



EXAMPLE FROM  
THE POWER TO RENEW



# ORACLE FOR THE FUTURE OF SUSTAINABLE ENERGY:

Designing a Delphi Approach to  
Predict Future Trends through a  
Panel of Global Experts

American Evaluation Association -  
Evaluation 2019 | November 11-16, 2019



# AGENDA

- 1 What is Delphi?
- 2 Application in Renewable Energy Evaluation
- 3 Delphi Process
- 4 Participant Activity – Round 1
- 5 Renewable Energy Case Example
- 7 Participant Activity – Round 2
- 8 Results from Renewable Energy Evaluation

# METHOD: DELPHI TECHNIQUE OVERVIEW

- Developed in the 1950s (Rand Corp.), named for Ancient Greek 'Oracle' who predicted future
- Emphasizes **forecasting** – *looks at “what could/should be”*
- Solicits anonymous/confidential **opinions** and information from subject matter **experts** – *“[More] heads are better than one”*
- Uses **systematic** and **iterative** approach through multi-stage questionnaires/templates

## What can you get from a Delphi approach?

- Generates ideas and alternatives
- Transforms individual expertise towards informed group judgment and consensus
- Controlled feedback process that is interactive and iterative

# EVALUATION: WBG SUPPORT TO RENEWABLE ENERGY DEVELOPMENT

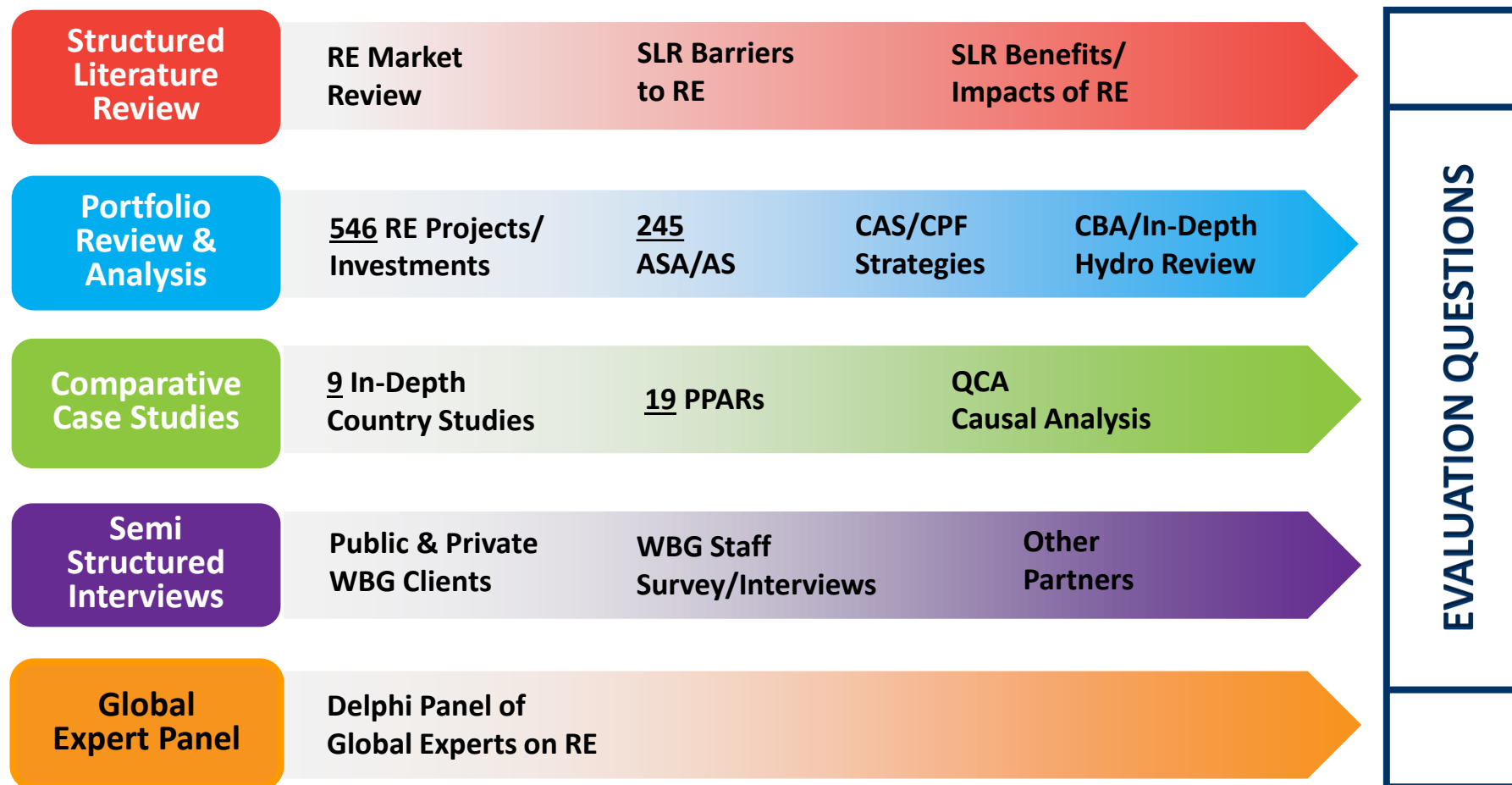
## DELPHI QUESTIONS:

