

# Observation Public Meeting Nuclear Regulatory Commission (NRC) & Nuclear Energy Institute (NEI)

Follow-up/Responses to April 13, 2023, Regulatory Issues Task Force (RITF)  
License Amendment Request (LAR) Process Observations

August 23, 2023

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# Agenda

- 3:00 pm Opening Remarks & Introductions
- 3:15 pm Discuss NEI RITF LAR Observations
- 4:00 pm Power Uprate (PUR) Observations
- 4:15 pm Public Comment Period
- 4:30 pm Adjourn

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# Meeting Logistics

- Observation meeting
- Meeting feedback
- Introductions
- Opening Remarks
  - Mike King, Deputy Director for Reactor Safety Programs and Mission Support, Office of Nuclear Reactor Regulation, US NRC
  - Brett Titus, Licensing Director, Nuclear Energy Institute

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# Background

- NEI RITF Public Meeting on April 12, 2023
- NEI Presentation, “Potential LAR Process Improvements,” ML23100A105
- Public Meeting Summary, ML23125A030

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# NEI RITF Observation #1

Milestones drive the schedule and amendment issuance timeline (i.e. 12-months standard) independent of scope and resource estimates.

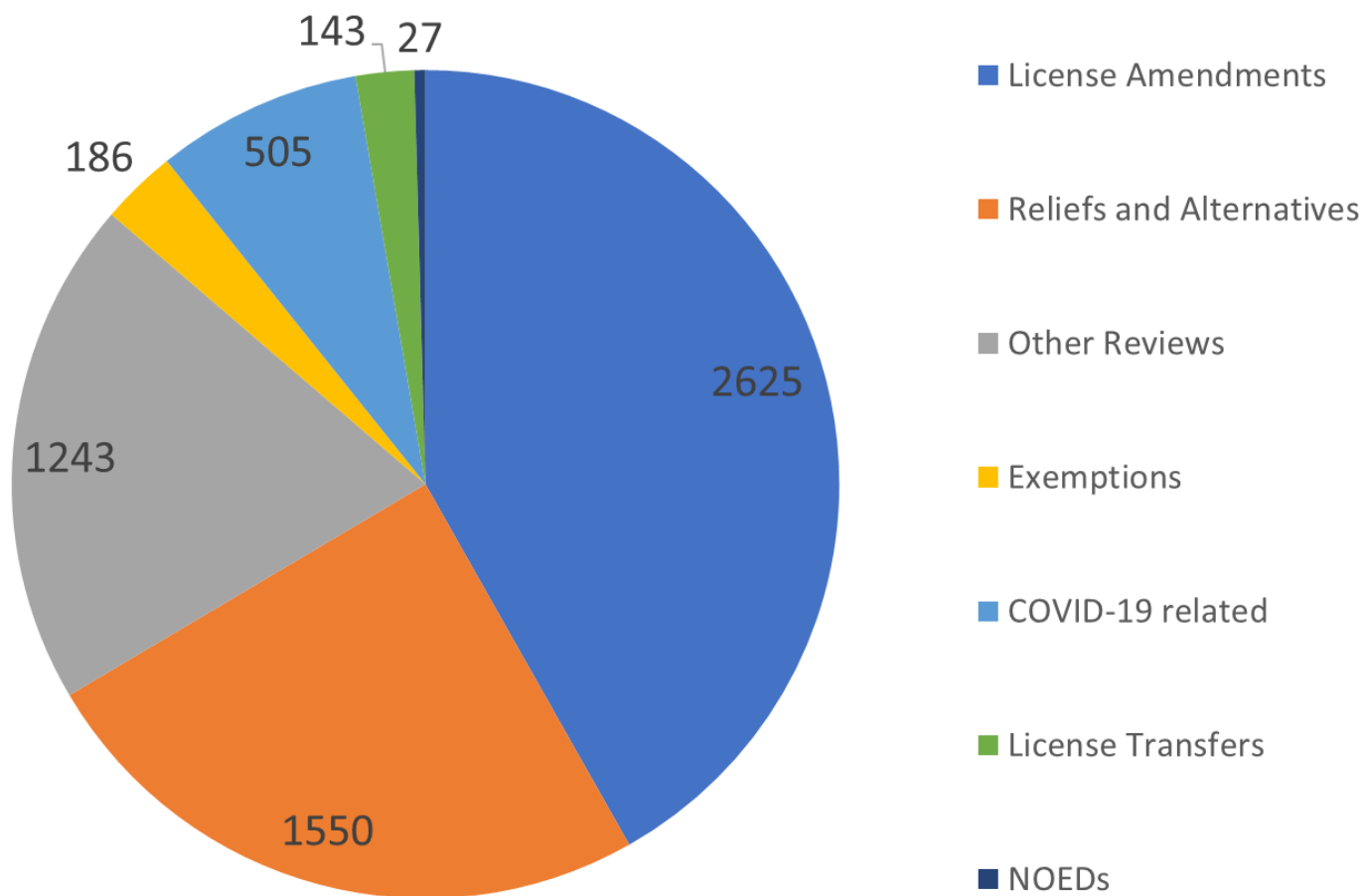
Opportunity to develop schedule/timeline based on review hours estimate?

