



DOE EAC Smart Grid Subcommittee Report

Activities and Plans

Presented by: Wanda Reder, Smart Grid Sub-Committee Chair

Electricity Advisory Committee Meeting

June 29, 2015

Smart Grid Subcommittee Plans



- ▶ National Strategy for Distributed Energy Storage
 - Joint sponsorship: Smart Grid / Energy Storage
 - Status report by Carlos Coe
 - Deliverable in Fall, 2015

- ▶ ARRA Projects Status and Next Step
 - Deliverable in Fall, 2015

- ▶ DOE EAC Reflections on Clean Air Act Section 111(d) – proposed

- ▶ Micro-grid Work Product - Proposed

ARRA Projects Status and Next Step



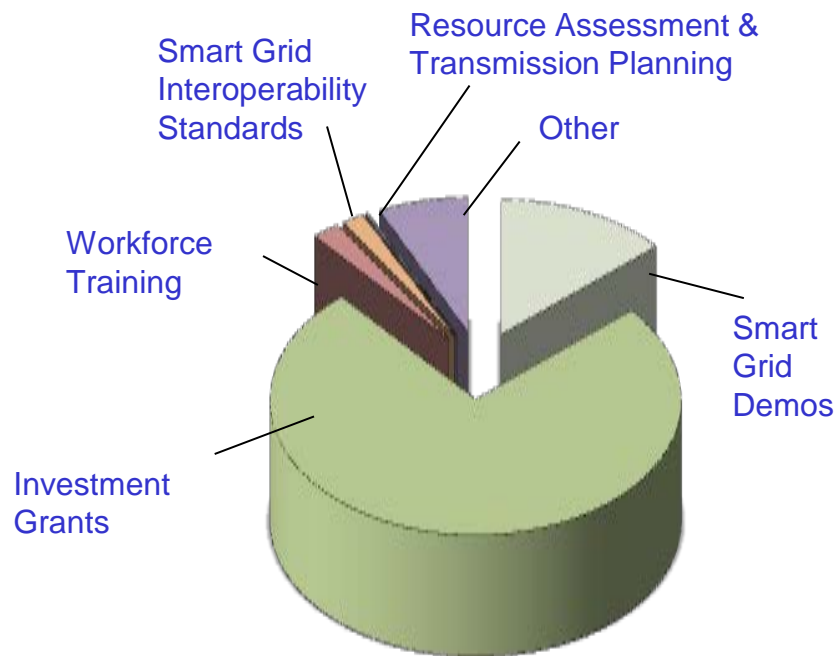
► Membership:

- Wanda Reder, Marilyn Brown, Sonny Popowsky, Bob Curry, Paul Hudson, Craig Miller (NRECA), Michael Worden (DPS), Joe Paladino (DOE)

► Scope:

- Reflections of ARRA activity enacted by Congress in 2009
- Applied to activities articulated within Title XIII of the Energy Infrastructure and Security Act of 2007 (EISA)

One-time Appropriation \$4.5B of Recovery Act Funds



Source: US Department of Energy Office of Electricity and Energy Reliability: Results and Findings from the ARRA Smart Grid Projects, May 2013

ARRA Projects Status and Next Step



► Approach

- Revised objective to augment the Smart Grid Systems Report that is in development by providing:
 - Vision for the grid, design implications
 - Changing utility customer relationship in next 3 – 5 years
 - Macro drivers for the change
 - Reflections of ARRA impacts and lessons learned
 - Recommended next steps

