

■ ■ ■ ■

# Attitudes and Buying Behavior for PV - A Survey of Utilities and Enterprises

August 19, 2010

Jim Hines  
james.hines@gartner.com

Al Velosa  
alfonso.velosa@gartner.com

Mike Taylor  
mtaylor@solarelectricpower.org

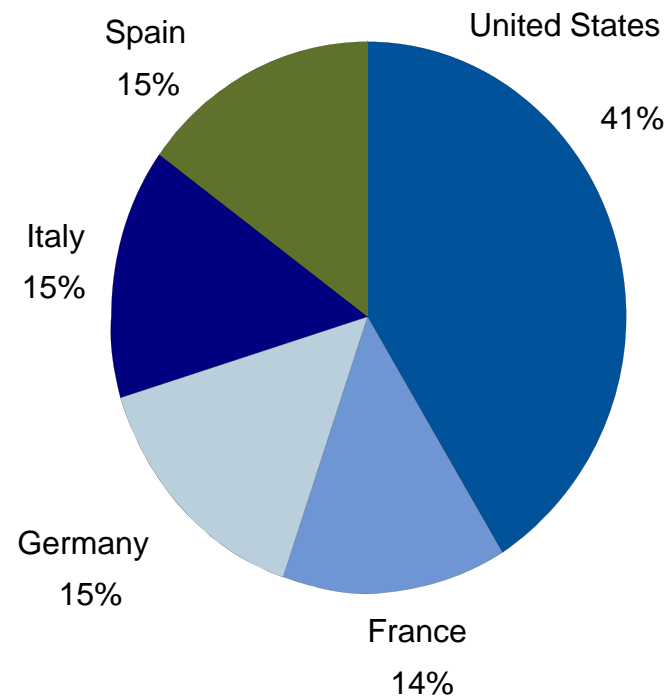


# Agenda

## Two Surveys:

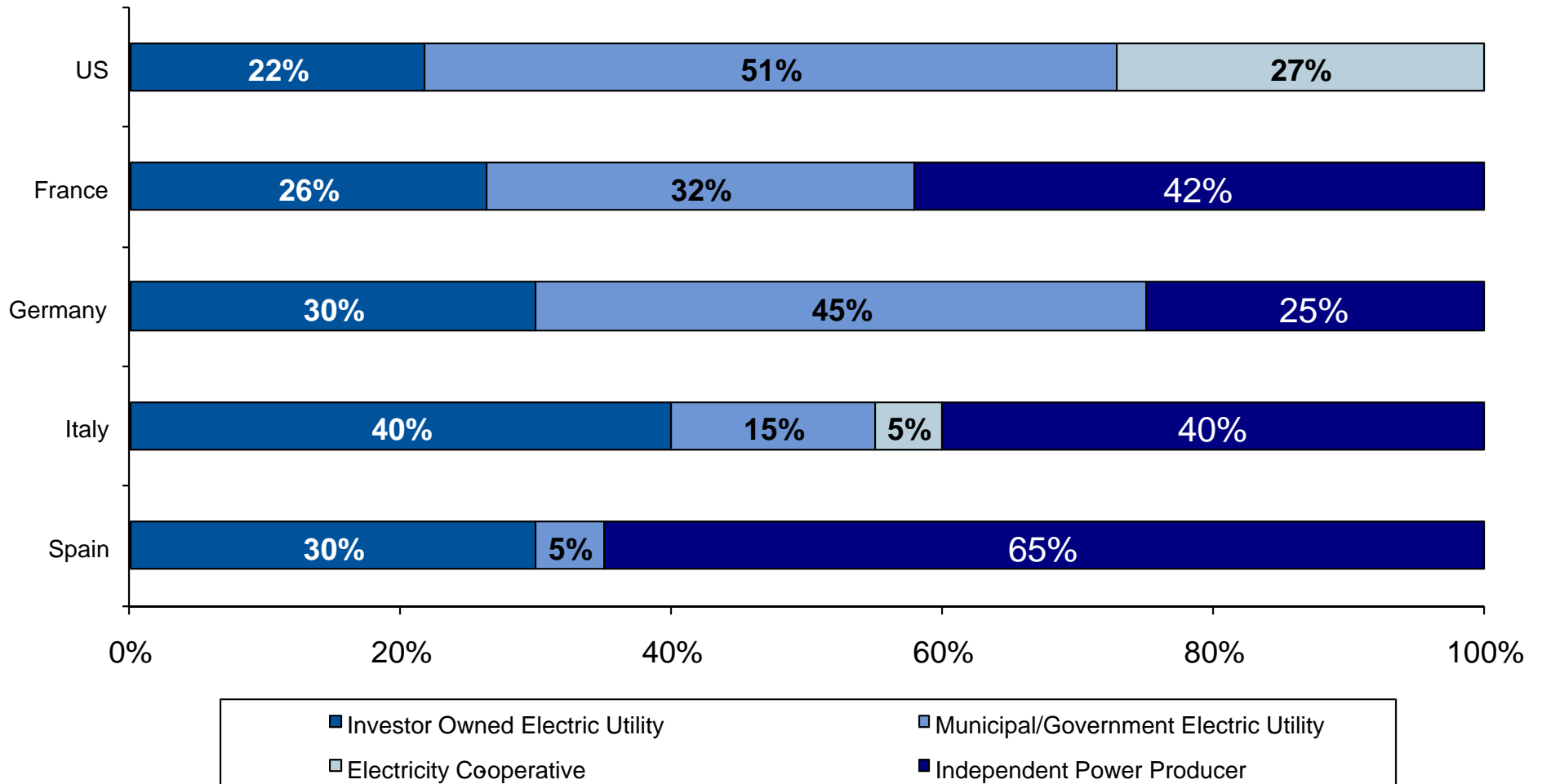
- Utility PV User Trends (Gartner & SEPA)
- Commercial Enterprise PV User Trends (Gartner)

