



Planning Related To Possible COL Application

Duke Energy Corporation
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Meeting Objectives

- Discuss Duke's plans for a possible Combined License (COL) application
- Discuss Combined License Application (COLA) scenarios being studied by Duke
- Identify NRC review schedules and resources
- Identify COLA preparation and review strategies



Overview of Duke's Plans

- Duke's system planning indicates additional generating capacity required over next 10 – 15 years
- Current evaluation of generation options indicates that nuclear power could be advantageous to our customers
- Duke is currently performing a study to establish the scope of work, schedule and cost for obtaining a COL



Overview of Duke's Plans

- Duke's plans for a possible COLA support maintaining the option to bring a new nuclear power plant into service during the next decade
- Contingent upon study results and management approval, Duke plans to proceed with developing a COLA
- Duke's COL efforts do not supplant our involvement with NuStart
- Duke is working closely with NEI on finalizing NEI 04-01 to improve industry guidance for COL applications



Overview of Duke's Plans

Tentative milestones for a possible COLA:

- Site selection by the end of 2005
- Reactor technology selection by the end of 2005, presently considering:
 - ◆ GE's ESBWR
 - ◆ Framatome ANP's EPR
 - ◆ Westinghouse's AP1000
- COL application submittal to NRC in early 2008



COLA Scenarios

- Base case: certified design with greenfield site
- Alternatives to the base case:
 - ◆ Scenario 1: certified design with previously characterized site
 - ◆ Scenario 2: certified design with existing reactor site
 - ◆ Scenario 3: non-certified design with greenfield site



NRC Review Schedule and Resources

Base case: certified design with greenfield site

- Identify critical path activities on NRC review schedule
- Discuss estimate of NRC review schedule required to prepare:
 - ◆ Draft Safety Evaluation Report
 - ◆ Draft Environmental Impact Statement
- Discuss estimate of overall schedule duration of NRC review schedule
- Identify estimate of review resources (NRC FTEs and contractor support)



NRC Review Schedule and Resources

Scenario 1: certified design with previously characterized site

- Identify critical path activities on NRC review schedule
- Discuss estimate of NRC review schedule required to prepare:
 - ◆ Draft Safety Evaluation Report
 - ◆ Draft Environmental Impact Statement
- Discuss estimate of overall schedule duration of NRC review schedule
- Identify estimate of review resources (NRC FTEs and contractor support)



NRC Review Schedule and Resources

Scenario 2: certified design with existing reactor site

- Identify critical path activities on NRC review schedule
- Discuss estimate of NRC review schedule required to prepare:
 - ◆ Draft Safety Evaluation Report
 - ◆ Draft Environmental Impact Statement
- Discuss estimate of overall schedule duration of NRC review schedule
- Identify estimate of review resources (NRC FTEs and contractor support)



NRC Review Schedule and Resources

Scenario 3: non-certified design with greenfield site

- Identify critical path activities on NRC review schedule
- Discuss estimate of NRC review schedule required to prepare:
 - ◆ Draft Safety Evaluation Report
 - ◆ Draft Environmental Impact Statement
- Discuss estimate of overall schedule duration of NRC review schedule
- Discuss estimate of review resources (NRC FTEs and contractor support)
- Discuss impacts on schedule and resources for:
 - ◆ Non-certified design with Final Design Approval (FDA)
 - ◆ Non-certified design with Design Certification review in progress



NRC Review Schedule and Resources

General schedule and resource topics:

- Identify what NRC review activities can typically be worked in parallel
- For a COLA referencing a non-certified design, identify how design issues would be resolved
- Identify how many work hours are associated with an NRC FTE



COLA Preparation and Review

Drivers for schedule optimization

- Additional generation capacity required in future
- Cost control during licensing process
- Minimize risk associated with placing order for long lead time components



