



Utility Perspective on SMRs

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TVA's Renewed Vision Reflects Interests of Many Utilities

Provide Cleaner Low-Cost Power



Cleaner Air



High Reliability



Greater Energy Efficiency



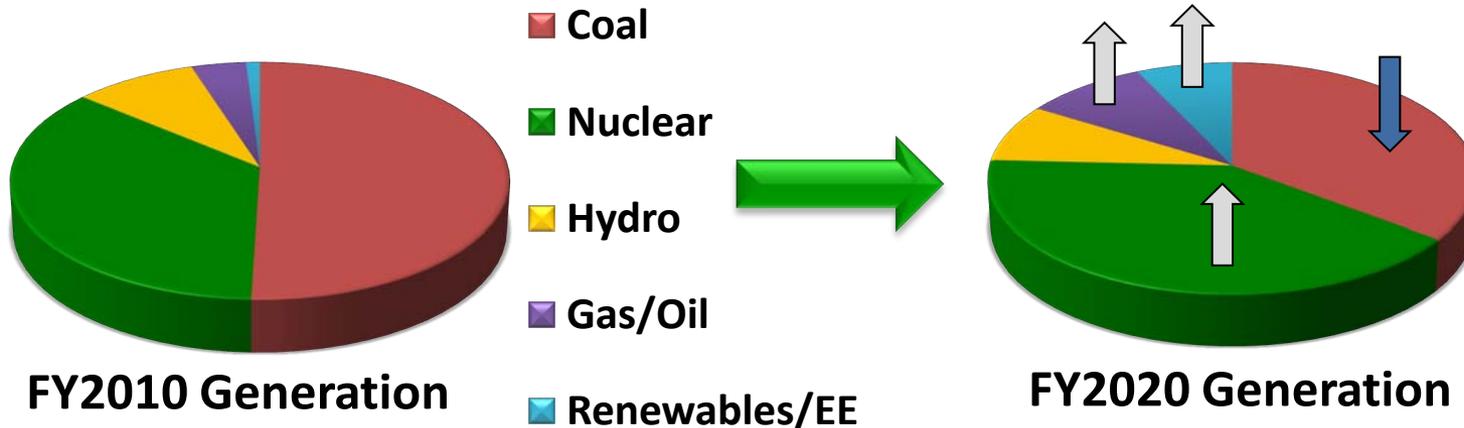
Low Rates



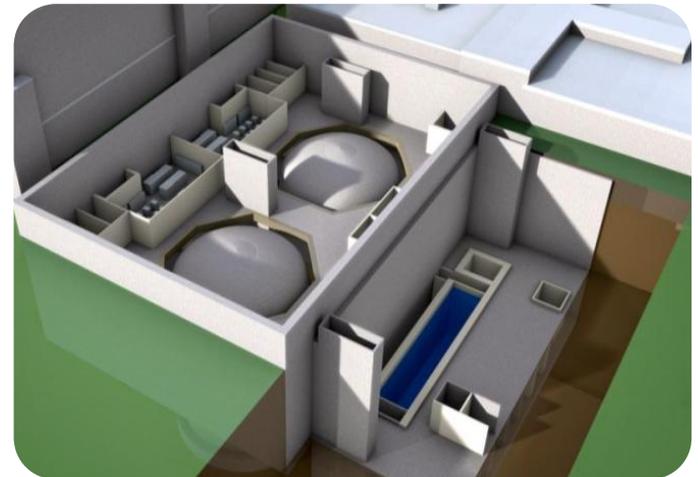
More Nuclear Generation



Responsible Stewardship



- Simplified “passive safety” LWR
- Underground containment and used fuel storage
- Four years or more between refuelings
- Shop fabricated, rail shipped
- Incremental generation when and where its needed
- Lower transmission system impacts



- Overcoming economy of scale challenges.
 - Regulations and industry practices designed for larger plants.
- Realizing goal of adding incremental modules efficiently when needed.
 - License multiple modules before needed, so that can build when needed.
- Providing adequate and effective manufacturing oversight and inspection