# Survey Population By Country



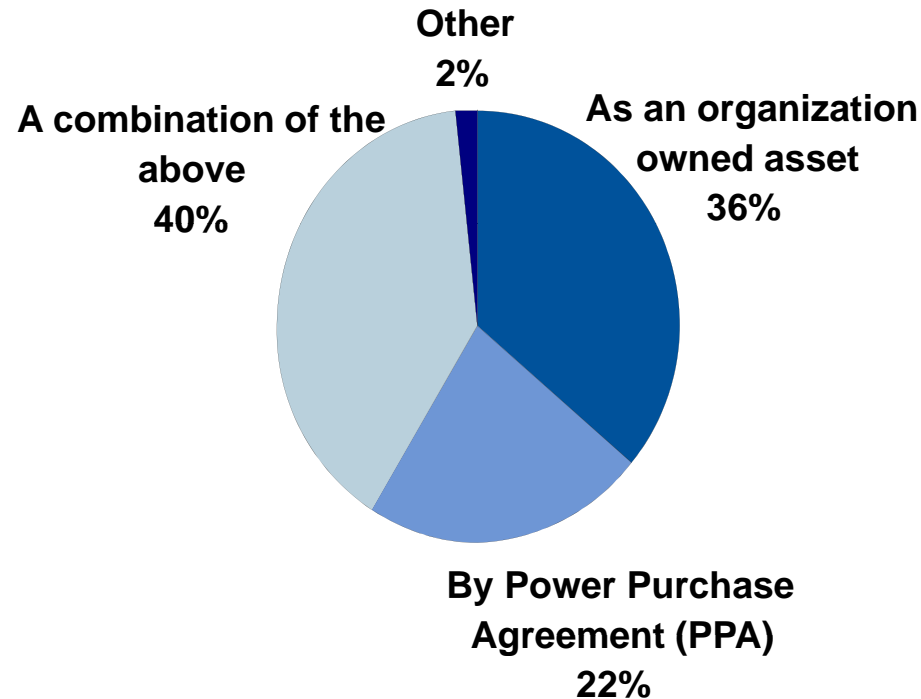
n=134

# Survey: A Mix of Utilities and IPP Firms



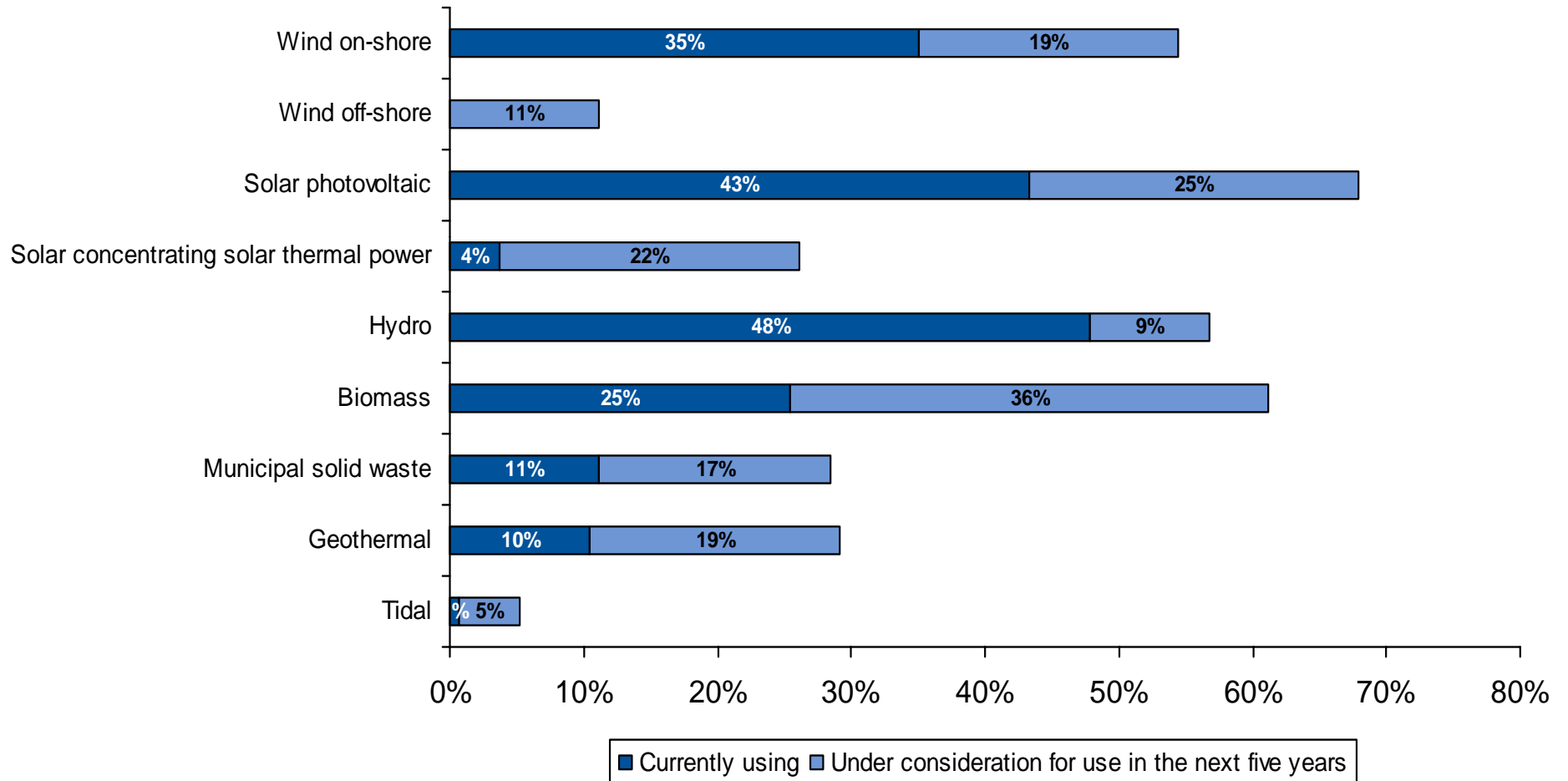
n=134

# A significant fraction of our survey population had PV in their portfolio



