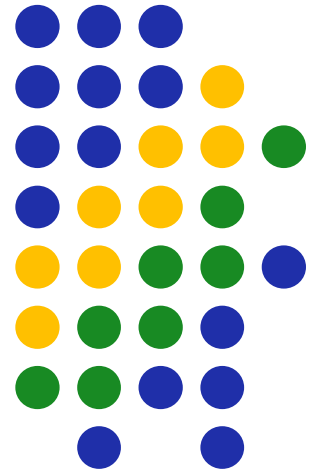


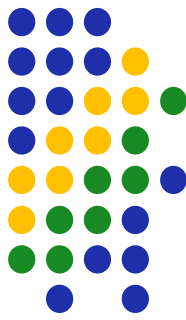
Futurecasting EM&V

Presented by
Dr. Katherine Johnson,
Johnson Consulting Group

February 3, 2016



Arkansas is Known For

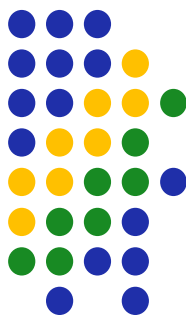


The Clintons



The world corporation and biggest private employer in the world – 2 million employees; world's largest retailer

And Energy Efficiency!

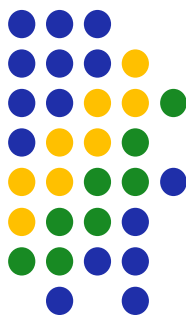


State of EM&V in Arkansas

At the direction of the Arkansas Public Service Commission, and the efforts of the Parties Working Collaboratively (PWC), the State of Arkansas has:

- *Established* EM&V Protocols as part of the TRM in 2011 and updated annually
- *Provided* annual EM&V Reports on current programs
- *Addressed* new topics including:
 - Developing a unified statewide approach to deliver weatherization and C&I programs
 - Developing carbon cost assumptions
 - Quantifying Non-Energy Benefits (NEBs)
 - Continuing to plan for aggressive energy savings goals for the next three year program cycle



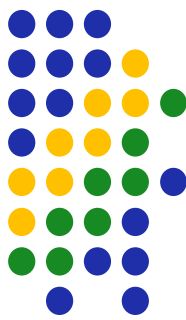


But the future of EM&V is uncertain

While EM&V is still viewed as valuable, some utilities are wondering if it is still worth the expense.

- *How much* evaluation is enough?
- *How often* do these studies need to be completed?
 - Annually
 - Once in every program cycle?
- *Are* there other, cheaper ways to validate the findings?
- *Why* do we have to look at everything “retrospectively?”



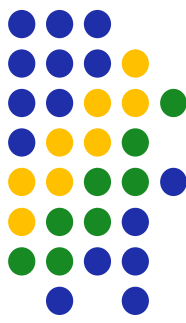


Our Response:

We are examining the role EM&V has played to date in Arkansas regarding:

- *Program performance* metrics
- *Financial calculations* of the cost-benefit of EM&V
- *Documenting* the key ways in which EM&V has:
 - Identified areas for program improvement
 - Led to higher than anticipated energy savings





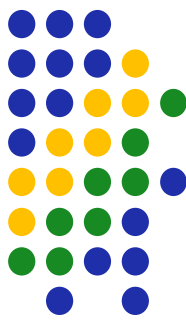
Preliminary Results

Impact Findings

- At the ***gross level***, there are still significant variations among programs but not across the portfolio.
- At the ***net level***, EM&V led to significant impacts on the savings assumptions.
 - For some utility programs, even in the fourth year of implementation, the changes from the ex ante to the ex post NTG ratios were over 20%, with some researched NTG values at 50%.

Process Findings

- The process evaluations documented numerous examples of ***positive program changes*** that were made that led to significant increases in ***program participation*** across the Arkansas energy efficiency portfolio.



Stay Tuned

More to come as this discussion unfolds in 2016.

To reach me:

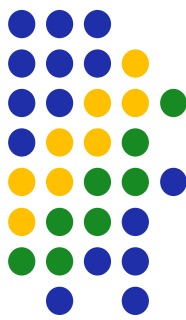
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Save The Dates

May 10-12, 2016

AESP's Spring Conference
Philadelphia, PA

August 16-18, 2016

AESP's Summer Conference
Chicago, IL

February 13-16, 2017

AESP's National Conference
Orlando, FL

For more information - www.aesp.org