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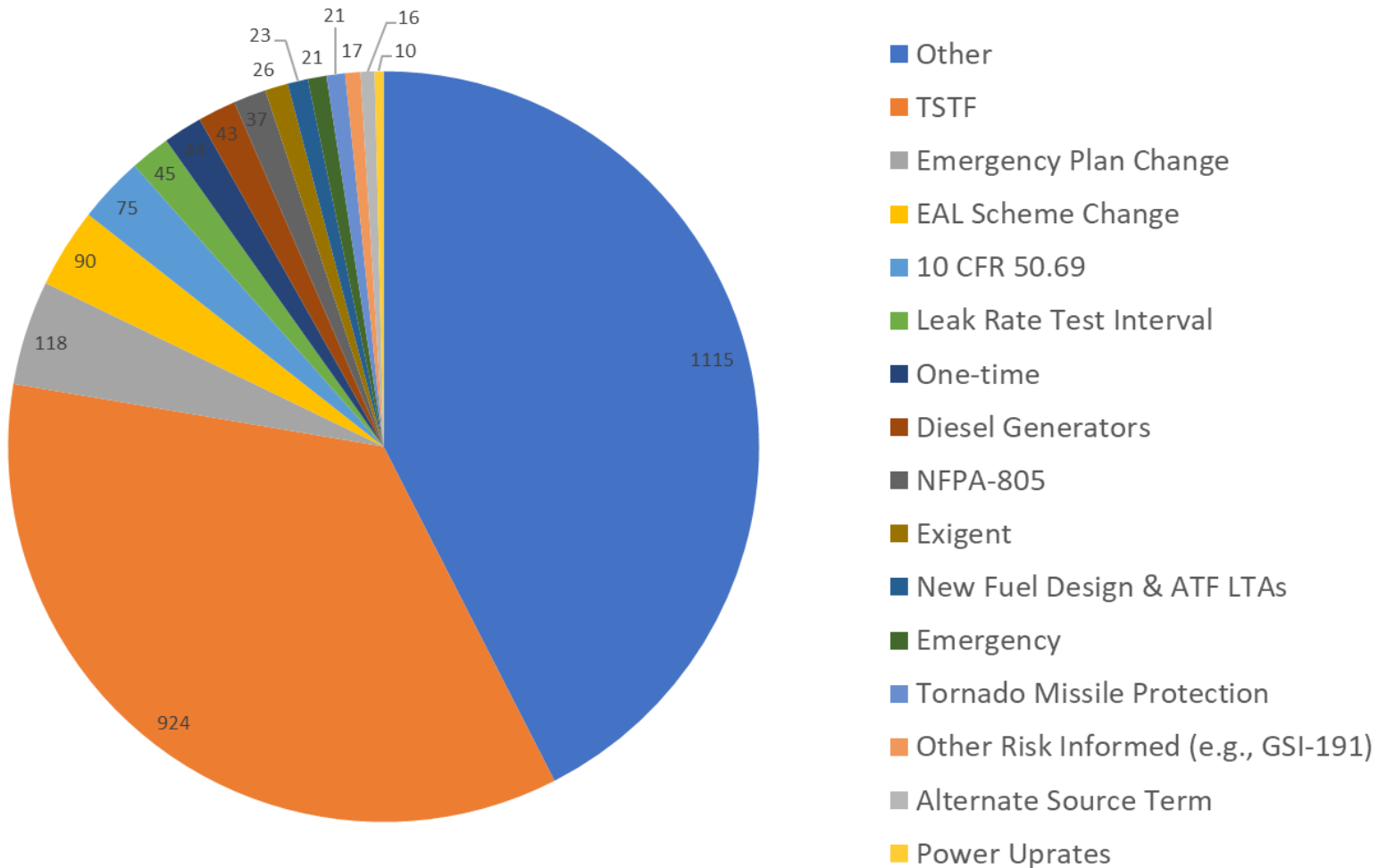
# NRC Discussion Points - #1

- On average, the NRC has been performing ~1000 licensing reviews each year.
- Historically, NRC's performance metric has been to complete 90% of the reviews within a 1-year timeframe.
- NRC's Congressional Budget Justification (CBJ) commitment also has us completing 80% of the NEIMA actions within 125% of the estimated hours, and within 75% - 115% of the estimated schedule.
- NRC is using our internal workload management process to inform changes to our performance goals through data from RPS and other sources.

