

# RPC eco-gas at GIF++ Weekly report

Barbara Liberti and Marco Sessa February 29th, 2024

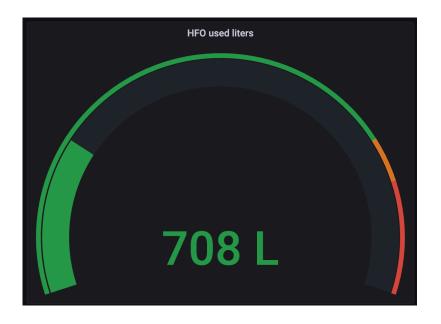


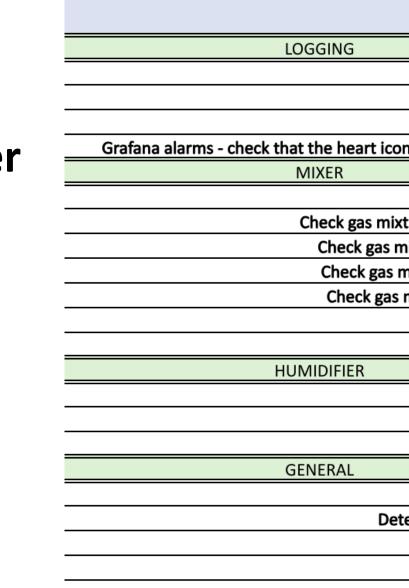
Istituto Nazionale di Fisica Nucleare

## **Stability run 203**

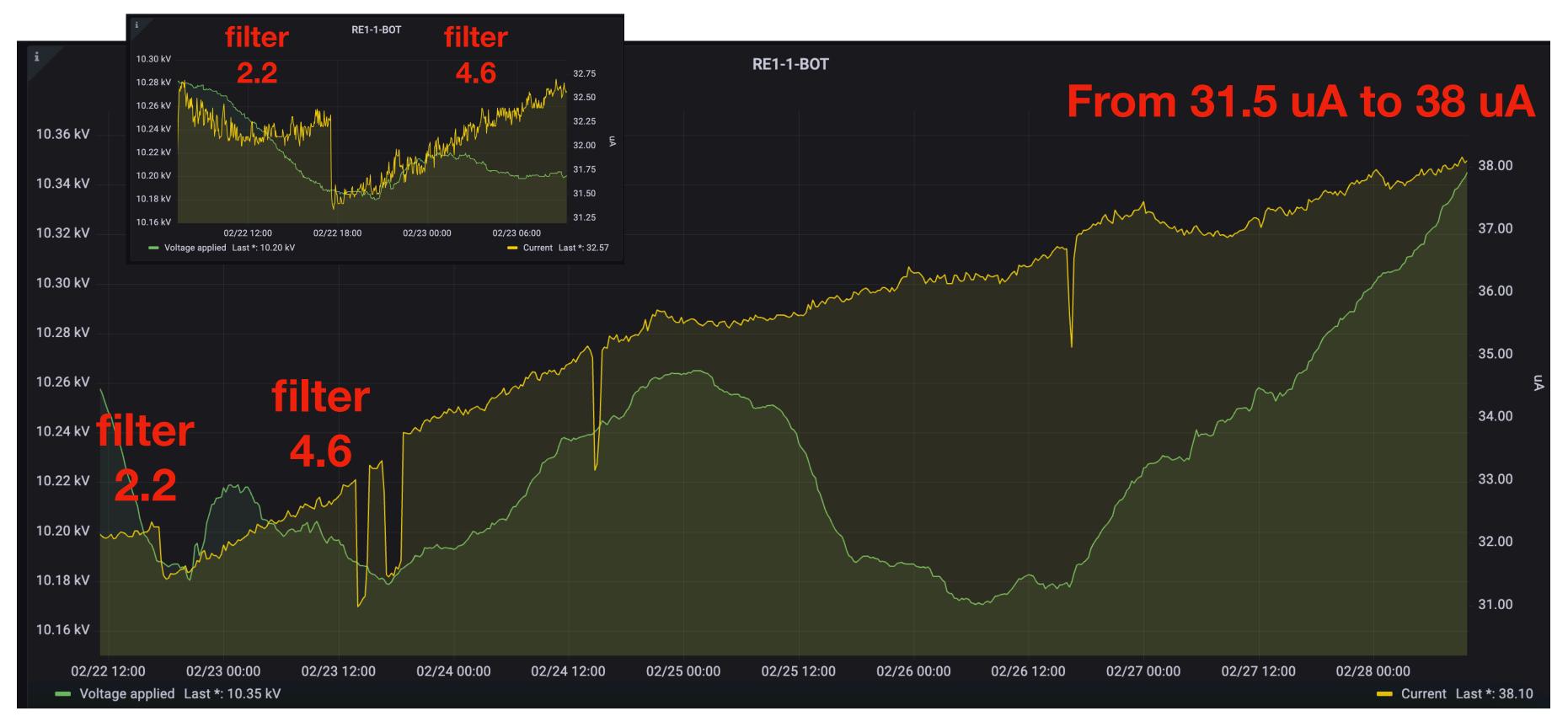
| Stability - Run ID 0203 |                                                                 |             |          |           |                            |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------|-------------|----------|-----------|----------------------------|--|--|--|--|--|
| Summary Run o           | config Log file                                                 | Monitoring  | Plots    |           |                            |  |  |  |  |  |
| Run start:              | 2024-02-22 07:07:1                                              | 9           |          | Status:   | FINISHED                   |  |  |  |  |  |
| Run end/last action:    | 2024-02-28 11:12:2                                              | 7           |          | Duration: | 6 days, 4 hours, 5 minutes |  |  |  |  |  |
| Comments:               | Restarting the<br>bottle change.<br>Detectors incld<br>+ KodelH | Eco-2 gas m | nixture. |           |                            |  |  |  |  |  |
|                         | Save changes                                                    | Delete run  |          |           |                            |  |  |  |  |  |

