

Time Meeting

March 22, 2016.

W. Christie

Blue Ring Magnet String issue:

- on Friday morning 7am (18 March 2016) a problem developed in the RHIC Blue ring dipole string.
- Tests and analyses over Friday and Saturday concluded that a quench protection diode in dipole bo6-d19 is shorted. This diode is part of the current bypass in case of a magnet quench, and if it is shorted the current in the magnet coil is too small.
- A plan/schedule has been compiled and the execution of the plan has been started to warm up a section of the Blue Ring, confirm the diagnosis of a faulty diode, and assuming confirmation, open the relevant location, replace the diode, re assemble the location, cool down, and return to beam operations.

Run 16 plan based on 20 weeks cryo operation

and Fischer et.al. RHIC Collider Projections (FY 2016 – FY 2022), 19 April 2015

Today, 22 March

- 19 Jan, Begin cool-down to 4.5K
- 25 Jan, Beam in Yellow
- ~~22~~ 26 Jan, Beam in Blue
- ~~29 Jan~~, Feb 3, First Collisions
- ~~5~~ 7 Feb, Begin 10 week $\sqrt{s}=200$ GeV/n AuAu physics run
- ~~15~~ 18 April, End 10 week $\sqrt{s}=200$ GeV/n AuAu physics run
- ~~16~~ 19 April, Begin 1.4 week $\sqrt{s}=20$ GeV/n dAu physics run
- ~~26~~ 29 April, End 1.4 week $\sqrt{s}=20$ GeV/n dAu physics run
- 29 April, Begin 1.4 week $\sqrt{s}=39$ GeV/n dAu physics run
- 9 May, End 1.4 week $\sqrt{s}=39$ GeV/n dAu physics run
- 12 May, Begin 0.9 week $\sqrt{s}=62$ GeV/n dAu physics run
- 18 May, End 0.9 week $\sqrt{s}=62$ GeV/n dAu physics run
- 21 May, Begin 0.9 week $\sqrt{s}=200$ GeV/n dAu physics run
- 27 May, End 0.9 week $\sqrt{s}=200$ GeV/n dAu physics run
- 29 May, Begin 5 day $E=40$ GeV/n Au CEC physics run
- 3 June, End 5 day $E=40$ GeV/n Au CEC physics run
- 3 June, begin cryo warm-up
- 7 June, cryo warm-up complete, 20.0 cryo weeks of operation

dAu schedule as proposed by PHENIX,
scaled to 4.7 total physics weeks

- dAu setup time as per Chuyu 1/6/16 email
- Actual physics time for each energy is TBD