What are emerging

- 1) **CHALLENGES** and
- 2) **OPPORTUNITIES** to developing RE, and what may be
- 3) **WBG'S ROLE** in helping clients address challenges and seize opportunities

- Renewable Energy (RE) for meeting **energy** demand in an **environmentally** sustainable way
- SDGs and Paris Agreement stresses RE as a **key solution**
- Theory of Change: WBG's key contribution is helping address key **barriers** to investments in RE  
→ leads to ↑ electricity supply → avoided CO<sub>2</sub>
- Dynamically **evolving** sector expected to continue to disrupt
- **Learning** from past may not always be **lessons** for future

# EVALUATION: MULTI-METHOD APPROACH



# WHO? IDENTIFYING GLOBAL EXPERTS ON RE

- **Experts on Subject Matter**
- **Diversity of Expertise**  
RE, CC, Public/Private, Developed/Developing
- **Facilitators**  
w/ knowledge of sector and understanding of methodology

**President & CEO**  
**GE Renewable Energy**

**Professor,**  
**University of Maryland,**  
**Fellow,**  
**Brookings Institute**

**President**  
**Chinese Renewable**  
**Energy Association, China**

**Investor**  
**Berkeley Energy and**  
**Chairman of Catalyst**  
**Principle Partners**

**(former) Minister**  
**Public Service,**  
**Sustainable Development,**  
**Energy, Science and**  
**Technology, Saint Lucia**

