



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science



# EP-TSG meeting

## 04/21/2016

*M. Podestà*

### **Agenda:**

- TSG review of *XP CAE/GAE dynamics with NB2* (Fredrickson)
- Assessment of short-term Run plans
- APS-16 nominations on EP-related work

# Machine status as of 04/21, 9:07am ...

- Next Run period beginning no earlier than 05/02
  - Leak developed in NBI liquid-He refrigeration system
  - Issue being addressed, minimum 10-day work (projected)
- Gives some additional time to complete diagnostics installation
  - E.g. UCLA reflectometer
  - Maybe sFLIP, TAE antenna(e)?
- Once NBI restarts, ~2 weeks required before MSE data routinely available
  - Need to condition NB1A up to 90kV (~70kV achieved so far)
  - Need 1 week ops w/ NB1A @90kV to tune filters
- Updated status of other systems/diagnostics:
  - Check Master XP spreadsheet from <http://nstx-u.pppl.gov/program/run-coordination>
    - *See Facility and Diagnostics Status tab*

# Some EP-TSG XP/XMPs may run in the next Run Period

- Main issue is lack of MSE data
- Which XPs can still provide good physics results without MSE (target: APS, IAEA)? E.g.:
  - CAE/GAE dynamics with NB2 (Fredrickson)
  - FIDA/ssNPA checkout (Liu)
  - Rotation effects on CAE/GAEs (Crocker)
- Other XPs do require MSE (priority 1 only)
  - Beam ion confinement of NB2 (Liu)
  - Characterization of 2<sup>nd</sup> + 1<sup>st</sup> NB lines (Podestà)
  - AE critical gradient (Heidbrink)
  - Parametric dependence of TAE avalanches (Fredrickson)

# Nominations for APS-16 invited talks

- *Deadline for submission: May 11*
- *Internal deadline, proposals to S. Kaye: April 25*
  
- Two main topics (my opinion) from Experiments
  - Characterization of NB1 vs NB2
  - CAE/GAE physics
  
- Other possible topics?