Time Meeting

March 29, 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.
- A plan/schedule was compiled and the execution of the plan is ongoing 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.
- We'll hear the current status in a presentation by Gary McIntyre.

Run 16 plan based on 20 weeks cryo operation

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

Today, March 29th

- 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 **√s=200 GeV/n AuAu** physics run
- 7 am March 18th, RHIC Operations halted for Blue ring Diode issue

- ~~15~~ 18 April, End 10 week √s=200 GeV/n AuAu physics run

- ~~16~~ 19 April, Begin 1.4 week **√s=20 GeV/n dAu** physics run
- ~~26~~ 29 April, End 1.4 week √s=20 GeV/n dAu physics run

- 29 April, Begin 1.4 week **√s=39 GeV/n dAu** physics run
- 9 May, End 1.4 week √s=39 GeV/n dAu physics run

- 12 May, Begin 0.9 week **√s=62 GeV/n dAu** physics run
- 18 May, End 0.9 week √s=62 GeV/n dAu physics run

- 21 May, Begin 0.9 week **√s=200 GeV/n dAu** physics run
- 27 May, End 0.9 week √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

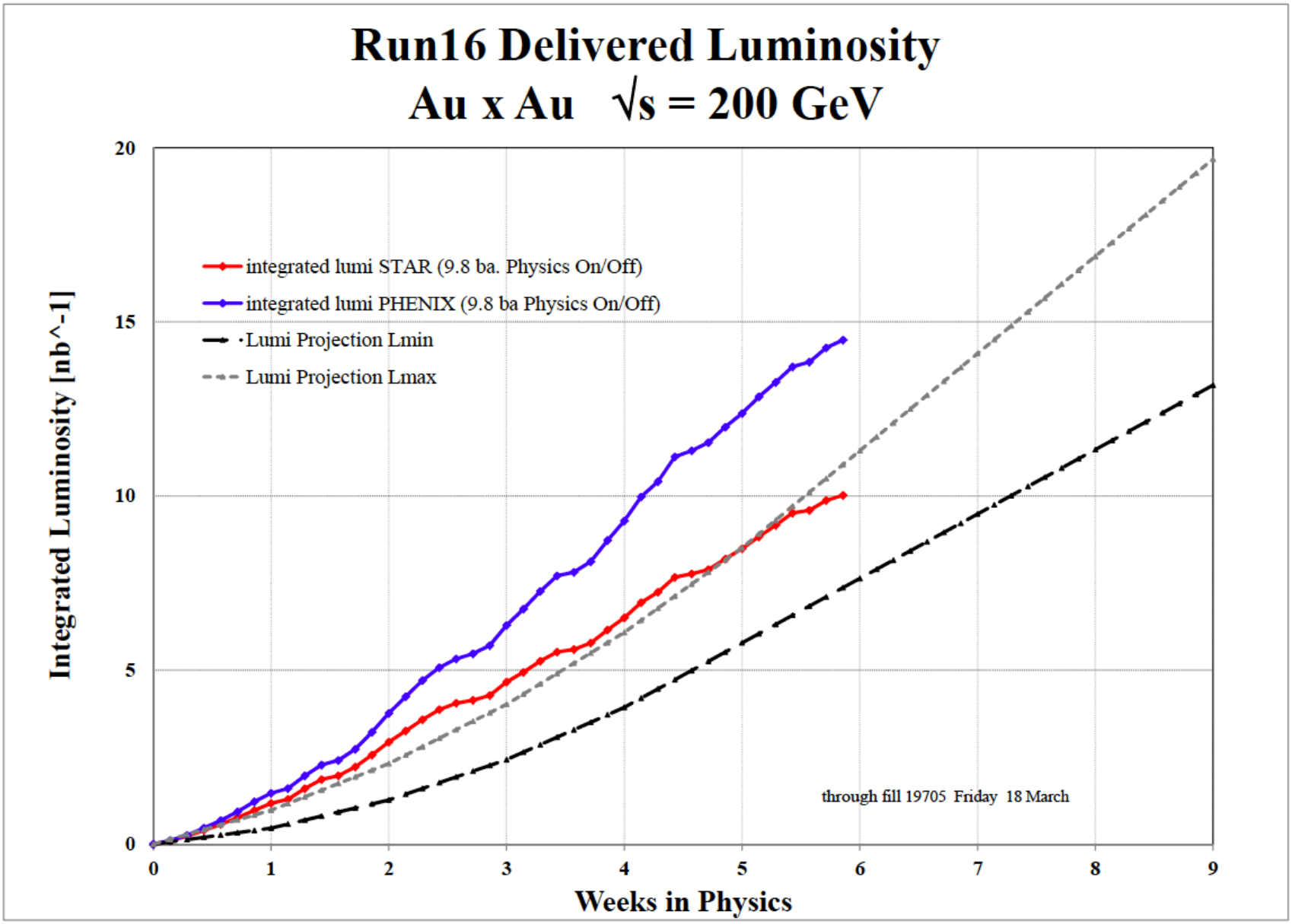
dAu schedule as proposed by PHENIX, scaled to 4.7 total physics weeks

- 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 Diode issue and downtime impact the rest of the Run 16 Plan/Schedule after we are back up and running the AuAu program.