**Chief Economist**  
**International Energy**  
**Agency**

**Director General**  
**The Energy & Resources**  
**Institute (TERI), India**

**Professor**  
**Basque Center**  
**for Climate Change**

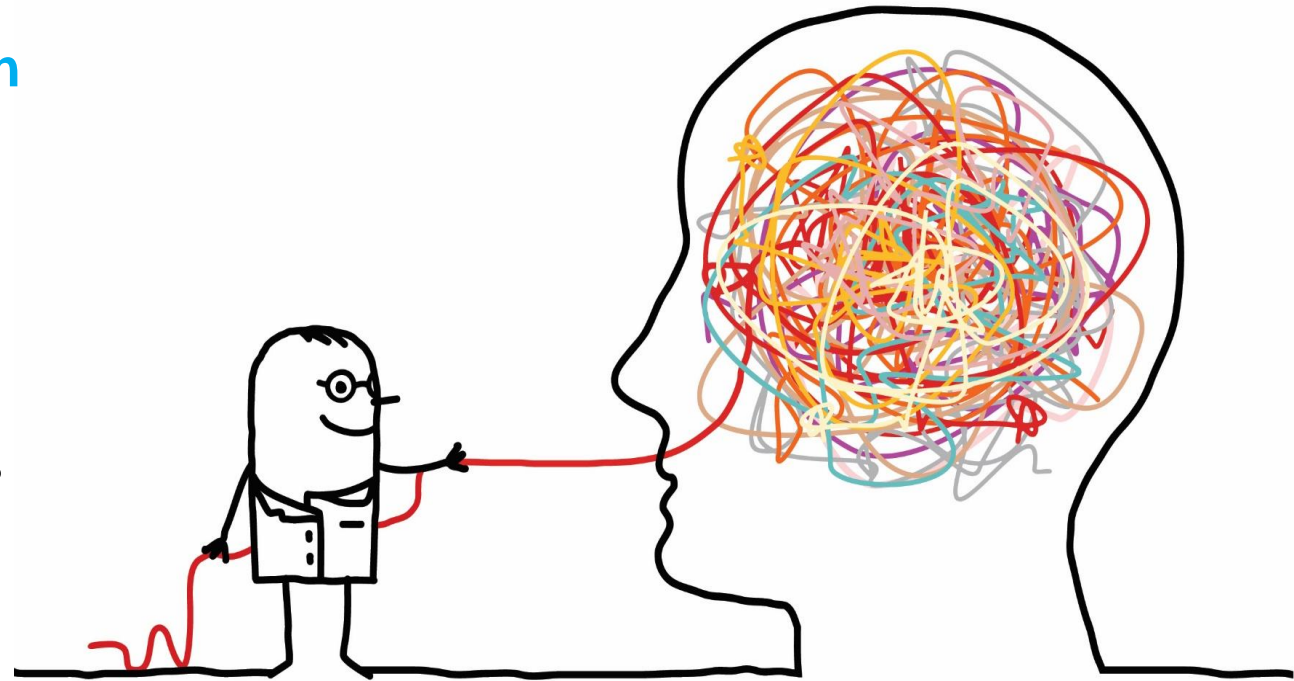
# APPROACH: IDEA GENERATION AND PRIORITIZATION (ROUND #1)

## Expert Panelists:

- “Blank slate” with confidential **idea generation**
- Score items for **prioritization**
- Return completed templates to Facilitators

## Facilitators:

- **Review** and compile main themes and scores from panelists
- Seek **clarifications** from individual panelists, as needed
- Prepare a **synthesis** for sharing an updated template in Round 2



# APPROACH: REVIEW, SYNTHESIS, RE-SCORE (RE-PRIORITIZE), CLOSURE (ROUNDS #2...n)

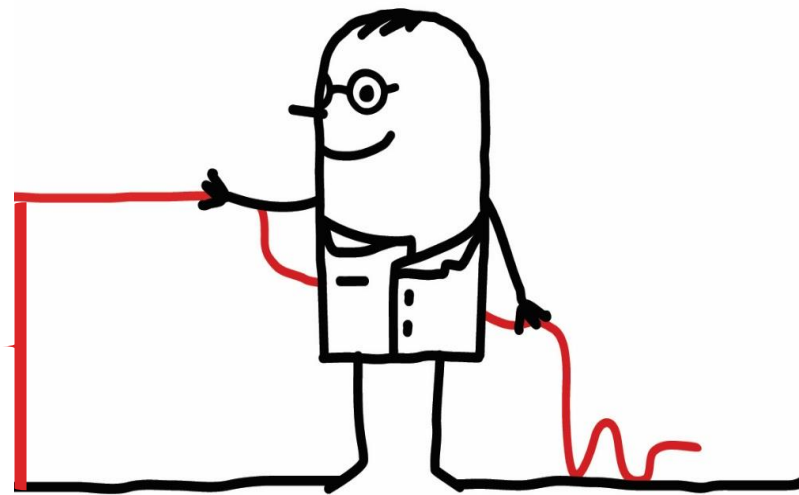
## Expert Panelists:

- **Review** synthesis
- **Rescore** to indicate updated priorities
- Add any additional **comments**
- Return confidential completed templates to Facilitators

**Facilitators:** Same as Round 1

**NOTE:** Iterative rounds can continue as needed, but requires more time

**CLOSURE:** Complete synthesis report with analytical findings (themes, priorities) including methodological approach used  
Disseminate (if stand-alone document) or utilize findings (in evaluations to triangulate conclusions).