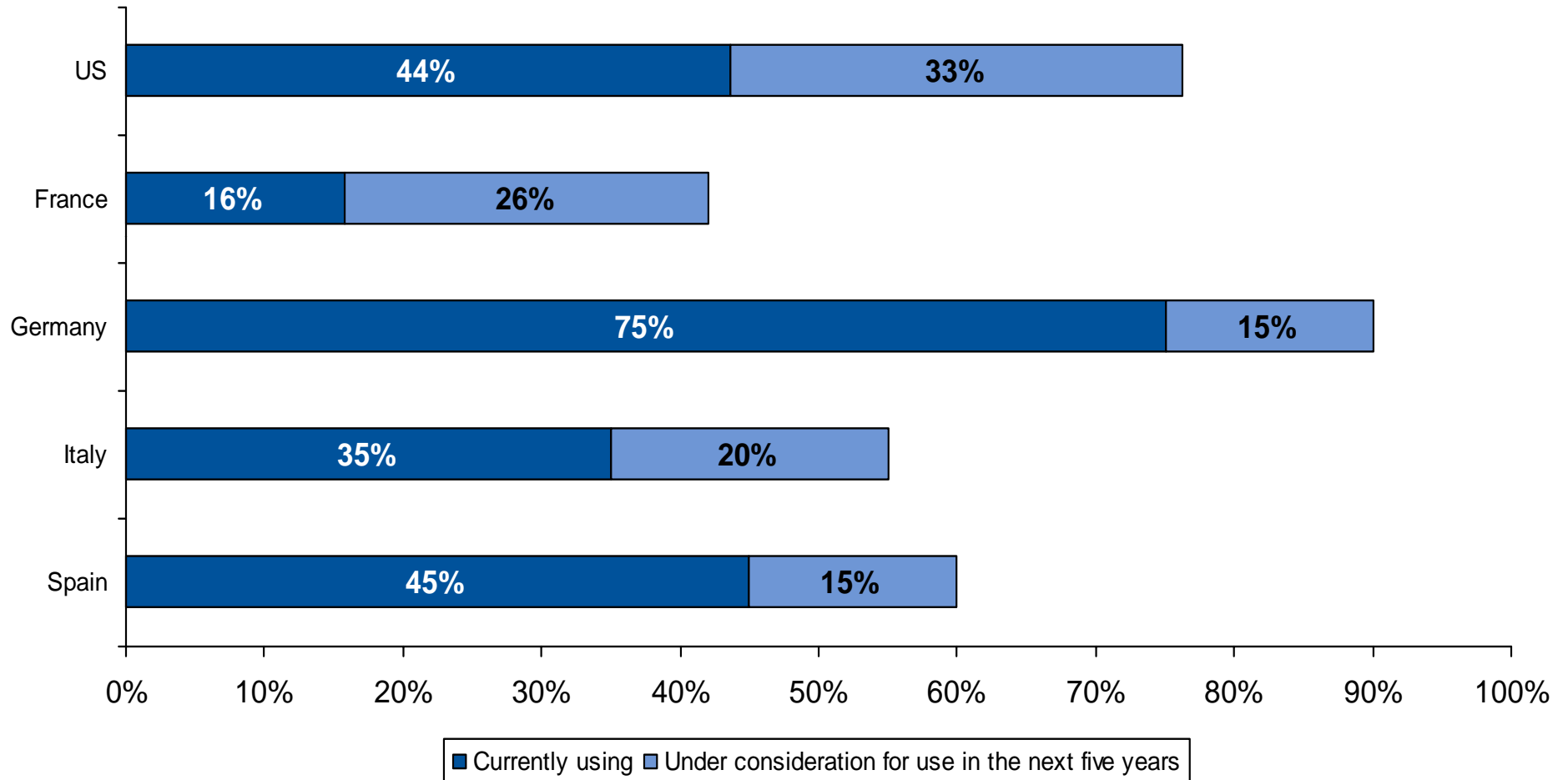
n=58

# Utilities Expressed Interest in a Variety of Renewable Sources

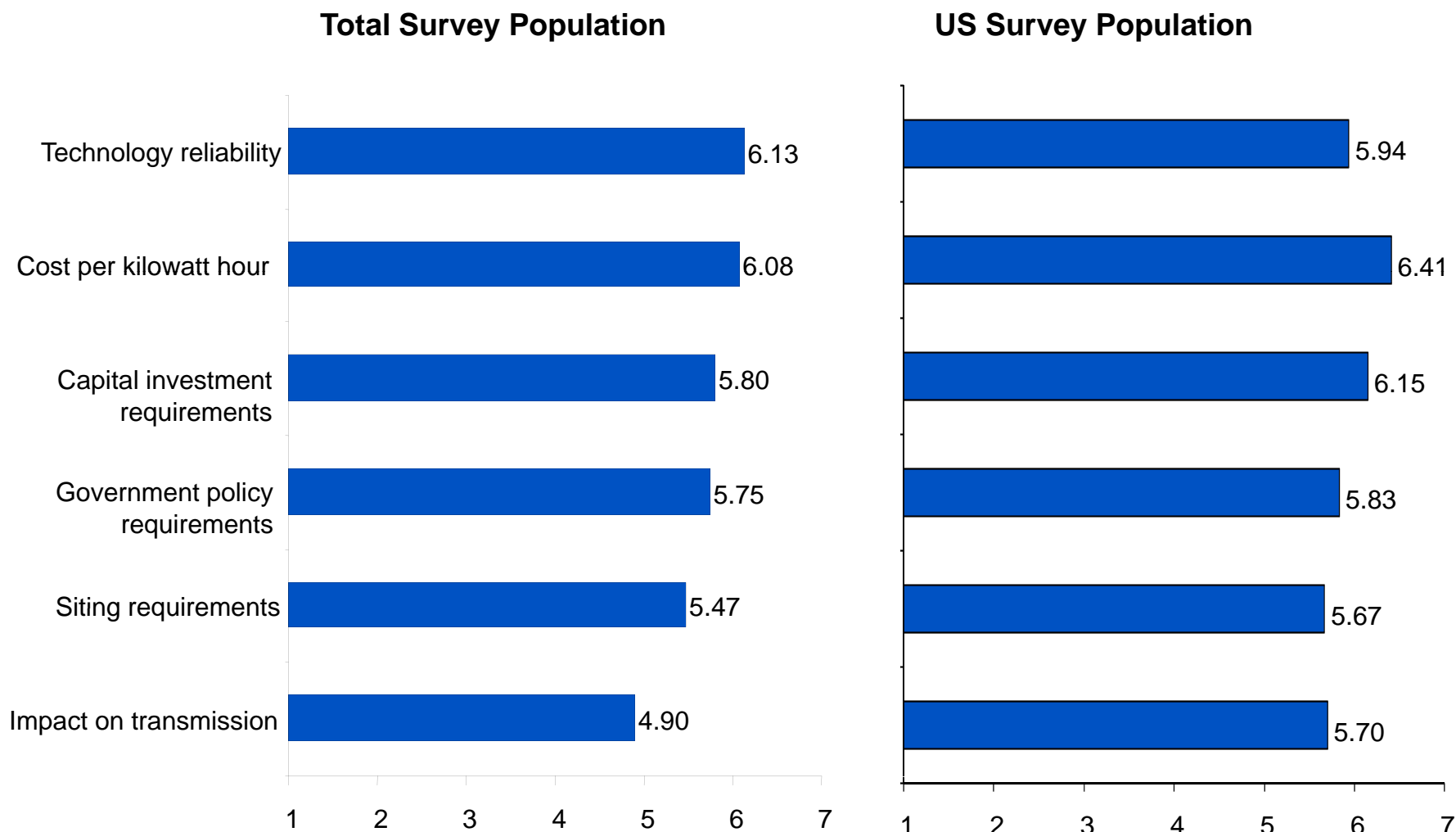


n=134

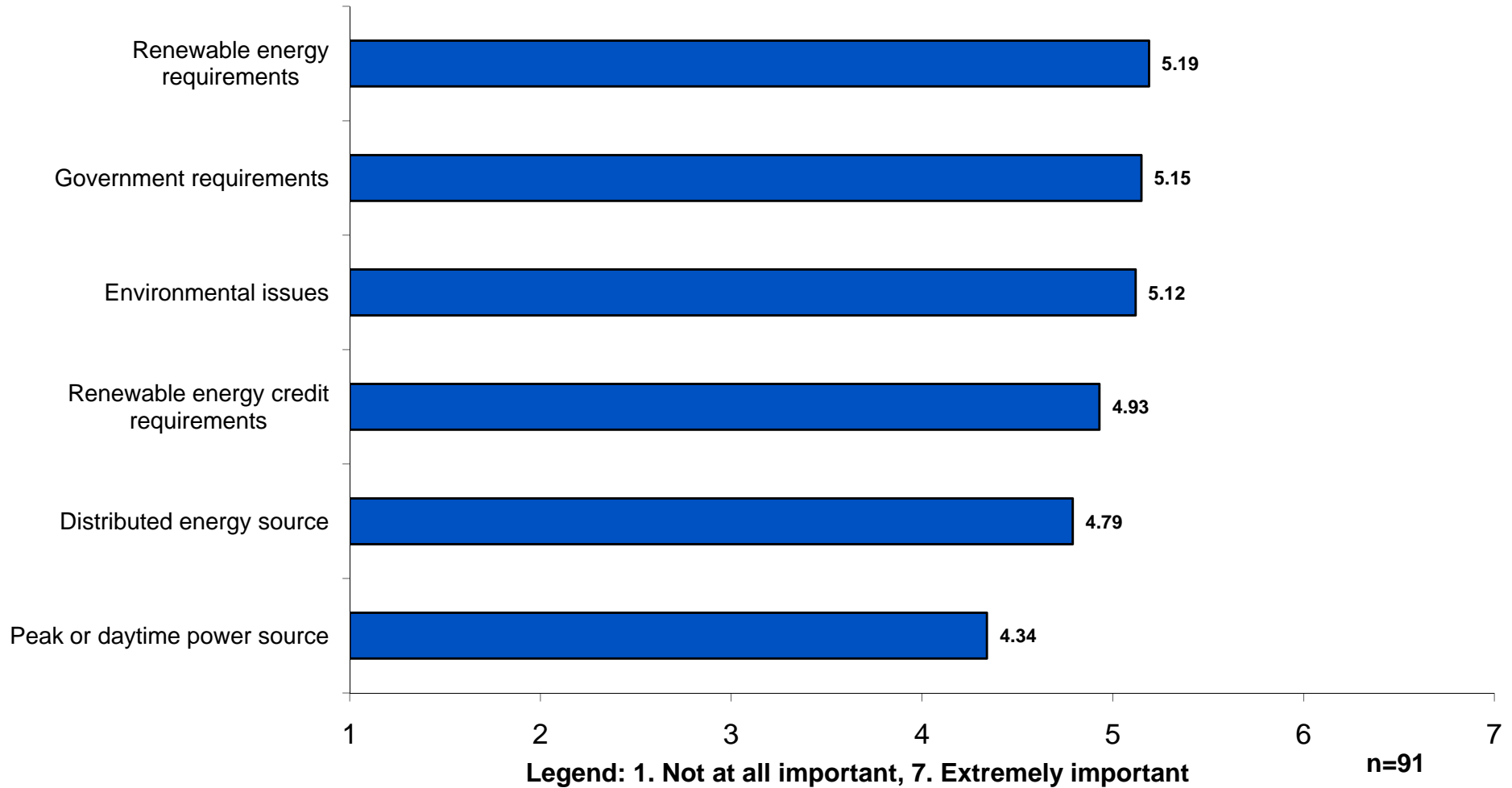
# Within PV, Germany Has the Largest Base



