\sqrt{s} = 210$  GeV pp machine setup
- 1-8 Mar, machine ramp-up with 8 hr/night for experiment setup
- 8 Mar, begin  $\sqrt{s} = 510$  GeV pp physics run
- 6 Jun, switch to  $\sqrt{s} = 15$  GeV/n AuAu if pp goals are met and end 12.9 week  $\sqrt{s} = 510$  GeV pp physics run
- 27 Jun, end  $\sim 2.5$  week  $\sqrt{s} = 15$  GeV/n AuAu physics run or 15.9 week  $\sqrt{s} = 510$  GeV pp physics run, begin cryo warm-up
- 30 June, cryo warm-up  $\sim$ complete (19.9 cryo-weeks)

See <http://www.rhichome.bnl.gov/AP/Spin2013/> for the Run Coordinator's detailed plan

PHENIX Goal, 250 nb<sup>-1</sup> recorded, 750 nb<sup>-1</sup> delivered, ≥ 55% polarization  
STAR Goal, 165 nb<sup>-1</sup> recorded, 275 nb<sup>-1</sup> delivered, ≥ 55% polarization

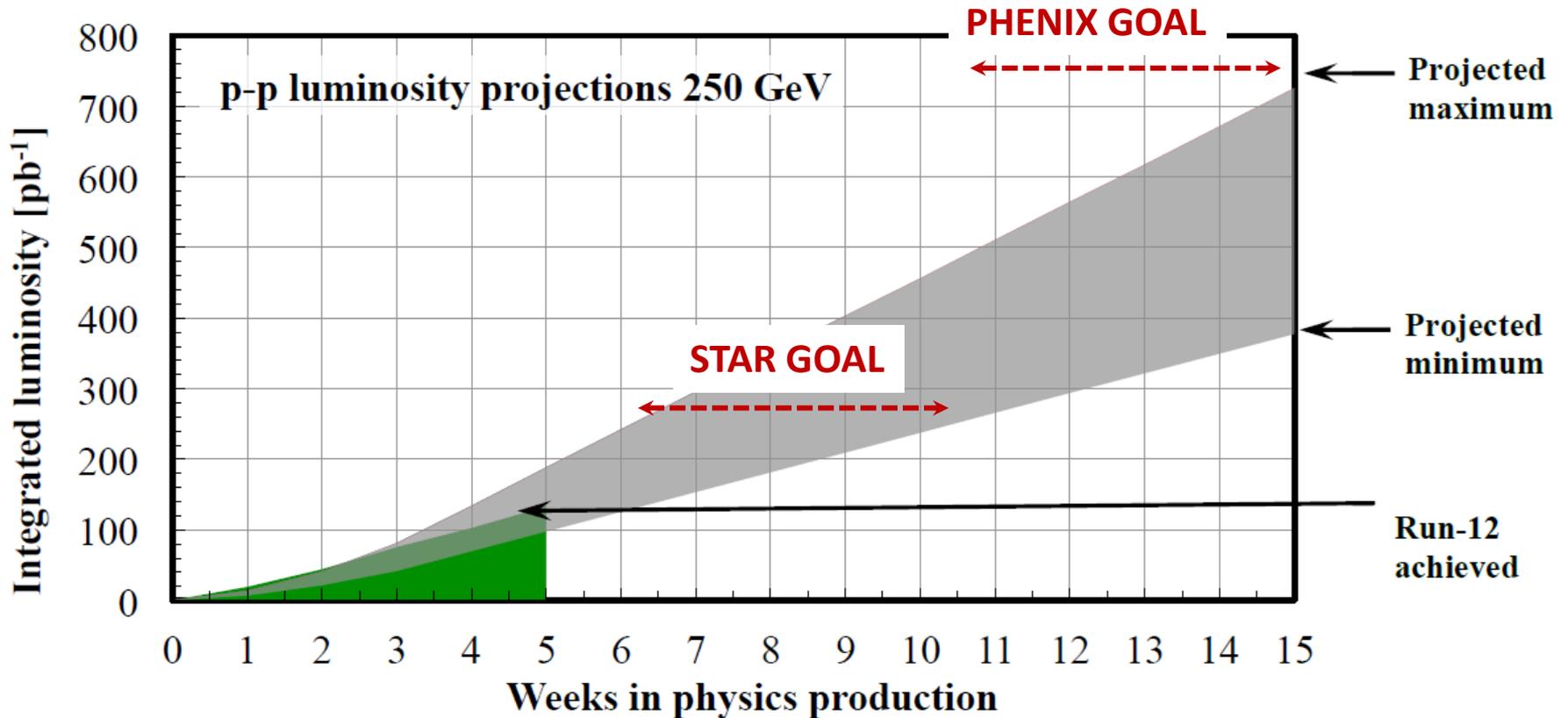
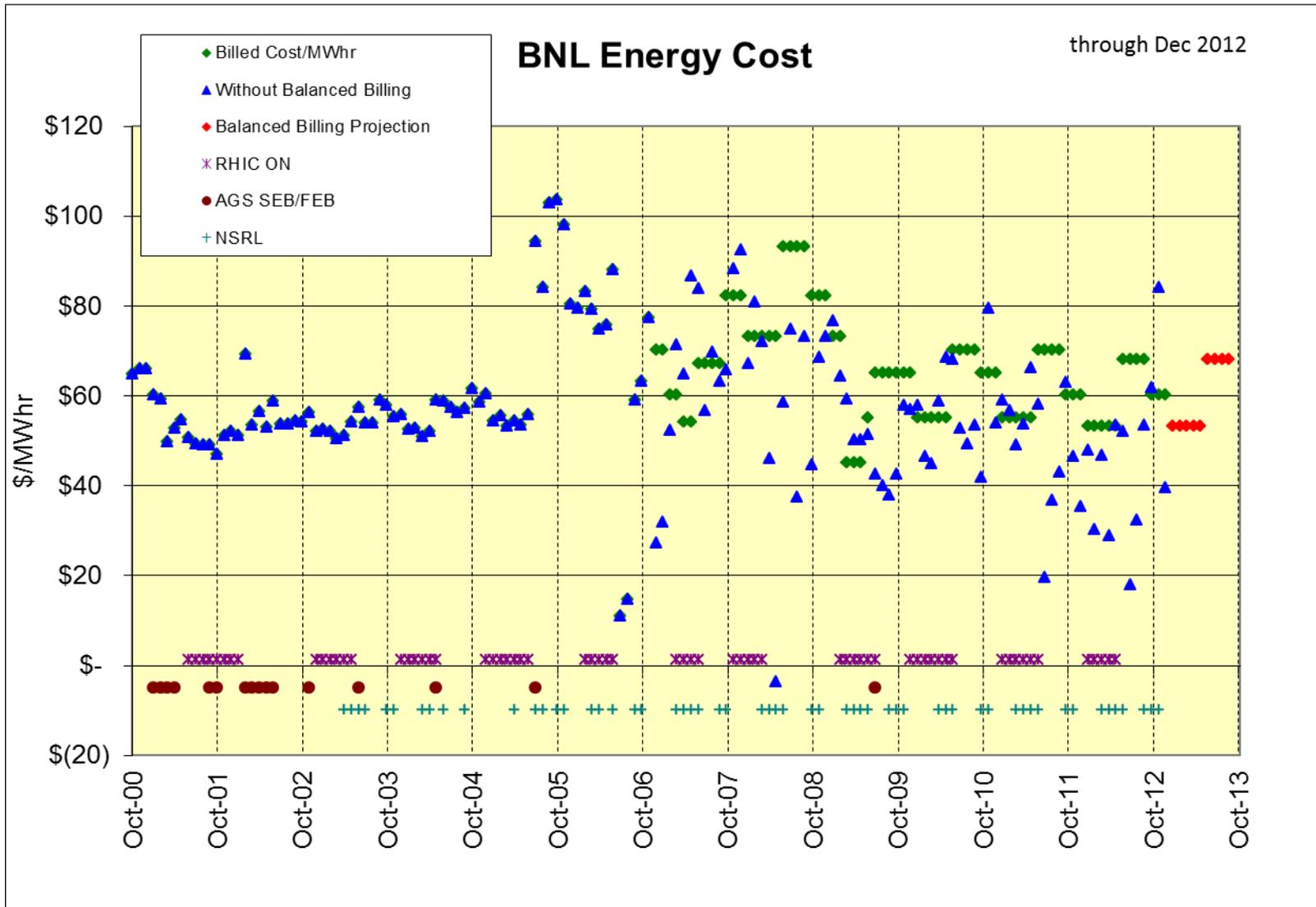