# Participant Activity

## Round 1

**Panel:** You all are experts on program evaluations.

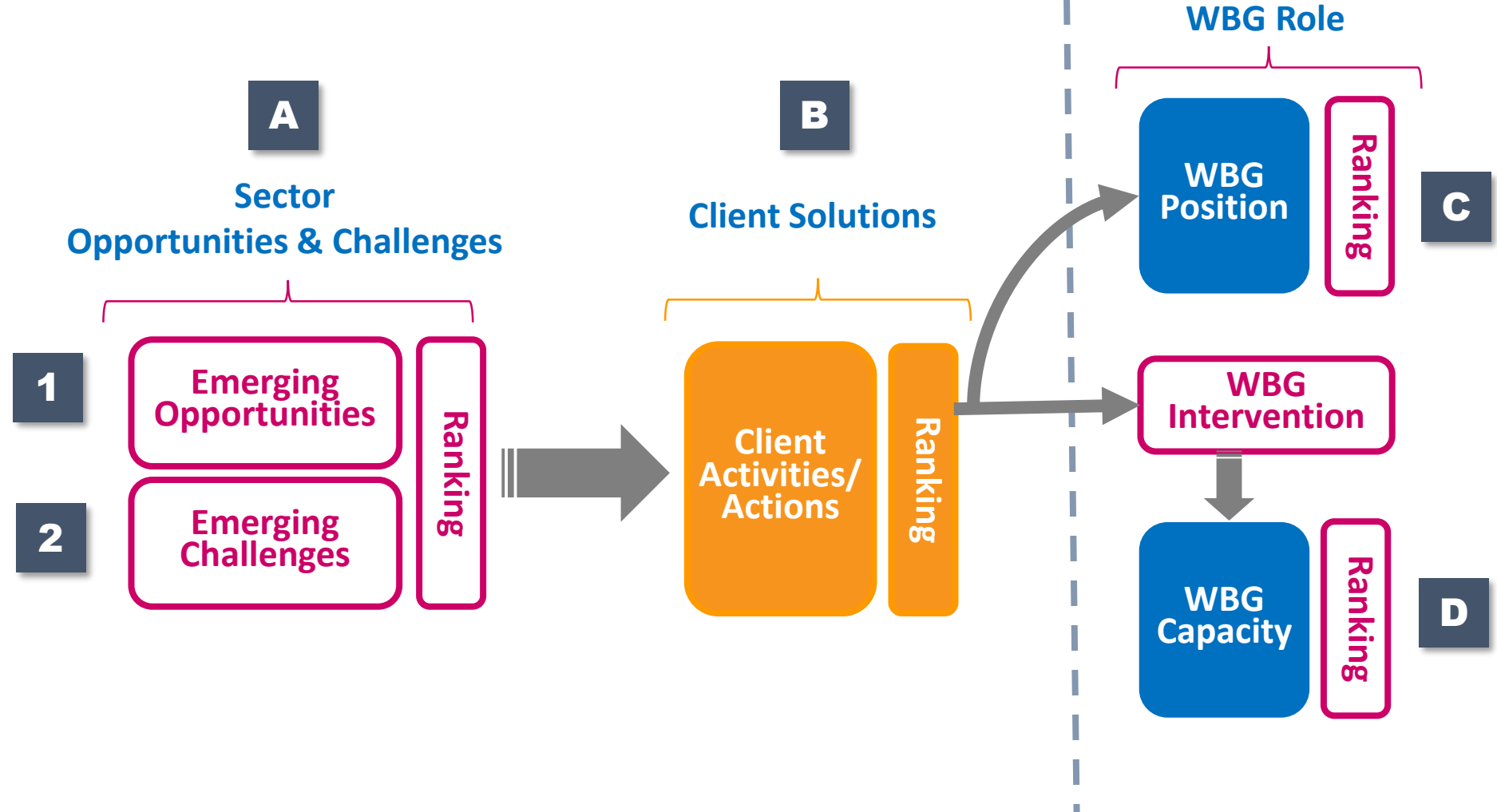
**Question:** If we talked to clients who procure evaluations, what would they say is the single most important area for improving the utilization of evaluation results?