Lessons Learned From Advanced Reactor Programs Apply

- Standardization
 - Achieve and maintain

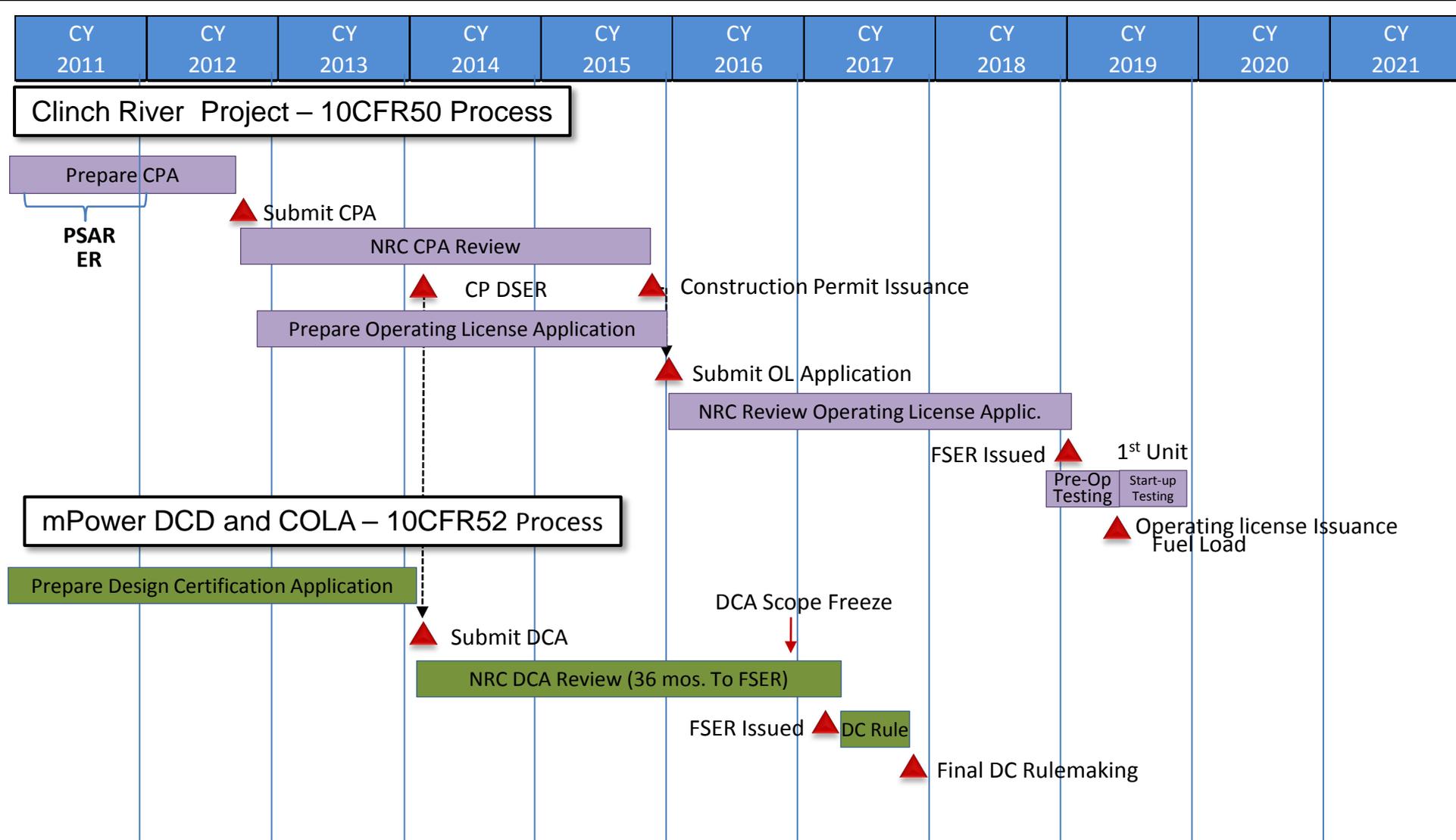
- Design Centered Working Groups
 - One issue one review
 - Design specific through industry team
 - Generic issues through NEI

- Industry Teams
 - Stay committed through both licensing and construction

- 10CFR50 is suitable for first-of-a-kind designs
- Increased potential risk of 10CFR50 can be managed by:
 - Completing substantial engineering prior to construction
 - Clear identification and early NRC review of critical design features
- 10CFR50 and 10CFR52 both need to ensure standardization of new designs
- 10CFR52 clear preference for long-term standardized deployment



Time Is Now



- Many articulated reasons for considering SMRs along with larger ALWRs.
- While similar in design to large reactors, large margins to safety expected to be met with simpler and fewer plant systems.
- Industry working with NRC to right size certain regulatory requirements commensurate with the risk of SMRs, using lessons learned from advanced new plant activities.
- Successful navigation among the possible regulatory paths just as critical to successful deployment of SMRs as managing total construction costs.