- No major problems during the shift
- Question: is the attenuation filter 4.6 the default now?





|                             |                                                 |                 |                 | 1               |                 |                 |                 |                 |  |
|-----------------------------|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| Shfter(s)                   | Marco & Barbara                                 | Marco & Barbara | Marco & Barbara | Marco & Barbara | Marco & Barbara | Marco & Barbara | Marco & Barbara | Marco & Barbara |  |
|                             | 22/02/2024                                      | 23/02/2024      | 24/02/2024      | 25/02/2024      | 26/02/2024      | 27/02/2024      | 28/02/2024      | 29/02/2024      |  |
| Logger status               | ok                                              | ok              | ok              | ok              | ok              | ok              | ok              | ok              |  |
| WebDCS status               | ok                                              | ok              | ok              | ok              | ok              | ok              | ok              | ok              |  |
| HV data is logged           | ok                                              | ok              | ok              | ok              | ok              | ok              | ok              | ok              |  |
| on on the panels is green   | ok                                              | ok              | ok              | ok              | ok              | ok              | ok              | ok              |  |
|                             |                                                 |                 |                 |                 |                 |                 |                 |                 |  |
| Gas mixture                 | ECO2                                            | ECO2            | ECO2            | ECO2            | ECO2            | ECO2            | ECO2            | ECO2            |  |
| ixture percentage iC4H10    | 4                                               | 4               | 4               | 4               | 4               | 4               | 4               | 4               |  |
| mixture percentage CO2      | 60                                              | 60              | 60              | 60              | 60              | 60              | 60              | 60              |  |
| mixture percentage HFO      | 35                                              | 35              | 35              | 35              | 35              | 35              | 35              | 35              |  |
| s mixture percentage SF6    | 1                                               | 1               | 1               | 1               | 1               | 1               | 1               | 1               |  |
| Total gas flow              | 10.8                                            | 10.8            | 10.8            | 10.8            | 10.8            | 10.8            | 10.8            | 10.8            |  |
| HFO used                    | 89.8 L                                          | 165 L           | 247 L           | 342 L           | 435 L           | 524 L           | 608 L           | 704 L           |  |
|                             |                                                 |                 |                 |                 |                 |                 |                 |                 |  |
| By pass valve status:       |                                                 |                 |                 |                 |                 |                 |                 |                 |  |
| Humidifer Wet MFC:          | 15.5                                            | 15.5            | 15.5            | 15.5            | 15.4            | 15.5            | 15.5            | 15.5            |  |
| Dew point:                  | 4.52                                            | 3.55            | 3.55            | 3.77            | 3.93            | 3.87            | 4.31            | 3.85            |  |
|                             |                                                 |                 |                 |                 |                 |                 |                 |                 |  |
| Upstream ABS:               | 2.2                                             | 4.6             | 4.6             | 4.6             | 4.6             | 4.6             | 4.6             | 4.6             |  |
| etectors in front of setup: | https://rpcecogas.web.cern.ch/rpcecogaselog/475 |                 |                 |                 |                 |                 |                 |                 |  |
| Bunker pressure:            | 943.8                                           | 934.4           | 946.8           | 949.4           | 941.6           | 949.8           | 960.2           | 958             |  |
| Bunker temperature:         | 20.3                                            | 20.2            | 20.2            | 20.2            | 20.2            | 20.3            | 20.3            | 20.4            |  |
|                             |                                                 |                 |                 |                 | Ī               |                 |                 |                 |  |