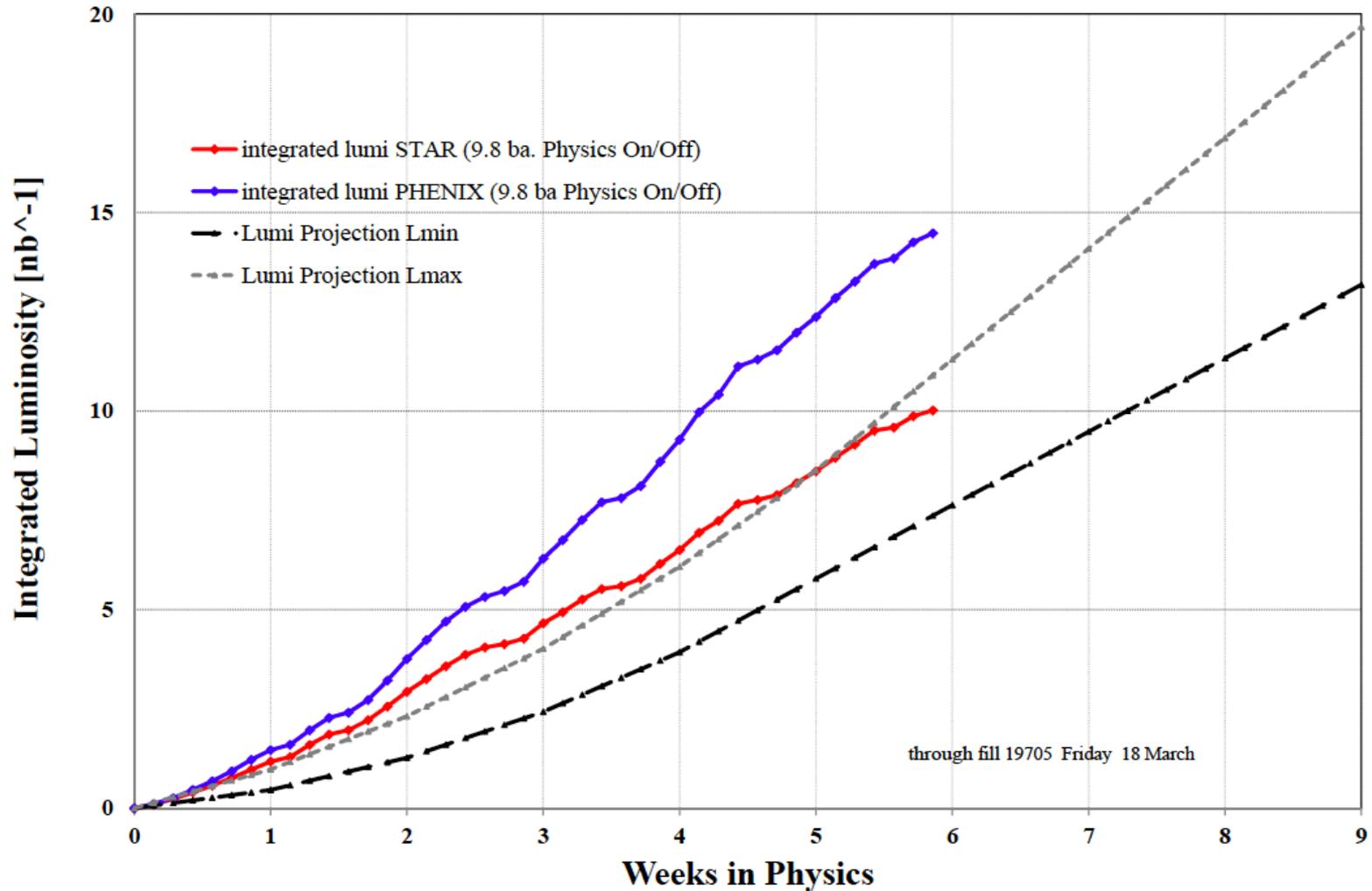
Schedule in Orange
text not updated yet

Note that there will be discussions on how the Blue Ring Magnet issue and downtime impact the rest of the Run 16 Plan/Schedule.

See <http://www.rhichome.bnl.gov/AP/RHIC2016/> for the Run Coordinator's detailed plan

Run16 Delivered Luminosity

Au x Au $\sqrt{s} = 200$ GeV



Delivered Integrated Luminosity through last Physics Fill on Friday March 18th

SCHEDULE FOR WEEK FROM MONDAY March 22TH – SUNDAY April 3rd

LINAC Maintenance on Wednesday from 8 am to noon.

The work being performed on RHIC and the Injectors during this down time is being planned, approved (or not), tracked, and closed out under the process that Paul Sampson has for Scheduled Maintenance Days. Paul will address this in his presentation.

Archive

PHENIX goals: 10 weeks, 1.8 nb^{-1} with 12 billion MB events recorded within $|z| < 10 \text{ cm}$ vertex, request dynamic β^* squeeze.

STAR goals: 13 weeks 10 nb^{-1} sampled for MTD and 2 billion MB events recorded within $|z| < 6 \text{ cm}$ for HFT

