

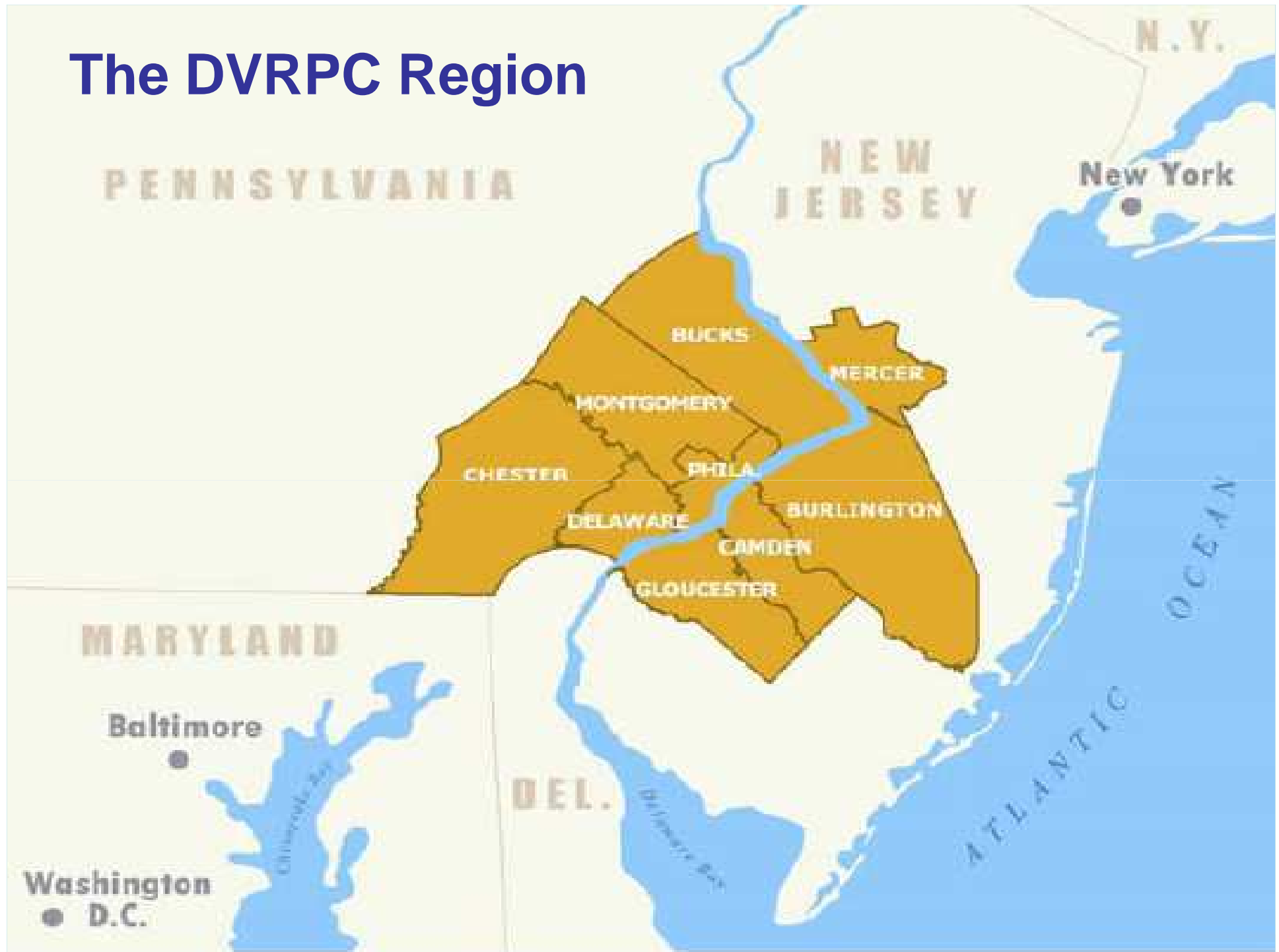
# Solar Ready II

## Zoning for Solar PV



Powered by  
**SunShot**  
U.S. Department of Energy

# The DVRPC Region



# Delaware Valley Regional Planning Commission



- MPO for Greater Philadelphia Region
- Region is bi-state, nine counties surrounding and including Philadelphia
- Planning areas
  - Transportation Planning, Air Quality, Smart Growth Planning, Environmental Planning, Housing and Economic Development, Population and Employment forecasts, Long Range Planning
  - Office of Energy and Climate Change:
    - Regional greenhouse gas inventory
    - Climate Change Adaptation Planning
    - Preparing the region for alternative energy
    - Electric Vehicle Readiness Plan
    - Municipal energy management assistance
    - Pennsylvania Partnership to Promote Natural Gas Vehicles