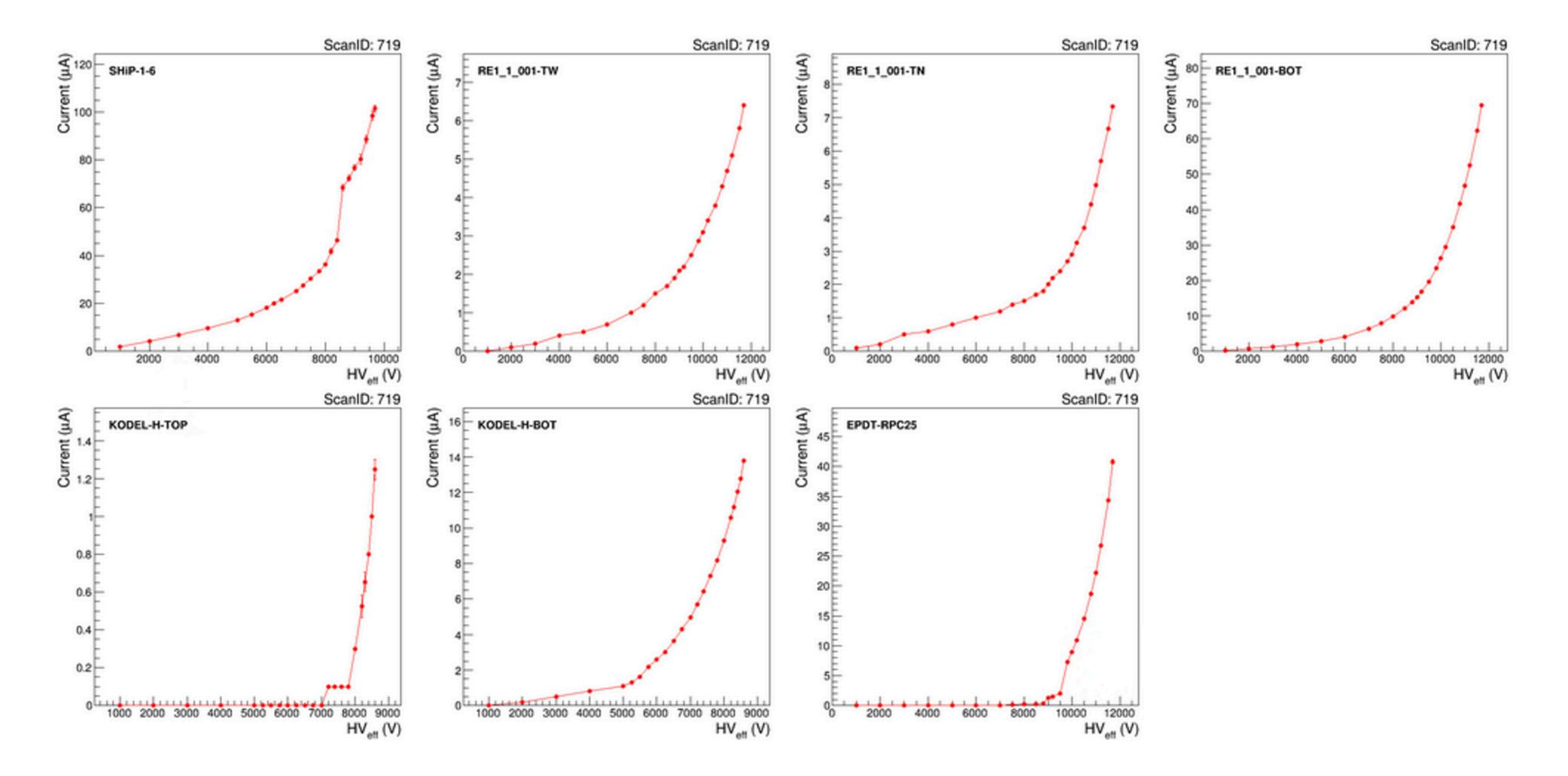
## **RE\_1\_1 chamber**

•Observed an increase of current for RE\_1\_1\_BOT (and slightly also for **RE\_1\_1\_TW)** few hours after the start of the stability run on 22 February