# Technology Reliability and Cost Were Top Criteria for Comparing Renewable Sources



# Policy Requirements Key Influence

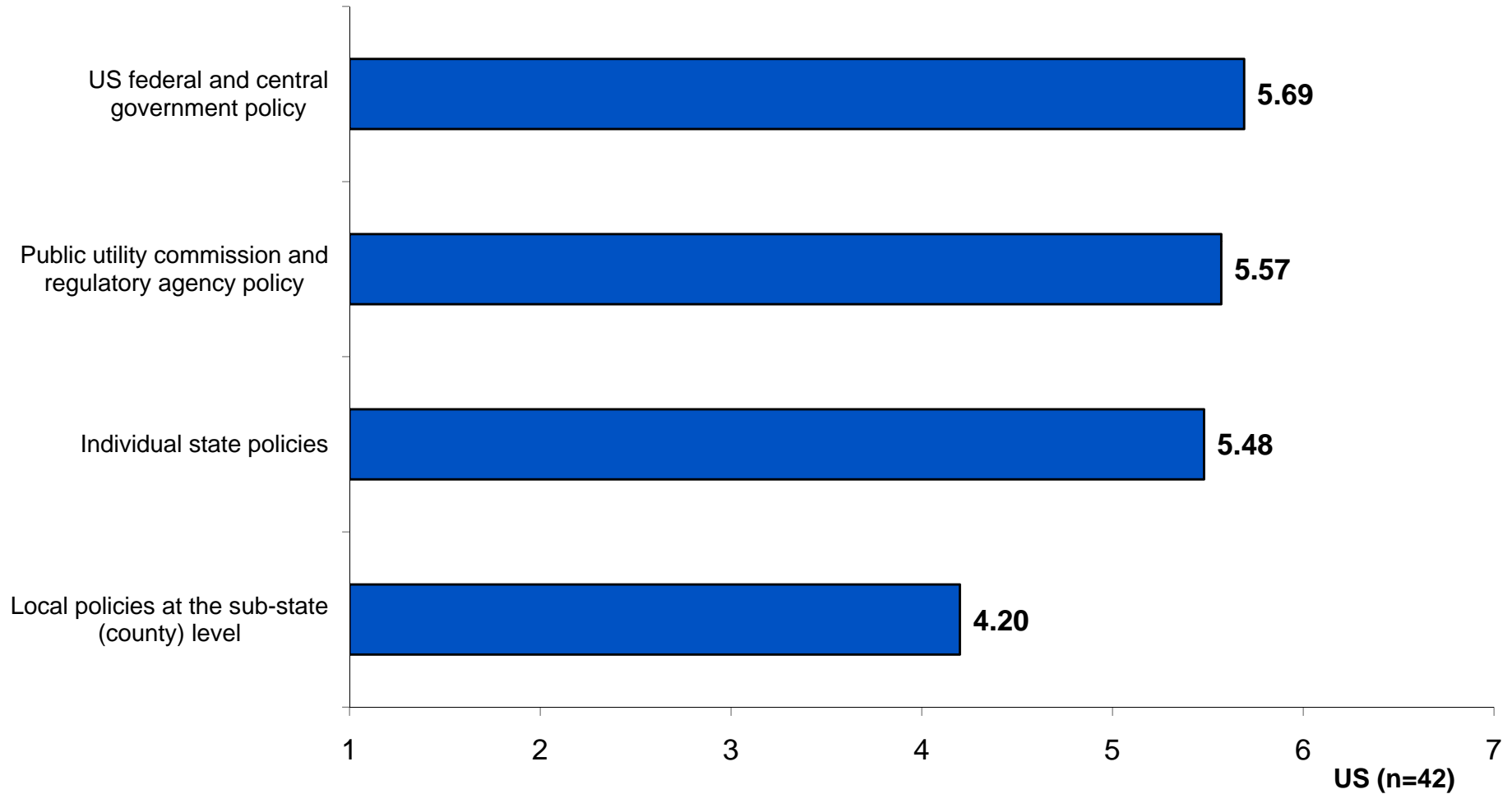


# Renewable Requirements Complex and Changing

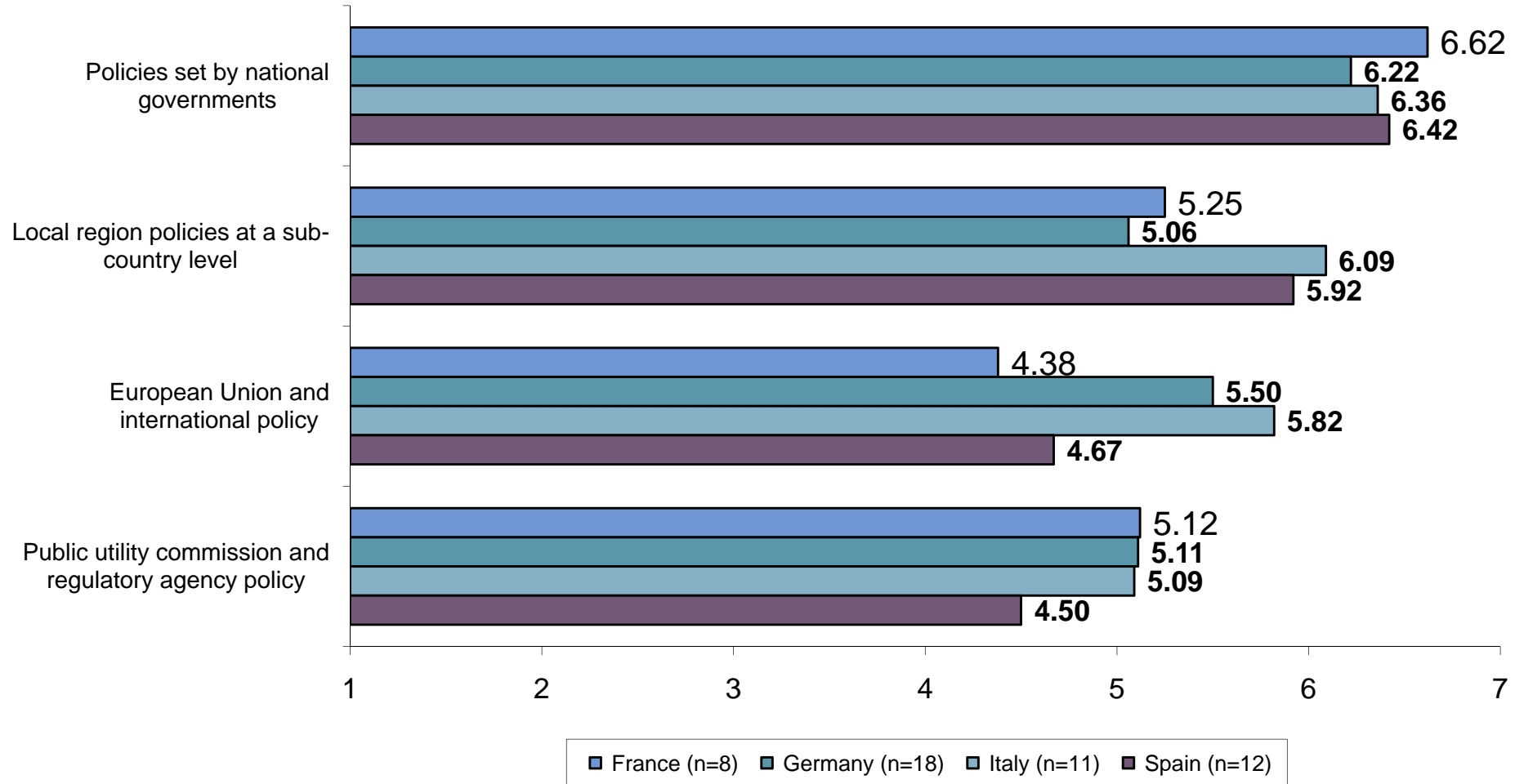
	Renewable Energy Requirements	Solar Energy Requirements
United States	None	None
California	33% by 2020	3,000 MW by 2020
New Jersey	22.5% by 2021	2,518 GWh by 2021
France	23% by 2020	None
Germany	18% by 2020	None
Italy	17% by 2020	None
Spain	20% by 2020	None

