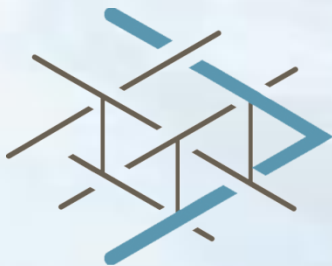


*National Association of Regional Councils'*  
**47<sup>th</sup> Annual Conference and Exhibition**

***Solar Workshop:  
Regional Solar Planning Roundtable***



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*National Association of Regional Councils'*  
**47<sup>th</sup> Annual Conference and Exhibition**

***Solar Workshop: Regional Solar  
Planning Roundtable***

Moderator:

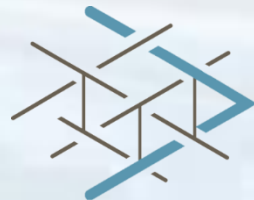
**Joshua Huneycutt**, SunShot Initiative Analyst, U.S. Department  
of Energy

Presenters:

**Jayson Uppal**, Consultant, Meister Consultants Group

**Kristin Sullivan**, Energy Manager, City of Philadelphia, PA

**Jon Lesher**, Environmental Planner, Montgomery County  
Planning Commission



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# Solar Powering Your Community

Addressing Barriers to Solar Development

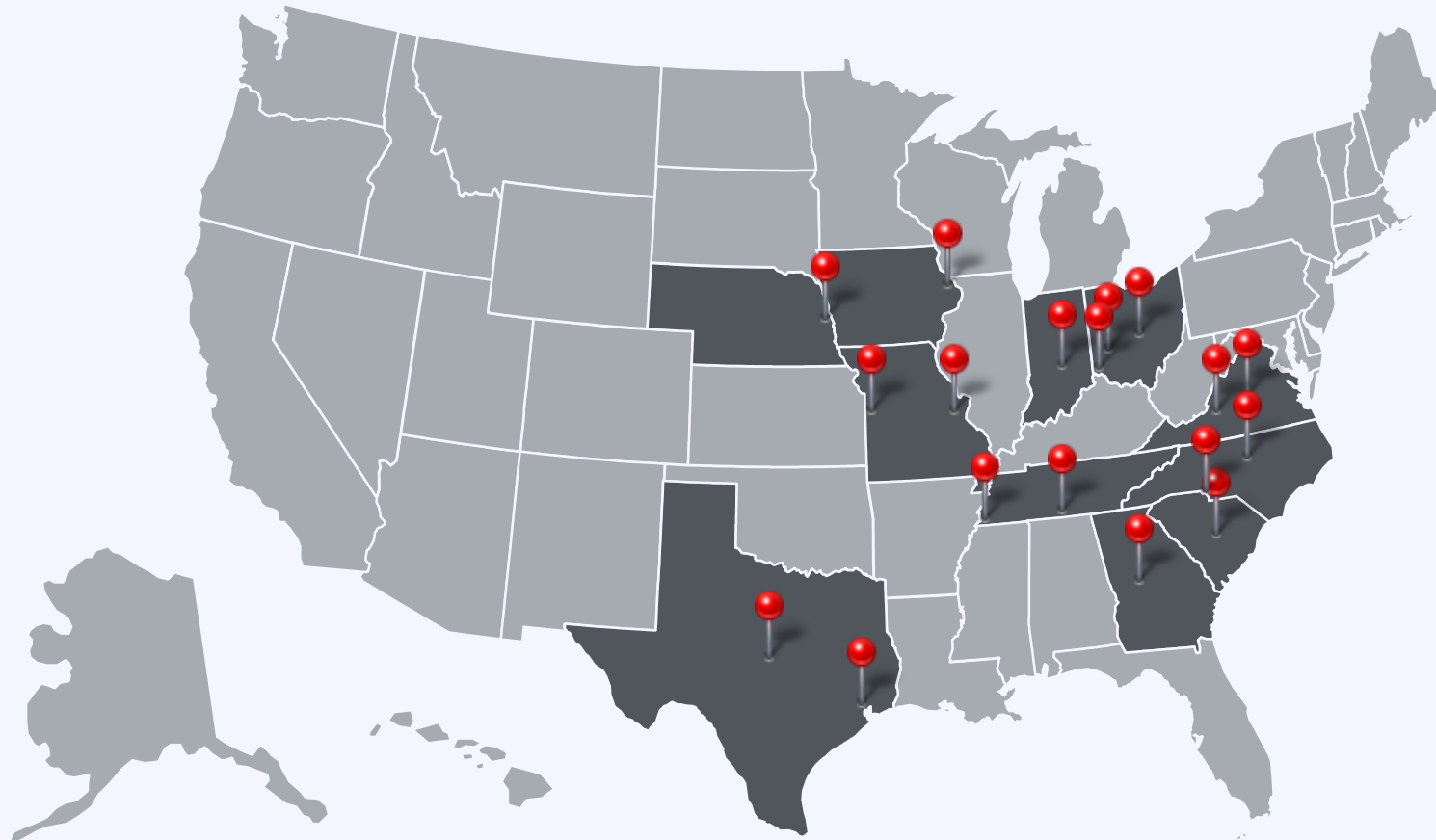


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# Regional Workshops: Past 9 Months