https://rpcecogas.web.cern.ch/rpcecogaselog/478

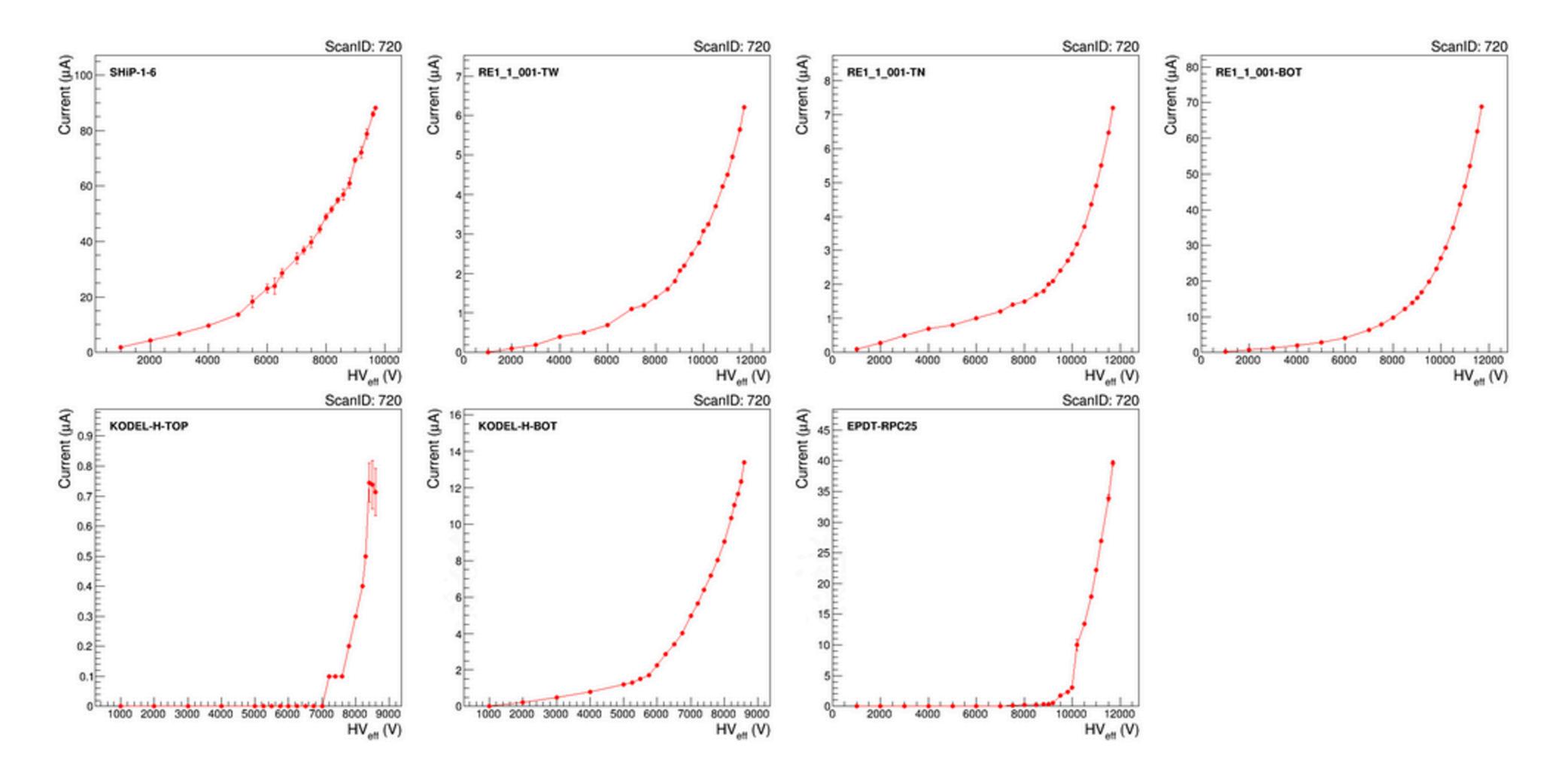


### **HV scan 719** Wednesday 28th February



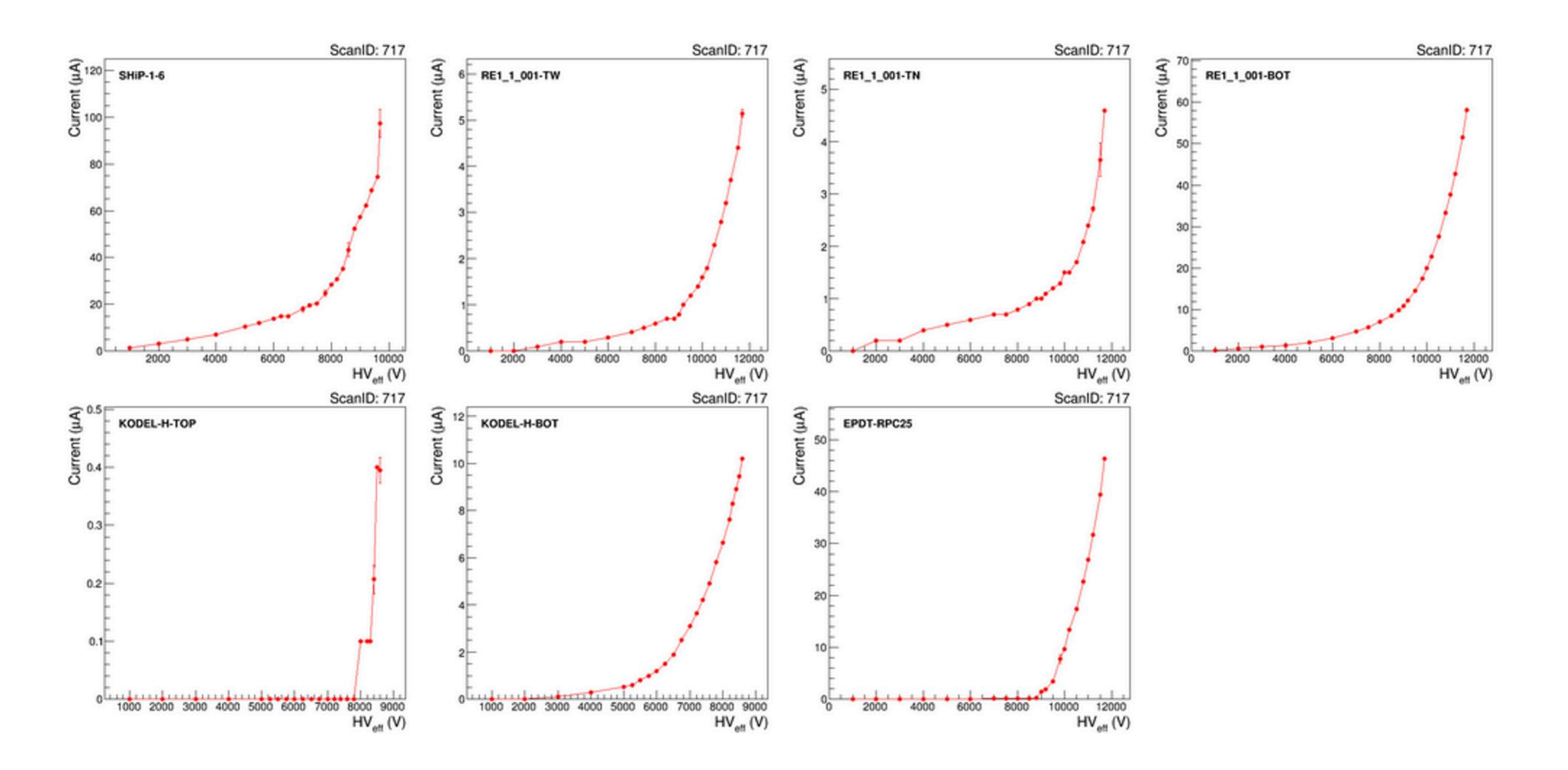
Similar results for scan 719 and 729 -> only a 25 uA jump observed for SHIP in scan 719 around 8000 V (already observed in other HV scans)

### **HV scan 720** Wednesday 28th February



Similar results for scan 719 and 729 -> only a 25 uA jump observed for SHIP in scan 719 around 8000 V (already observed in other HV scans)

### HV scan 717 from last week (for comparison)



No huge differences observed, but I have the feeling that for SHIP and RE\_1\_1\_TW the amplification in the gas starts before in runs 719 and 270 w.r.t. run 717



### **RPC ecogas e-log system down**

#### **Application Not Available (Error 503)**

The application or website you were looking for is known on this server, but it is currently not available. If you are the owner of the application, please check the following conditions:

#### • All pods are down:

The application may not have been started successfully or is still starting. Ensure that at least one application pod is running and ready.