Source: derived from <http://www.dsireusa.org> and <http://ec.europa.eu>

# Federal and State Policies Important in U.S.

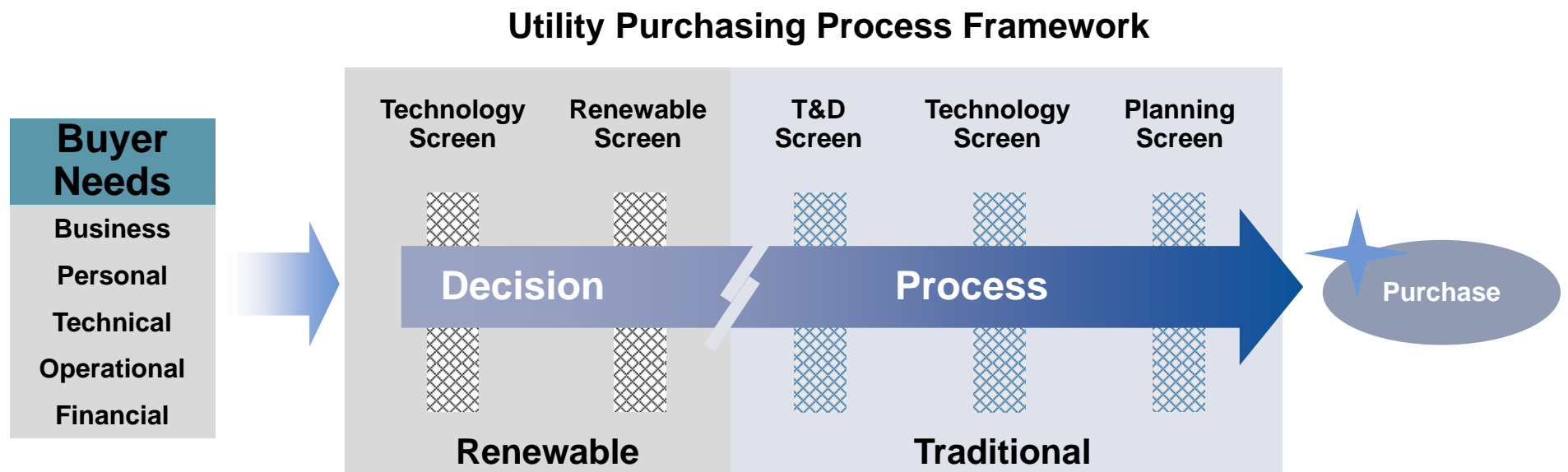


# Policy Influences Differ in Europe



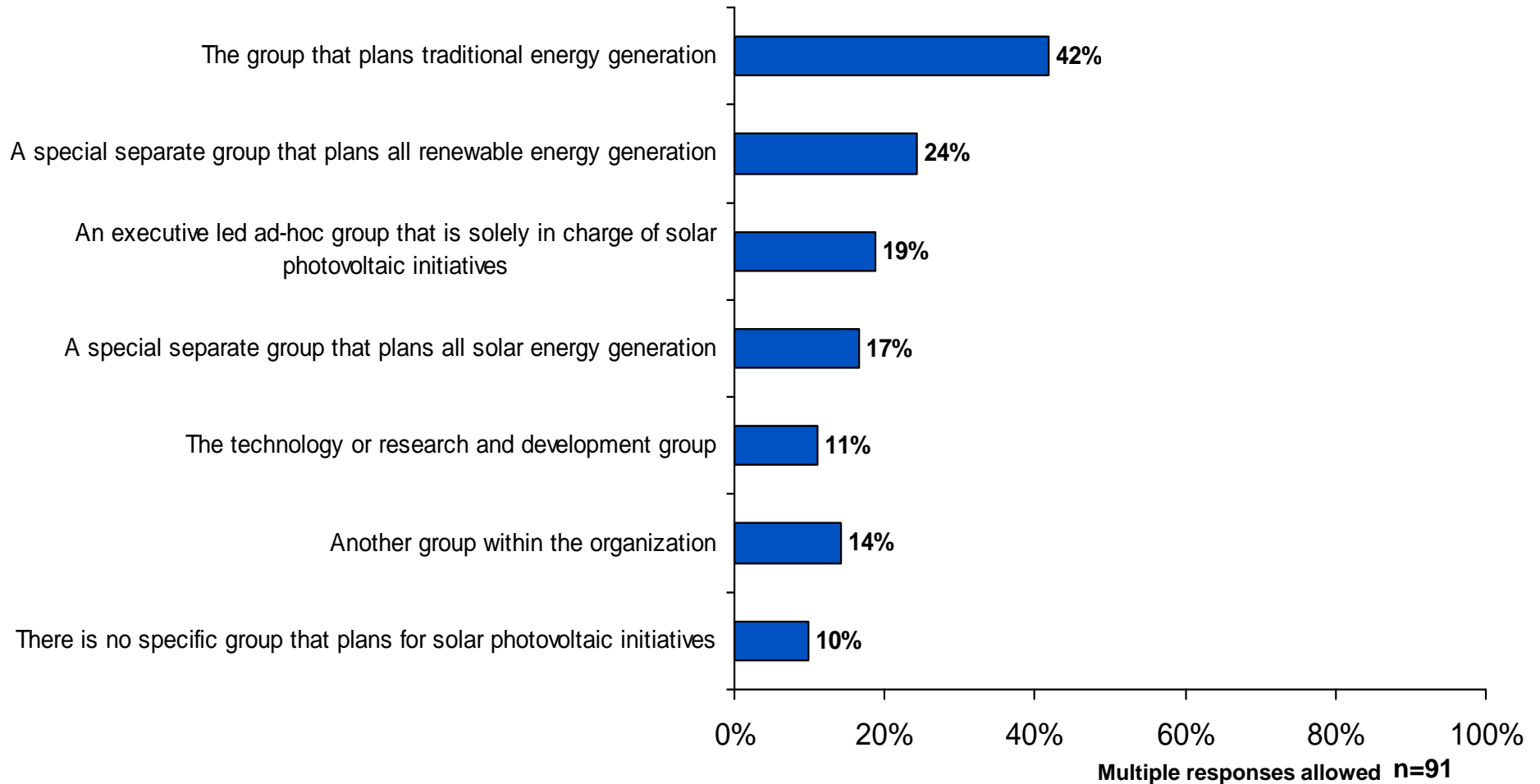
# Purchasing Process: A Gate Model

- Multiple influencers can modify or kill a project

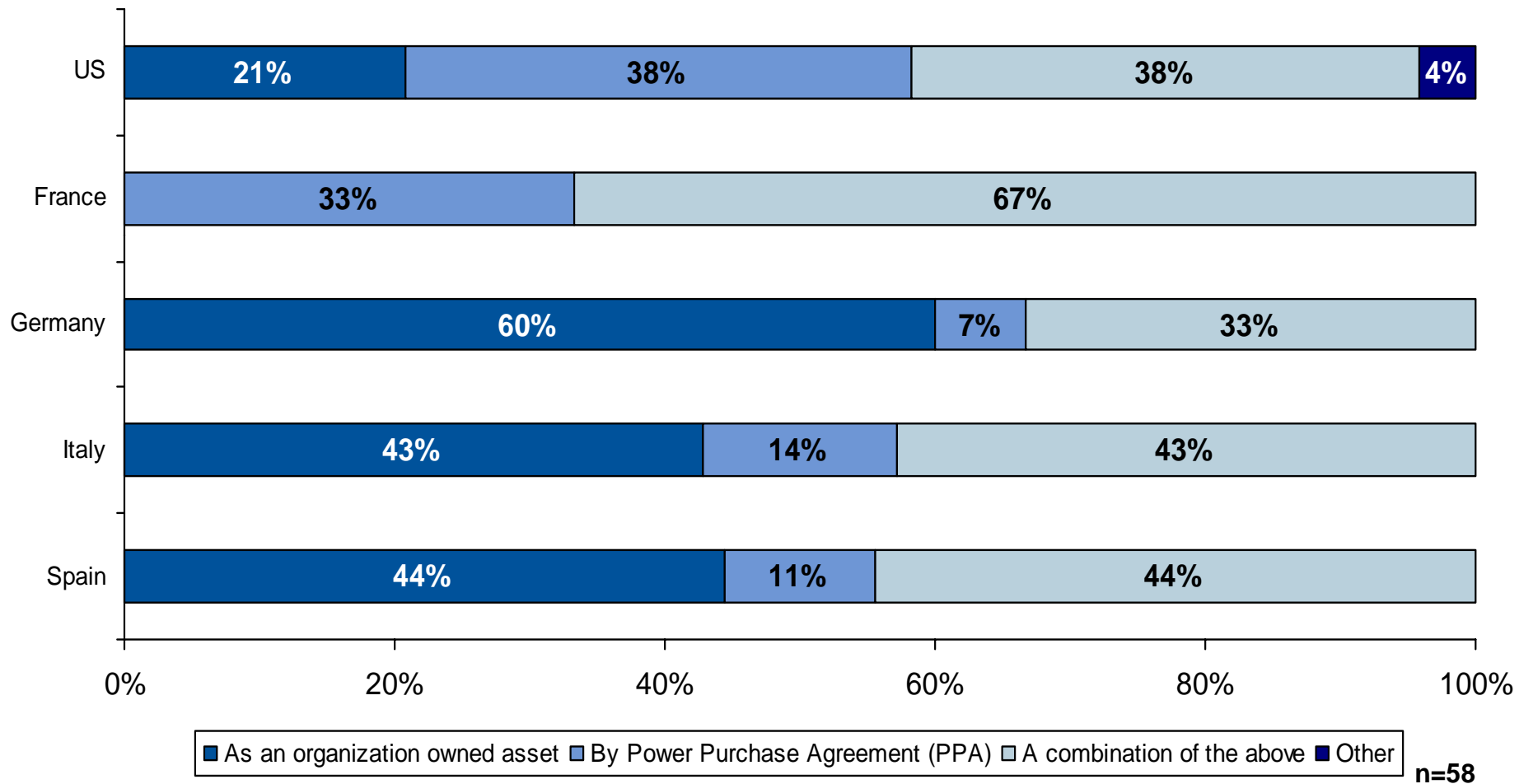


**Champions Needed!**

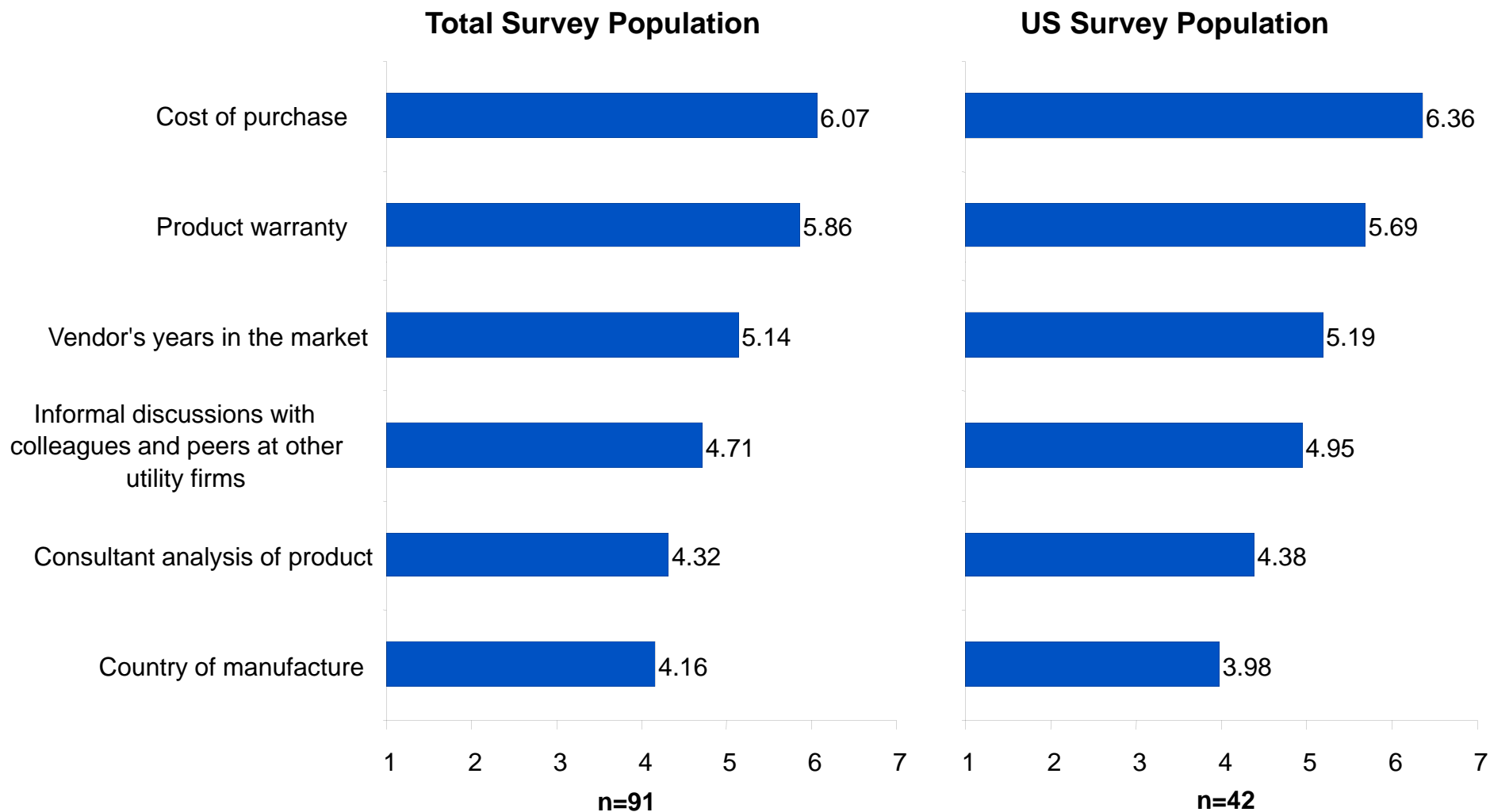
# Multiple Influence Centers in the Utility Procurement Process for PV Solar



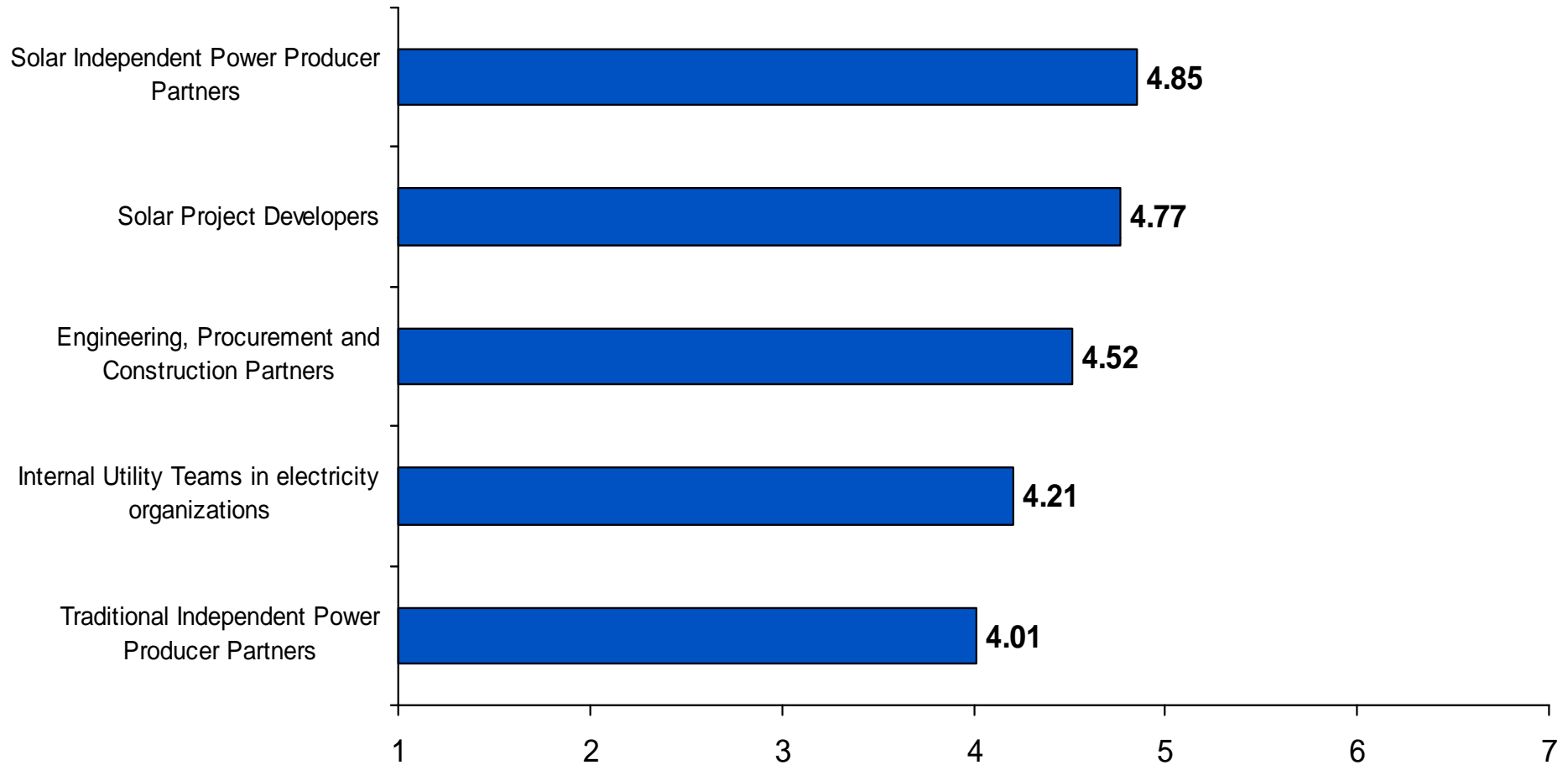
