

# Government Performance and Results Act (GPRA)

## Program Assessment Rating Tool (PART)

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Presentation to:  
IEA Experts' Group on Priority Setting and Evaluation,  
Workshop on Evaluating R&D Programs.  
November 9-10, 2010

# Government Performance Management

- **The Government Performance and Results Act of 1993 (GPRA):**
  - Enacted by Congress in order to improve program performance and to provide greater accountability for results.
  - Requires agencies to define goals/outcomes and to report results.
- **Transparency Leads to Accountability**
  - Greater transparency to the federal government between dollars and results.
  - Push toward more transparency in plans and results, and better performance in meeting goals.

# Government Performance and Results Act of 1993 (GPRA)

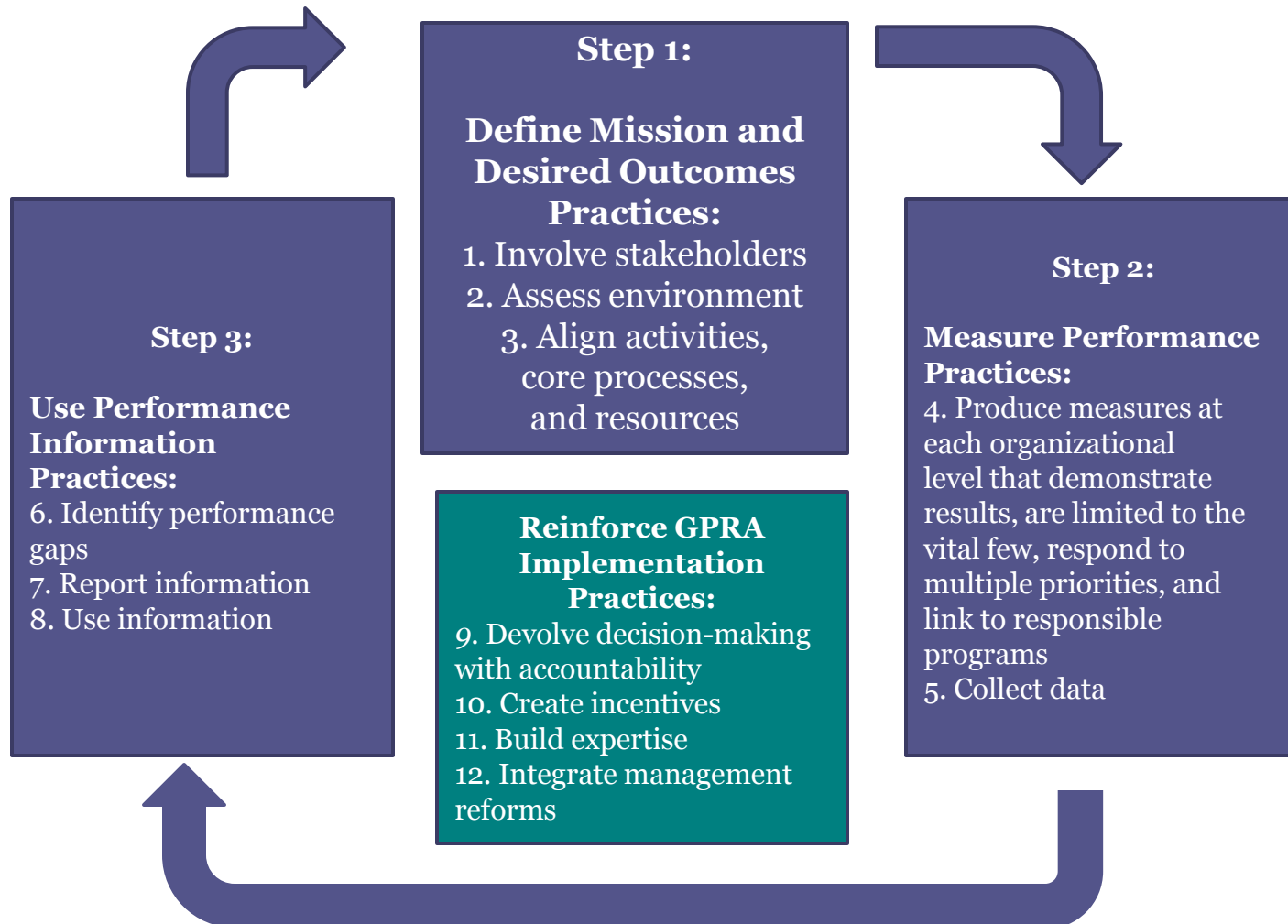
- **GPRA was passed in response to concerns that:**
  - Waste and inefficiency undermine the confidence of the American people;
  - Managers disadvantaged because of inadequate goal setting and performance measurement; and
  - Policy making, spending decisions and program oversight handicapped by insufficient information about program performance.

