

# The Impacts of Policy on the Financing of Renewable Projects

CPI Webinar

June 26, 2012

David Nelson, Senior Director  
Uday Varadarajan, Senior Analyst



CLIMATE  
POLICY  
INITIATIVE

BEIJING  
BERLIN  
RIO DE JANEIRO  
**SAN FRANCISCO**  
VENICE

+1 415 202 5846  
235 Montgomery St. 13th Floor  
San Francisco, CA  
94104, USA  
[climatepolicyinitiative.org](http://climatepolicyinitiative.org)

# Agenda

Introduction to Climate Policy Initiative (CPI) and our study of the financing of renewables

The case study results

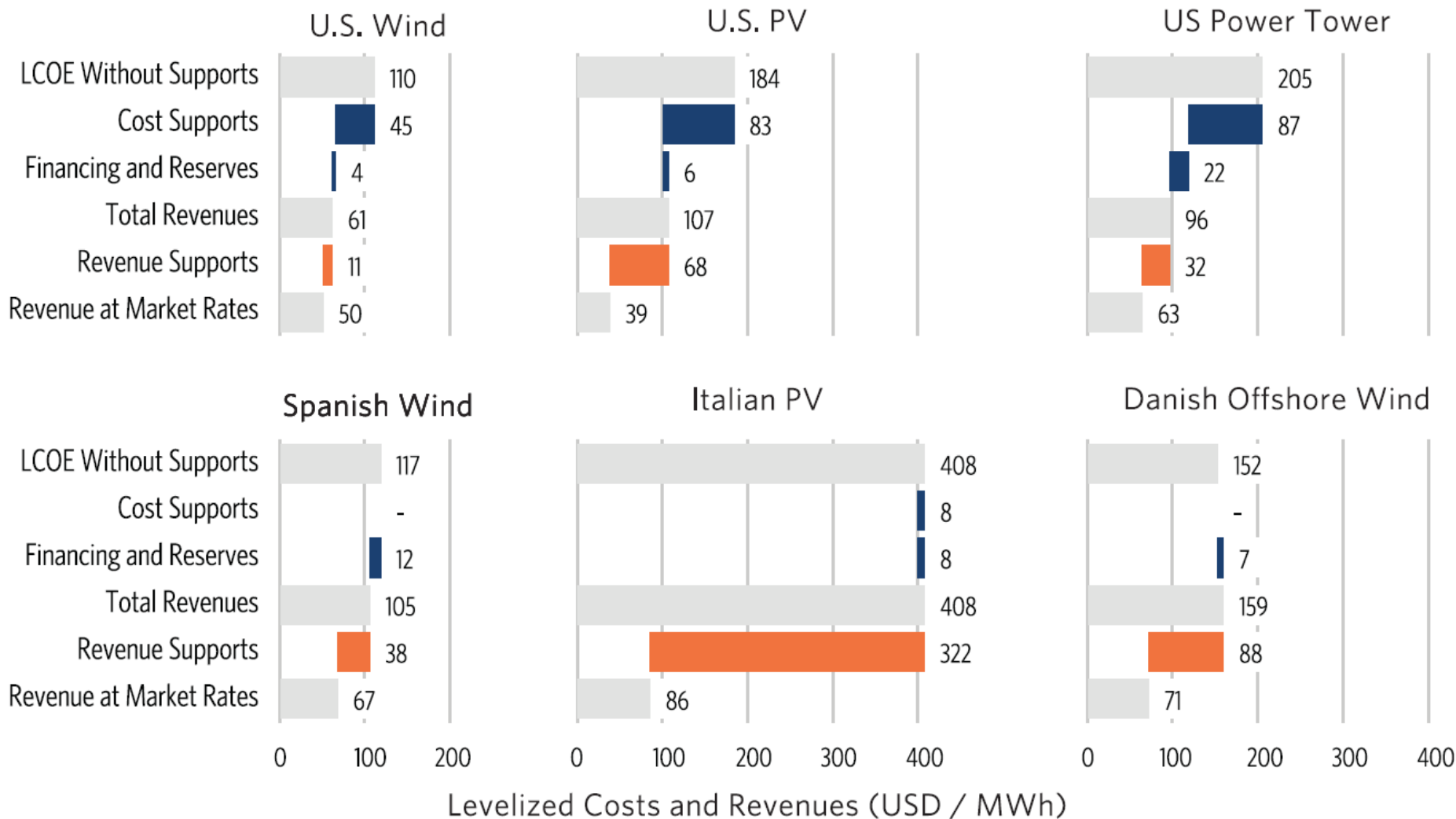
Next steps

# Our case studies cover three dimensions

Technology/ Project Type Maturity	Geography	Finance Sources