# Multiple Models Facilitate and Complicate the PV Sales Process



# Influence Centers Also Reflected in PV Solar Decision Criteria



# No One Group Has A Monopoly on Expertise in PV



Mean summary table: 1. Not at all knowledgeable, 7. Extremely knowledgeable

n=91

# Conclusions: Utility Market

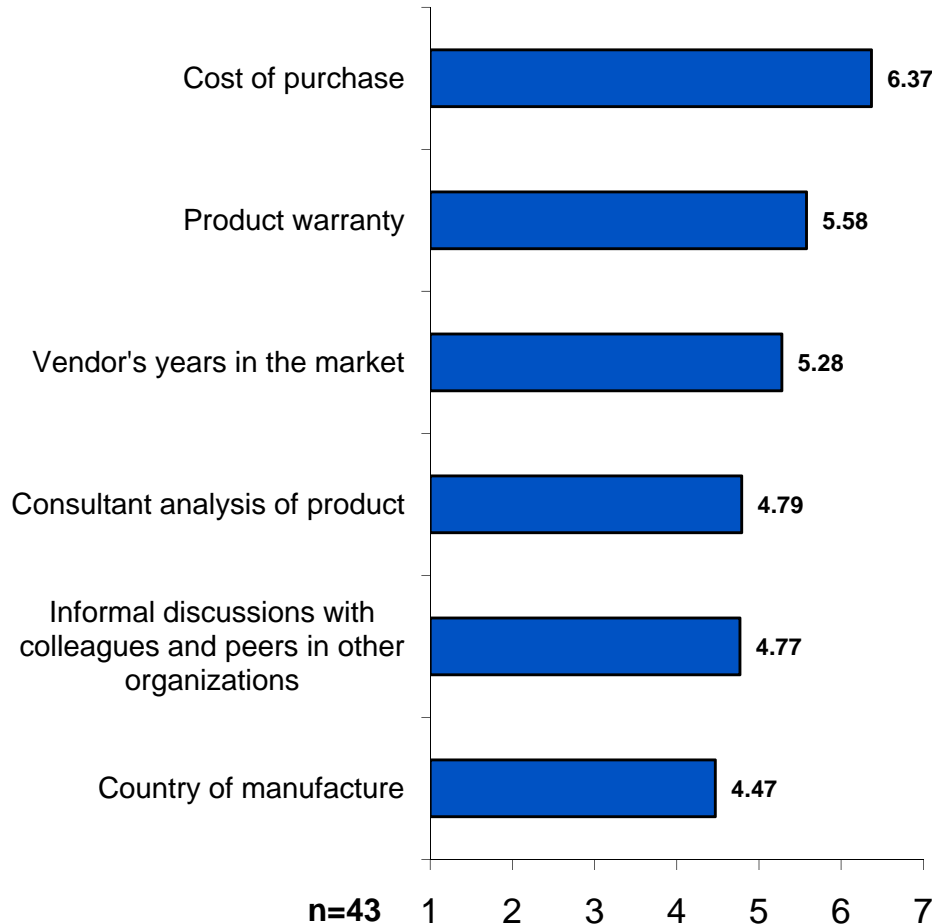
- PV Solar is a leading near term renewable energy choice
- It is a complex sales decision process at utilities
- No one ownership model has been selected as the primary by utilities
- The market has no dominant set of experts