# Government Performance and Results Act of 1993 (GPRA)

- **Some elements of GPRA are familiar**
  - found in other federal management reforms such as:
    - Management by Objectives,
    - Zero-based Budgeting, or
    - Program Planning and Budgeting System.
- **In contrast to these management reforms, GPRA is a law with specific planning and reporting requirements:**
  - Five-year strategic plan,
  - Annual performance plan
  - Annual performance report



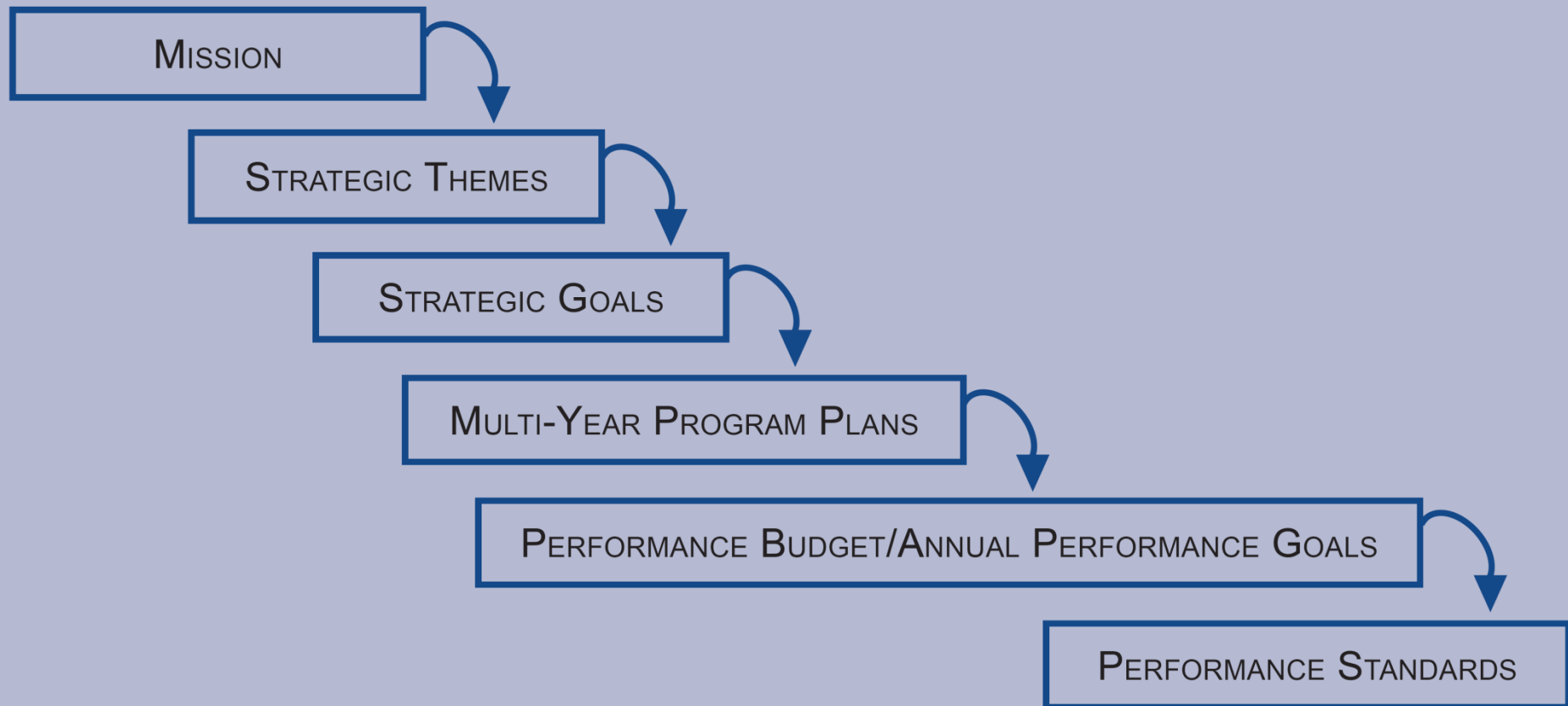
# Implementing GPRA: Key Steps and Critical Practices