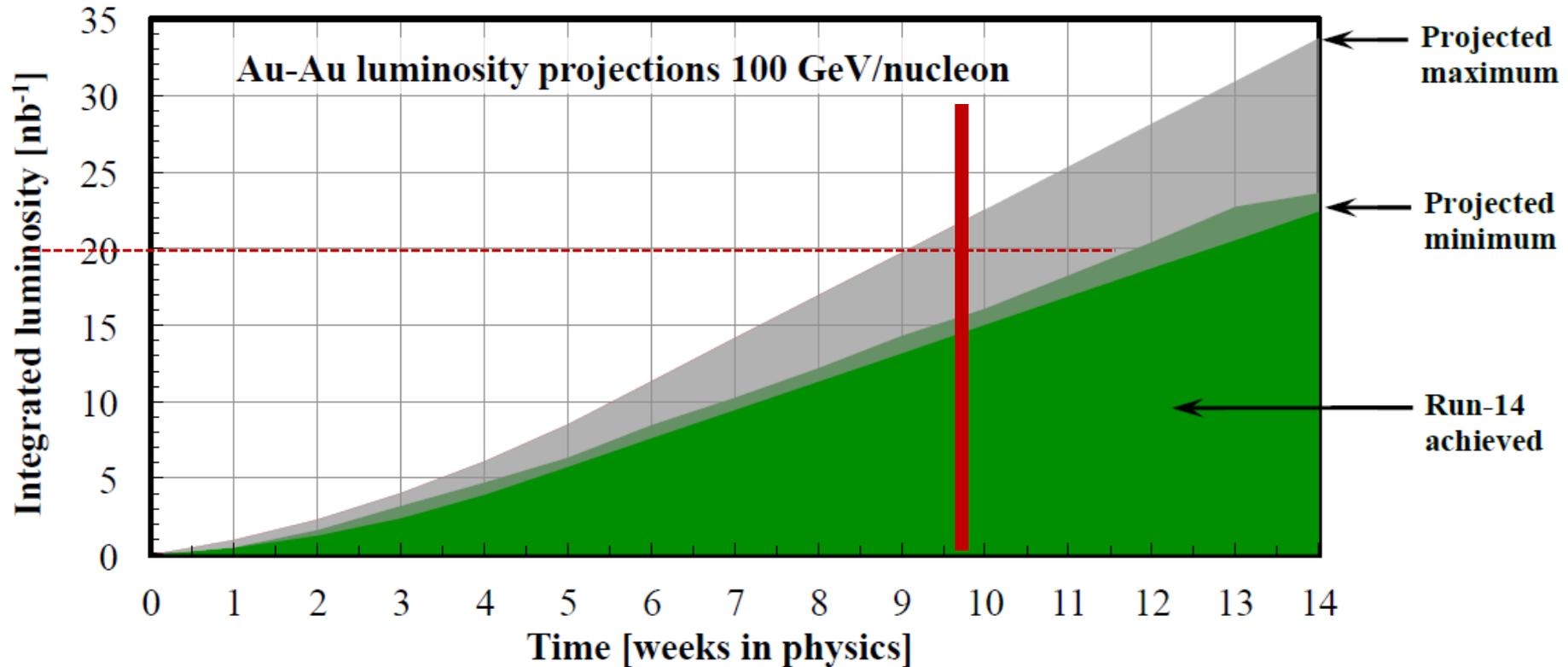


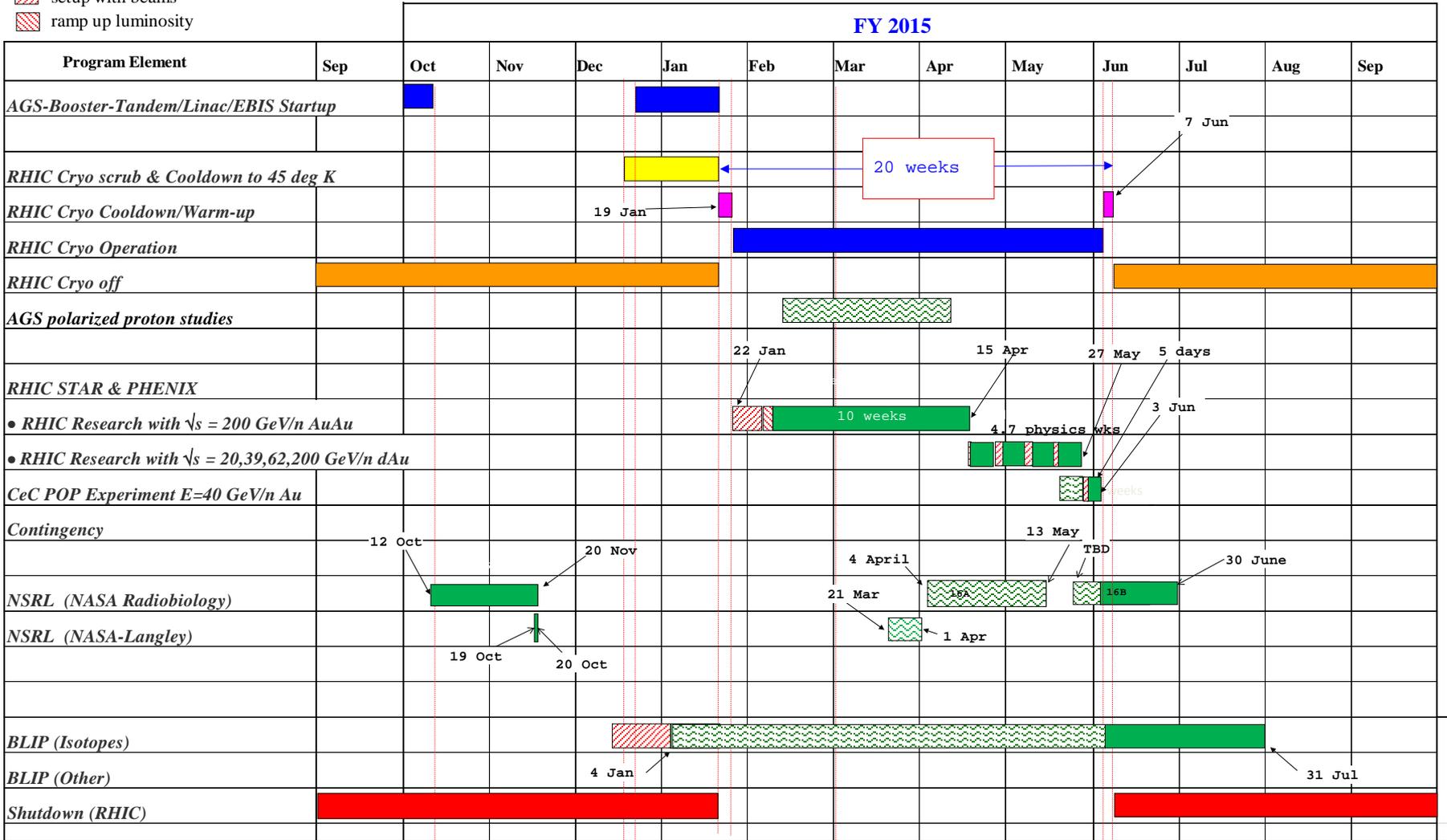
Figure 3: Projected minimum and maximum integrated luminosities for Au+Au collisions at 100 GeV/nucleon beam energy, assuming linear weekly luminosity ramp-up in 6 weeks.

From Fischer et. al., RHIC Collider Projections (FY 2016 – FY 2022), 19 April 2015