# U.S Department Of Energy SunShot Initiative Rooftop Solar Challenge



# U.S Department of Energy SunShot Initiative

The U.S. Department of Energy SunShot Initiative is a collaborative national effort that aggressively drives innovation to make solar energy fully cost-competitive with traditional energy sources before the end of the decade. Through SunShot, DOE supports efforts by private companies, academia, and national laboratories to drive down the cost of solar electricity to \$0.06 per kilowatt-hour.

# U.S. Department of Energy SunShot Initiative Rooftop Solar Challenge

The U.S. Department of Energy SunShot Initiative Rooftop Solar Challenge incentivizes regional awardee teams to make it easier and more affordable for Americans to go solar. By streamlining permit processes, updating planning and zoning codes, improving standards for connecting solar power to the electric grid, and increasing access to financing, teams will clear a path for rapid expansion of solar energy and serve as models for other communities across the nation.

# What is SunShot targeting?

## Soft Costs



=

~~Up to 50%~~ **over 64%** of  
the cost of a solar  
installation

# Solar Ready II

- Partnering with **Mid-America Regional Council (MARC)**, **National Association of Regional Councils (NARC)**, **Meister Consultants Group (MCG)**, and **Council of State Governments (CSG)**.
- Goals are to implement solar best management practices, training materials and methods, and other proven implementation strategies previously established by MARC's 2012 Solar Ready KC Initiative.
- Ultimately will result in more streamlined and standardized solar practices, and will achieve measurable improvements in solar market conditions and access for ten million people across the US.