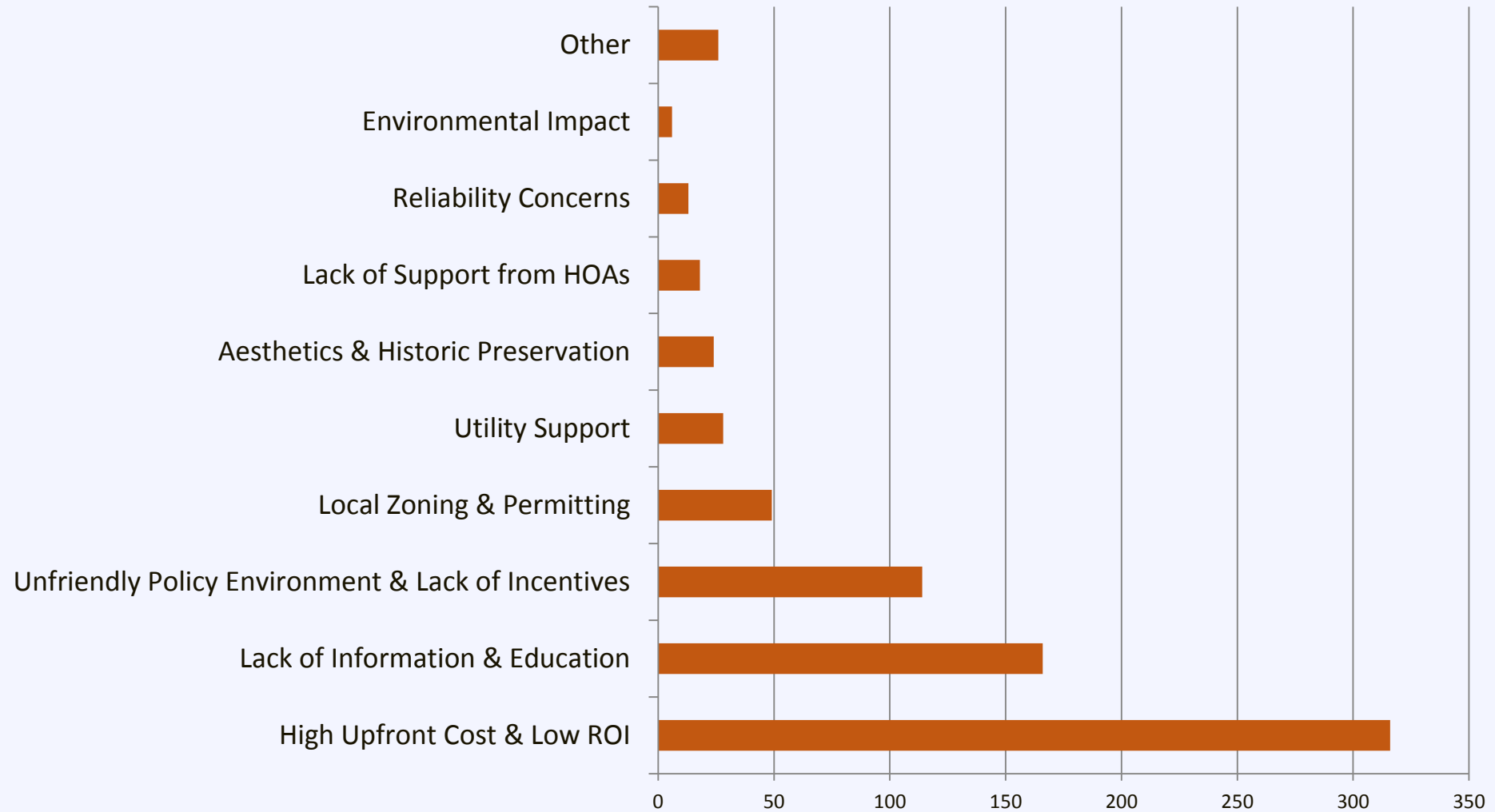
# Benefits & Barriers Questions

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**What is the greatest benefit solar can bring to your community? [Blue Card]**