# How to link Components of a Performance Based Management System?



# Linking Strategic Goals to Annual Performance Goals (Pre-Execution)



# Program Assessment Ratings Tool (PART) (2001\* - 2008)

- Systematic and consistent process for developing program performance ratings and using that information to make budget decisions.
- US Office of Management and Budget (OMB), in collaboration with other Federal agencies, developed the Program Assessment Rating Tool (PART).
- The PART establishes a high, "good government" standard of performance and is used to rate programs in an open, public fashion.



# PART and the DOE Budget Process

- DOE coordinates within agency to develop request to Office of Management and Budget (OMB).
- OMB and DOE reach agreement of what the administration's budget request will be, and submits budget to Congress.
- Congress takes budget under advisement, and passes appropriation bill, which may not be consistent with request.

# Performance Measure Development

- Each program within the Department, (e.g., Fossil Energy, Nuclear Energy, Energy Efficiency and Renewable Energy, etc) develops annual targets that are submitted with the budget request.
- Once FY begins, program establishes quarterly milestones to track R&D progress against the annual target.
- Once FY ends, program submits an annual report with justification to OMB that target was met/not met.

## Examples of DOE Programs

Advanced Fuel Cycle Initiative  
Advanced Scientific Computing  
Advanced Simulation/Computing  
Basic Energy Sciences  
Biological /Environmental Research  
Biomass and Biorefinery Systems  
Building Technologies  
Coal Energy Technology  
Distributed Energy Resources  
Electric System R&D  
Fusion Energy Sciences  
Generation IV Nuclear Energy  
Geothermal Technology  
Hydrogen Technology  
Industrial Technologies Program  
Natural Gas Technology  
Nuclear Power 2010  
Oil Technology  
Solar Energy  
Strategic Petroleum Reserve  
Vehicle Technologies  
Wind Energy

# What is PART?

- A series of questions (usually 25 or more) designed to provide a consistent approach to rating programs across the Federal government.
- A diagnostic tool that relies on professional judgment to assess and evaluate programs across a wide range of issues related to performance.
- Intended to develop consistent and defensible ratings of programs for the Budget Request.

# Methodology

- Performance evaluation questions are written in a Yes/No format. Brief narrative explanation of the answer provided.
- Yes answer is definite and reflects a high standard of performance. No single question determines the performance of a program. Some questions may not apply to every program.
- Questions within each section are given equal weight, unless the evaluator decides to alter their weight to emphasize certain key factors of importance to the program.
- Hard evidence of performance may not be readily available for all programs. In these cases, OMB assessments will rely more heavily on professional judgment.
- Summing of weighted answers result in an overall PART Score.

