## Survey Results FERC SGIP Screens

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#### Confidentially

- Solar ABCs drafted a confidentiality policy statement:
- No individual company data or responses will be released, but the data provided in the survey will be aggregated for the purposes of producing the report
- Option to partially or fully opt out



#### Questionnaire

- Voter Pamphlet approach with pros and cons
- 37 subject matter experts completed
- Goal to reach consensus among SME's
- Tool "Survey Monkey"



#### **Key Stakeholders**

**NARUC** 

**Electric Utilities** 

**Industry Representatives** 

State Policymakers



#### Introduction to FERC SGIP

SGIP most thoroughly vetted by all industry participants and codified in FERC Order 2006 in May, 2005 and 2006-A and 2006-B in the subsequent year (www.ferc.gov, "Legal Resources", "Major Orders – Electric",

and see current rule and agreement links at

www.ferc.gov/industries/electric/indus-act/small-gen.asp



#### **Background FERC SGIP**

- 10 kW Inverter Process
- Fast Track Process no larger than
   2 MW
- Default Study Process no larger than 20 MW
- ANOPR, NOPR, Rule



#### **FERC SGIP Screens**

- Section 2.2.1.1-10
- 10 screens
- 15 % rule on line section
- 5 % rule on networks
- Inverter impact on contribution to fault current
- 10 kW size limit



# FERC SGIP Subject Matter Experts

- IEEE P1547.6 Draft Recommended Practice For Interconnecting Distributed Resources With Electric Power Systems Distribution Secondary Networks
- IEEE P1547.7 Draft Guide to Conducting Distribution Impact Studies for Distributed Resource Interconnection
- DOE designated SME's

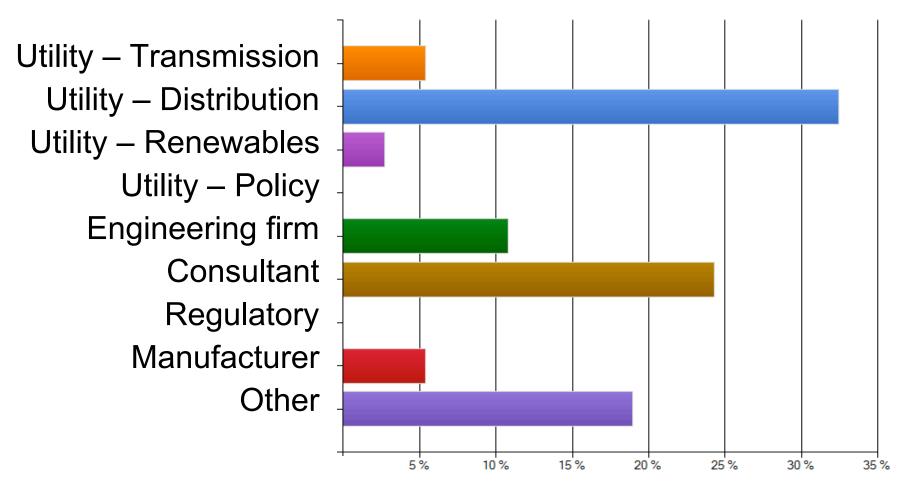


#### **FERC SGIP Results**

- Questionnaire request sent to 157 SMEs
- 37 SMEs Completed Questionnaire
  - 11 from IEEE P1547.6 Working Group
  - 23 from IEEE P1547.7 Working Group
  - 3 Solar ABCs/DOE invites