**What is the greatest barrier to solar adoption in your community? [Green Card]**

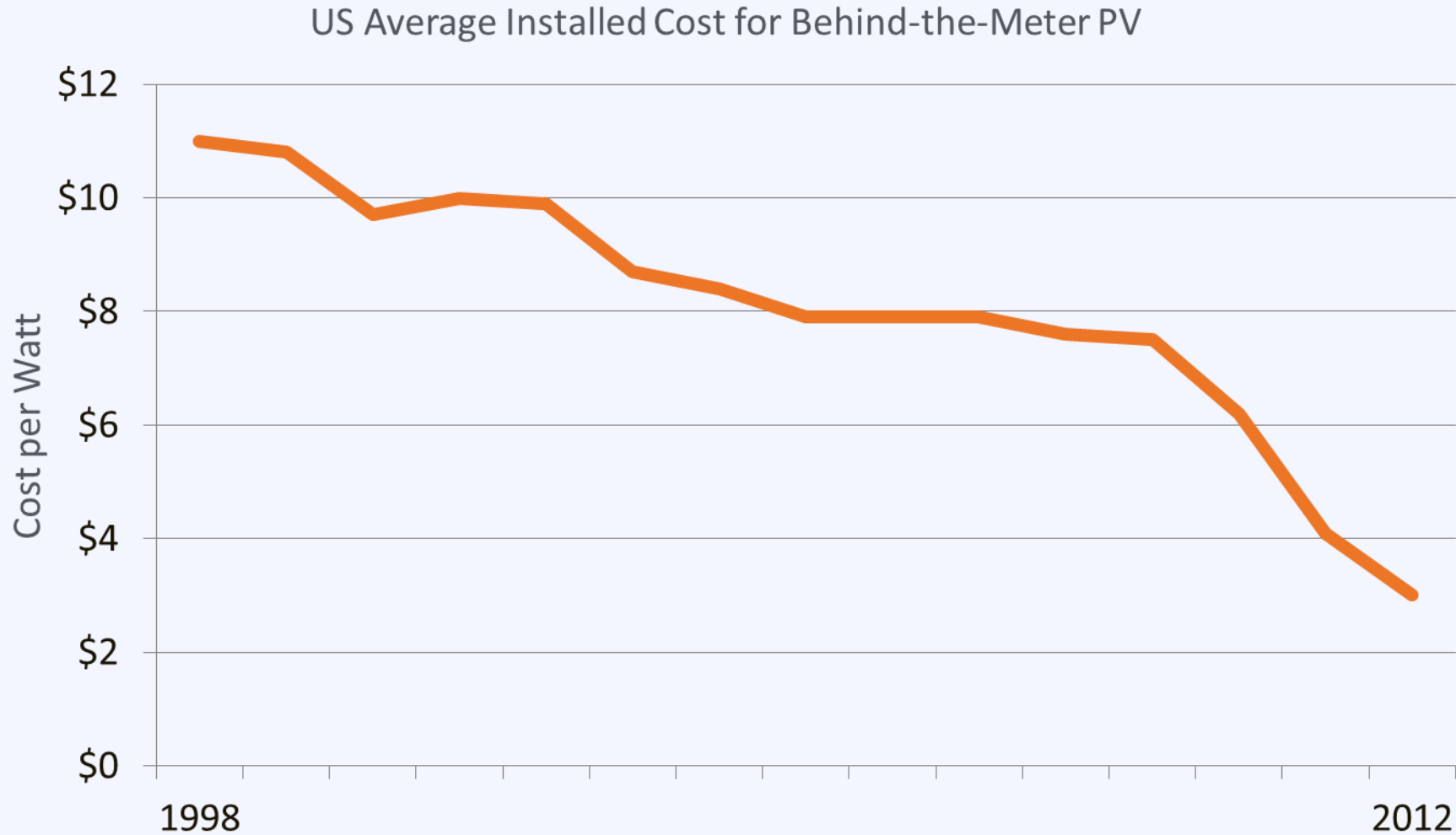
# Results of Barriers Discussion





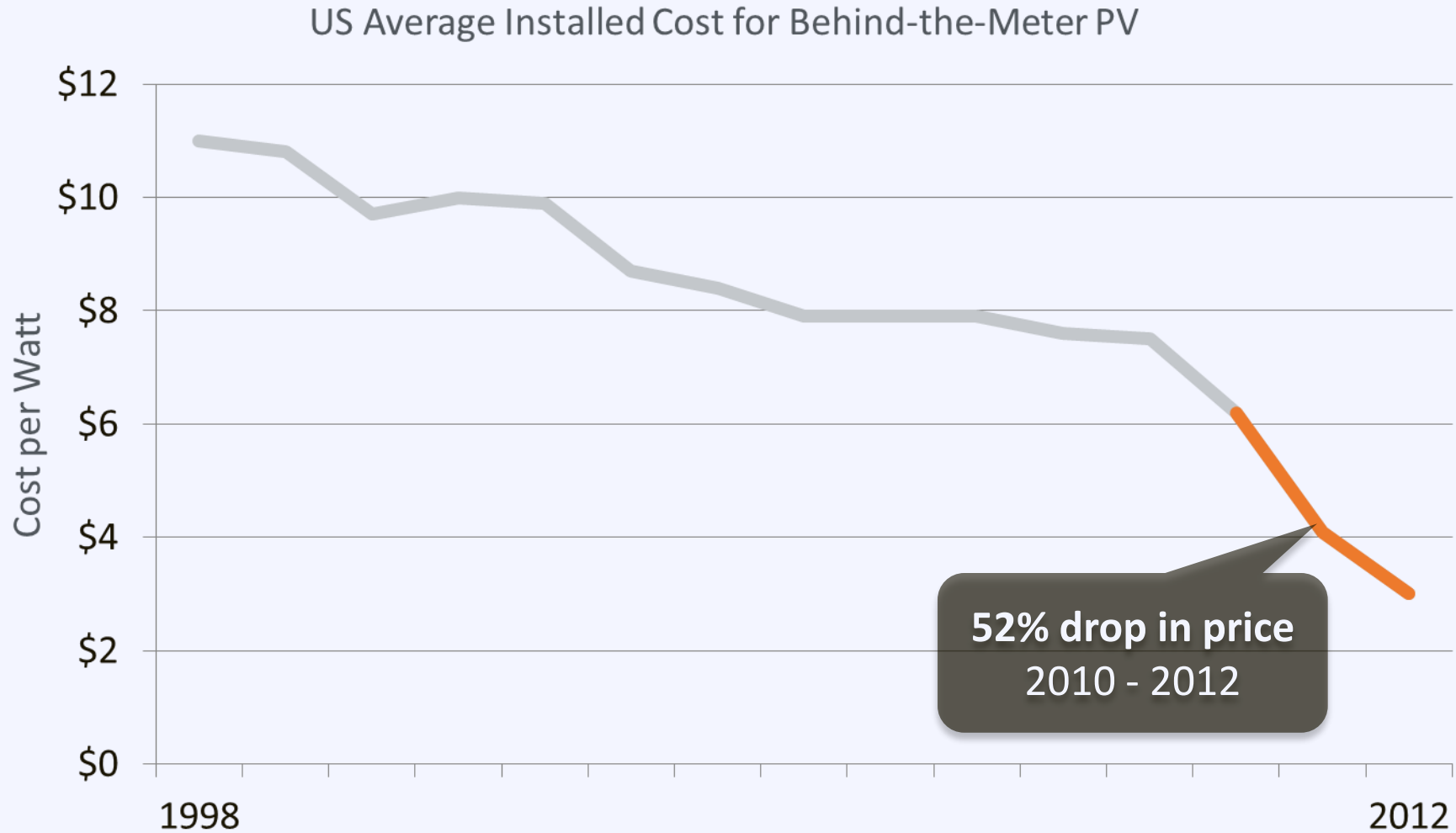
Local governments play a critical role  
in reducing barriers for solar  
development