Mature Renewables - e.g. Onshore wind	Europe	Debt - Investment Grade Bonds - Bank Loans - Government Loans - Junk Bonds
Maturing Renewables - e.g. Solar PV	US	Project Equity - Sponsorship / Project finance equity - On balance sheet finance
Developing Renewables -e.g. Offshore wind or CSP	India	Mezzanine - Tax Equity - Preferred Equity or Convertible Debt - Passive equity
Mature Non-renewable - CCGT or Coal (for comparison)	Brazil	Venture Capital - At project level - At company level
Equipment Manufacturers - Facilities/ Factories	China	
Equipment Manufacturers and Others - Research		

 Current Scope

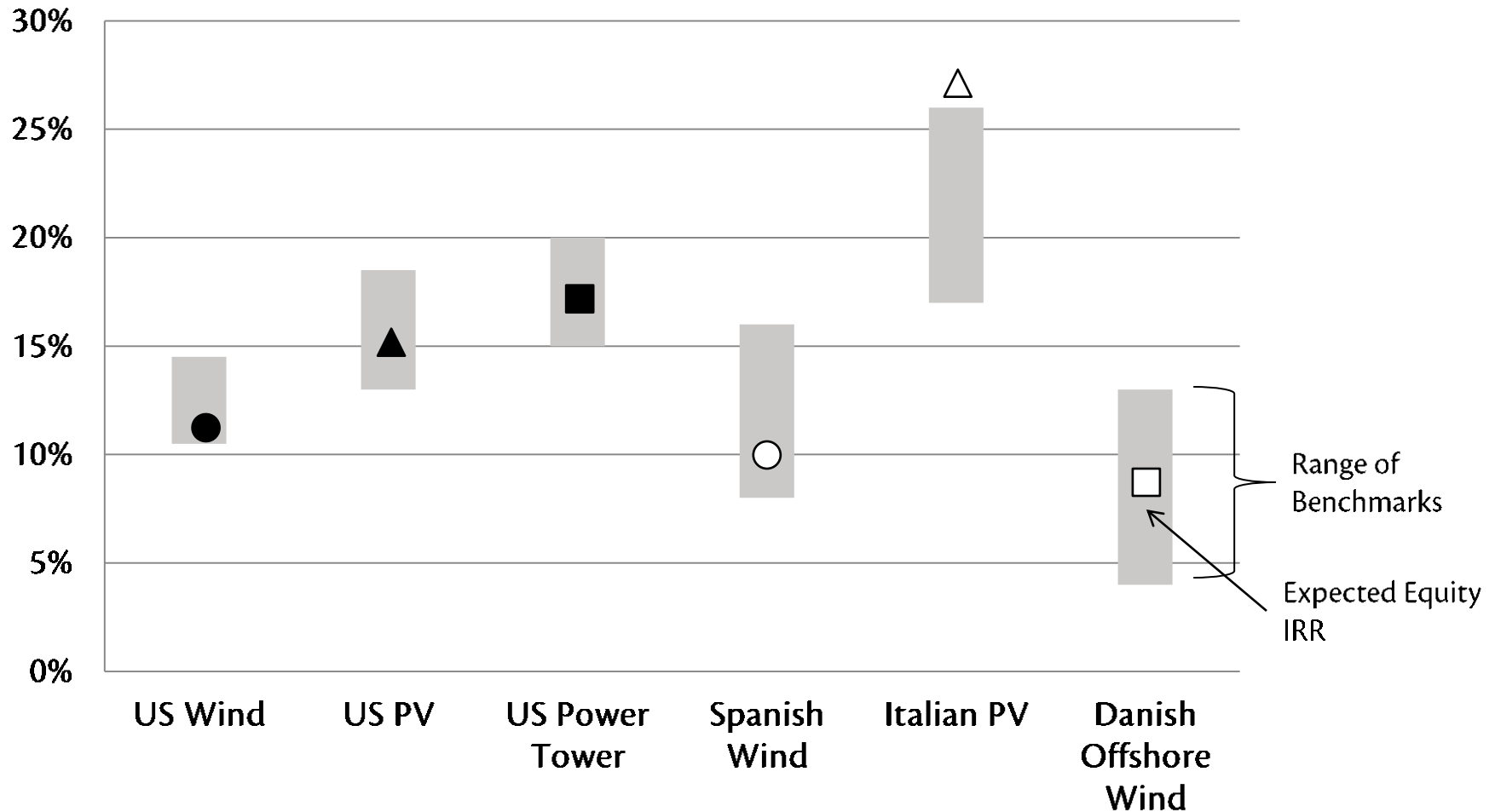
# Our six case studies enjoyed both cost and revenue supports