# Agenda

## Two Surveys:

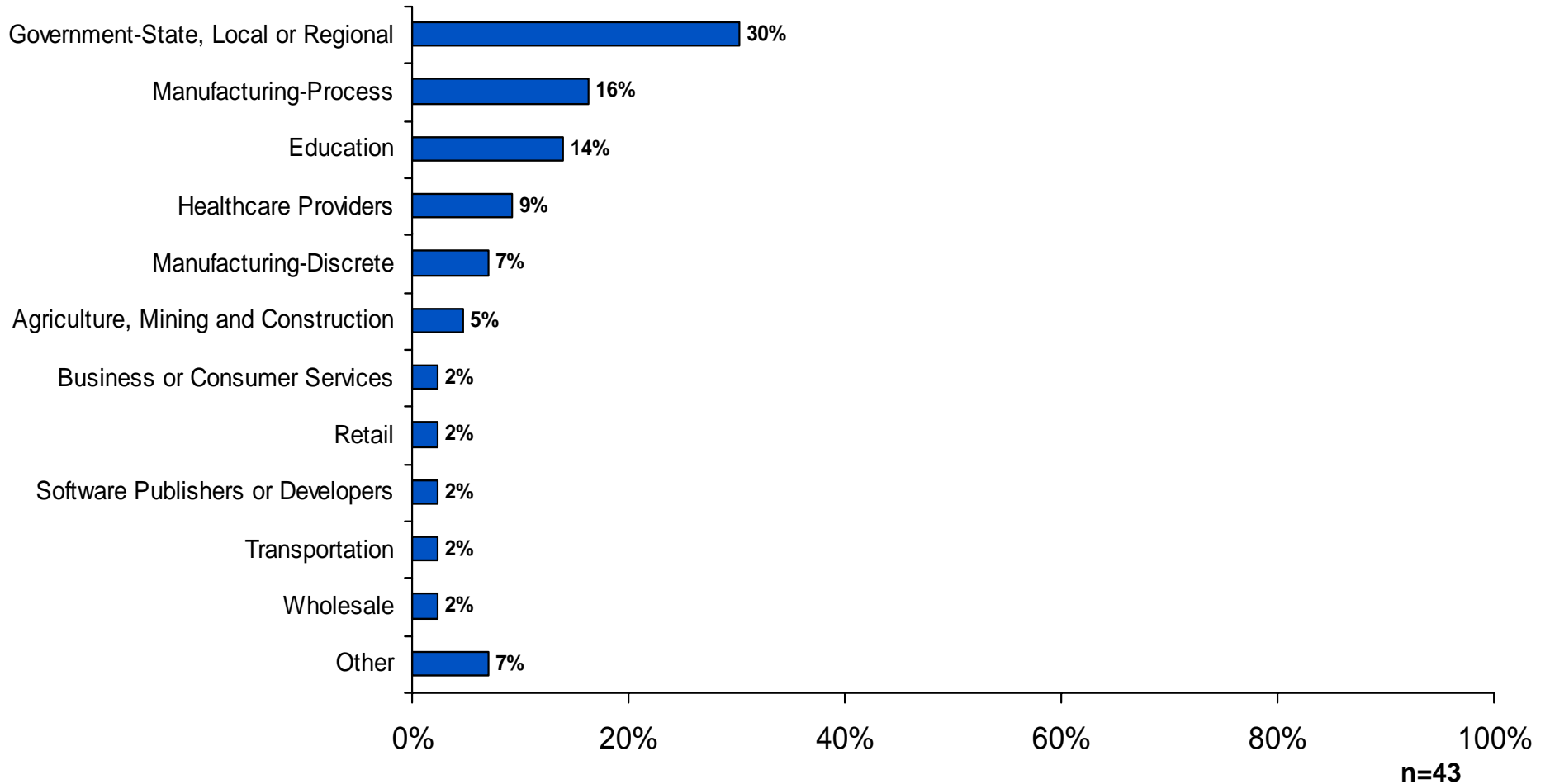
- Utility PV User Trends (Gartner & SEPA)
- Commercial Enterprise PV User Trends (Gartner)

# Cost and Vendor Viability Top Enterprise Decision Factors for PV

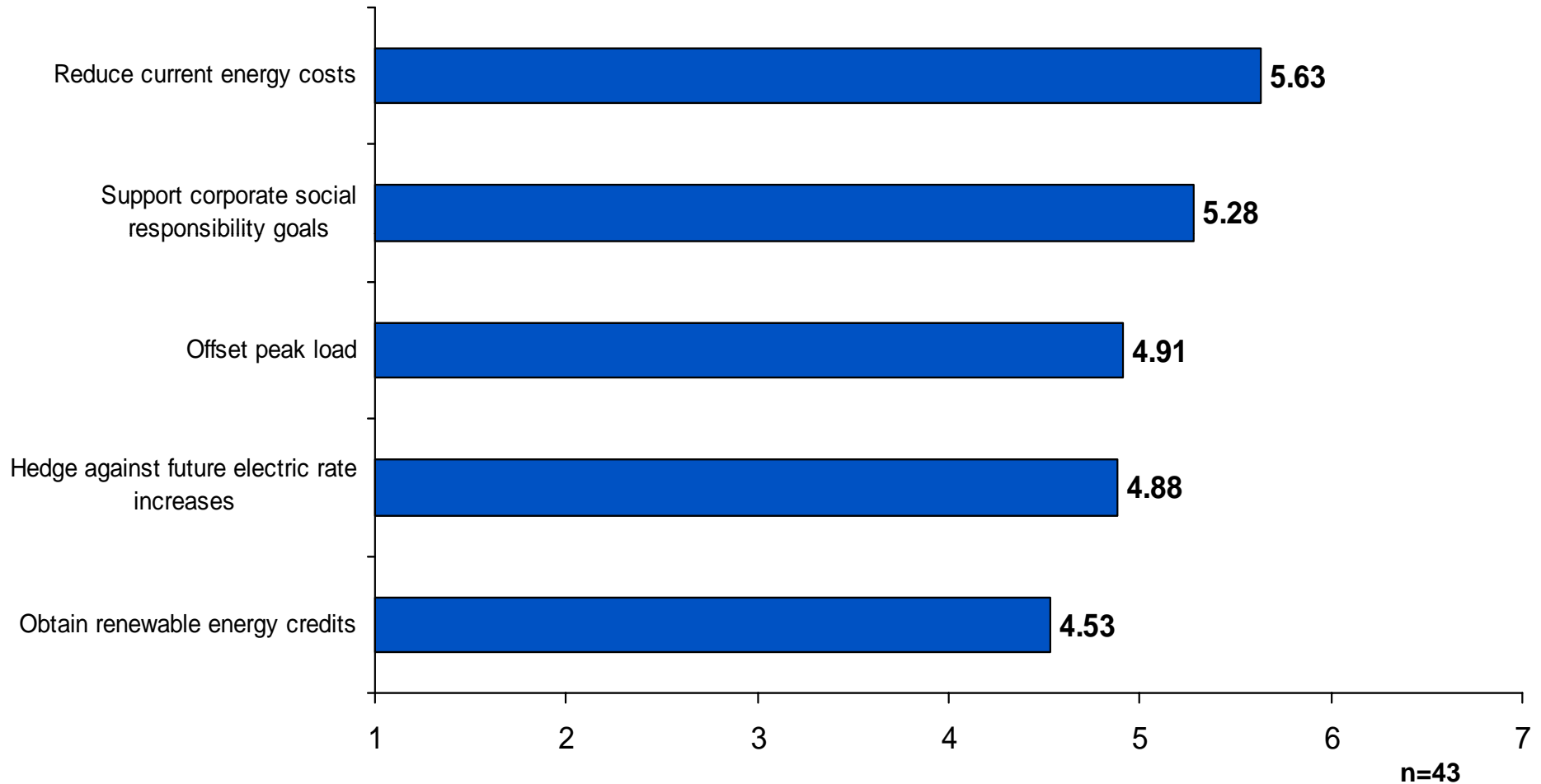


- Surveyed US enterprise users
- Onsite PV generation
  - Reduce energy costs
  - Support sustainability objective
- Decision factors
  - Cost
  - Vendor viability

