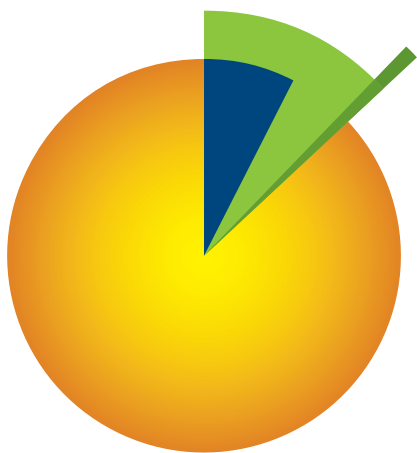


## OPPORTUNITY

How is GSA meeting federal mandates for renewable energy?



**7.5%** Federal mandate goal for renewable energy<sup>1</sup>

**13.2%** GSA renewable energy purchased<sup>2</sup>

**1%** Solar energy production from GSA buildings<sup>3</sup>

Additional .05% from wind & geothermal

## TECHNOLOGY

How was the study conducted?

## POLICY REVIEW; SURVEYS AND INTERVIEWS WITH PROJECT TEAMS

## M&V

Where did Measurement and Verification occur?

**NATIONAL RENEWABLE ENERGY LABORATORY** collected best practices and lessons learned from 63 of the 74 GSA PV installations nationwide

## RESULTS

What did we learn in M&V?

### DIVERSE PORTFOLIO

SYSTEM CAPACITY RANGED FROM 10KW TO 5MW<sup>4</sup>

### CHALLENGES NUMEROUS & UNIVERSAL<sup>5</sup>

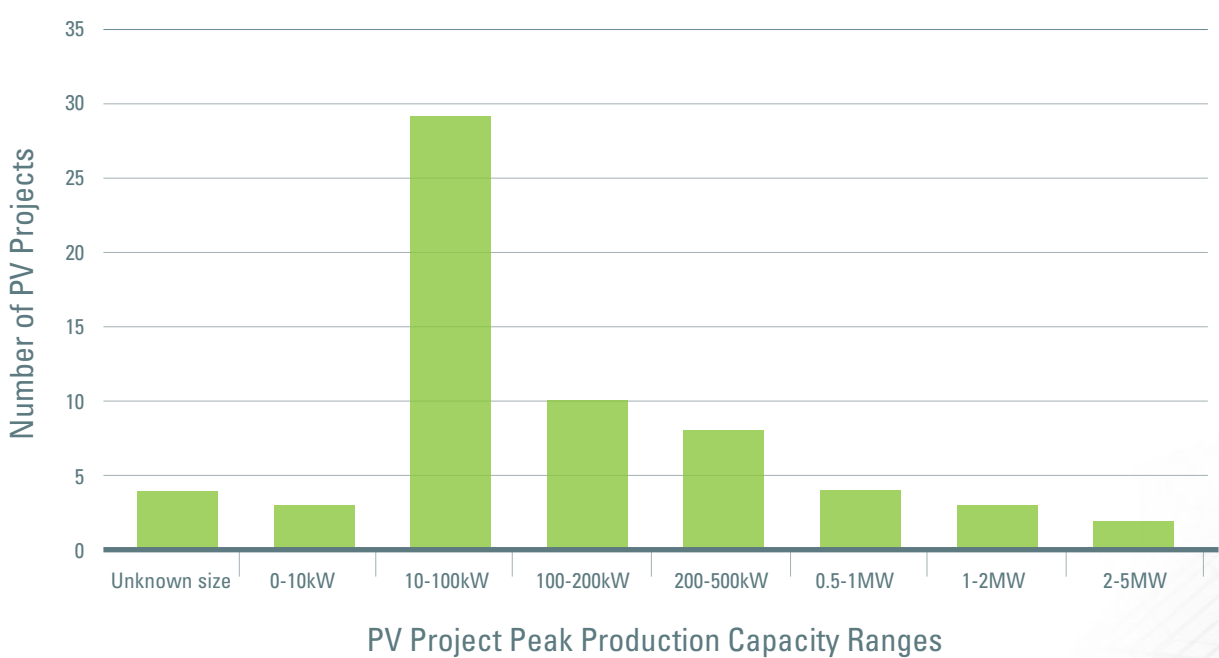
PROJECT MANAGEMENT, SITE, INTERCONNECTION, TECHNICAL, AND ECONOMIC

### RISKS MITIGATED

BY ADVANCE PLANNING AND PROJECT MANAGEMENT<sup>6</sup>

## Projects in NREL Study, by System Capacity

Of the 63 projects included, capacity ranges widely



## FOR MORE INFORMATION

Where to find additional information?

## ON-SITE PV GUIDANCE REPORT

Lessons Learned & Best Practices available at [gsa.gov/gpg](http://gsa.gov/gpg)

<sup>1</sup>EPA, <http://www.epa.gov/oaintrnt/greenpower/requirements.htm> <sup>2</sup>GSA Energy Usage Analysis System, 2013 <sup>3</sup>ibid

<sup>4</sup>On-Site Photovoltaic Guidance. Tom Harris, Ian Metzger, Alicen Kandt, Graham Hill, Marianne Kaiser (NREL), October 2013, p.5

<sup>5</sup>ibid, p.21 <sup>6</sup>ibid, p.28