Duke Energy Nuclear Programs Update for the South Carolina Governor’s Nuclear Advisory Council

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Agenda

• Nuclear Fleet Overview
  ▪ Operating
  ▪ New

• 2014 Performance
  ▪ Duke Energy
  ▪ Worldwide

• 2015 Initiatives
Duke Energy Nuclear Unit Ownership

• Current
  - Robinson; Oconee 1, 2 and 3; McGuire 1 & 2: 100 percent
  - Brunswick 1 & 2: 81.67 percent
  - Harris: 83.83 percent
  - Catawba 1: 38.492 percent
    - Duke Energy operates Unit 2, but has no direct ownership share

• Potential sale of North Carolina Eastern Municipal Power Administration share of Brunswick 1 & 2 and Harris to Duke Energy
  - Awaiting approvals
  - Following sale, Duke Energy would own 100 percent of Brunswick 1 & 2 and Harris
New Nuclear Plants

• Combined construction and operating license (COL) applications
  ▪ Lee (two AP1000 units near Gaffney, South Carolina)
  ▪ Levy (two AP1000 units in Levy County, Florida)

• COLs expected in 2016

• Licensing challenge: managing changes to the AP1000 standard design
Nuclear Fleet – Key Performance Indicators

Safety
- Personal
- Radiological (Dose)
- Nuclear (Scrams)

Reliability
- Capacity Factor
- Forced Loss Rate
- INPO Index

Efficiency
- Total Operating Costs

2012 Duke Energy nuclear fleet industry ranking = 5 of 9
2013 Duke Energy nuclear fleet industry ranking = 4 of 9
2014 Duke Energy nuclear fleet industry ranking = 1 of 9

Duke Energy goal = Best fleet in the industry
2014 Generation Highlights

- Fleet capacity factor of 93.18 percent
  - 16th year of fleet capacity factor greater than 90 percent (excluding Crystal River 3 in 2010-2012)
  - Exceeded U.S. industry average for past 22 years
- June – August fleet capacity factor 97.04 percent
- Catawba Unit 1 completed a continuous run over its entire operating cycle
- McGuire Unit 2 completed a continuous run over its entire operating cycle
- Oconee station had a capacity factor of 94.73 percent (site best)
2012-14 Average Capacity Factor
Top Industry Practice (TIP) Awards

• Annual Nuclear Energy Institute awards to utilities
  ▪ New ideas and practices that have a profound and direct impact on the success of the nuclear energy industry
  ▪ 14 awards given out each year

• Two Duke Energy TIP winners in 2015
  ▪ Excellence in Cost Management – Vision, Leadership and Ingenuity Award (new category)
  ▪ Dry Cask Storage Dose Reduction Using “Neverwet” at Robinson Nuclear Plant – Operate Plant Award
2015 Fleet Initiatives

- Equipment Reliability
- Workforce Sustainability
- Outage Execution
- Financial Stewardship (Excellence in Cost Management)
- Merger Integration
Questions ?