# Cost of Solar PV

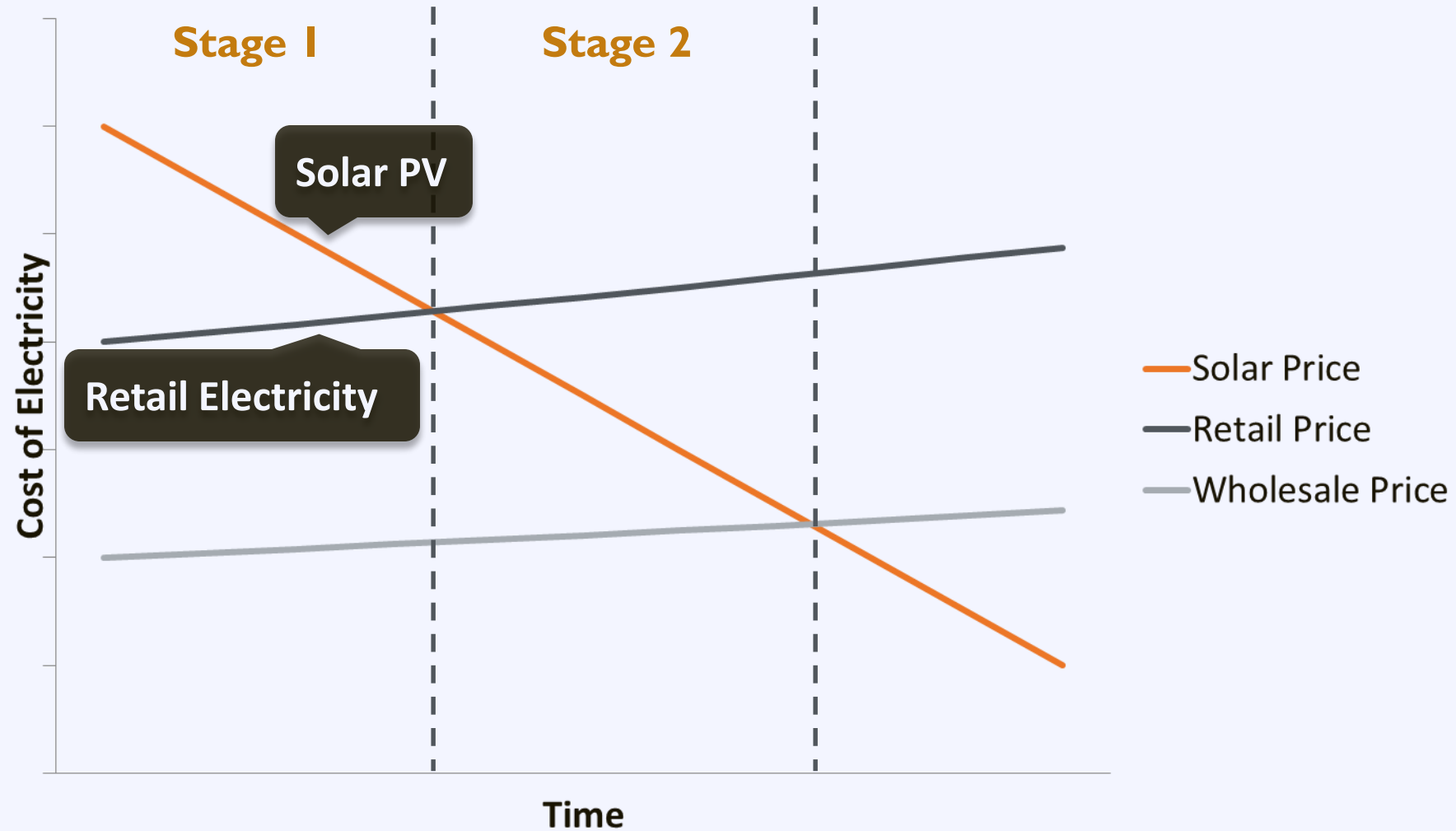




# Solar Market: Trends



# The Cost of Solar PV



# How to Reach Stage 2

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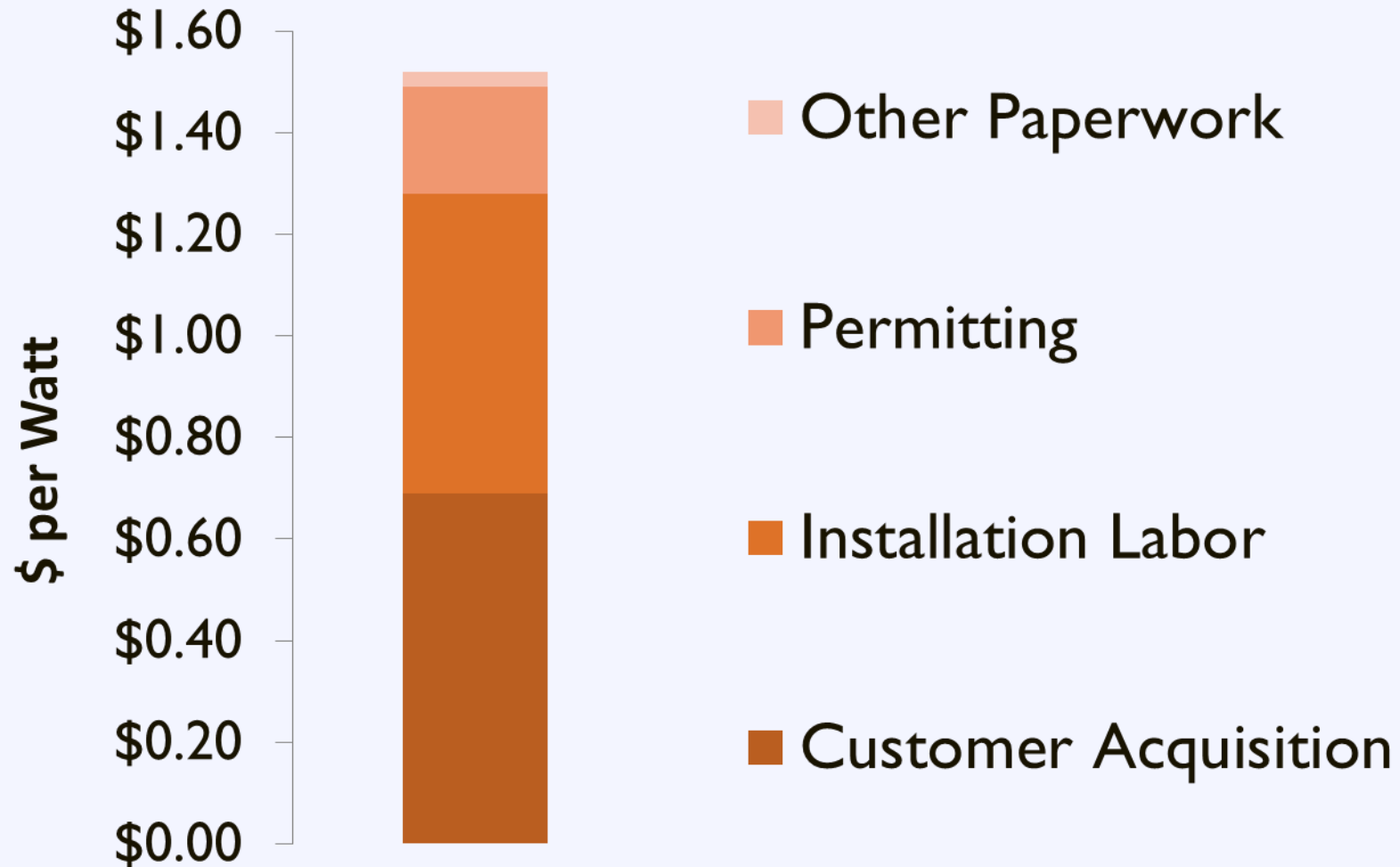
**Decrease Costs** or **Increase Revenue**