Submit only one priority answer at:  
**[www.pollev.com/iegnow](http://www.pollev.com/iegnow)**

# TEMPLATES: DESIGN AND STRUCTURE

- 2 Templates w/ instructions
- Priority Ranking by Score and Likert-Scale
- Completed templates submitted to Facilitators



# TEMPLATES: EXAMPLES

The Power to **RE** new: Evaluation of the World Bank Group's Support to Renewable Energy Development



DELPHI HIGH-LEVEL GLOBAL EXPERT PANEL ON RENEWABLE ENERGY:  
RESPONSE TEMPLATES

## TEMPLATE 1: OPPORTUNITIES

The Power to **RE** new: Evaluation of the World Bank Group's Support to Renewable Energy Development



DELPHI HIGH-LEVEL GLOBAL EXPERT PANEL ON RENEWABLE ENERGY:  
RESPONSE TEMPLATES

## TEMPLATE 2: CHALLENGES

### RESPONSE TEMPLATE 1 OF 2: OPPORTUNITIES

EMERGING OPPORTUNITIES TO DEVELOPING RE GOING FORWARD							
RE SECTOR OPPORTUNITIES AND ACTIONS					WBG POSITIONING AND CAPACITY TO HELP CLIENT COUNTRIES		
#	Main emerging opportunities to further develop RE in developing countries (Please be concise)	Rationale for selection of opportunities (Why?) (Please provide details)	Priority Score: Between 0 - 100 (Column total must add to 100)	What action(s) should be taken by developing countries to seize the opportunity?	How well do you think is the WBG positioned to help clients successfully carry out the action(s) to seize the opportunity? (Using the 4-point scale in the drop-down list)	What intervention(s) should the WBG undertake to help clients implement the action? (Please be specific and provide details)	How do you assess the current capacity of the WBG to successfully implement each intervention? (Using the 4-point scale in the drop-down list)
1	Click here to enter an opportunity.	Click here to enter your rationale.	Click here to enter your score.	Click here to enter an action.	Choose an item.	Click here to enter a WBG intervention.	Choose an item.
						Click here to enter a WBG intervention.	Choose an item.
						Click here to enter a WBG intervention.	Choose an item.
				Click here to enter an action.	Choose an item.	Click here to enter a WBG intervention.	Choose an item.
						Click here to enter a WBG intervention.	Choose an item.
						Click here to enter a WBG intervention.	Choose an item.
2	Click here to enter an opportunity.	Click here to enter your rationale.	Click here to enter your score.	Click here to enter an action.	Choose an item.	Click here to enter a WBG intervention.	Choose an item.
						Click here to enter a WBG intervention.	Choose an item.
						Click here to enter a WBG intervention.	Choose an item.
				Click here to enter an action.	Choose an item.	Click here to enter a WBG intervention.	Choose an item.