# PART Scoring

- The Program Assessment Rating Tool contains 25 questions in the basic PART instrument. These questions are organized into four sections that are each assigned a weight for calculating an overall score:
- **FOUR SECTIONS, include:**
  - Program Purpose & Design weight: 20%
  - Strategic Planning weight: 10%
  - Program Management weight: 20%
  - Program Results/Accountability weight: 50%

## There are 7 Versions of the PART Worksheet, Each Fit to a Different Type of Federal Program

- Direct Federal
- Competitive Grant
- Block/Formula Grant
- Regulatory Based
- Capital Assets and Service Acquisition
- Credit
- **Research and Development**

# Snapshot of PART Questions

<b>Purpose &amp; Design (20%)</b>	<b>Strategic Planning (10%)</b>	<b>Program Management (20%)</b>	<b>Results &amp; Accountability (50%)</b>
<ul style="list-style-type: none"> <li>I. Clear purpose?</li> <li>II. Address specific need?</li> <li>III. Not duplicate other efforts?</li> <li>IV. Free of major flaws?</li> <li>V. Resources efficiently target need?</li> </ul>	<ul style="list-style-type: none"> <li>I. Specific long-term performance measures? Which are:</li> <li>II. Supported by ambitious targets &amp; timeframes?</li> <li>III. Specific annual performance measures? Which are:</li> <li>IV. Supported by ambitious targets &amp; timeframes?</li> <li>V. Partners committed to goals?</li> <li>VI. Independent evaluations of effectiveness?</li> <li>VII. Budget tied to goals?</li> <li>VIII. Strategic planning deficiencies addressed?</li> <li>IX. <b><u>Specific To R&amp;D Programs</u></b> <ul style="list-style-type: none"> <li>➤ Compare program benefits to similar ones?</li> <li>➤ Effective prioritization process employed?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>I. Timely performance information?</li> <li>II. All participants held accountable?</li> <li>III. Funds obligated on time and properly targeted?</li> <li>IV. Efficient program execution?</li> <li>V. Coordinate with related programs?</li> <li>VI. Strong financial management practices?</li> <li>VII. Management deficiencies addressed?</li> <li>VIII. <b><u>Specific to R&amp;D Programs</u></b> <ul style="list-style-type: none"> <li>➤ Funding &amp; management processes ensure program quality?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>I. Progress achieving long-term goals?</li> <li>II. Achieve annual goals?</li> <li>III. Improved efficiency achieving goals?</li> <li>IV. Performance compare well with similar programs?</li> <li>V. Independent evaluations indicate effectiveness?</li> <li>VI. <b><u>Specific to R&amp;D Programs</u></b> <ul style="list-style-type: none"> <li>➤ Goals achieved within cost &amp; schedule?</li> </ul> </li> </ul>

# Guidance for Yes/No Response

- The PART holds programs to high standards. Compliance with the letter of the law is not enough. There is no “partial credit”
- A program must **satisfy all the requirements** of a question to earn a “Yes.”
  - In addition, those requirements must be met fully and consistently. (For instance, management practices should be well established and routine to the program’s operations.)
- The PART requires a **high level of evidence** to justify a “Yes” response, and credit for a question cannot be given without evidence.
- That evidence should address every element of the question, be credible, and current (i.e., from the last five years).



# PART Guidance: Question 1.4

- **Question:** *Is the program design free of major flaws that would limit the program's effectiveness or efficiency?*
- **Purpose:** To determine whether there are major design flaws in the program that limit its efficiency or effectiveness.
- **Requirements of Yes:** A consideration could be whether the government would get the same or better outcome by expending fewer total resources through a different mechanism. For example, there may be evidence that a regulatory program to ensure public safety would be more effective than a grant program. Analysis should consider whether the program structure continues to make sense given changing conditions in the field (e.g., changing threat levels or social conditions). Other considerations could include whether the program extends its impact by leveraging funds and contributions from other parties.
- **Evidence/Data:** Evidence demonstrating efficient design can include program evaluations and cost effectiveness studies comparing alternative mechanisms (e.g., regulations or grants) with the current design (e.g. direct Federal provision). Evidence on the relative benefits and costs of the activity are also useful.