# SOLAR READY II REGIONAL PARTNERS

**CNY  
RPDB** Central New York Regional  
Planning and Development Board

**DV  
RPC** Delaware Valley Regional  
Planning Commission

**MAG** Maricopa Association  
of Governments

**MW  
COG** Metropolitan Washington  
Council of Governments

**MARC** Mid-America  
Regional Council

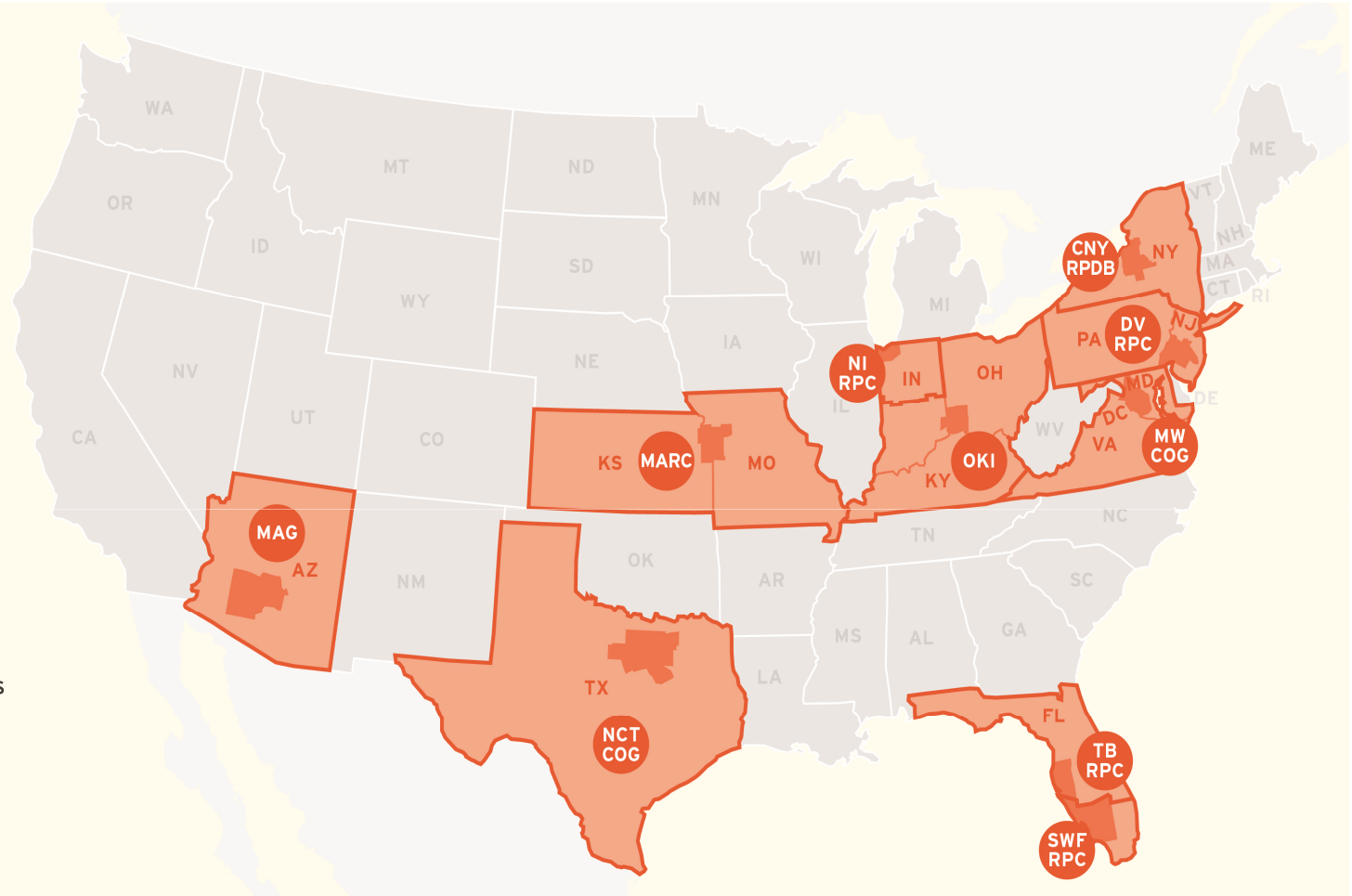
**NCT  
COG** North Central Texas  
Council of Governments

**NI  
RPC** Northwestern Indiana  
Regional Planning Commission

**OKI** Ohio-Kentucky-Indiana  
Regional Council of Governments

**SWF  
RPC** Southwest Florida  
Regional Planning Council

**TB  
RPC** Tampa Bay Regional  
Planning Council



# **SRII Grant Details – DVRPC**

## **Major Goals**

Identify existing conditions and barriers in PA and NJ

Develop/Implement Plan Reduce Soft Costs to Solar PV Adoption

- Light technical assistance to 10-30 municipalities
- Training on BMPS

## **Funding Amount**

\$90,000 (\$75,000 plus \$15,000 if goals are met)

## **Timeframe**

18 to 30 months (depending on accomplishments met)

# Major Deliverables and Milestones

Subtask	Target Date
Engage stakeholders	Dec. 2013 and ongoing
Evaluate existing processes/policies and update with Best Management Practices (BMPs)	February 2014 and ongoing
Jurisdiction Questionnaires and Data Gathering	March 2014 and ongoing
Engage 10-30 local governments as committed participants	March 2014 and ongoing
Conduct trainings on determined best practices	May 2014 and ongoing

# Solar Activity in the Region

- DVRPC's Alternative Energy Ordinance Working Group
- County-level planning activities and municipal assistance
- Sustainable Jersey "Solar Friendly" actions
- PennFuture SunshineTEAM
- [Conservationtools.org](http://Conservationtools.org)

## What we've heard...

- Permitting and inspection process
- Utility interconnection
- Financing
- First responder safety
- Customer acquisition

# Best Management Practices

Process	Improve Permitting Process	Prequalify Installers	Utility Coordination
Planning	Zoning Code Improvements	Improve Solar Access	Educate Developers + Homeowners
Financing & Adoption	Distribute Cost Survey to Installers	Enact Solarize Program	Engage Local Lenders

# Solar Permitting Best Practices

## **Make information available**

- Post information on-line.
- Provide Checklists.

## **Streamline permit application submission**

- Adopt standard permit submission package.
- Allow on-line submissions.