#### • Misconfigured route or service:

The route is not pointing to the correct service (route.spec.to.name) or the service does not target the correct set of pods (service.spec.selector). Make sure that the service has available endpoints.

You may also consult the following resources:

- CERN Homepage
- IT service status
- Service Desk
- Web Services Portal

 Da
 Giuseppe Pezzullo (a)

 A
 GIF-active-users (Users operating at the new GIF (EHN1)) < GIF-active-users@cern.ch> (a)

 Oggetto
 elog back on

 Dear colleagues,
 Genève 23, Switzerland

 as reported by some of you yesterday, we had some problem on the elog.
 Genève 23, Switzerland

 Now, everything is fine and it is back online.
 Sorry for that issue.

 Kind regards,
 GIF++ team



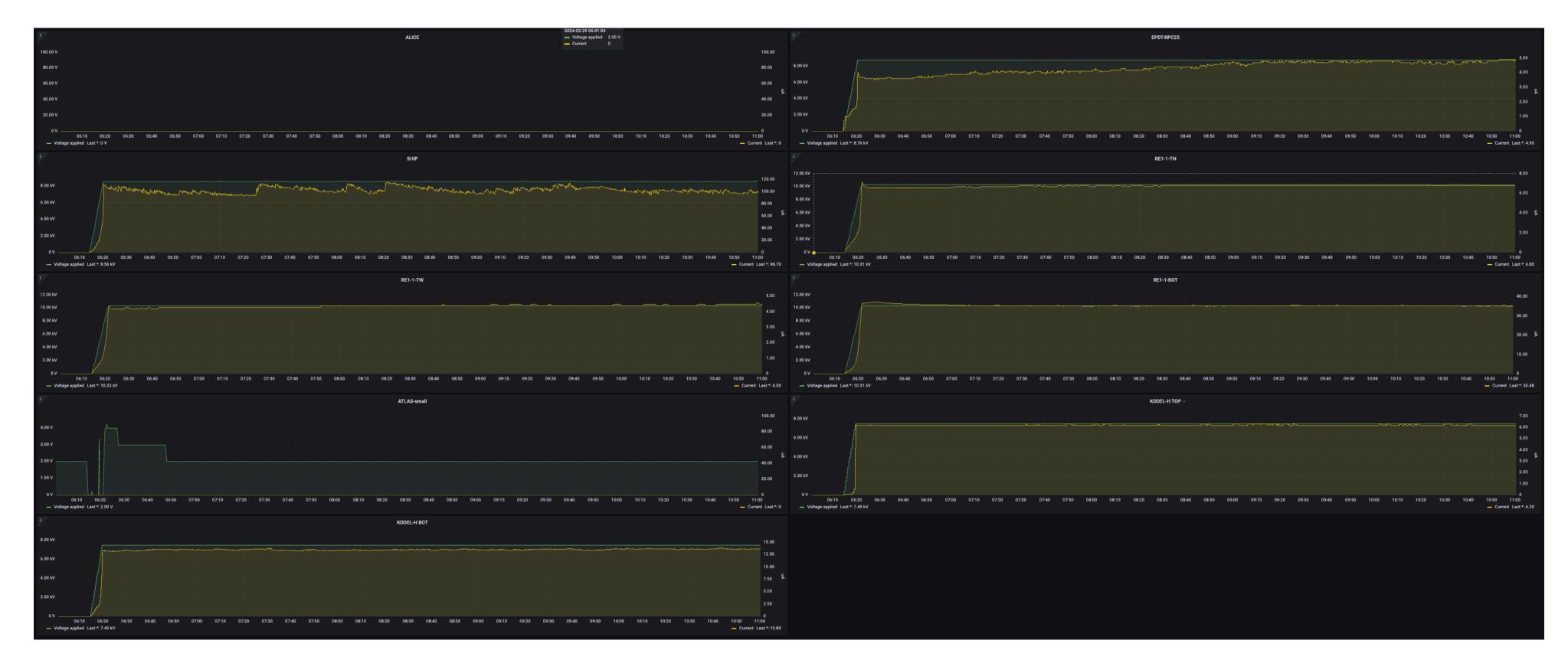
This page is served from OKD cluster paas.



# •GIF e-log system restored this morning around 9 am

## **Ongoing stability run 204**

- Started this morning evening around 6:00
  - Source was ON since yesterday, but I didn't notice since the e-log systems were down



#### **References for next runs**

- For stability -> use template run 204

• For HV scans -> use template run 720 -> for EPDT needed to change Itrip from 20 uA to 100 uA (from telnet, for the HV scan only)