Levelized Costs and Revenues (USD / MWh)

# Five of the projects fell within expected benchmark returns

Equity Returns (IRR) Relative to Benchmark Range for Similar Projects



# We explored different pathways for policy to impact financing costs and availability

Increase in Total Project Costs Driven by Additional Financing Costs

## Policy Impact Pathways

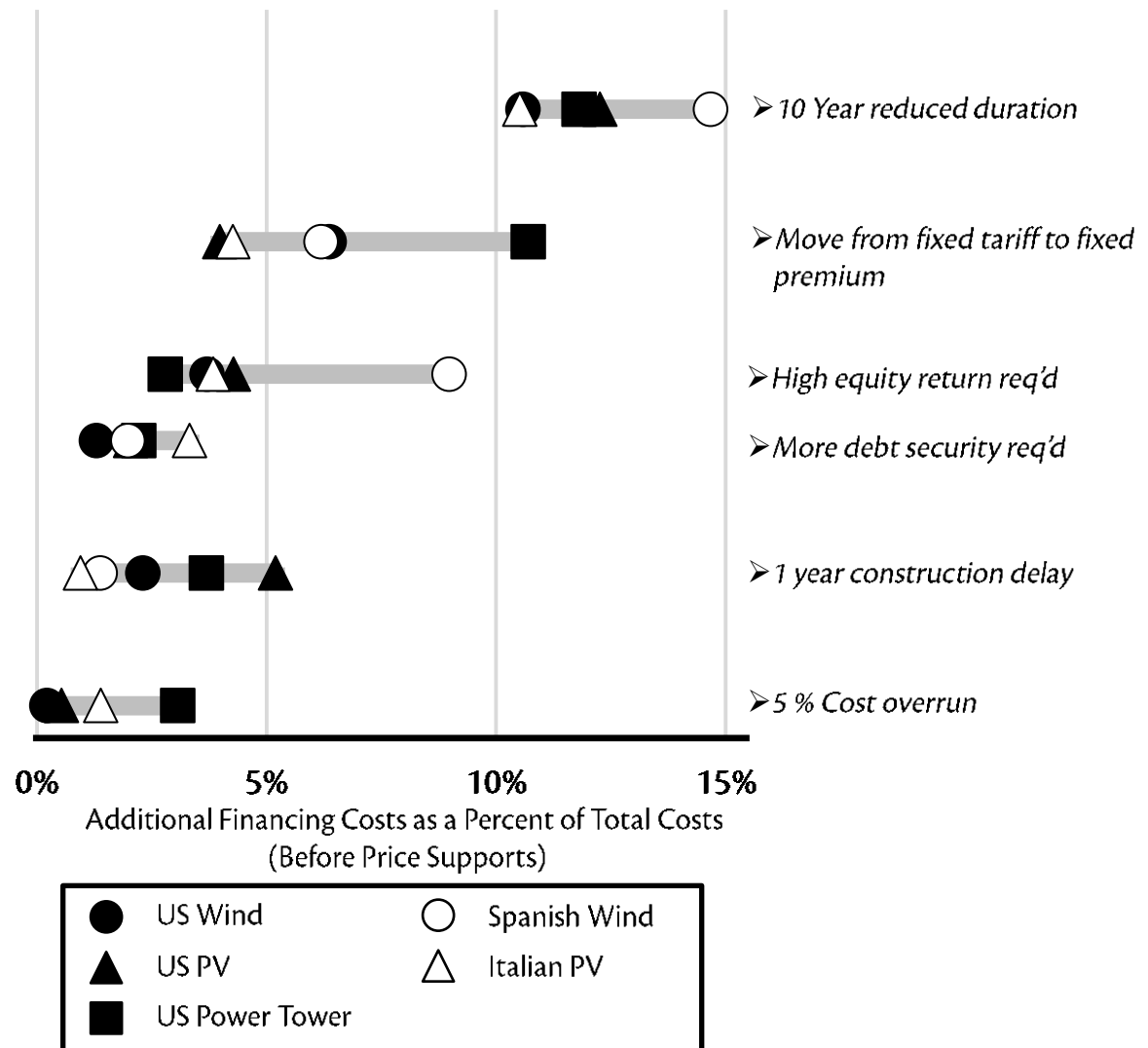
Duration of Revenue Support

Revenue Certainty

Risk Perception

Completion Certainty

Cost Certainty



For Future Study

Risk Distribution

Development Risks

# Conclusions

## For all projects:

1. The duration of revenue support had the largest impact on financing costs.
2. Revenue certainty is the second most important factor.
3. Investors' perceptions of risk also impact project financing costs.

## For less mature or more innovative projects:

- Protection against losses is critical due to higher perceived risks of project failure.

**Construction and completion risk can usually be covered through commercial arrangements.**

**Institutional investors with the expertise to evaluate renewable projects will invest in renewable projects.**

- If there is revenue certainty and arrangements to insulate them from policy and completion risk.

# Further Work

CPI intends to continue this work, in particular working with policymakers to identify areas where analysis of past and current policies can help design better policies. Some areas for future work include:

- Extending the analysis to other geographies
  - Tunisia – PROSOL, Available online
  - India – Financing Renewables, Summer 2012
  - Morocco – CSP, Summer 2012
- Exploring a greater set of policy design options and evaluating the impact of changes in design features
  - Tax Incentives in the US, Summer 2012
  - RECs in India, Summer 2012
- Analyzing the tradeoffs of lower financing costs against policy costs and risks absorbed by government/consumers
  - UK – Walney, Available online
- Understanding how financiers and developers will alter their financial requirements when investing in portfolios of projects
  - Institutional Investors, Timeline TBD



# Thank you for your attention.

For further information or if you have additional questions, please contact:

[uday@climatepolicyinitiative.org](mailto:uday@climatepolicyinitiative.org)



CLIMATE  
POLICY  
INITIATIVE

BEIJING  
BERLIN  
RIO DE JANEIRO  
**SAN FRANCISCO**  
VENICE

+1 415 202 5846  
235 Montgomery St. 13th Floor  
San Francisco, CA  
94104, USA  
[climatepolicyinitiative.org](http://climatepolicyinitiative.org)