# Example DOE PART Response:

## Question 1.4

**Question:** *Is the program design free of major flaws that would limit the program's effectiveness or efficiency?*

- **Program Name:** Zero Emissions Coal-Based Electricity and Hydrogen Production
- **Response:** Yes
- **Justification for “Yes”:** The program has no known design flaws that impede or limit the efficient program implementation. In fact, when testifying before Congress, the GAO gave a favorable review of the Clean Coal Technology program, an important piece of the Coal R&D program, calling it a model for future efforts. Other, non-federal R&D based program designs, such as tax incentives, loans, and loan guarantees pick up where the Coal R&D program ends by providing industry incentives to deploy technologies after they have been demonstrated. Regulations, another program design and an effective driver for technology improvement, work in concert with the DOE coal program by using data from the R&D program to help set achievable regulatory requirements, and anticipated regulation promotes participation by industry in innovative technology development that could not be financially justified without the Coal R&D program.
- **Evidence:** GAO testimony Before the Subcommittee on Energy, Committee on Science, House of Representatives, June 12, 2001 “..this program serves as an example to other cost-share programs in demonstrating how the government and the private sector can work effectively together to develop and demonstrate new technologies
- **Weight:** 20% of category

# PART Guidance: Question 2.RD2

- **Question:** *Does the program use a prioritization process to guide budget requests and funding decisions? (R&D)*
- **Purpose:** To determine whether the program has clear priorities and uses them in budget requests and funding decisions. (This question addresses the R&D “relevance” criterion .)
- **Requirements of Yes:** *A “Yes” answer needs to clearly explain and provide evidence of each of the following:*
  - The program has a documented process to identify priorities.
  - The program has evidence that it uses the resulting priorities in decision-making.
  - The program has an identified set of current priorities among program goals, objectives, and activities.
- R&D programs are encouraged to work with independent advisory bodies to help prioritize in ways that benefit the larger science and technology enterprise.
- **Evidence:** Evidence can include clear statements of program priorities in program documentation or mission statements, as well as documentation of the priorities identified by any qualified independent advisory bodies. Documentation of priorities should include either a subset of specific program activities considered to be priorities, or a rank ordering of all major, discrete program activities. Supporting documents should also describe the process used and factors considered in determining priorities.

# Example DOE PART Response:

## Question 2.RD2

**Question:** *Does the program use a prioritization process to guide budget requests and funding decisions? (R&D)*

- **Program Name:** Zero Emissions Coal-Based Electricity and Hydrogen Production
- **Response:** Yes
- **Justification for “Yes”:** The program uses a prioritization process that aligns budget requests to Presidential initiatives. Priorities are assessed and set via an Analytical Hierarchical Process (AHP) process which includes a pair-wise comparison and ranking of program element. Results of this process are evidenced by reduced FY05 budget requests in the combustion and liquid fuels technology areas and increases in budget request for a FutureGen initiative. Prioritization criteria emanate from the President's National Energy Policy (NEP) and from various Presidential initiatives such as the Clean Skies, Global Climate Change, Hydrogen, and FutureGen Initiatives.
- **Evidence:** a) Office of Fossil Energy (FE) budget briefing and budget tables of FE web site; b) AHP Strategic Process Direction Memo (signed by the Director of National Energy Technology Laboratory); c) NEP, d) Presidential Initiatives (Clear Skies, Hydrogen, Global Climate Change, FutureGen) cited on FE web sites.
- **Weight:** 10% of category