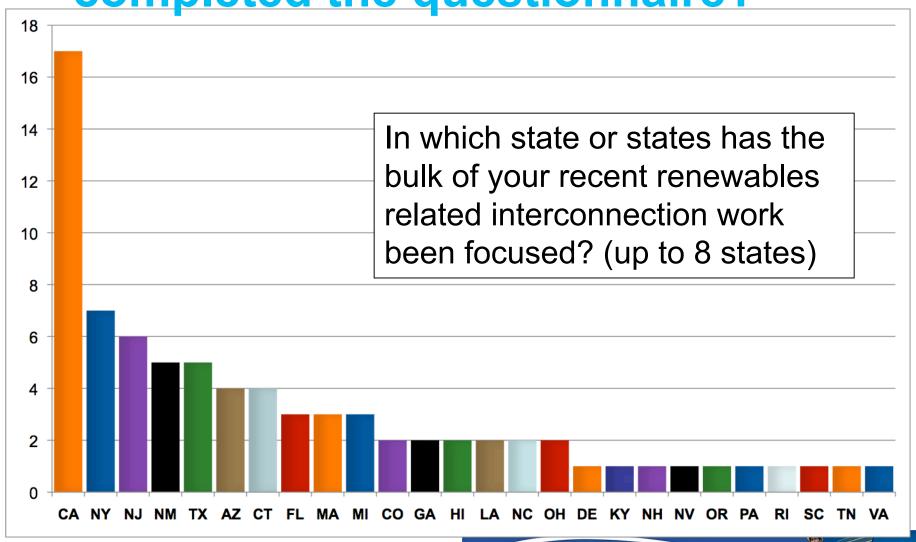


### FERC SGIP Results – Who completed the questionnaire?

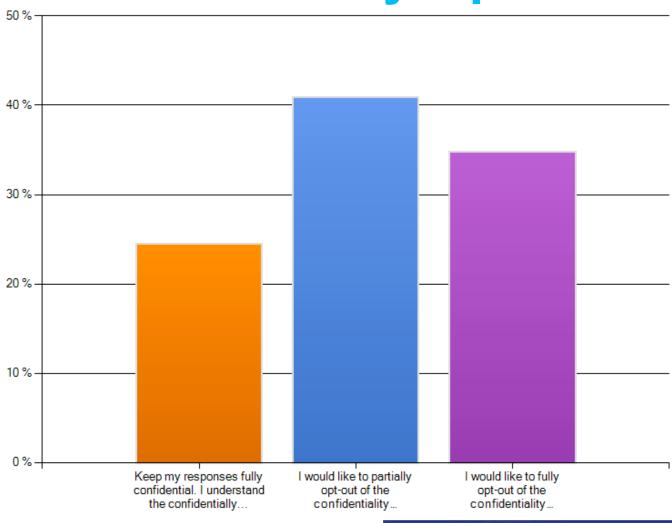




### FERC SGIP Results – Who completed the questionnaire?

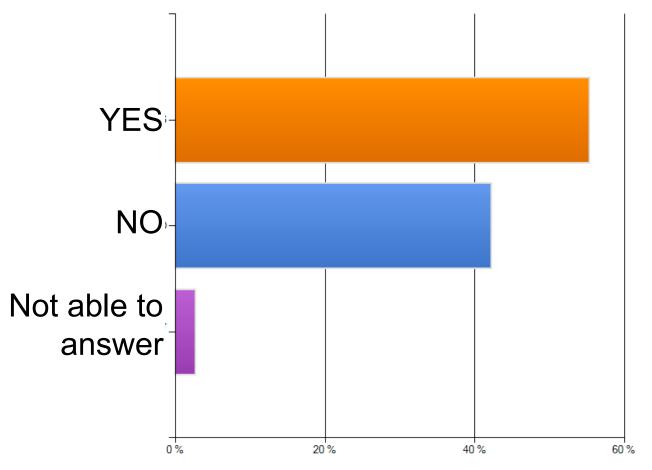


## FERC SGIP Results – Confidentiality Options





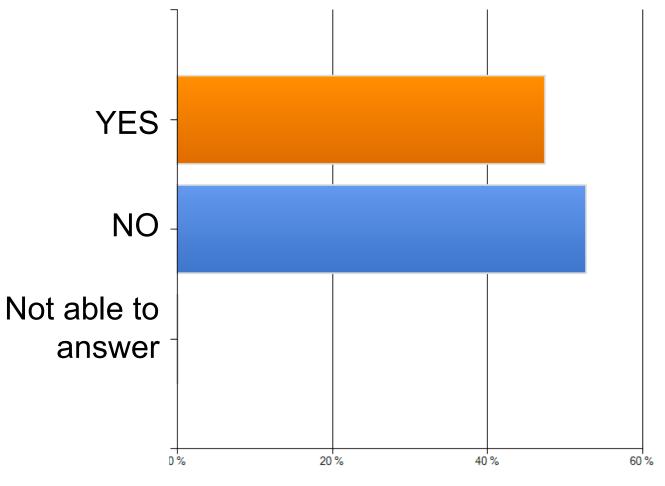
### FERC SGIP Results – 10 KW Inverter Process



Do you support updating the size limit for the simplified process for small inverter-based systems, currently known as the "10 kW Inverter Process"?