# Participant Activity

## Round 2

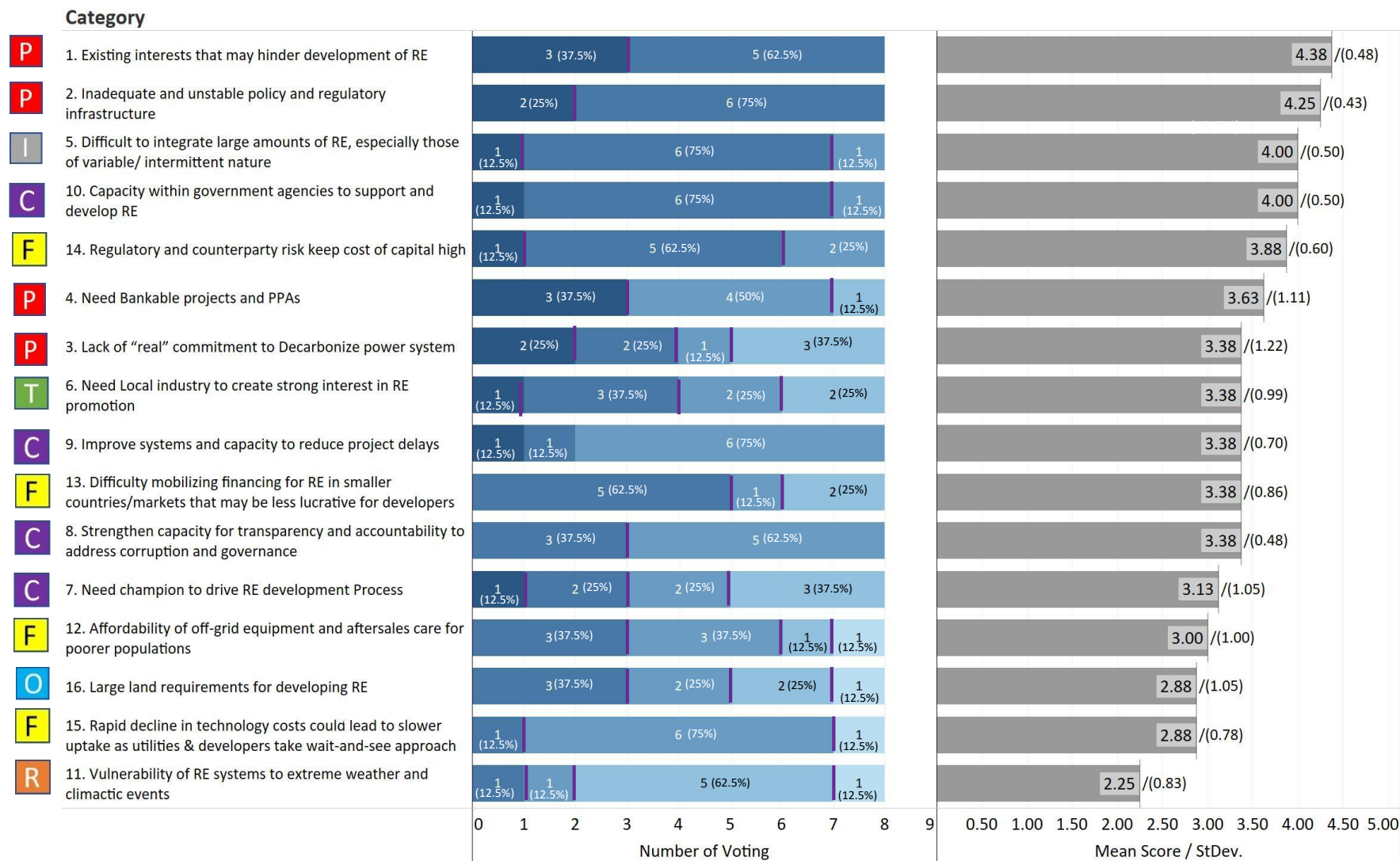
Based on your input previously, we have narrowed down to the top most frequent responses.

**Question:** Can you rank this list as to what you see are as the most important to improving evaluation utilization, in priority order (top being the highest priority)?