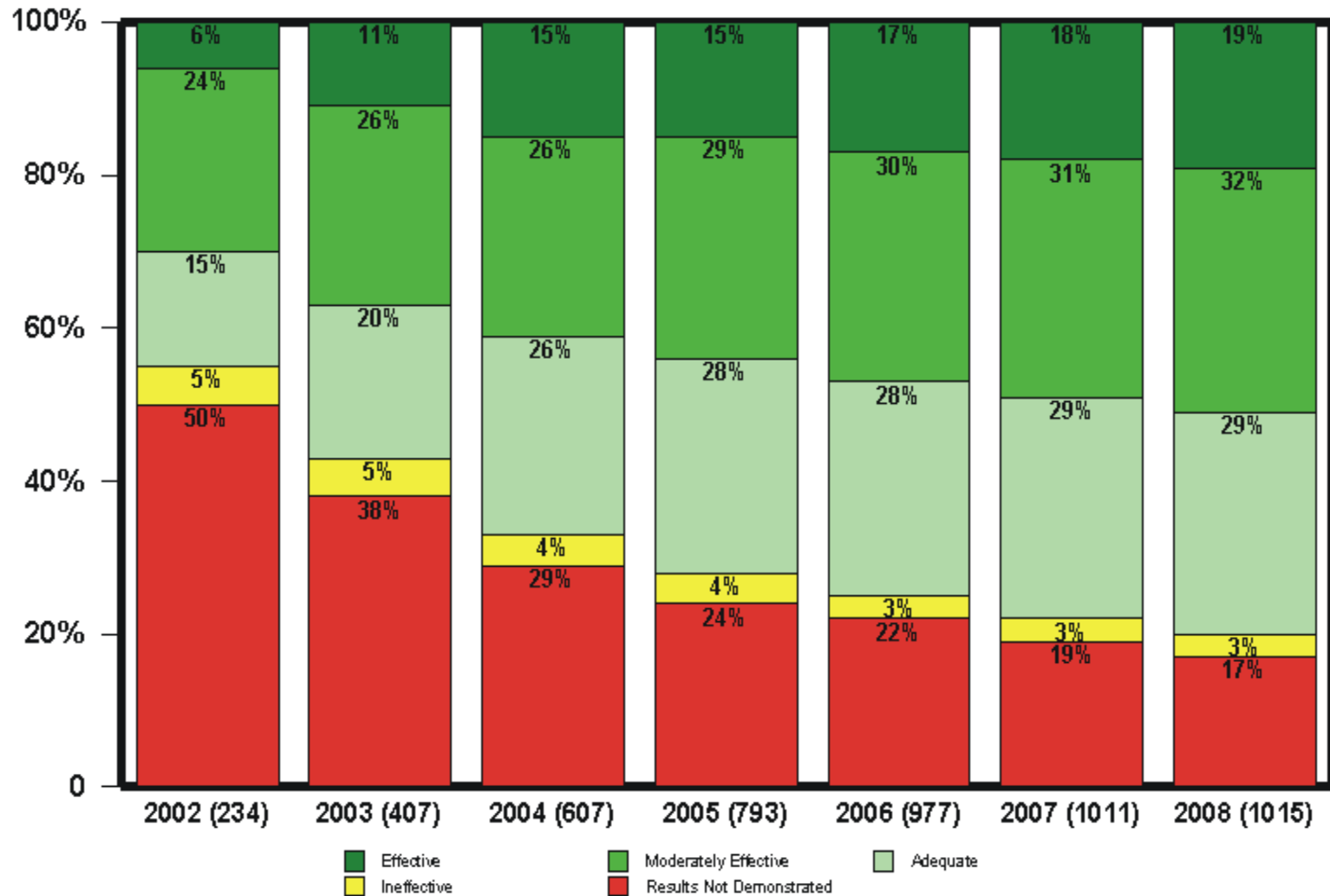
# Translating PART Scores into Ratings

- OMB converts the PART scores into qualitative ratings using the following scoring bands:
  - Effective 85 – 100
  - Moderately Effective 70 – 84
  - Adequate 50 – 69
  - Ineffective 0 – 49
- However, regardless of the overall score, a rating of Results Not Demonstrated (RND) is given if the program does not have performance measures that have been agreed-upon by OMB, or if the measures lack baselines and performance data.