## Completed Licensing Actions by Type FY 2018 to date

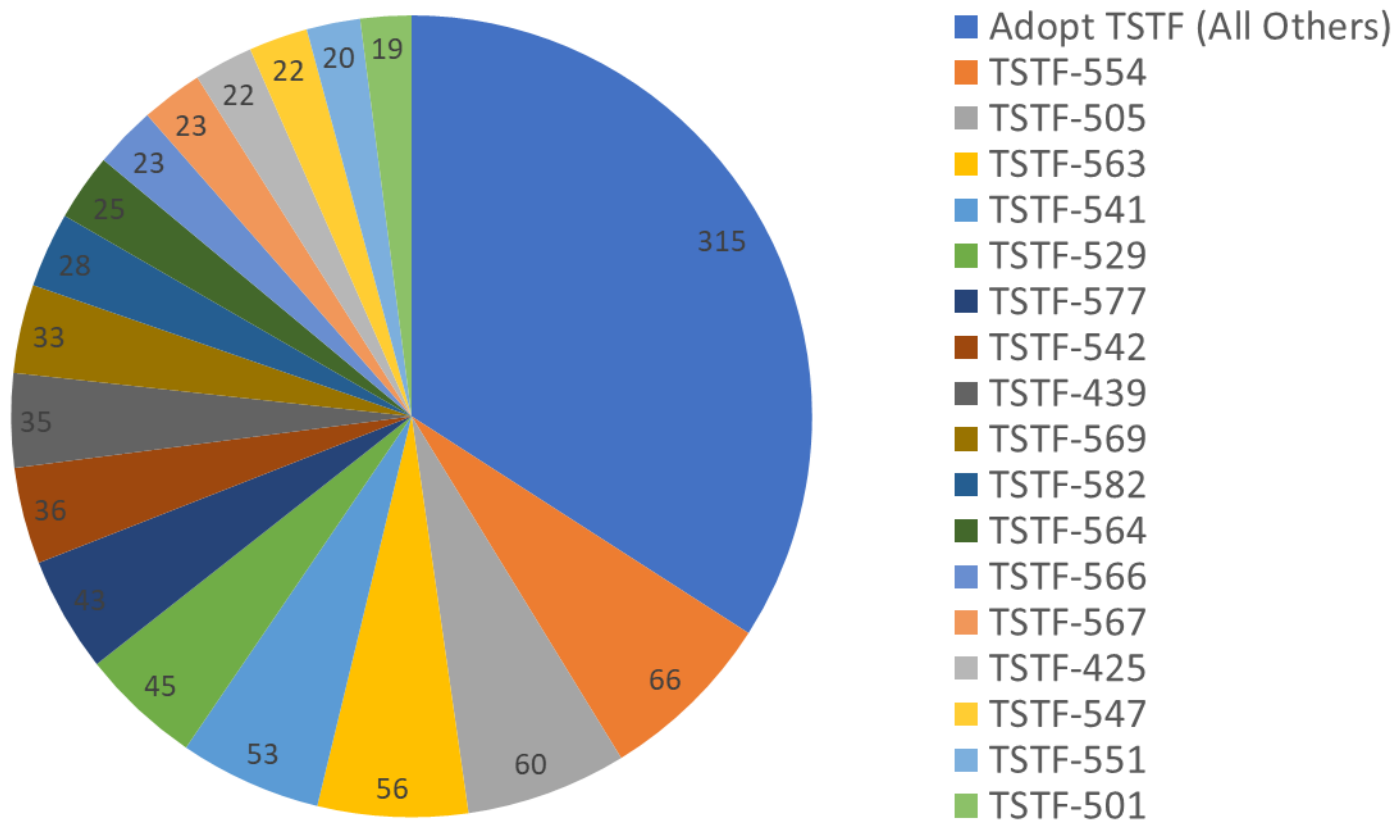


## Completed License Amendments by Type FY 2018 to date

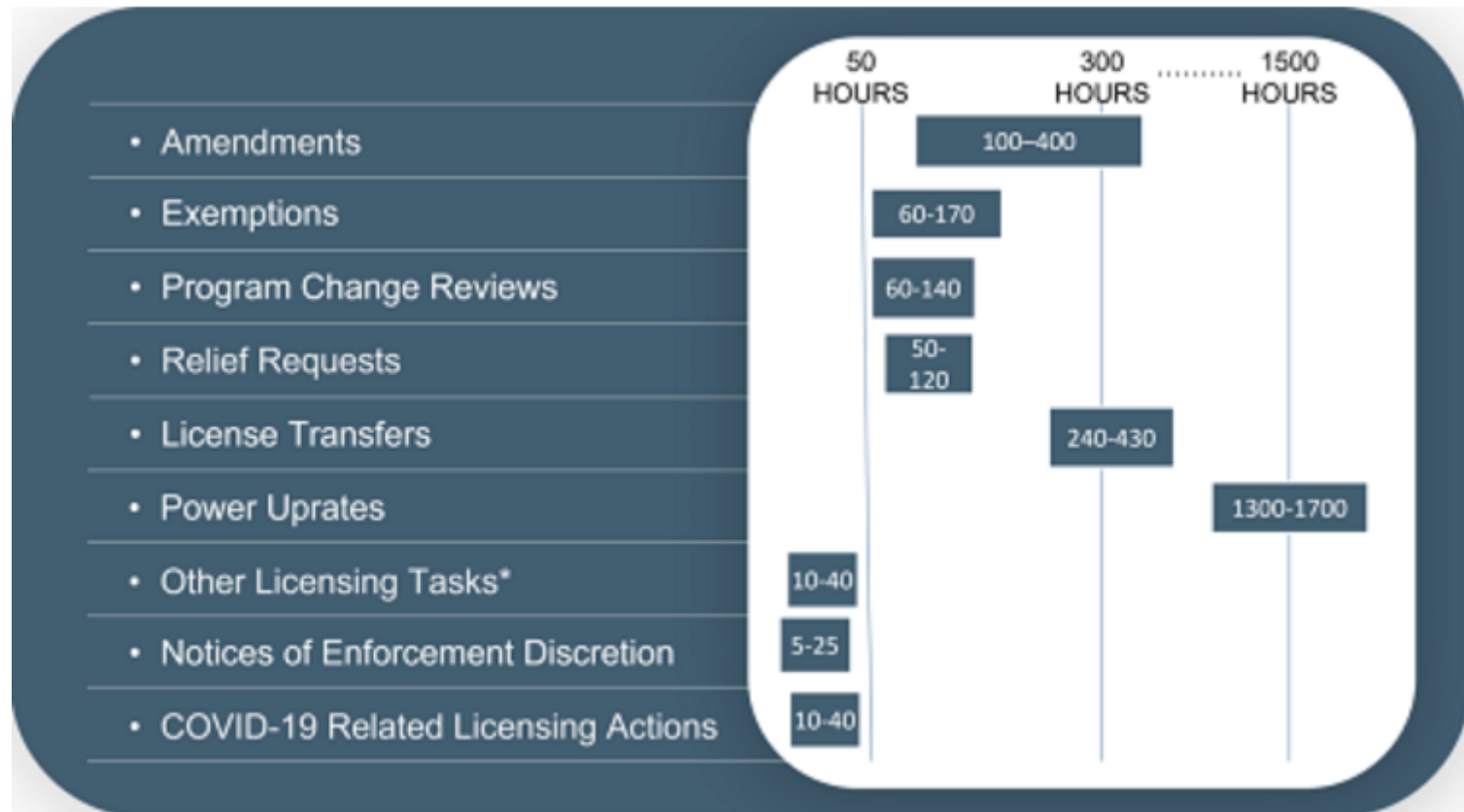




## Completed TSTF-Related License Amendments FY 2018 to date

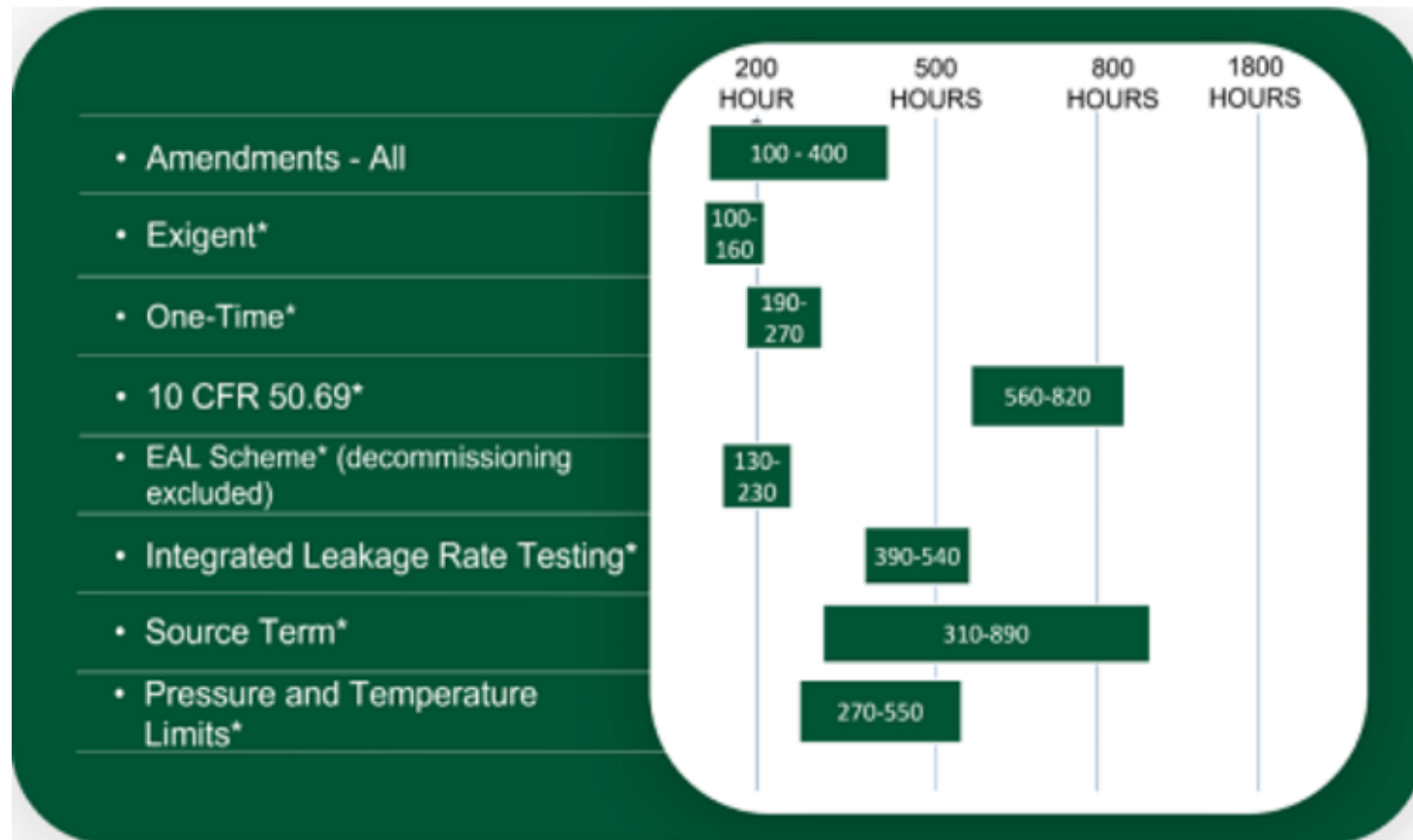


## Resource Estimate by Types of Actions



Source: <https://www.nrc.gov/reactors/operating/licensing/resource-estimator.html>

## Resource Estimate by Types of LARs



Source: <https://www.nrc.gov/reactors/operating/licensing/resource-estimator/estimates-for-types-of-license-amendment-requests.html>

Hover Over For  
Instructions

Download PDF

Go To Details

Show Active or  
Complete

- ☒ All  
☐ Active (est.)  
☐ Complete

## Effort and Schedule Estimator (EASE) Requests for Relief from Inservice Inspection FY 2018 to 2023 ( Complete & Active )