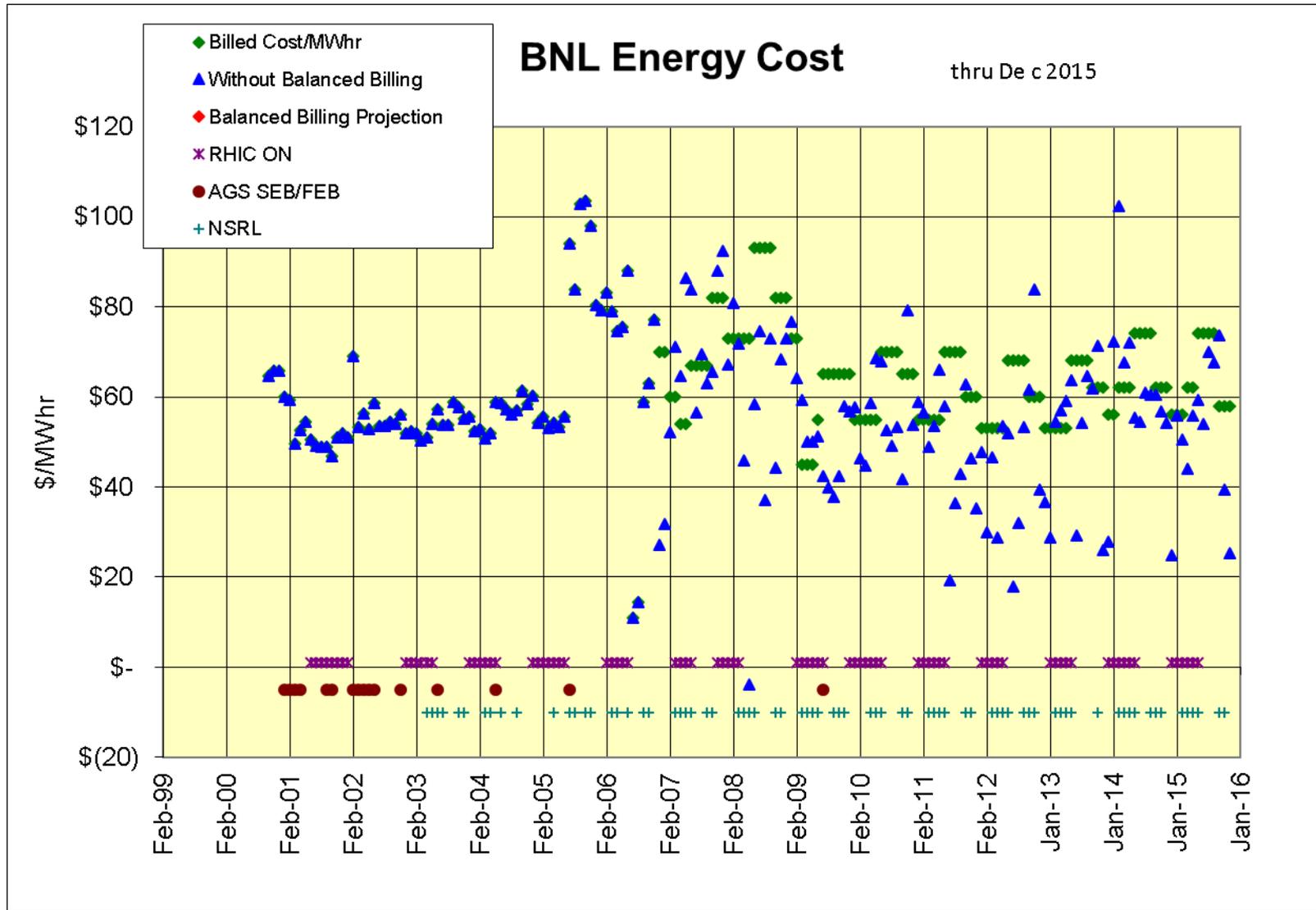
C-A Operations-FY16

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

planned



Balanced Billing for the lab +\$683K (ahead) Sep through Dec 2015



h+Au and d+Au at 31.2, 19.5 and 9.8 GeV/nucleon – h+Au is only possible without the CeC undulator. With the CeC undulator d+Au collisions at these energies are possible. The projected luminosities are:

beam energy [GeV/nucleon]	h+Au	d+Au	L in z <30 cm [%]	L in z <10 cm [%]	comment
	luminosity [nb ⁻¹ /week]	luminosity [nb ⁻¹ /week]			
100	33	110	50	20	Run-14 performance for h+Au
31.2	3.3	10.6 11.0	50	20	197 MHz on, cooling on for Au
19.5	1.2	3.8 5.0	50	20	197 MHz on, cooling off for Au
9.8	0.3	0.9 1.5	15	5	197 MHz off, cooling off for Au

↖ Chuyu's latest projections

From Fischer et. al., RHIC Collider Projections (FY 2016 – FY 2022), 19 April 2015

Who's Who for 2016

RHIC 100 x 100 GeV AuAu:

Run Coordinator: Xiaofeng Gu, xgu@bnl.gov , 631-344-4724

RHIC dAu Energy Scan:

Run Coordinator: Chuyu Liu, cliu1@bnl.gov , 631-344-4431

RHIC CeC POP Experiment:

Run Coordinator: TBD

Scheduling Physicist: Bill Christie, christie@bnl.gov, 631-344-7137 (x4643 after 29 Jan)

Assistant Scheduling Physicists through 29 Jan:

Yousef Makdisi, makdisi@bnl.gov, 631-344-4932

Phil Pile, pile@bnl.gov, 631-344-4643

AGS Liaison:

Haixin Huang, huanghai@bnl.gov , 631-344-5446