Upfront incentives

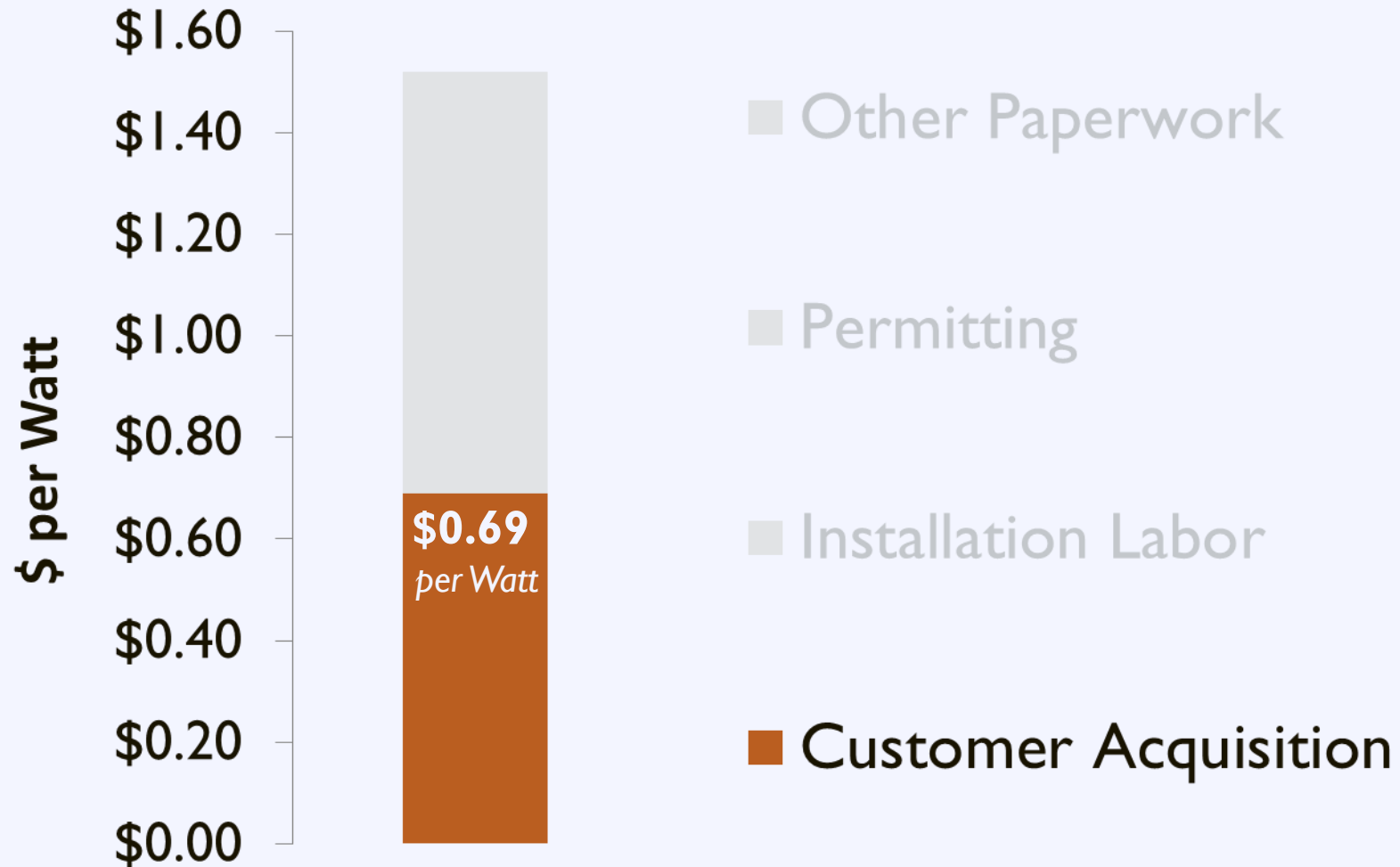
Performance Incentives

Reduce soft costs

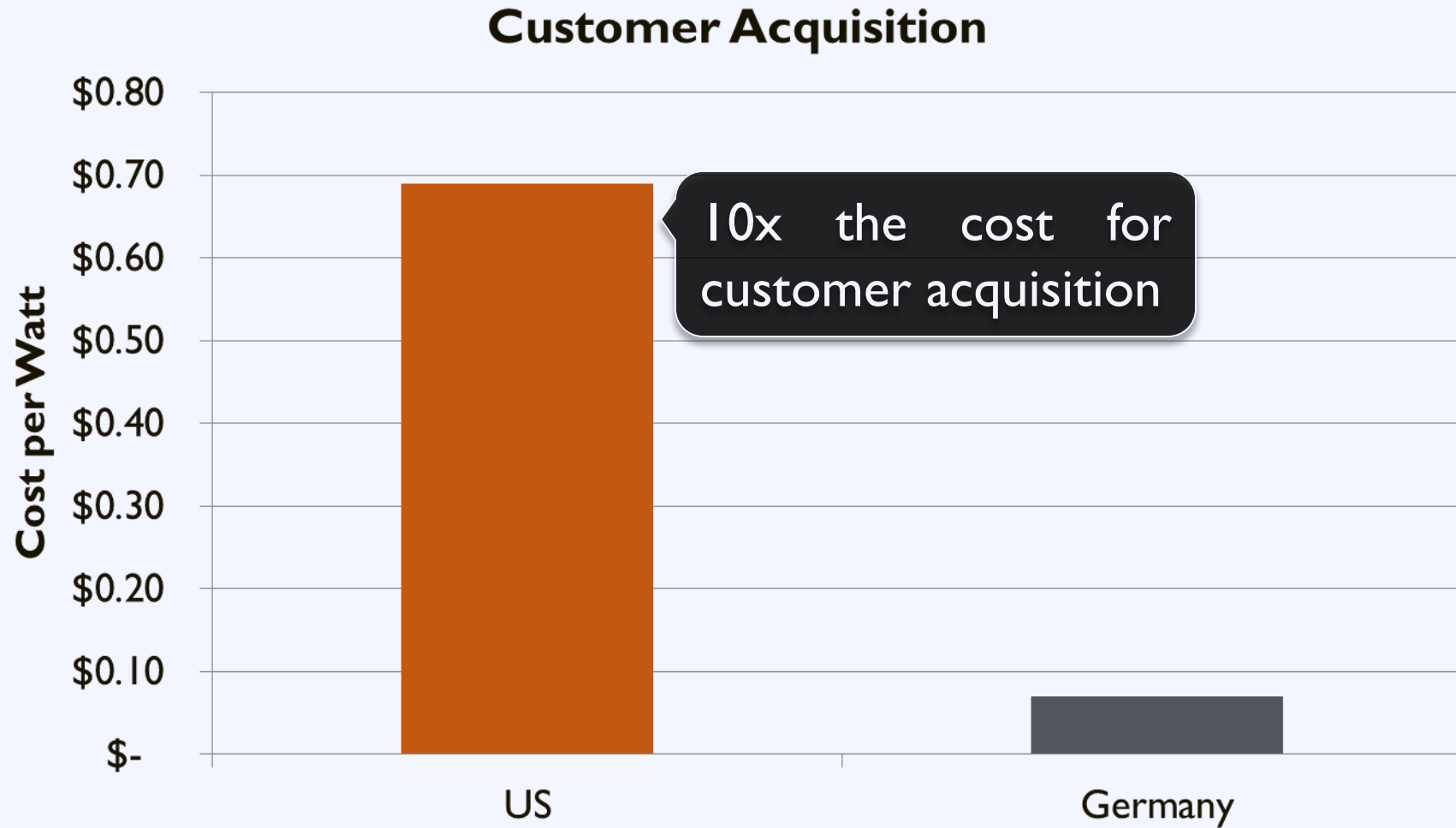
# Mitigate Soft Costs



# Solarize: Mitigate Soft Costs



# Solarize: Advantages



# Solarize



## Solarize Group Purchasing





# Solarize: Advantages