Count of

- ☒ EPIDs  
☐ Dockets

209

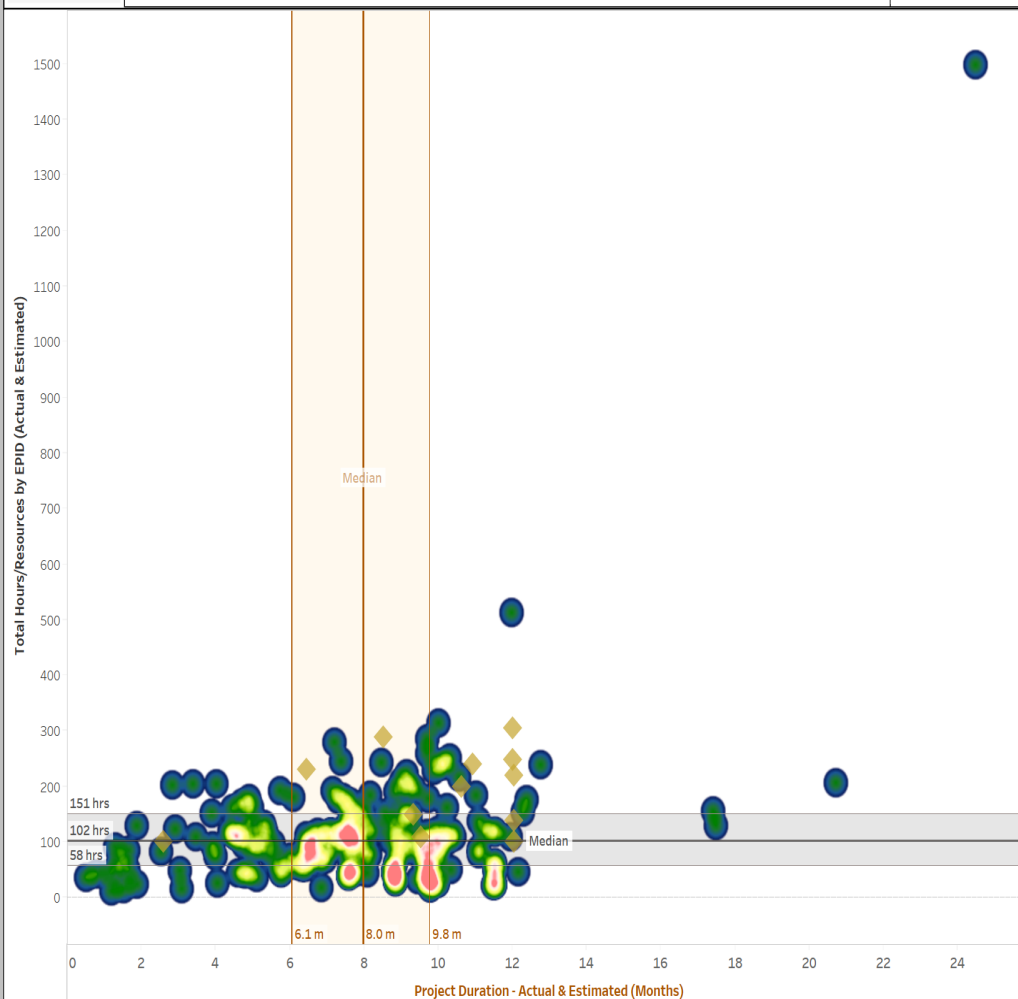
Trend Line +  
Box & Whisker

- ☐ On  
☒ Off

Routine or  
COVID Actions

- ☒ All  
☐ Routine  
☐ COVID-19

Reset  
Filters



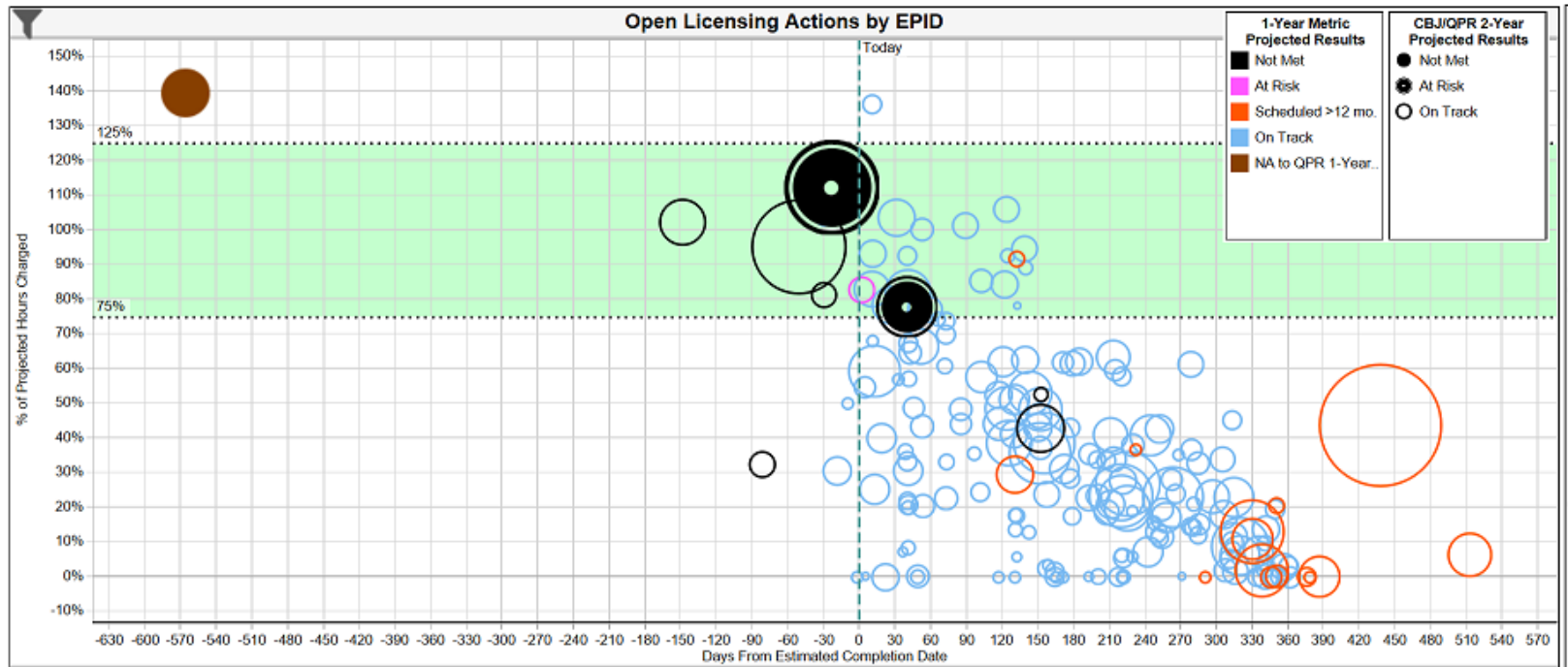
### Select Search Option

- ☐ All 6 Request Types Below  
☐ Amendment to Implement TSTF-505  
☐ Amendment to Implement 10 CFR 50.69  
☐ Amendment to Implement TSTF-582  
☒ Request for Relief from Inservice Inspection  
☐ Request for Relief from Inservice Testing  
☐ Exemption From Part 26  
☐ Use Custom Search  
☐ Use TSTF Search

### Notes:

- \* Uses RPS data on active projects and projects completed from Fiscal Year 2016 to present.
- \* Only includes projects with an EPID; does not include older projects with a Temporary Project Id (most completed prior to FY 2017).
- \* The Select Search Options above shows by default the 6 most frequently submitted types of licensing actions.
- \* To show actions specific to NRR Licensing Programs/Groups, pre-application activities or non-licensing projects, select the "Use Custom Search" option and select an activity type.
- \* To further narrow the result, click on the show filters icon (funnel) and select the "NRR Program/Activity Groups" of interest or one of the additional filter options provided.
- \* Additional information on the EASE Tool is provided at the [EASE Tool Nuclepedia page](#)

## Active Licensing Reviews Dashboard



Source: NRC's Open Licensing Action Dashboard as of August 21, 2023

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# NRC Discussion Points - #1 (cont.)

- NRR is changing its metric to better gauge its performance against “estimated completion schedules” (e.g.,  $75\% < ECS < 115\%$ ), rather than the 1-year target, to drive schedule accuracy.
- We have the data to inform most of our case work to determine whether a type of review will take significantly longer/shorter than 1 year.
- We will implement this new metric in FY 2024.

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# NEI RITF Observation #2

Several examples of actual hours less than 50% of estimated hours that could lead to unnecessary allocation of resources and/or inaccurate tracking to completion.

Opportunity to refine future estimates by establishing accuracy goal (estimate vs. actual hours) aside from just actual hours being exceeded as the metric?

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# NRC Discussion Points - #2

- Data (FY 2018 – date) show that on average, actual hours were <50% of estimate for ~20% of cases.
- Most of the actions that were <50% of estimate were associated with relief requests, exemptions and program reviews, which are typically well below 200-hr effort.
- NRC continues to refine our estimates, and new metric ( $75\% < ECS < 115\%$ ) will address any over-estimation of effort.
- NRC also encourage licensees to work with PMs to question estimates if it doesn't mesh with expectations.



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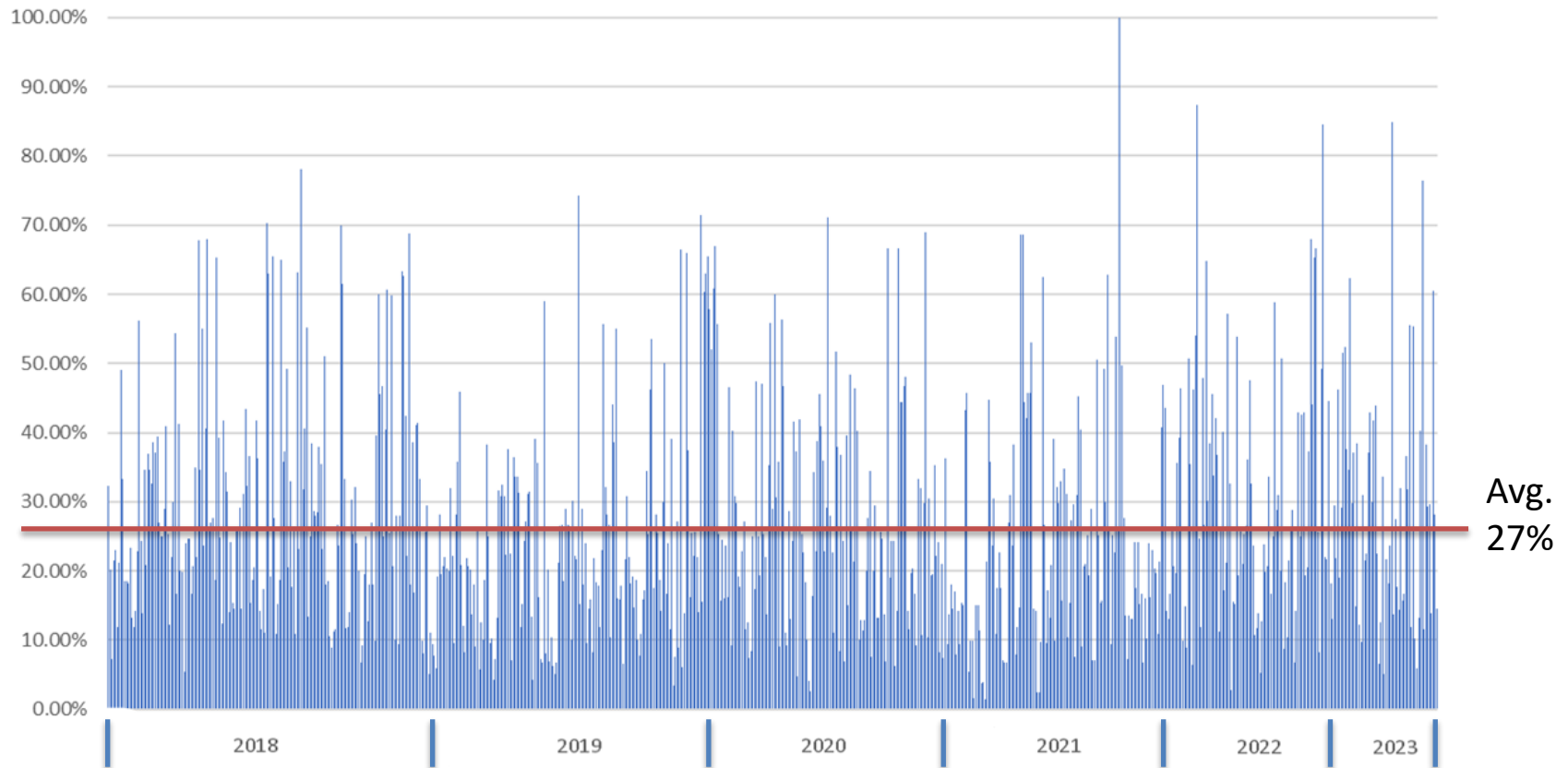
# NEI RITF Observation #3

The PM often single largest contributor to actual hours for a LAR review.

Opportunity to reduce PM burden by improving/revising amendment format, maximizing use of streamlined processes (i.e., LIC-206?), electronic submittal enhancements, and/or further internal file sharing?

# NRC Discussion Points - #3

- Since FY 2018 to date, on average, PMs contributed ~27% of total hours for licensing actions not involving significant technical staff review effort (data below are reliefs and alternatives).



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# NRC Discussion Points - #3 (cont.)

- Since FY 2018 to date, on average, PMs contributed ~14% of total hours for licensing actions involving significant technical staff review effort (i.e., TSTF-505 reviews).
- The PMs manage a disciplined, multi-step licensing review process which includes acceptance review, no significant hazards FRN, request for additional information, audits, public meetings, conference calls, safety evaluation, and amendment issuance as appropriate.
- DORL has streamlined the no significant hazards FRN monthly publication to reduce PM's administrative hours.
- NRC is open to discussion on opportunities but continues to see the PM's role and contribution as vital to efficiency.

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# NEI RITF Observation #4

Since the amendment implementation period is part of the amendment itself, additional LAR required if change is needed to the implementation period.

Opportunity to relocate the implementation period to the cover letter so that changes could be made without an additional LAR (10 examples in the last 5 years)? If so, create requirement of licensee notification of change to implementation date via letter?

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# NRC Discussion Points - #4

- Licensees can propose as part of the amendment specific implementation dates based on constraints (e.g., prior to mode change after an outage).
- The location of the implementation period within the amendment is not specifically required by regulation.
- Return on investment would drive merits of this proposal. NRC is open but considerations include:
  - Data (e.g., 10 examples in past 5 years)
  - Implementation of new process would require substantial change management (e.g., update to NRR OI LIC-101, communication/coordination with licensees, internal change management plan with NRC staff).
  - Any barriers for licensees in negotiating & implementing a change in dates within the current process (e.g., during review/after issuance of LAR)?

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# NEI RITF Observation #5

Review/exchange of documents as part of an audit are done on case-by-case basis.

Opportunity to establish common audit document exchange portal for each licensee to facilitate streamlined information sharing?

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# NRC Discussion Points - #5

- Currently, the choice or preference of in-person/on-line audits is coordinated with licensees.
- Complex licensing actions requiring virtual audits are fewer in number. Generically, there were approximately 15 regulatory audits (virtual, hybrid, and in-person) for all licensing actions in CY2021, nine in 2022, and currently two in 2023.
- Which on-line portal platform to use is based on licensee's preference; however, in a poll of DORL PMs, most operating reactor licensees use the same online portal.

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# NRC Discussion Points - #5 (cont.)

- NRC does not have plans to develop/maintain a platform as there would be significant costs associated.
- Various options exist, including in-person audits. The NRC is open to using different platforms proposed by licensees (so long as proprietary information can be protected while maintaining transparency).



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# NEI RITF Observation #6

Interactive RAI process not more broadly used.

Opportunity to expand the use of the interactive RAI process to complex LARs that has been used successfully for specific LAR reviews (i.e., ITS conversions)?

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# NRC Discussion Points - #6

- LIC-601, “Improved Technical Specification (ITS) Conversion Amendment Review Process,” permits the use of a digital database for “RAI-like communications between the NRC and the licensee.”
  - ITS reviews utilize a licensee-maintained Q&A portal.
  - The lead NRC technical reviewer and their Branch Chief approve input prior to release (not cognizant PM).
  - All content is un-editable, so that correspondence is saved for inclusion on the docket at the end of the project.
  - The project team conducts regular (typically bi-weekly) public meetings to ensure openness with the public and understanding between the staff and licensee.
- LIC-601 is based on well-known ITS review process; maybe more ideal for larger reviews with large volume of audit-like questions.
- Current RAI process (LIC-115) is based on process-discipline in managing the number and rounds of RAIs.

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# NRC Discussion Points - #6 (cont.)

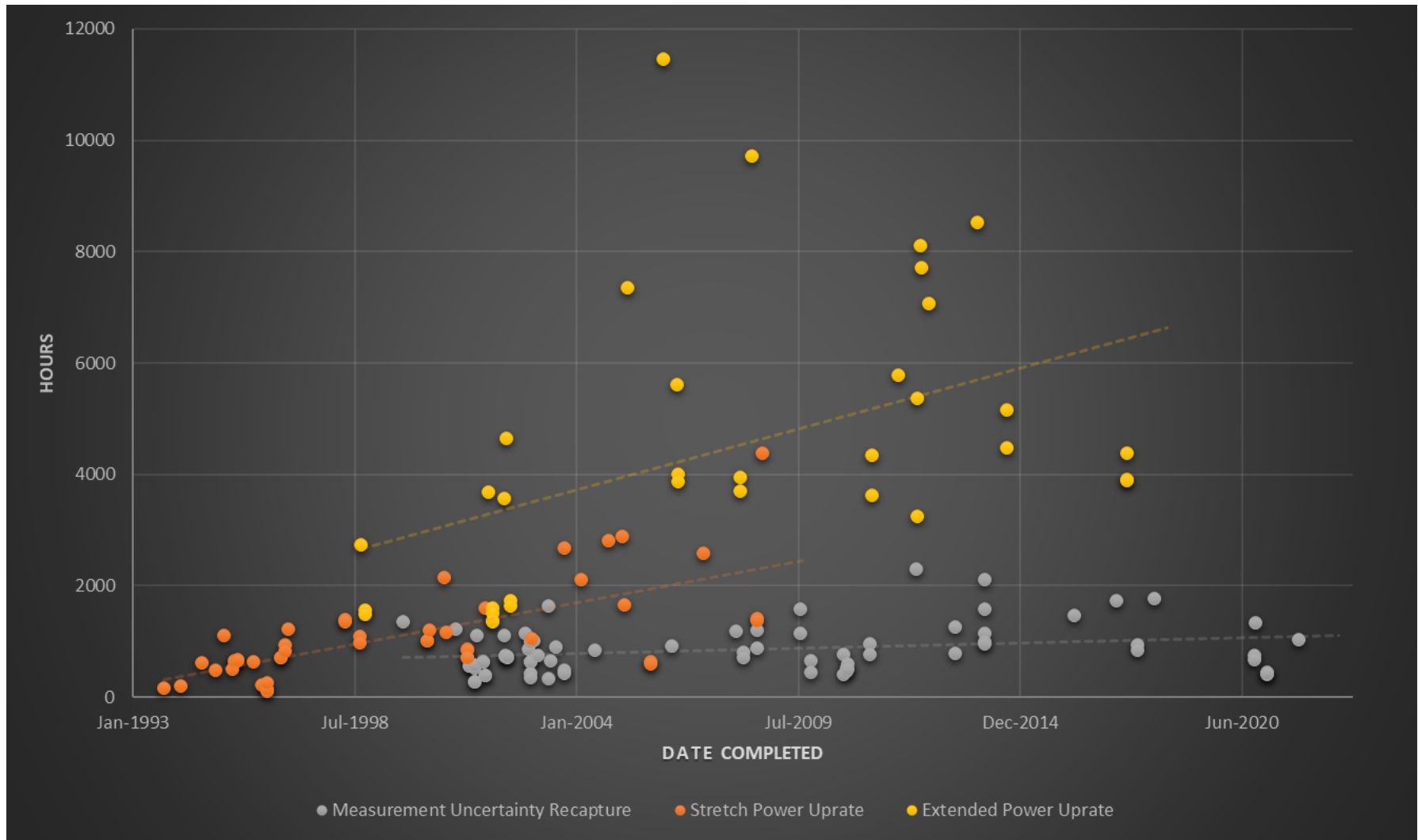
- NRC is open to piloting expansion of use; in effect, the use of online audit portals achieves much of this.
- Separately, NRC staff has developed an RAI App.
  - Initially intended to manage internal RAI workflow & capture meta data.
  - a module within RPS & soon to be tied to ADAMS.
  - Developing with an eye for future scalability to have online interface with licensees.