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



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

SCHEDULE FOR WEEK FROM MONDAY March 28TH – SUNDAY April 3rd

- The maintenance period to allow for the repair of the Blue Ring Magnet diode issue will continue through this week.
- 2:00 and 4:00 at RHIC will have limited to no access during the week. Access requests for these areas should go to Paul Sampson.
- Depending on the progress with the diode repair and subsequent cool down, the RHIC tunnel may get swept and placed on CONTROLLED access mode as early as Friday evening April 1st. Once the tunnel is swept only CONTROLLED access expected prior to the resumption of beam operations.
- The STAR and PHENIX IR's will remain on RESTRICTED access until shortly before beam operations resume, at which time they will be swept and put into CONTROLLED access mode. This is unlikely to occur before Monday April 4th, but if things proceed better than planned they should be ready for this Sunday evening, April 3rd.
- AGS operations will occur Monday, Tuesday, and Wednesday, at which point the AGS will not operate until needed for injection into RHIC.
- Booster maintenance is scheduled for this Wednesday (March 30th) from 6 am to 8 am.
- At this point, there will be neither Schedule Access nor APEX on Wednesday April 6th. If possible we will be running the physics program.

Archive

PHENIX goals: 10 weeks, 1.8 nb^{-1} with 12 billion MB events recorded within |z|< 10 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 cm for HFT