# US DOE 2008 PART Score Examples

Program	Purpose/Design:	Results:	Planning:	Management	RATING
• Advanced Fuel Cycle Initiative	100%	90%	100%	53%	Moderately Effective
• Advanced Scientific Computing	100%	70%	66%	87%	Moderately Effective
• Advanced Simulation/Computing	83%	100%	91%	85%	Effective
• Basic Energy Sciences	100%	80%	91%	93%	Effective
• Biological /Environmental Research	100%	89%	66%	87%	Effective
• Biomass and Biorefinery Systems	80%	90%	73%	42%	Adequate
• Building Technologies	80%	50%	88%	42%	Adequate
• Coal Energy Technology	80%	70%	75%	33%	Adequate
• Distributed Energy Resources	80%	80%	100%	59%	Moderately Effective
• Electric System R&D	80%	80%	82%	74%	Moderately Effective
• Fusion Energy Sciences	100%	90%	66%	80%	Moderately
• Generation IV Nuclear Energy	100%	90%	100%	60%	Moderately Effective
• Geothermal Technology	80%	80%	88%	59%	Moderately Effective
• Hydrogen Technology	80%	80%	100%	59%	Moderately Effective
• Industrial Technologies Program	80%	90%	91%	50%	Adequate
• Natural Gas Technology	40%	60%	88%	25%	Ineffective
• Nuclear Power 2010	100%	89%	88%	45%	Adequate
• Oil Technology	60%	60%	88%	25%	Ineffective
• Solar Energy	80%	80%	100%	59%	Moderately Effective
• Strategic Petroleum Reserve	100%	88%	100%	87%	Effective
• Vehicle Technologies	80%	90%	100%	75%	Moderately Effective
• Wind Energy	80%	80%	88%	67%	Moderately Effective

## Cumulative Program Results by Ratings Category\* (2002-2008)



\*Government-Wide

# Use of Annual Targets

- What can the targets tell you?
  - They benchmark goals against which technical progress can be measured
- What can't they tell you?
  - Intangible lessons learned
  - Whether a failure is due to procedural delay (broken equipment, paperwork) or a substantive delay (experiments are not proceeding as planned)
- How they are used
  - To track ongoing progress of a program
  - Not used as the exclusive means to judge the merits of technology



# What is Good About PART

- It helps force management and planning discipline by shining a spotlight on potential problem areas
  - PART results put on the Web, and referenced in budget documents
- It helps focus the debate between the funding and oversight agencies.

# Lessons Learned: Where is PART Lacking

- Most questions are Yes/No, where a “no” receives zero points.
  - In spite of extensive instructions regarding what constitutes a “yes” for a question, OMB examiners still have significant room for interpretation
- Government-sponsored R&D is often risky, and frequent failures are expected. Not clear whether PART can adequately portray and fairly assess such risks
  - Potential train wreck..... annual targets
- Emphasis shifts between qualitative process’ oriented targets and quantitative trendable/trackable targets
- Poor scores may lead to reduced budgets from OMB in cases where best response would be improvements in management/planning processes
- Convey signals that incentivize “risk-aversion,” when Federal government should be underwriting “risk-taking”

# Current Approach to Program Assessment: GRPA Lives & PART Phased Out

- Transition from a planning and reporting approach to three performance improvement strategies:
  - **Using** performance information to lead, learn, and improve outcomes
  - **Communicating** performance coherently and concisely for better results and transparency
  - **Strengthening** problem-solving networks to improve outcomes and performance management practices
- Make GRPA documents more useful
  - Strategic plan
  - Performance Budget/Annual performance plan
  - Annual performance report (integrate former PART performance measures)