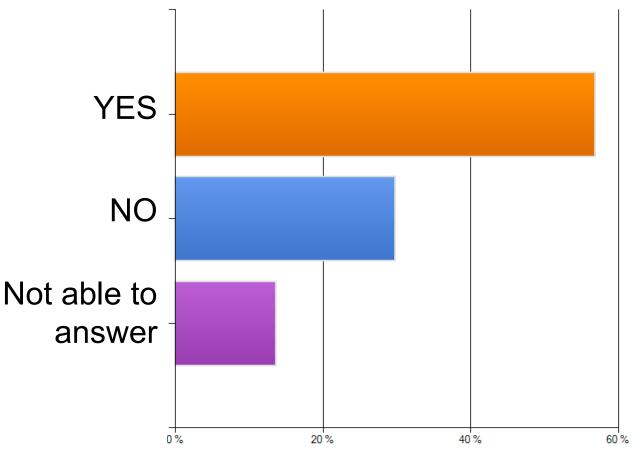


## FERC SGIP Results - #2: DG capacity vs. line section peak load (max 15%)



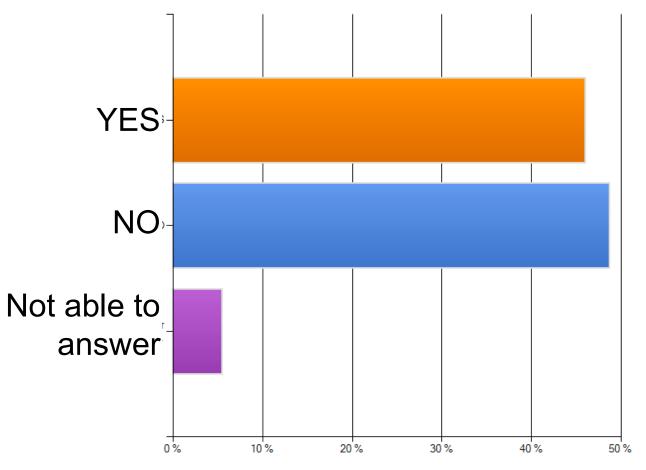


# FERC SGIP Results - #3: Network protectors (limit of 5% of a spot network's maximum load or 50 kW)



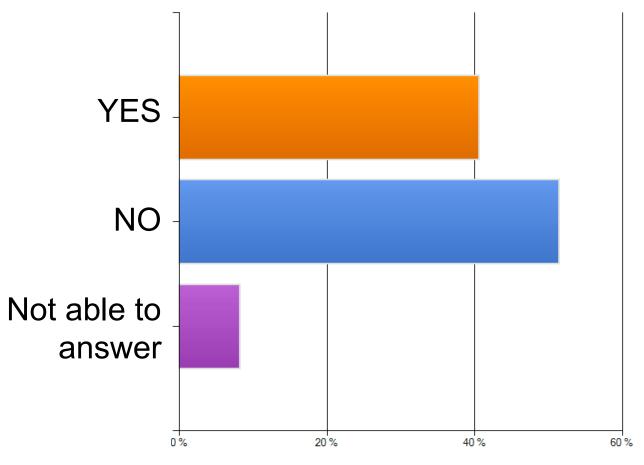


# FERC SGIP Results - #4: Short circuit contribution (10 % of the distribution circuit's maximum fault current limit)



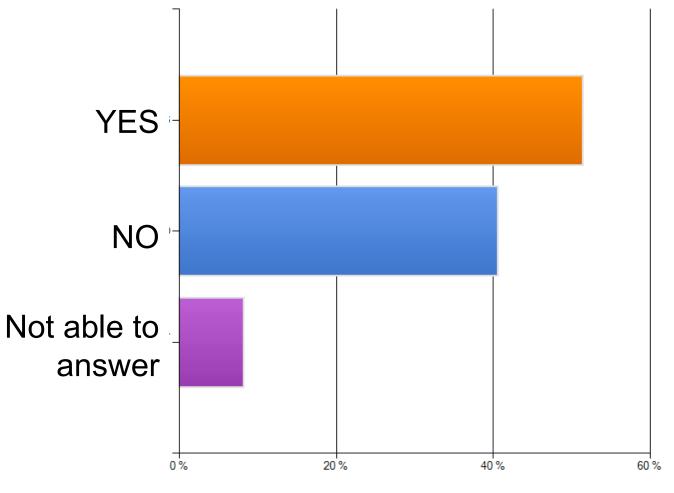


# FERC SGIP Results - #5: Interrupting capability of existing devices (87.5 % of the short circuit interrupting capability)