► Recent Accomplishments

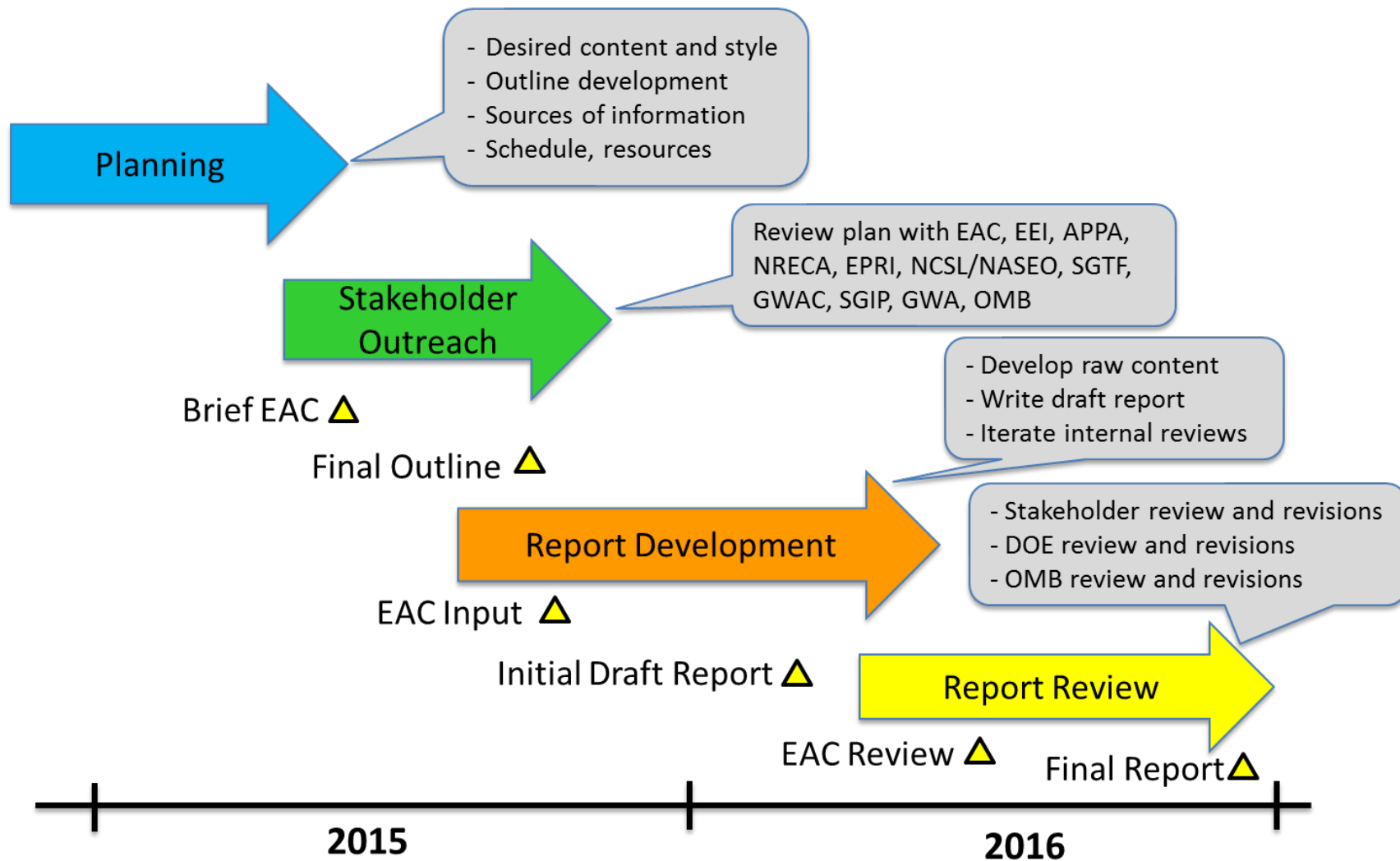
- Added members, meetings started
- Participated in Smart Grid Systems Report planning meeting
- Modifying outline to reflect revised objectives



▶ **SMART GRID SYSTEM REPORT (SGSR)**

- Every two years report to Congress on status of smart grid deployments nationwide
- Identify regulatory or govt barriers to continue deployment
- Include current status of prospects of smart grid development, including:
 - technology penetration
 - communications network capabilities
 - costs
 - obstacles
- May include recommendations for State / Federal policies
- Consult with Smart Grid Advisory Committee and others

SGSR Schedule



Reflections on Clean Air Act Section 111(d)



► Background

- President Obama called EPA to regulate greenhouse gases from existing power plants in June, 2013
- Section 111(d) of the Clean Air Act is the authority on which EPA will base the rule to limit CO₂ emissions from power plants.
- Finalization anticipated in Summer, 2015

► Many challenges

- Affects a broad range of power plants
- Statutory language is broad with limited precedent to guide the EPA, state officials, and courts when interpreting that language
- Electricity generation varies by region -- performance standards will likely affect some geographic areas more than others

Reflections on Clean Air Act Section 111(d)



- ▶ Outcome may have unintended reliability consequence
- ▶ DOE EAC ideally suited to reflect upon the implications, and possible risks
 - Varied backgrounds
 - Representing an unbiased view
- ▶ Target finalization and full EAC approval by Fall, 2015
- ▶ Discussion? Next steps?

Micro-grid Work Product



- ▶ Projects and market interest is increasing
- ▶ ARRA projects advanced adaptation
- ▶ Recommended next steps:
 1. Microgrid panel June 2015
 2. Confirm agreement for a work product June 2015
 3. Solicit membership / sponsorship June 2015
 4. Scope work product and provide outline Sept. 2015
 5. Draft work product March 2016