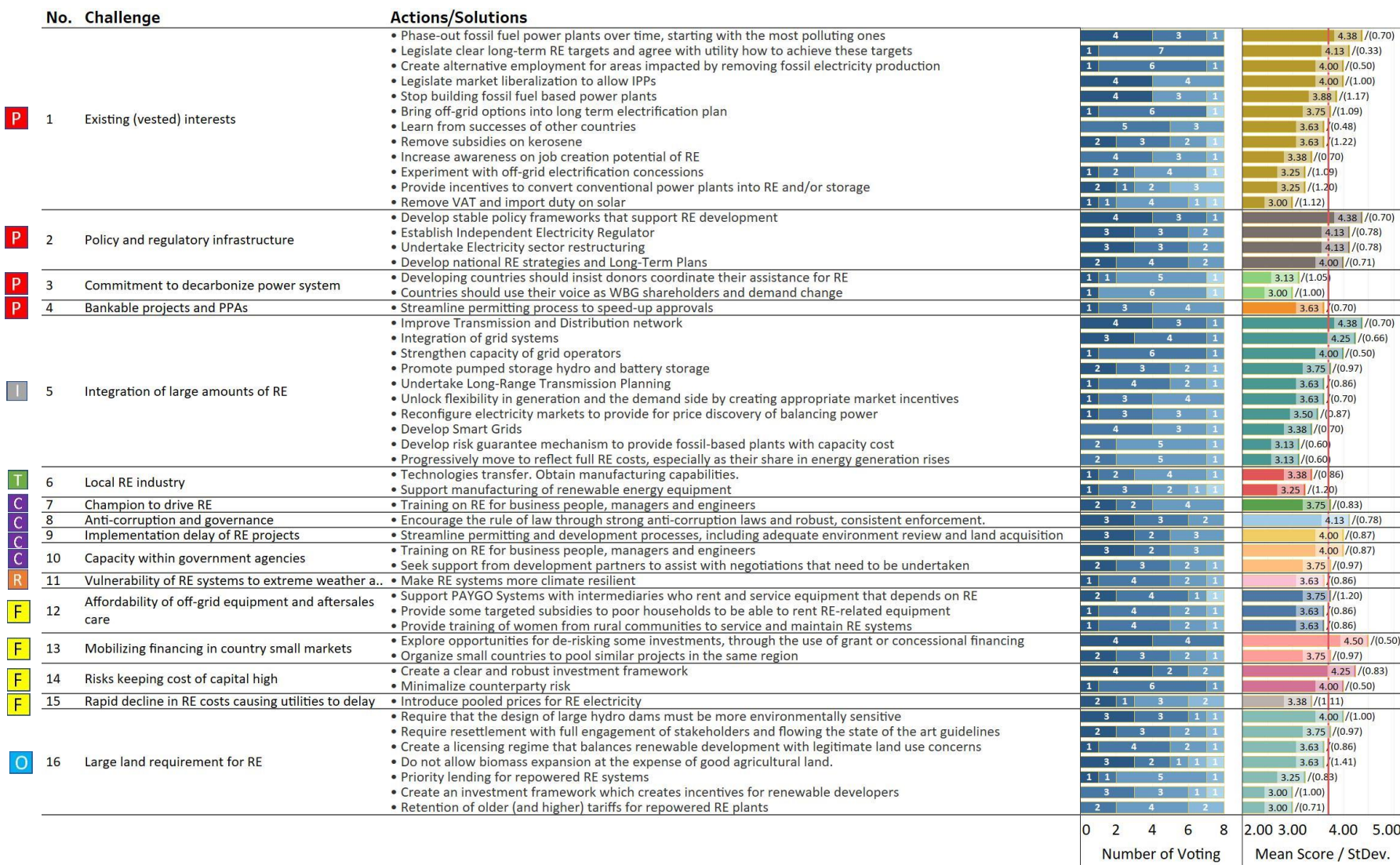
Provide your answer by clicking on options and using up or down arrows to reorder your list  
**[www.pollev.com/iegnow](http://www.pollev.com/iegnow)**

# RANKING OF CHALLENGES BASED ON DELPHI RESULTS





# NESTED RANKINGS OF ACTIONS/SOLUTIONS



## RE Barrier Classification

- P Policy and regulatory
- I Integration into power system
- T Improvement to design & technical standards
- C Strengthen institutional capacity
- R Mitigate investment risks
- F Mobilizing financing
- O Others

## Importance Score

- Very High=5
- High=4
- Moderate=3
- Low=2
- Very Low=1

# APPROACH: APPLICATION IN EVALUATION

- Policy and regulatory framework one of top impediments to scaling-up RE (**reinforced as essential barrier by QCA**)
- Integration of RE is top 3 priority (**90 percent = 'high' or 'v. high' importance**), but WBG 'moderately well' positioned to address, (including due to limited experience with emerging area of electricity storage)
- Mitigating investment risks assessed as 'highly important' by **2/3 of panel**
- **90% of panel** identified training of government officials as 'very important'
- Vested interests w/ stakeholder is **top challenge**, providing justification for WBG systematic and coordinated engagement to address barriers
- Distributed Generation (**approach fast-gaining traction**) had mixed opinions (**40% important by panel, although 80% of staff saw it as very important**)





# CONTACT IEG

[ieg.worldbank.org](http://ieg.worldbank.org)