## **Calculate most appropriate fee**

- Allow on-line payment.

## **Streamline review and inspection requirements**

- Train staff on review process.

## **Consider streamlining reviews**

- Philly – electric only for systems that meet certain requirements. Solar ABCs too.

## **Develop criteria for an expedited permit process**

## **Simplify the Inspection Process**

- Conduct a single, comprehensive inspection instead of requiring multiple appointments.
- Schedule narrower windows of time or specific appointment times for inspections.

## **Shorten permit approval times**

# For More Information

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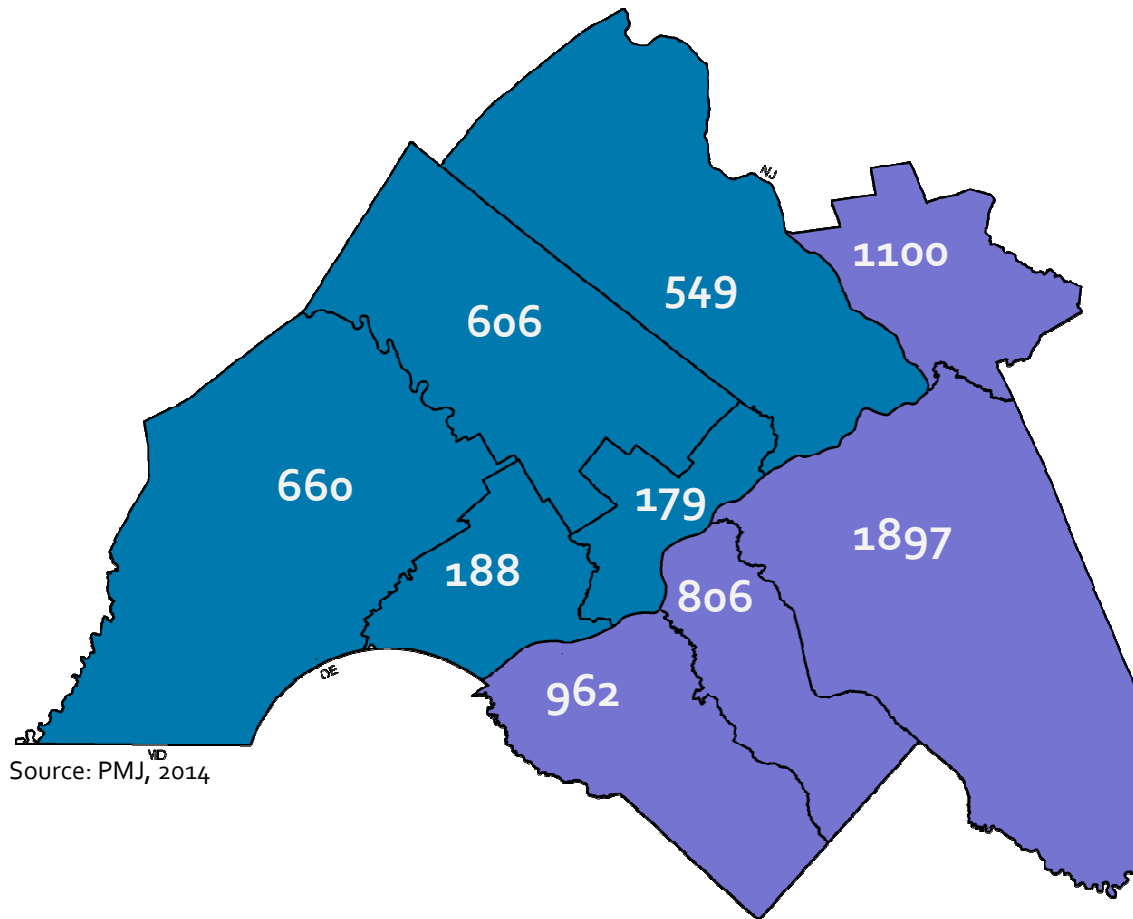
[www.dvrpc.org/EnergyClimate/aeowg.htm](http://www.dvrpc.org/EnergyClimate/aeowg.htm)

[www.narc.org/solarready](http://www.narc.org/solarready)