Figure 3: Projected minimum and maximum integrated luminosities for polarized proton collisions at 255 GeV beam energy, assuming linear weekly luminosity ramp-up in 4 weeks. An average store polarization between up to 57% is expected.

+\$114.7K in bank through Dec 2012



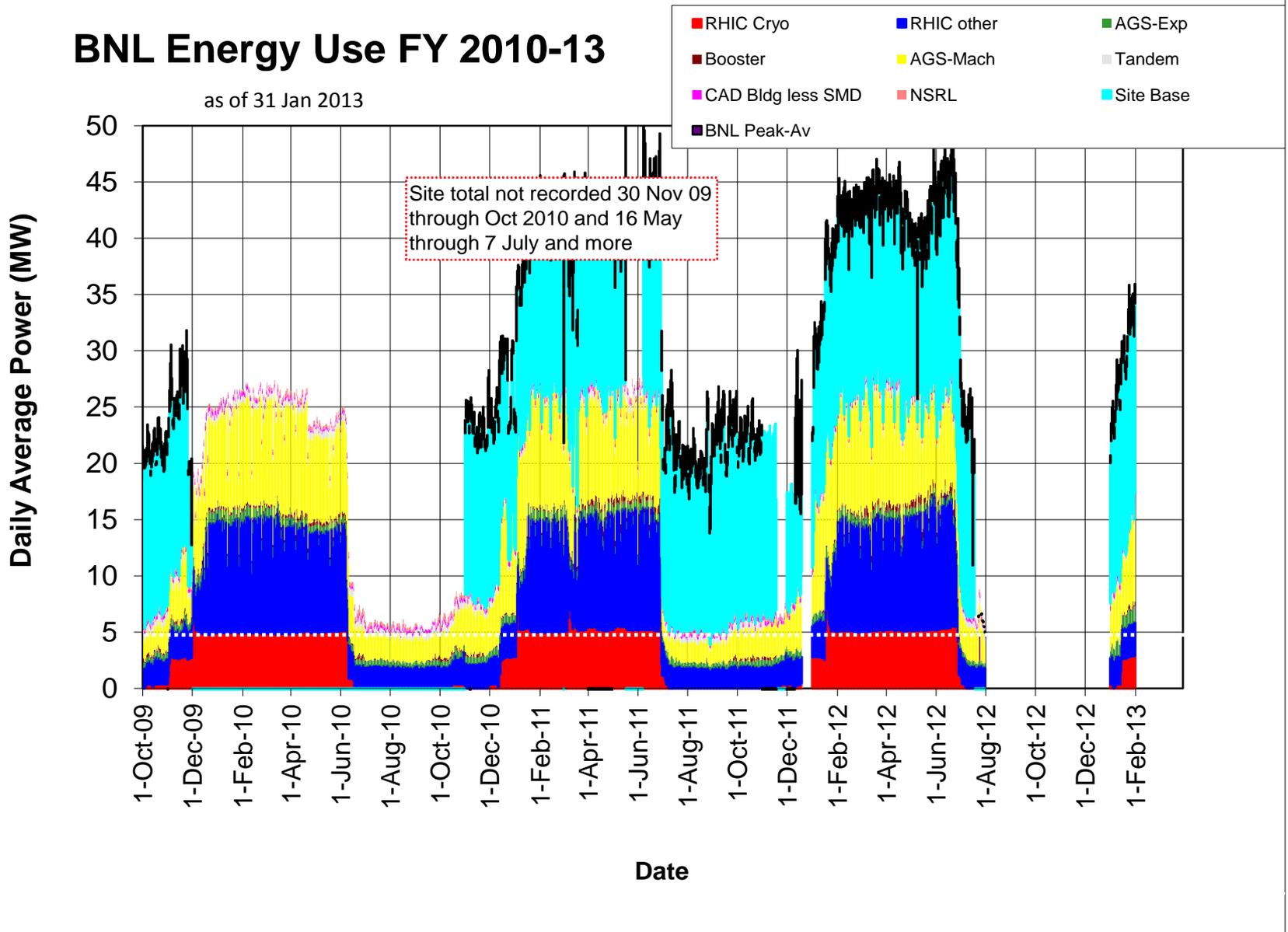
# Additional Information

For Run 13 the PAC recommends the following (*in order of priority*):

1. Running with polarized proton collisions at 500 GeV to provide an integrated luminosity of  $750 \text{ pb}^{-1}$  at an average polarization of 55%.
2. Depending on the amount of running time remaining after priority #1
  - a. If less than 3 weeks remain, a week of 200 GeV Au+Au collisions.
  - b. If at least 3 weeks of running time remain, 3 weeks of 15 GeV Au+Au collisions.
3. 8 days of 62 GeV p+p collisions.
4. At the discretion of the ALD, 4 days of low-luminosity running to accomplish the pp2pp goals.

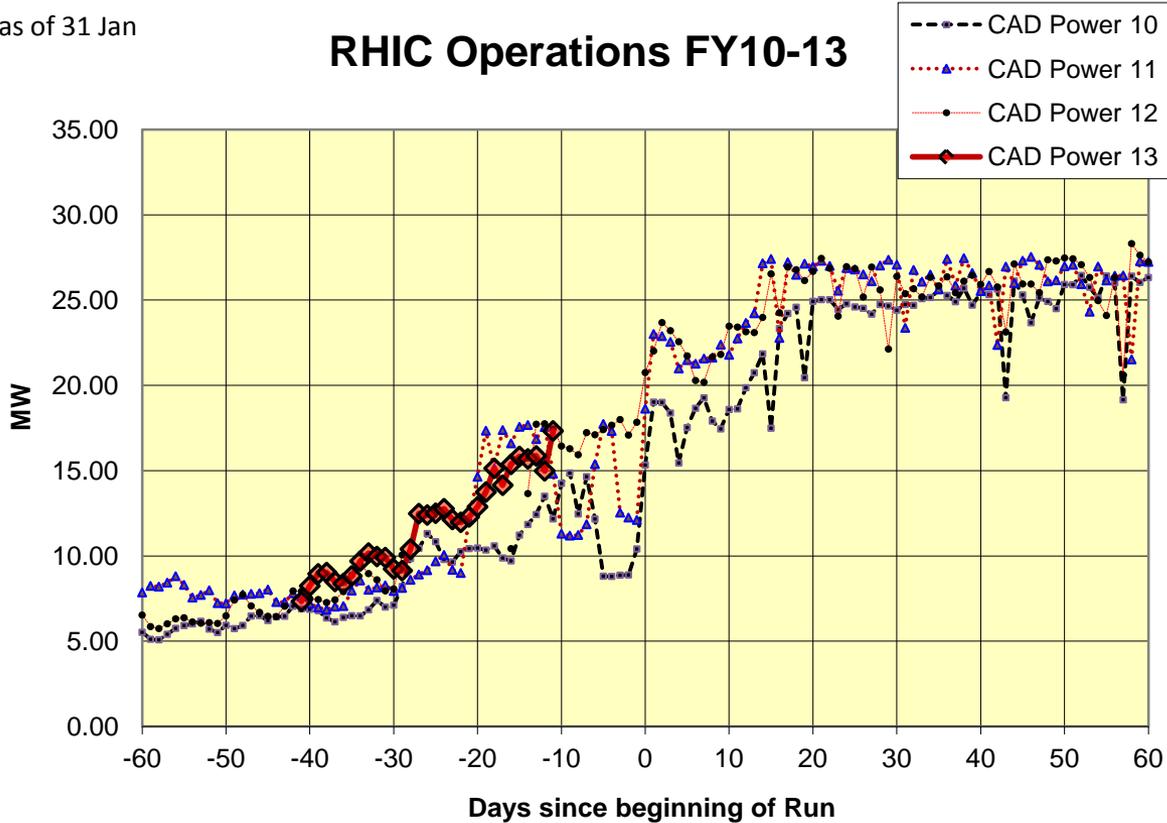
# BNL Energy Use FY 2010-13

as of 31 Jan 2013



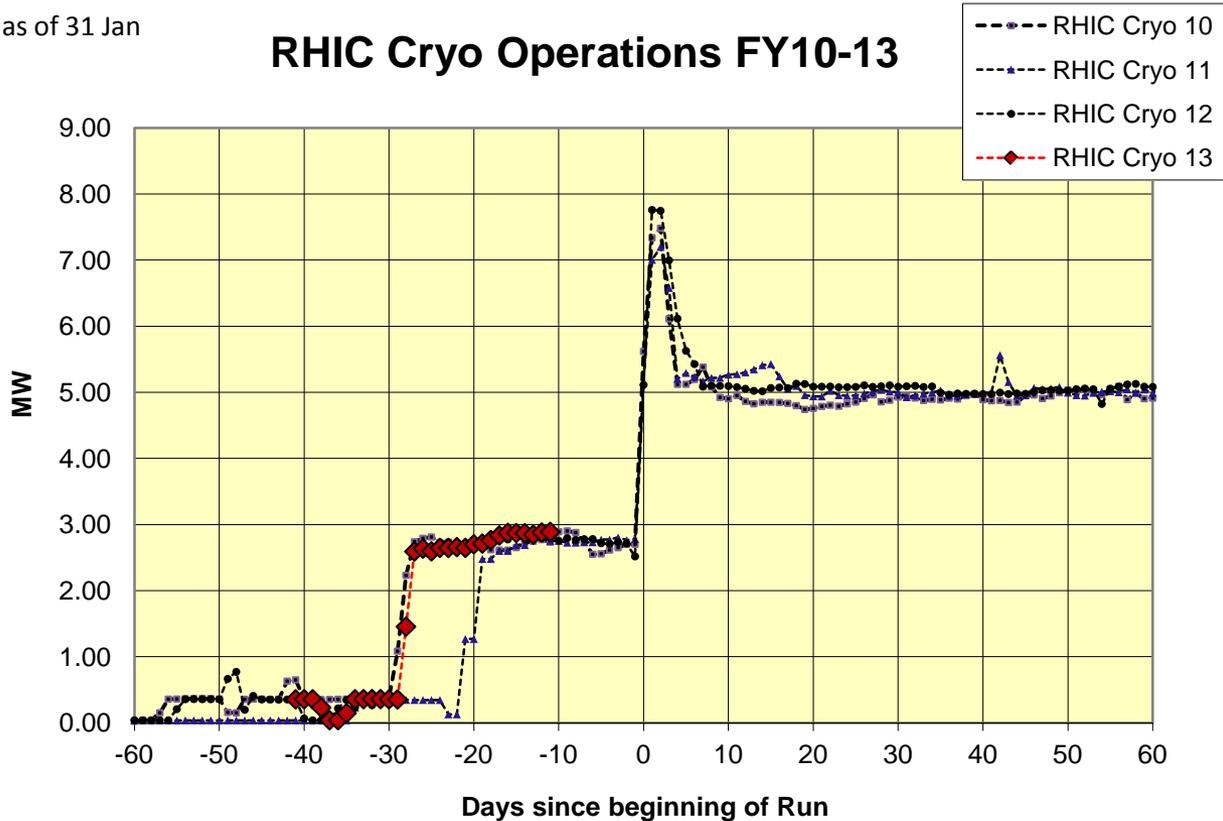
as of 31 Jan

# RHIC Operations FY10-13



as of 31 Jan

## RHIC Cryo Operations FY10-13





# BNL Electricity Cost