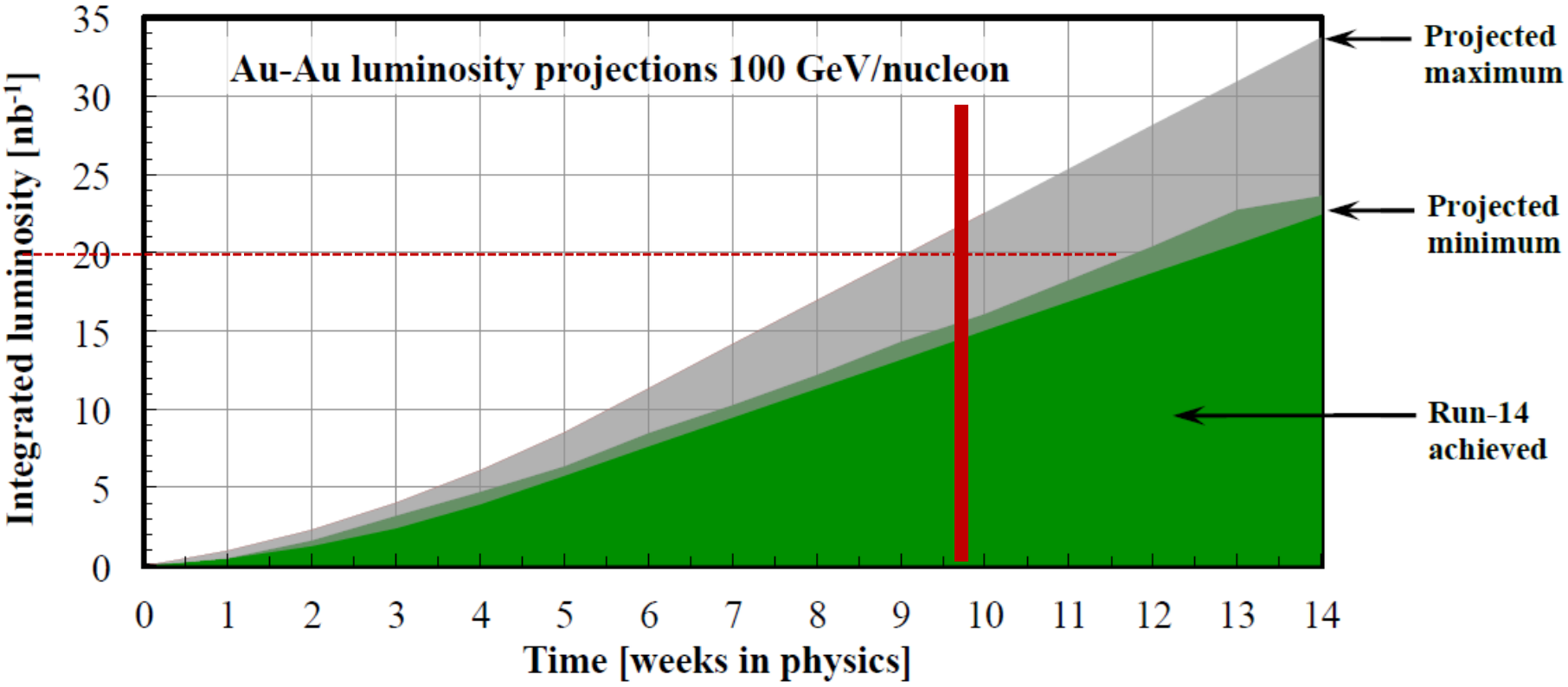


Figure 3: Projected minimum and maximum integrated luminosities for Au+Au collisions at 100 GeV/nucleon beam energy, assuming linear weekly luminosity ramp-up in 6 weeks.