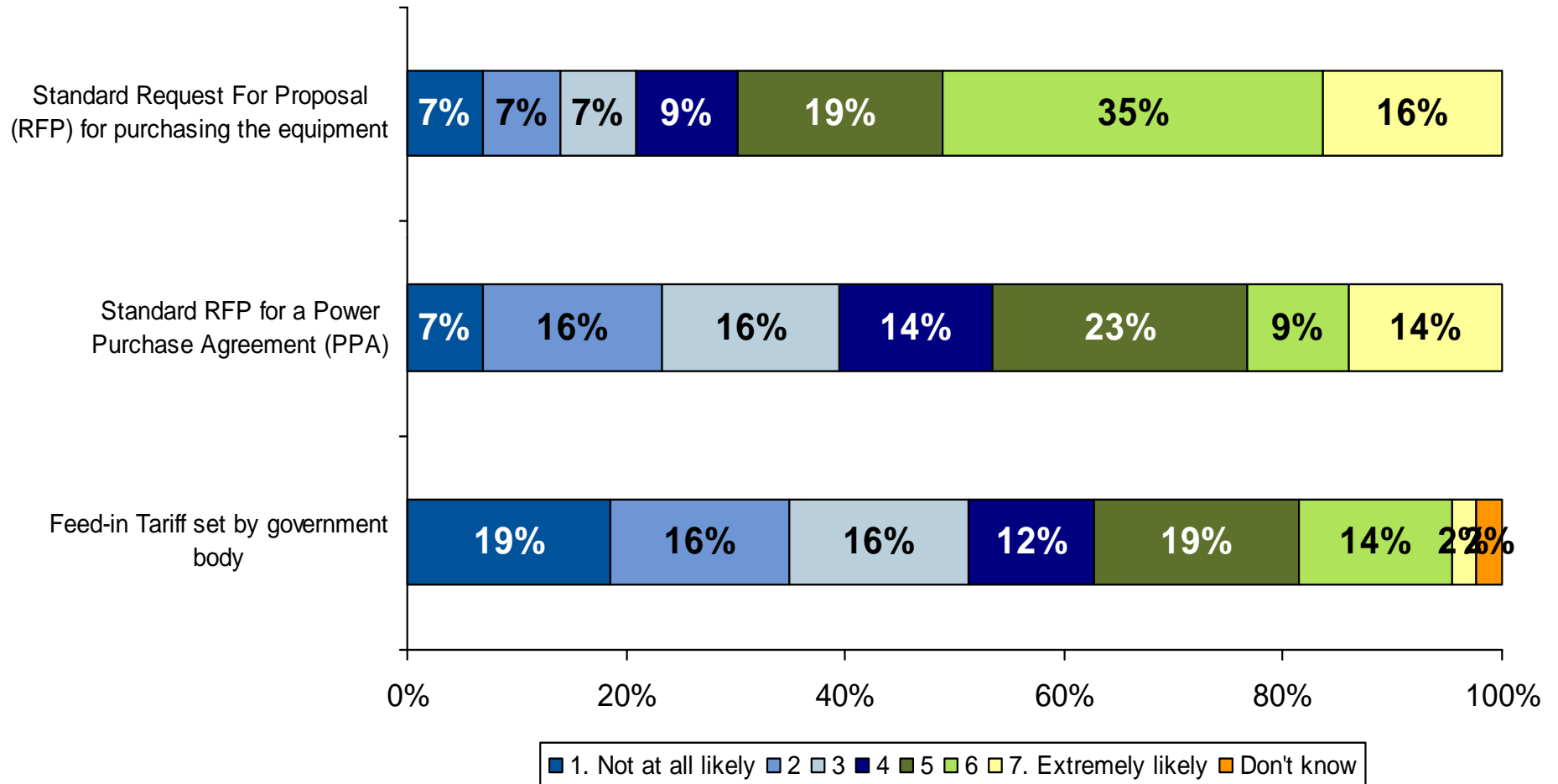
# Surveyed US Enterprises With Existing or Planned PV Solar Electric Systems



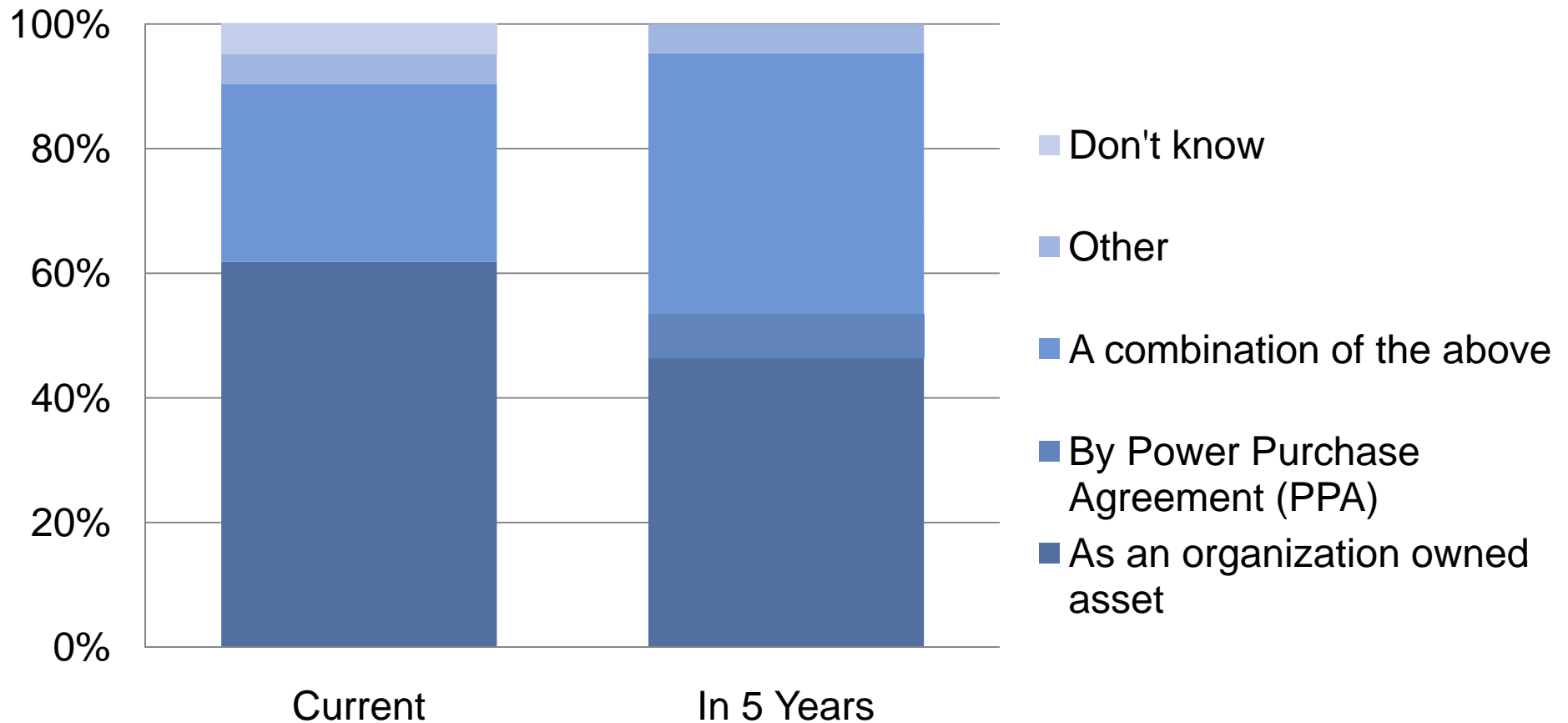
# Cost Reduction Is the Prime Motivation for Enterprise Use of PV Solar Energy



# Surveyed US Enterprises Showed Bias for Purchase of PV System



# Enterprises More Open To PPAs For Future PV Projects



n=21

# Case Study: HP

- 1.2 MW PV system at San Diego campus
- PPA with SunPower
  - GE Finance owns system
- Benefits
  - Saves costs
  - Aligns with CSR
  - Hedges future costs
  - Community relationships



# US Enterprise PV Demand

- Early stages of adoption
- Reducing electricity costs
- Favor ownership of PV asset
- Requires flexible sales approach
- Many enterprise customers need to be educated on benefits of PPA

Thank you

# Questions?

Jim Hines  
james.hines@gartner.com

Al Velosa  
alfonso.velosa@gartner.com

Mike Taylor  
mtaylor@solarelectricpower.org