COLA Preparation and Review

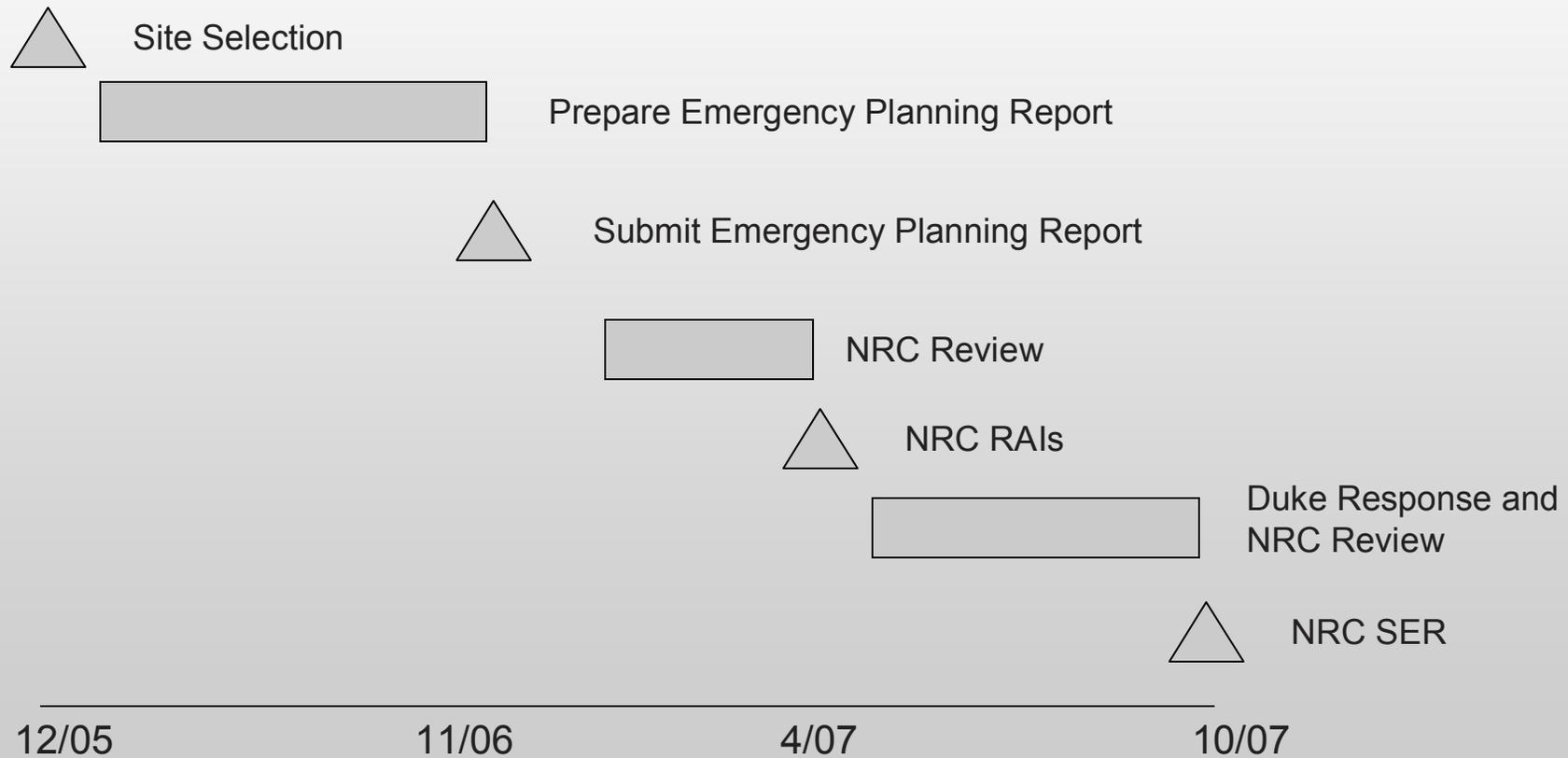
Strategies for schedule optimization

- Frequent interactions with NRC during COL application preparation
- Resolution of issues with other COL applicants
- Discuss options for satisfying regulatory requirements for meteorological data
- Discuss possible topics and approach for early submittal of portions of COLA as topical or technical reports (see next slide)



COLA Preparation and Review

Example: early submittal of portion of COLA as topical or technical report





COLA Preparation and Review

- Discuss pre-application submittal interactions with the NRC
 - ◆ Quality Assurance Program Review
 - ◆ Site Characterization and Data Collection
 - ◆ Engineering Design Verification
- Identify other pre-application submittal interactions
- Describe current NRC inspection plans for Engineering Design Verification
- Identify any NRC inspection modules for design and construction review during the COLA process



Closure

- Review any outstanding follow-up actions for Duke and the NRC
- Duke appreciates the support of the NRC staff in meeting today and providing information to support Duke's COLA study
- Duke is prepared to work closely with the NRC staff to support a thorough and effective review
 - ◆ Highest quality application
 - ◆ Innovative approaches to support schedule optimization for COLA preparation and review