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## Barriers

High upfront cost

Complexity

Customer inertia



## Solutions

Group purchase



Community outreach



Limited-time offer

# Solarize: Case Study

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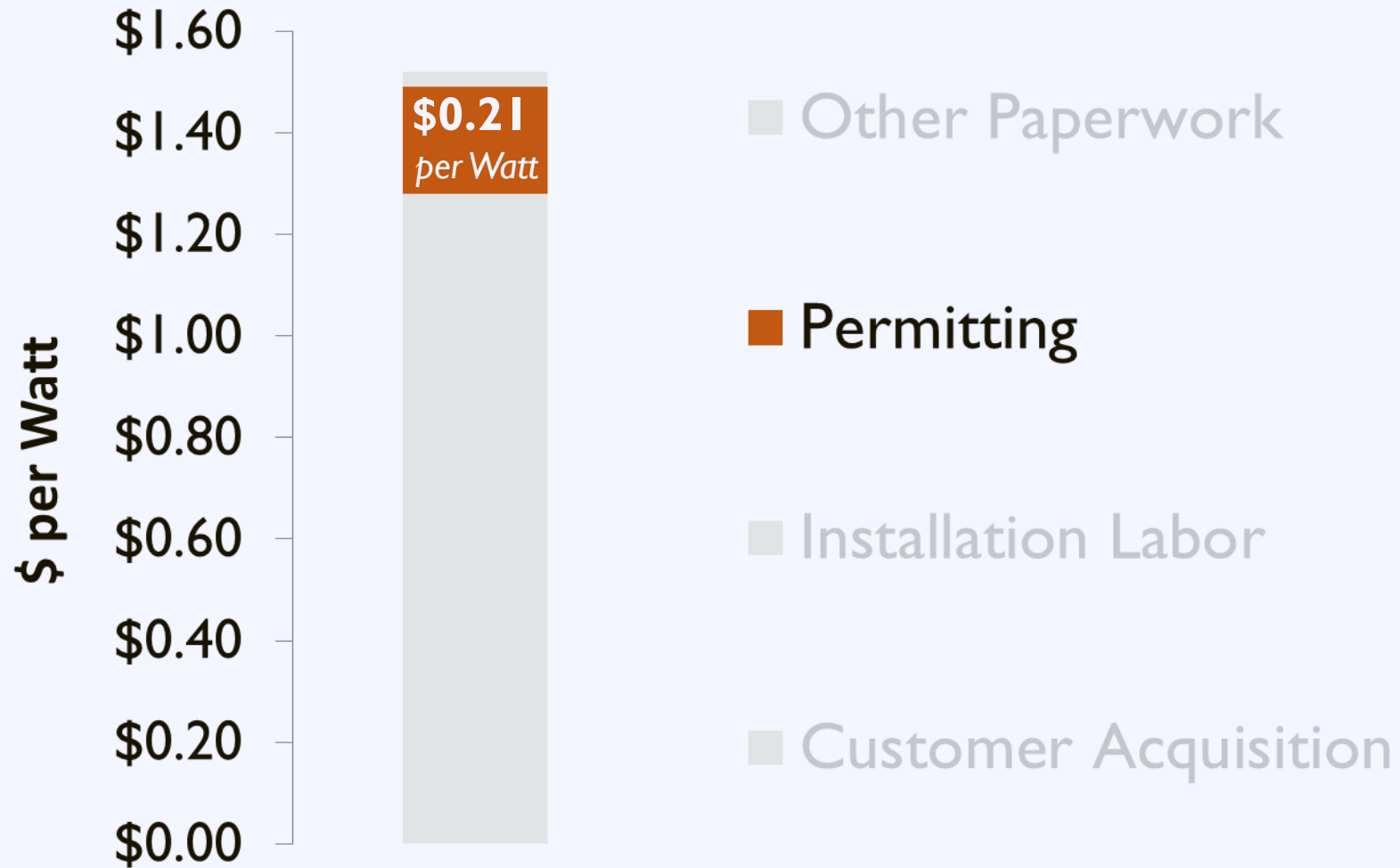
## Harvard Massachusetts:

**75** new installations totaling 403 kW

**30% reduction** in installation costs

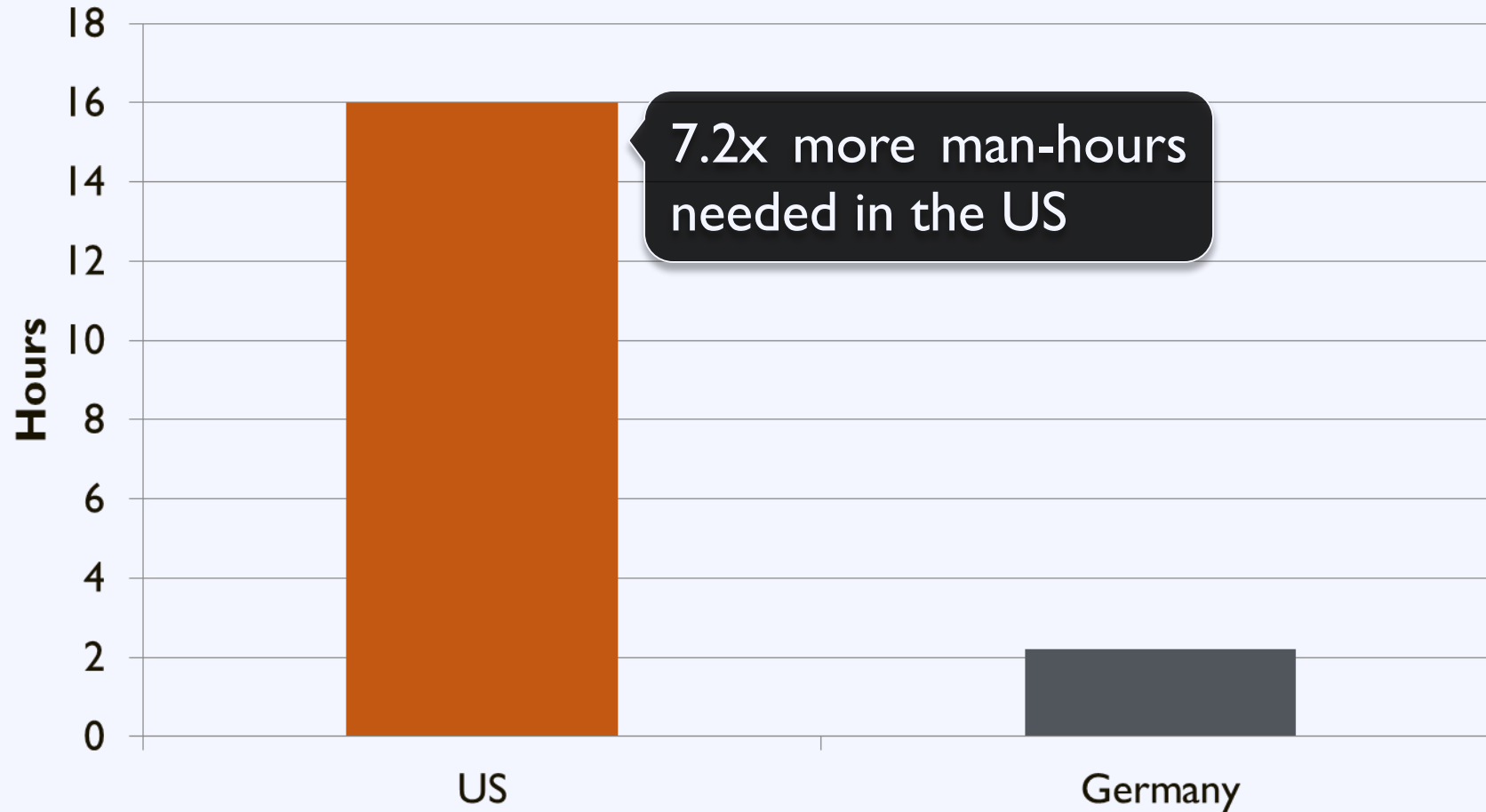
**575% increase** in residential installations

