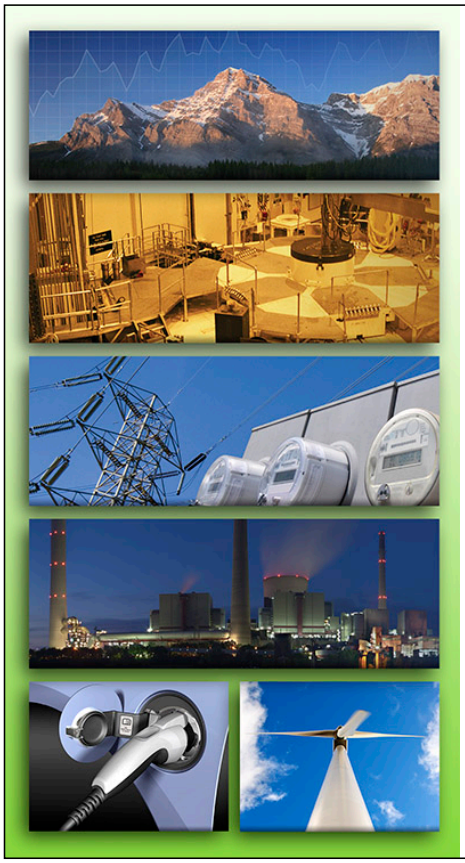

EPRI ELECTRIC POWER RESEARCH INSTITUTE

NGA-East Project

SSHAC Workshop 2 – Proponent Discussions and Remaining Critical Issues and Data Needs

Lawrence Salomone
Joint Management Committee

October 11, 2011

Overview: CEUS Seismic Source Characterization (SSC) Project

- Purpose: Project Update
- Key points
  - Completed PPRP, Sponsor Reviewer and USGS Briefings
  - Completed Sponsors' and Stakeholders' Briefings
  - Completed technical assessments of the model
    - Refined CEUS SSC earthquake catalog
    - Improved Method and Parameter Settings for recurrence analysis and spatial smoothing
    - Modified software for hazard calculations to incorporate adjustments made from technical assessments
    - Performed Hazard Calculations at Seven (7) Test Sites Using Final CEUS SSC model
  - Completed incorporation of PPRP, Sponsors and other stakeholder comments on draft report
  - Final report issued and PPRP and NRC comments on final report are being incorporated

PRELIMINARY CONCLUSIONS

- The approximate % increase from the Updated EPRI-SOG Ground Motion is generally higher for the USGS (2008) source model when compared to the CEUS SSC model
- Review of the hazard curves for the three source models shows that the hazard results for the CEUS SSC source model are generally between the Updated EPRI-SOG source model and the USGS (2008) source model
- Comparison of the hazard results from the three source models shows that the hazard results from the CEUS SSC Model at the seven test sites appear to be reasonable when compared to the hazard results from the Updated EPRI-SOG source model and the USGS (2008) source model

Plan for Completion

- **PPRP Closure Briefing -** September 7-8, 2011 **(Completed)**
- **Receive PPRP and NRC Comments on CEUS SSC Report –** September 26, 2011 **(Completed)**
- **Receive PPRP Closure Report -** October 2011
- **Complete CEUS SSC Final Report –** December 2011
- **Activate Public Website –** January 2012

Cooperation with NGA-East Project

- CEUS SSC Earthquake Catalog
- Characteristics of Future Earthquakes for Individual Seismic Sources
- Paleoliquefaction Database
- Location and Rationale for Test Sites

Industry Perspective

- **Need:**
  - Understands Importance of Developing New Attenuation Relations for the CEUS with the Same SSHAC Level 3 "pedigree" as the CEUS SSC Model
- **Request to Industry:**
  - NRC Generic Letter 2011-XX: Seismic Risk Evaluations for Operating Reactors
    - Use CEUS SSC model and the EPRI (2004, 2006) ground motion prediction equations to compute seismic hazard curves and ground motion response spectra (GMRS)
- **Concerns:**
  - Delay in Completing NGA-East Project
  - Impact of the NGA-East attenuation relations when they become available
- **Challenge:**
  - Accelerate the Development of New Attenuation Relations for the CEUS with an acceptable "pedigree"

Together…Shaping the Future of Electricity