# For Additional Information

- **Craig Zamuda, Ph.D.**
  - Office of Climate Change Policy and Technology
  - Office of Policy and International Affairs
  - US Department of Energy
  - [Craig.Zamuda@hq.doe.gov](mailto:Craig.Zamuda@hq.doe.gov)

# Back up Slides

# Annual Performance Targets and Results

- **Secretarial Goal:** Clean, Secure, Energy: Change the landscape of energy demand and supply.
- **GPRA Unit Program Goal:** Program Goal 08 — Near-Zero Emissions Coal-based Electricity and Hydrogen Production
- Sub Program: Turbines

FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Performance Measure:</b> In FY 2011 demonstration of a hydrogen fueled combined cycle gas turbine (previously fueled with syngas) and maintain the same efficiency performance improvement realized in 2010 (2 – 3 percentage points).									
T: 42%*	T: 42%*	T: 43%*	T: 44%	T: 45%**	T:2-3% (Syngas-H2)	T:2-3% points 30% Power Inc	T:3.5-4% 35% Power Inc	T:4-5% 45% Power Inc	T: 5%(H2) 50%+ Power Inc 20-30% Capital Cost Reduction (\$/kW)
A: NA	A: 42%	A: 43%:	A:	A:	A:	A:	A:	A:	A:

- **Past Year Performance Measures:** The FY2011 performance measure was created in transition from reporting qualitative milestones to quantitative performance measures. Previous year performance measures for this subprogram are not directly predecessor measures to the FY2011 performance measure. These measures enable the progress necessary to support the new FY2011 Performance Measure.
- FY2006: Initiate a prototype combustor module test for large frame engines of low NOx combustion technology (trapped vortex, catalytic, lean premix, or modified diffusion flame) using simulated coal based synthesis gas to demonstrate progress towards a 2 ppm NOx emissions goal.
- FY2007: Complete prototype combustor module testing, demonstrate performance of achieving single digit NOx at lower flame temperature (21000 F vs. design inlet temperature of 25000 F and pressures, and identify the two most promising low NOx, high-hydrogen fueled, combustion concepts for further evaluation and testing in Phase II of the hydrogen turbine development projects.
- FY2008: Ensure the availability of a new generation of electric power generating "platforms" by initiating development of large frame hydrogen-fired turbine technologies (Phase II), including final combustion system down selection, and complete the test plan for the full head-end combustion system testing to achieve single digit NOx at progressively higher temperature and pressure. Complete preliminary rig tests of 3rd stage turbine blades as input to design for ability to withstand increased power output
- FY2009: Ensure the availability of a new generation of electric power generating "platforms" by Continuing subscale and initiating full scale testing of combustors and combustor components previously designed under the program and selected in 2008 for better understanding of operability issues. Material testing will be done to define hot gas path components for the hydrogen turbines and 3-D aerodynamic flow path optimization will begin.
- FY2010: Identify most promising material systems (base alloys, bond coats and thermal barrier coatings) for hot gas path, rotating and stationary airfoils and enhanced cooling effectiveness for reduced cooling air requirements. Reduce cooling air leakage to produce high temperature transition sections and turbine expanders. These improvements will result in higher turbine efficiency for plants with lower cost-of-electricity.

# Example Annual Performance Measure

FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Performance Measure:</b> Inject 1.5 million metric tons of CO <sub>2</sub> cumulatively at large-volume field test sites since 2009				
T: 1.5 A:	T: 3.0 A:	T: 4.0 A:	T: 6.0 A:	T: 7.5 A:

FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Performance Measure:</b> Conduct laboratory through pilot-scale tests of advanced post-and oxy-combustion capture technologies that show, through engineering and systems analyses studies, continued achievement toward the goal of 90 percent CO <sub>2</sub> capture at no more than a 55% percent increase in cost of electricity.				
T: 55% A:	T: 50% A:	T: 45% A:	T: 40% A:	T: 35% A: