



Power Uprate Review Readiness

Tony Nakanishi

Acting Chief

Division of Operating Reactor Licensing

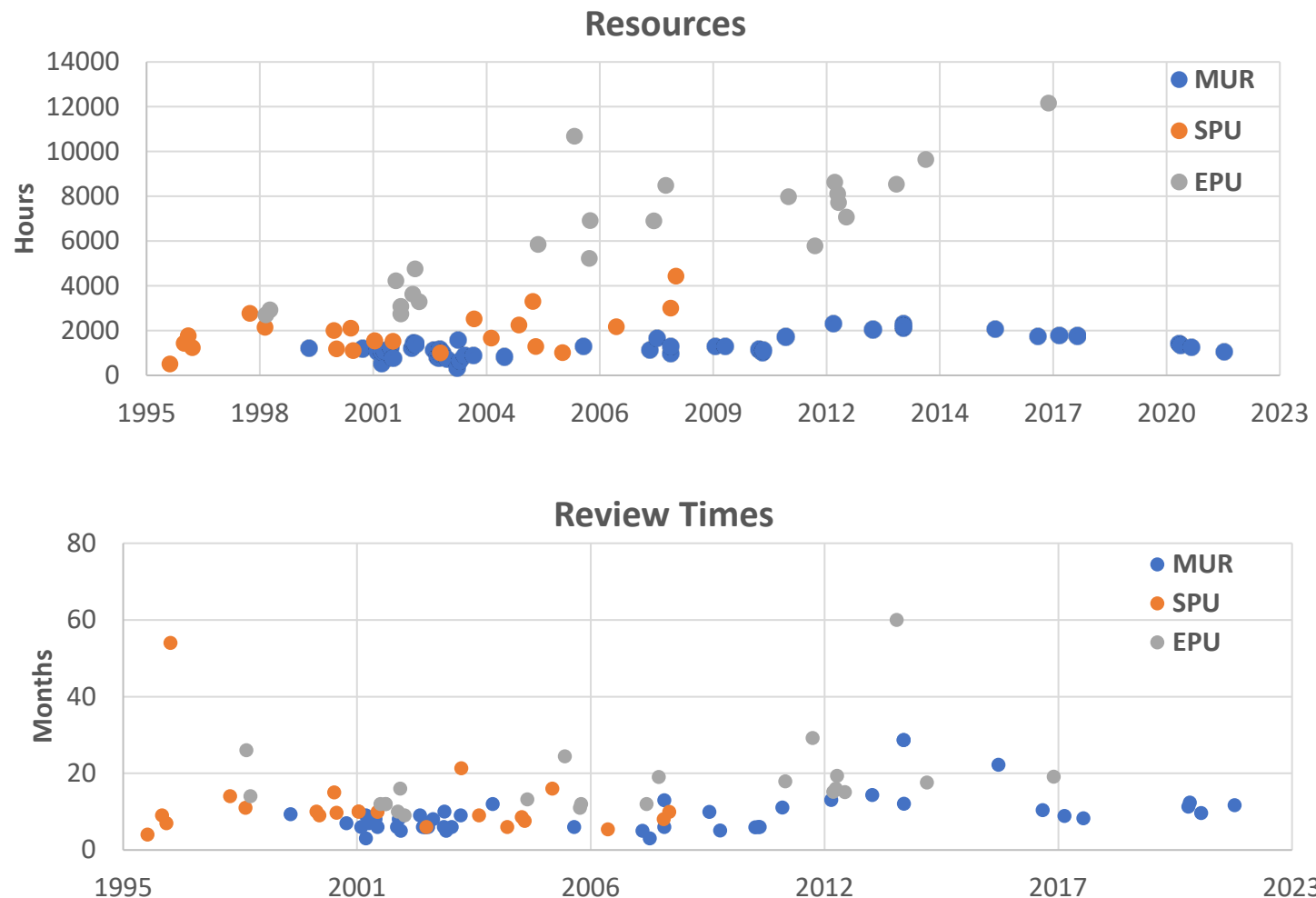
Office of Nuclear Reactor Regulation

Why Are We Here?

Power Uprate Forecast

- **70% of sites looking at one or more power uprates**
- **Combined capacity increase of 3 gigawatts electric (GWe)**

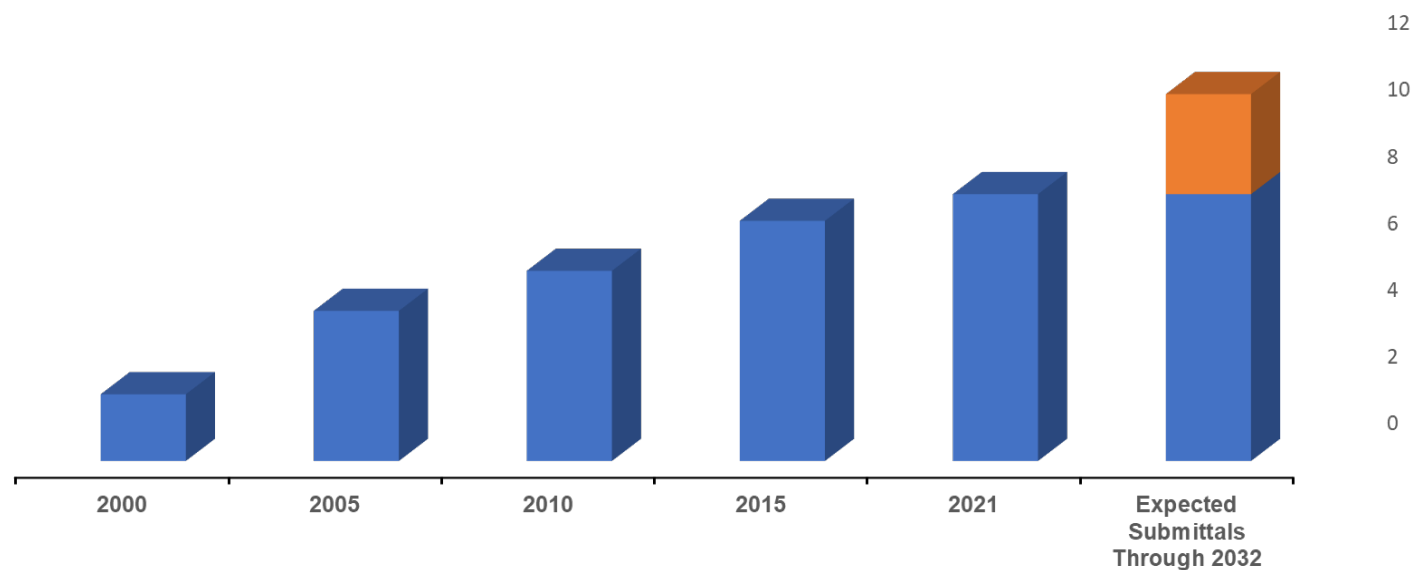
Past Review Data Indicators



NRC's Experience with Power Uprates

- Approved 172 power uprate applications (8 GWe)
- Established processes
- Lessons learned from previous uprate reviews
- Resolution of technical issues (e.g., containment accident pressure)

Power Uprates – Gigawatt Electric (Gwe) Added





Power Uprate Working Group's Preliminary Recommendations

Continued Engagement with Stakeholders

- Public Meetings in June, September and November 2024
- Future Public Meetings
 - Graded Approach
 - Standardized Applications
 - MUR using DVR

Adopt a Graded Approach

- Evaluate PUR impact on review areas and bin them into:
 - Bin 1 – minimal review
 - Bin 2 – limited review
 - Bin 3 – comprehensive review

Continued Process Improvements in Targeted Areas

- ACRS Coordination
- Environmental assessments
- Project management tools
- Leveraging audits and inspections
- Updating PUR guidance



NRC Review Goals

**Measurement
Uncertainty
Recapture (MUR)
6 Months**

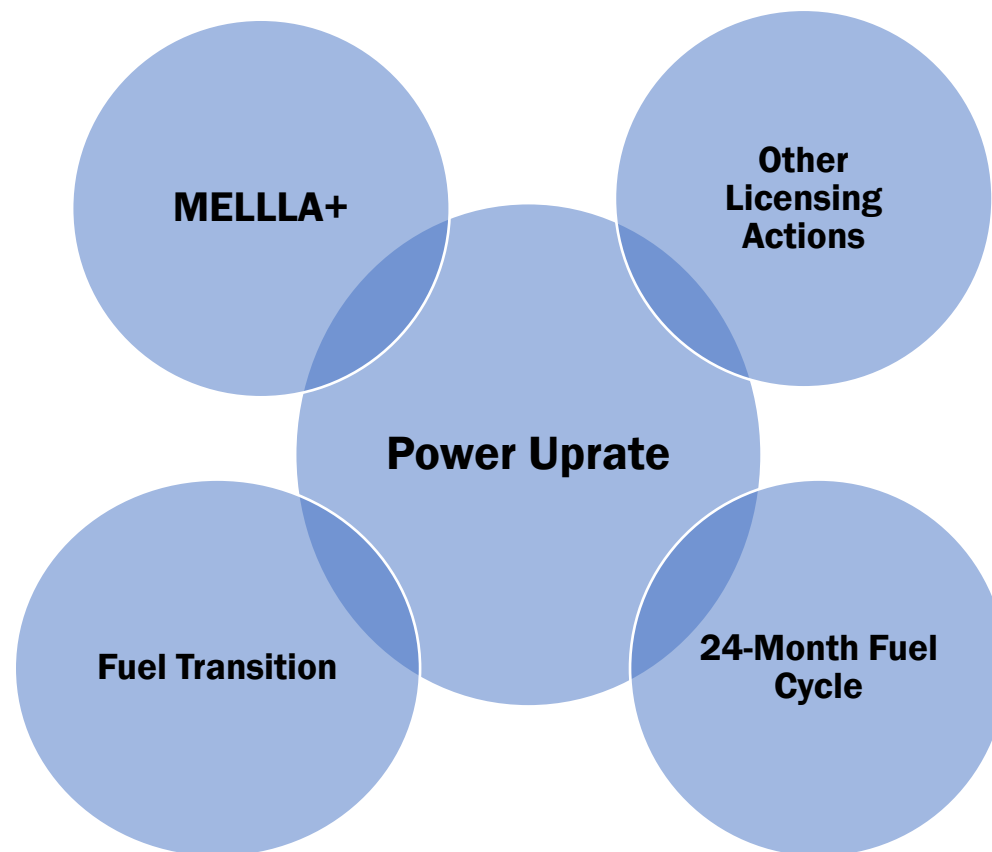
**Stretch Power
Uprate (SPU)
9 Months**

**Extended Power
Uprate (EPU)
12 Months**

- NRR Power Uprate Office Instruction LIC-112
- EPU/SPU Review Standard RS-001

Future Power Uprate Applications

- Power uprate applications combined with other supporting changes
- Potential savings in overall schedule and review effort
- Continuing to engage industry via workshops and pre-application meetings





Key Takeaways

- NRC is committed to efficient power uprate licensing
- NRC issued Regulatory Issue Summary on power uprate
- Future public engagements
 - Use of data validation and reconciliation (DVR) methods for MURs
 - Graded approach/binning
 - Standardized applications
 - Safety evaluation templates