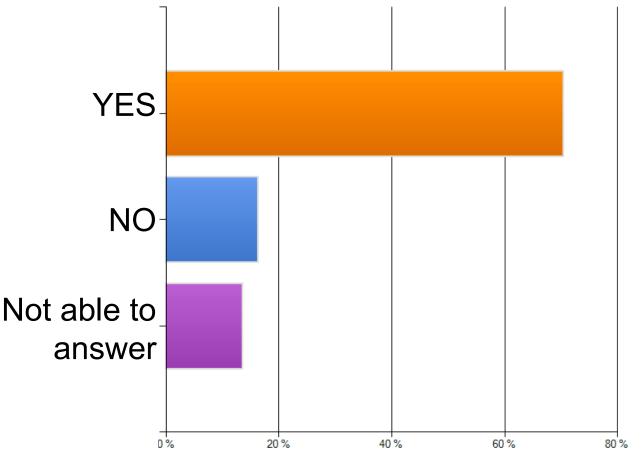
### FERC SGIP Results - #6: Connection type (3 wire, 4 wire)





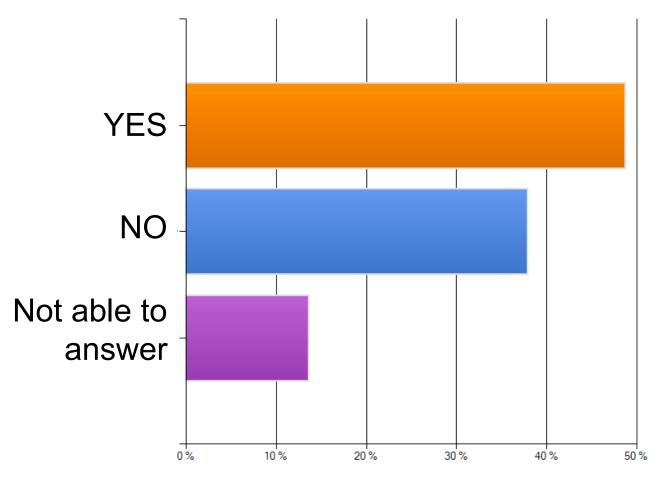
#### FERC SGIP Results -

#7: Single-phase shared secondary system size limit (20 kW)



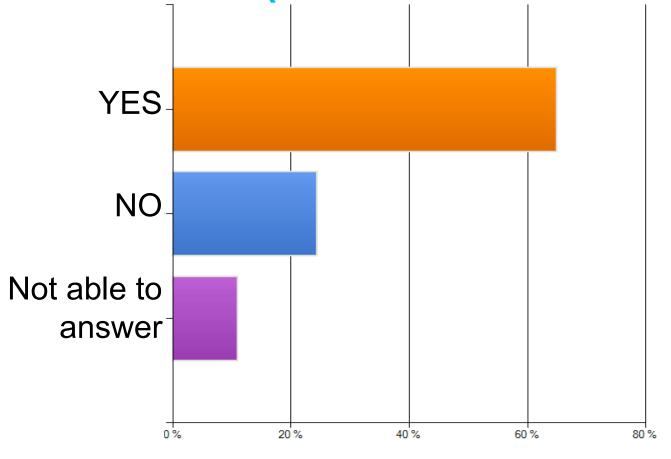


## FERC SGIP Results - #8: Single-phase shared secondary (20% imbalance limit)





# FERC SGIP Results - #9: Size limit in an area where there are known stability limitations (shall not exceed 10 MW)





#### **Key Observers**

Rahim Amerkail FERC
Gary Nakarado Regulatory Logic
Tom Basso NREL



## Next Steps and Timeline for Report

- Three Stakeholder meetings scheduled November 2009; February 2010, April 2010
- Draft Report April 30<sup>th</sup>, 2010
- Comments May 17<sup>th</sup>, 2010
- Consensus June 15<sup>th</sup>, 2010
- Final report July 31, 2010



#### Feedback?

www.solarabcs.org --> Documents

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