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

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

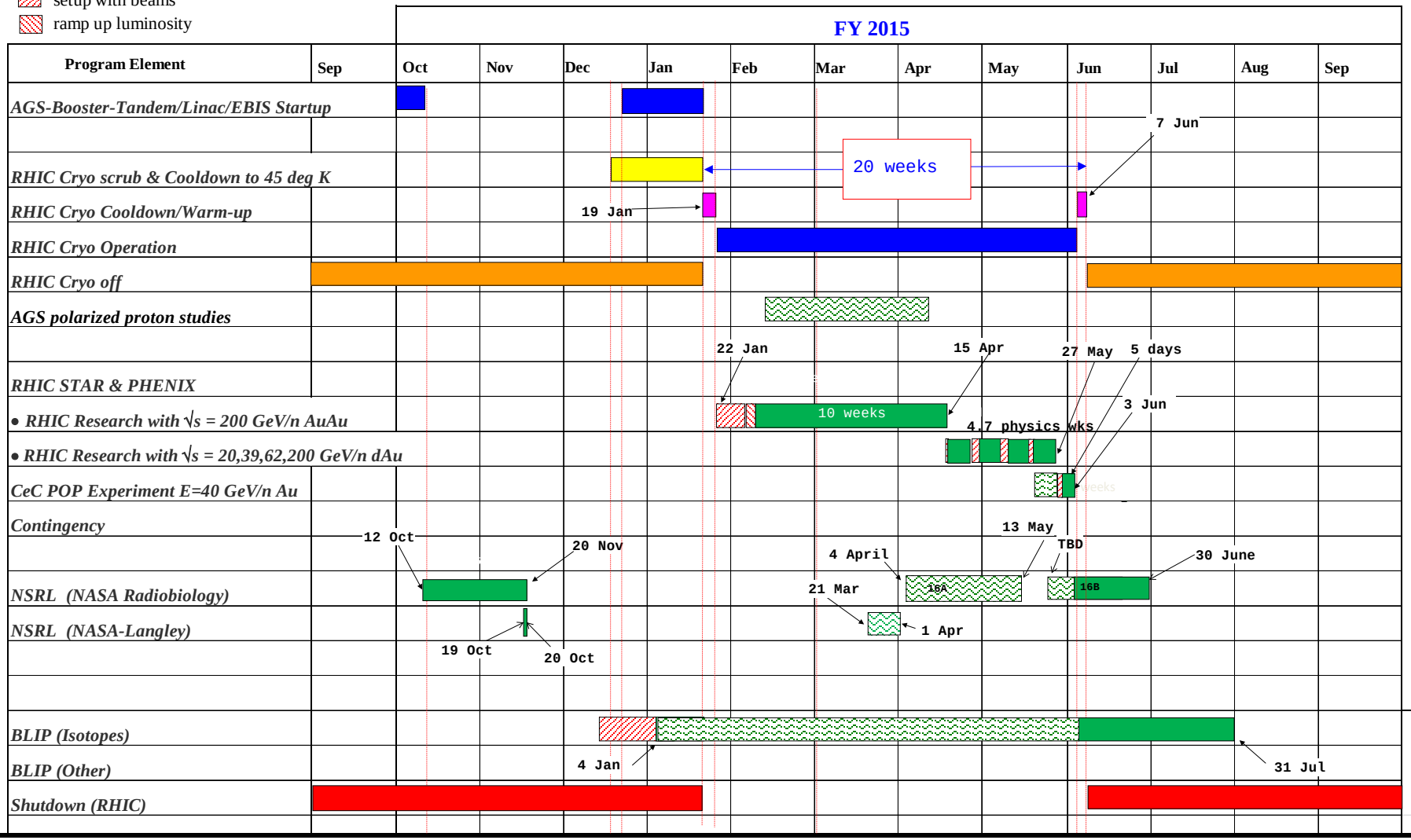
Scheduling Physicist: Christie

C-A Operations-FY16

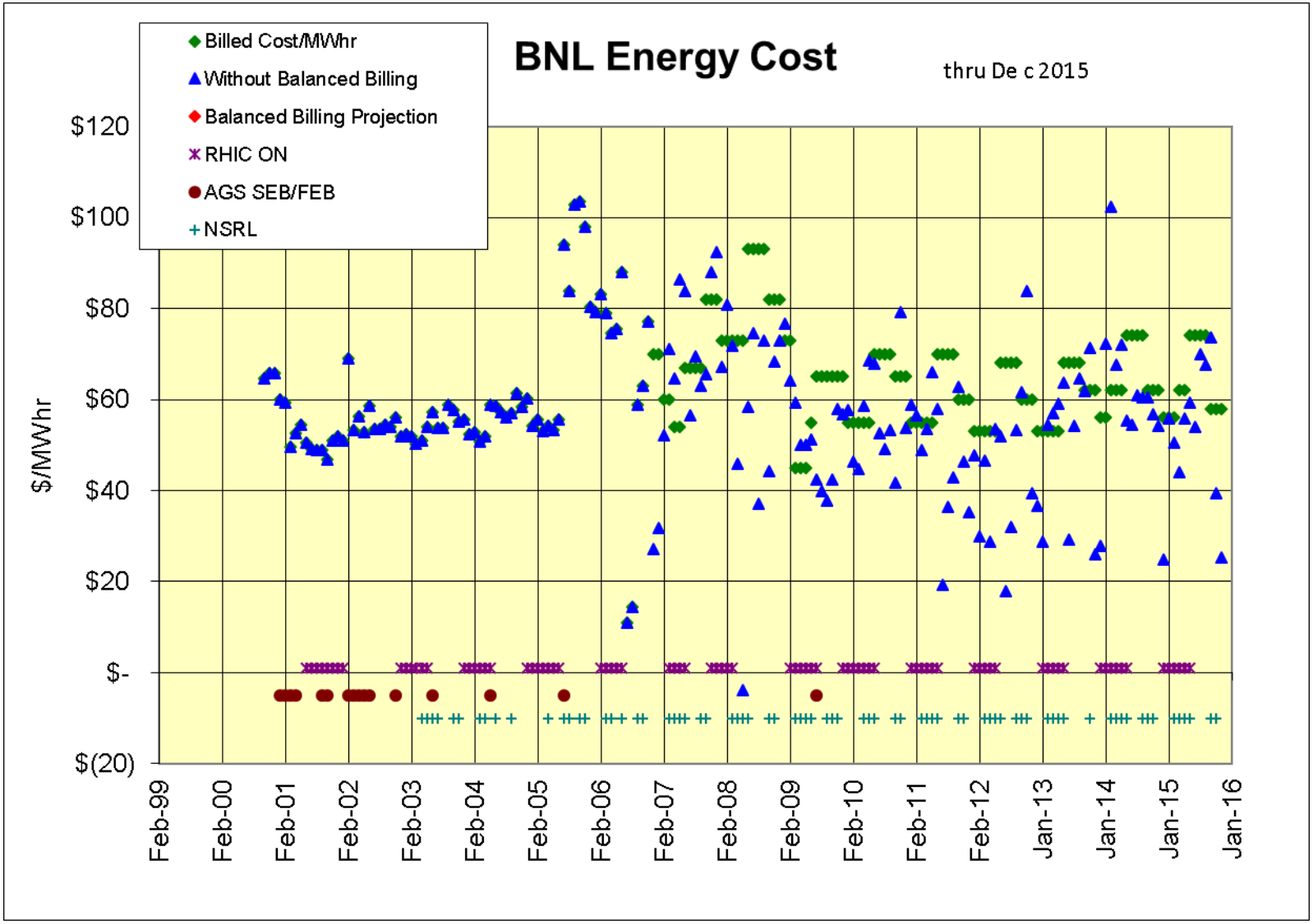
14 Jan 16

planned

concurrent with RHIC
setup with beams
ramp up luminosity



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** luminosity [nb^{-1}/week]	**d+Au** luminosity [nb^{-1}/week]	L in |z|<30 cm [%]	L in |z|<10 cm [%]	comment
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