# Mitigate Soft Costs



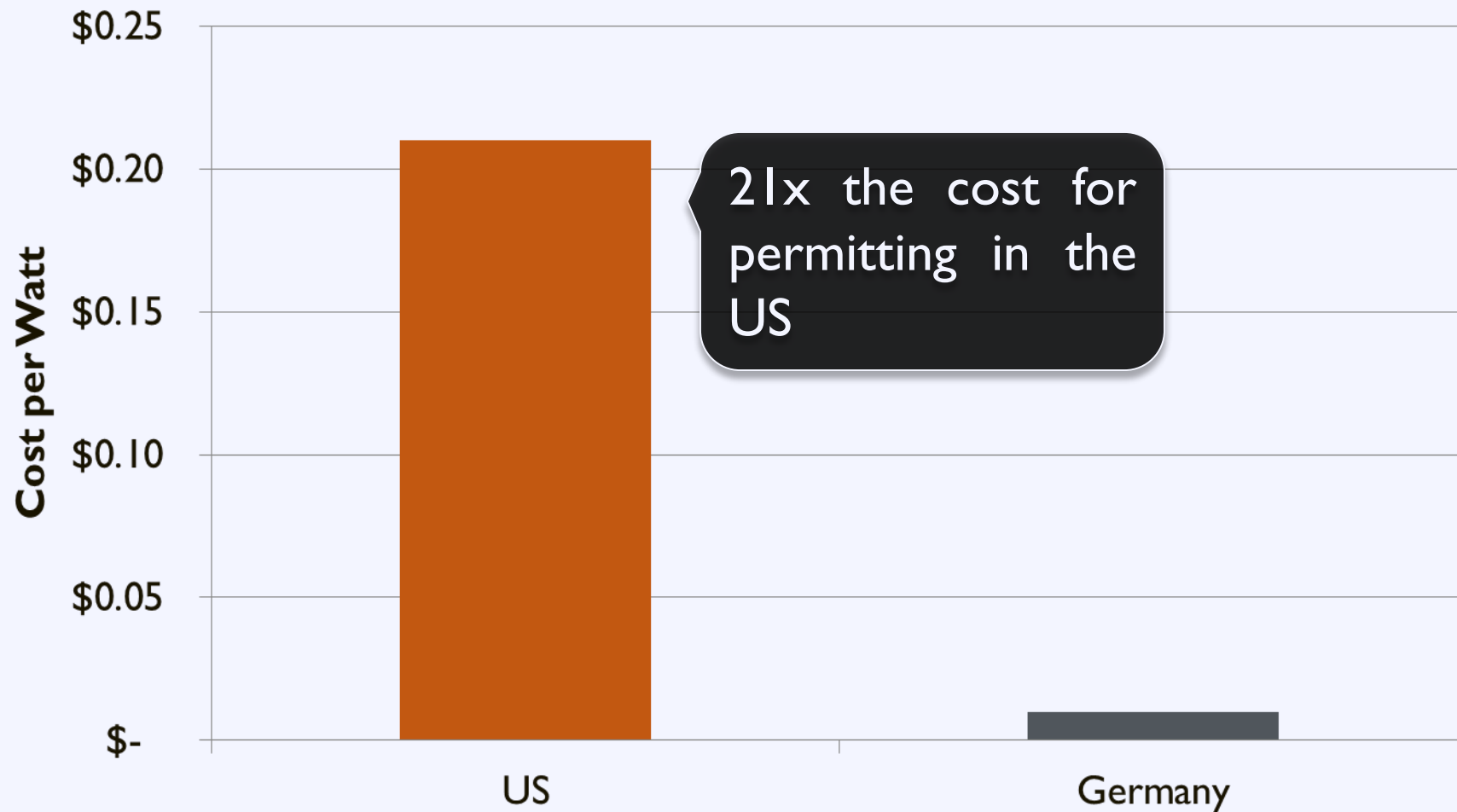
# Time to Installation

## Average Time to Permit a Solar Installation



# Permitting Costs

## Average Cost of Permitting in the US and Germany



# Solar Ordinance: Opportunity

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Communities in CA with favorable permitting practices saw

**4 - 12% lower costs**

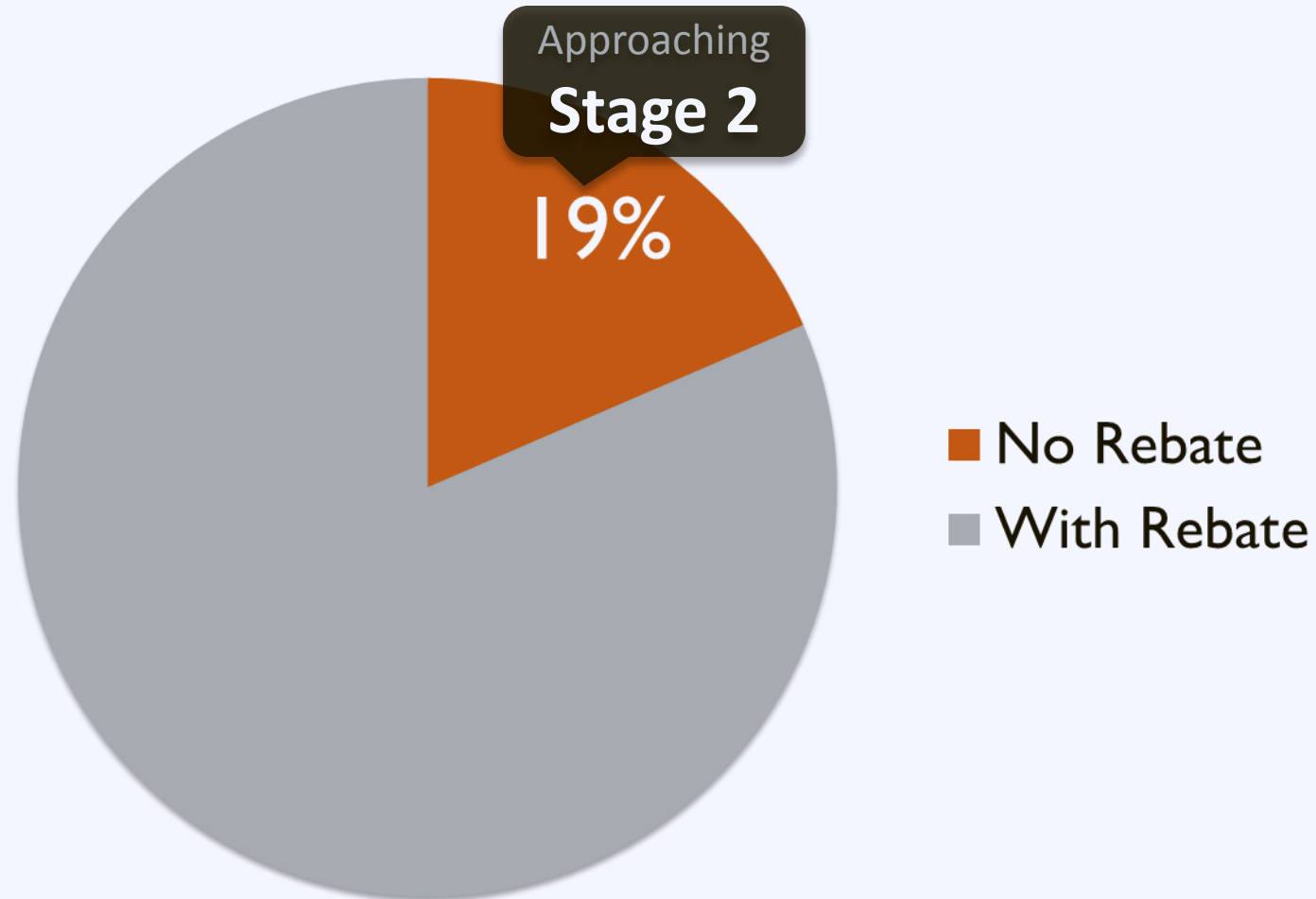
and

**25% shorter development time**

as compared to standard communities

# Solar Ordinance: Opportunity

California Residential PV Installations, Q1 2013







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U.S. Department of Energy

**Jayson Uppal**  
**Meister Consultants Group**

[jayson.uppal@mc-group.com](mailto:jayson.uppal@mc-group.com)

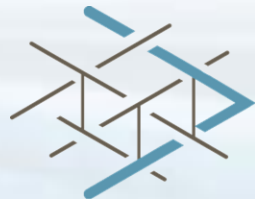
(617) 209-1990

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202.986.1032, x211



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