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# NEI Power Uprate Observations

- NRC is anticipating an influx of Power Uprate (PUR) applications in the near future.
- NEI provided its recent observations on NRC performance in this area at: <https://www.nei.org/CorporateSite/media/filefolder/resources/reports-and-briefs/Examples-of-NRC-Review-Performance.pdf>
- NEI concluded that “the NRC’s processes require more time as they undertake more reviews. Longer reviews even as experience grows is exactly the wrong direction to be headed.”
- NRC augmented data used by NEI with data beyond 2015.

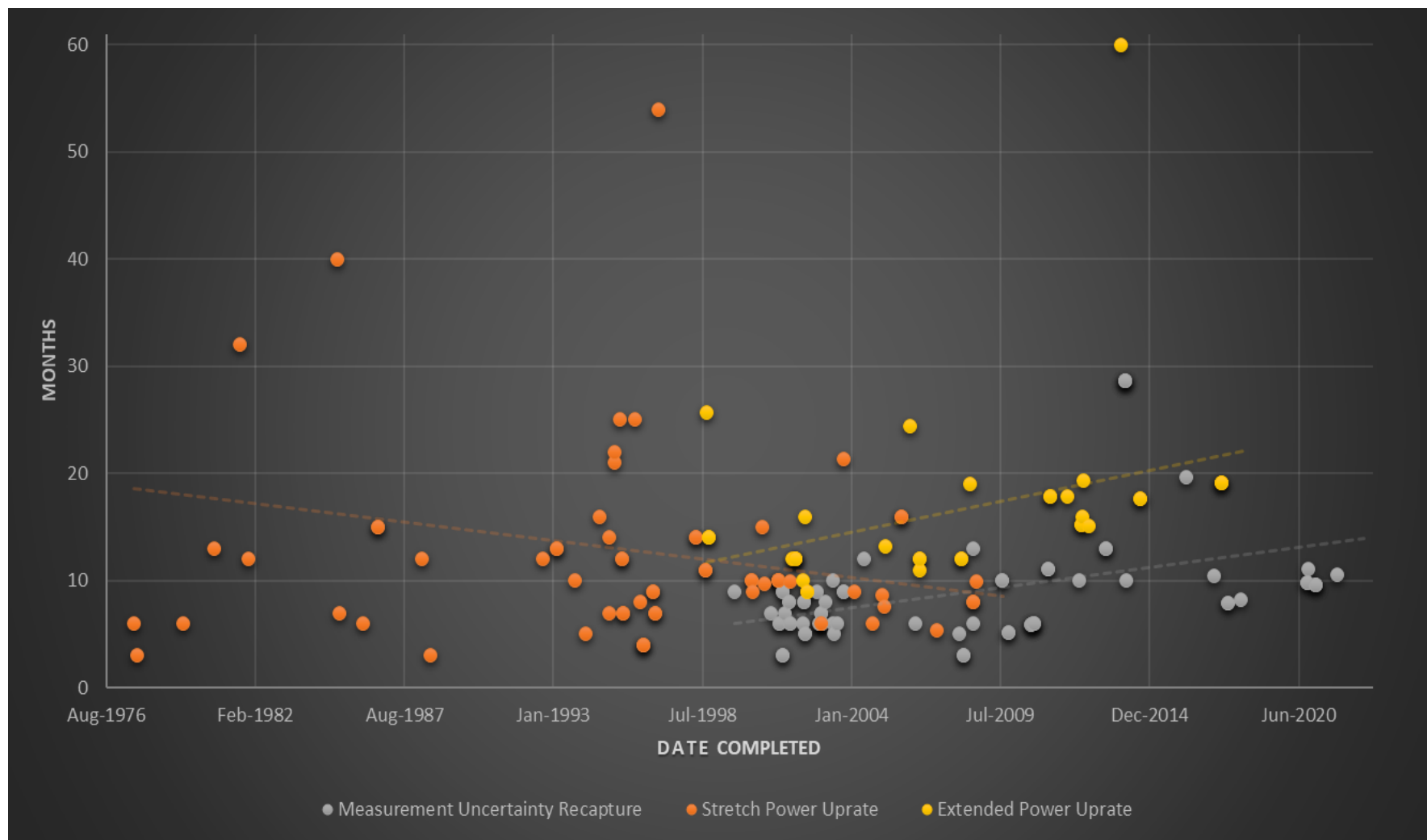
## Level of Effort for PURs



### Notes:

- Level of effort data for Stretch Power Uprates not available for 1977 to 1993
- Four Extended Power Uprates completed in 2011 include hours charged for Measurement Uncertainty Recapture Uprates bundled in the applications

## Review Duration for PURs



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# Public Comment Period

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Thank you. This meeting is adjourned.