# PV Installations in DVRPC Region

Count of solar PV systems installed by county



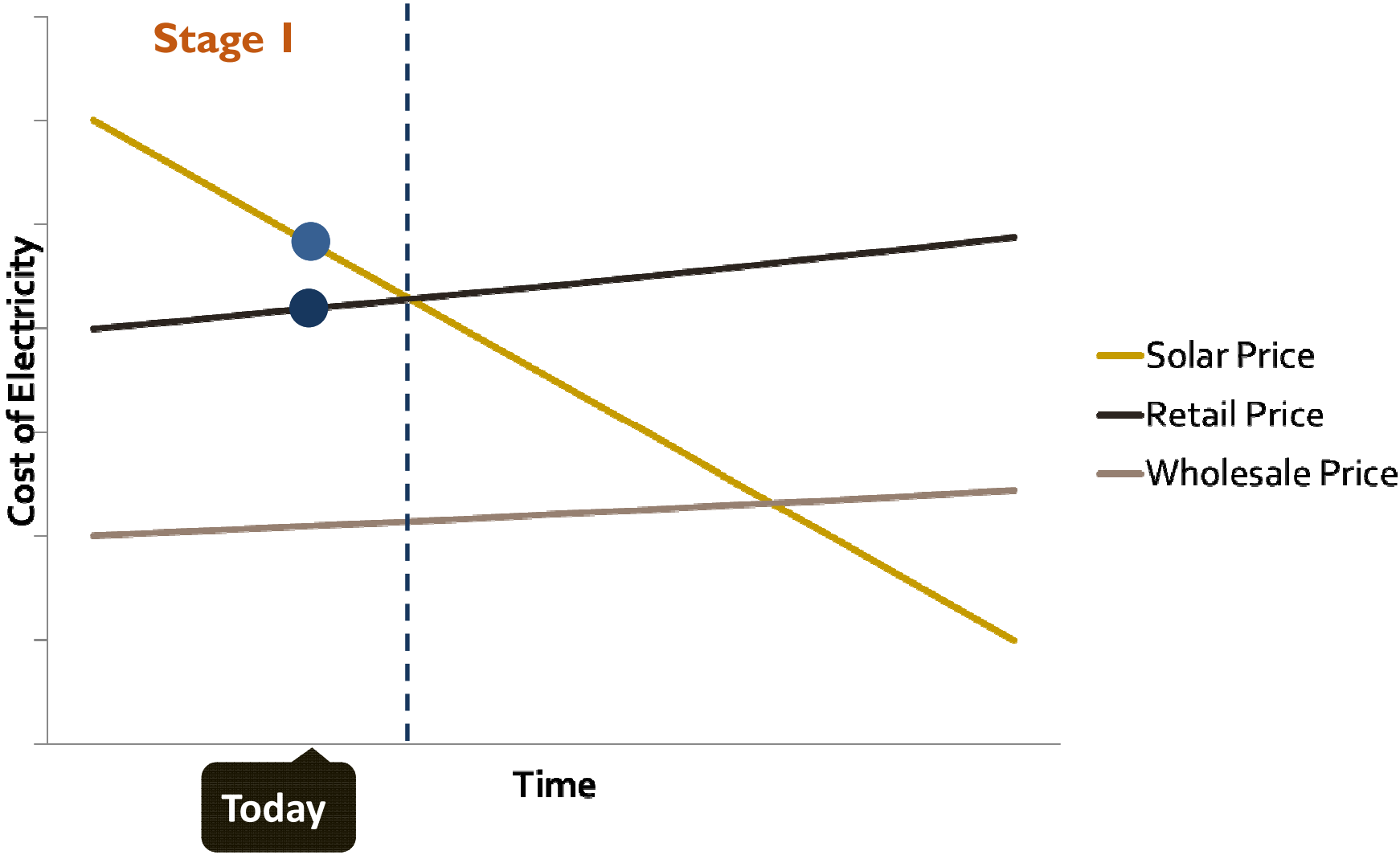
Source: PMJ, 2014

	PA	NJ
National Rank	10 <sup>th</sup>	2 <sup>nd</sup>
Av. System Size	2.8 kW	5.4 kW
SREC Price	\$40.00	\$160
\$/W installed (residential)	\$3.84	\$2.68
\$/W installed (commercial)	\$4.61	\$3.96

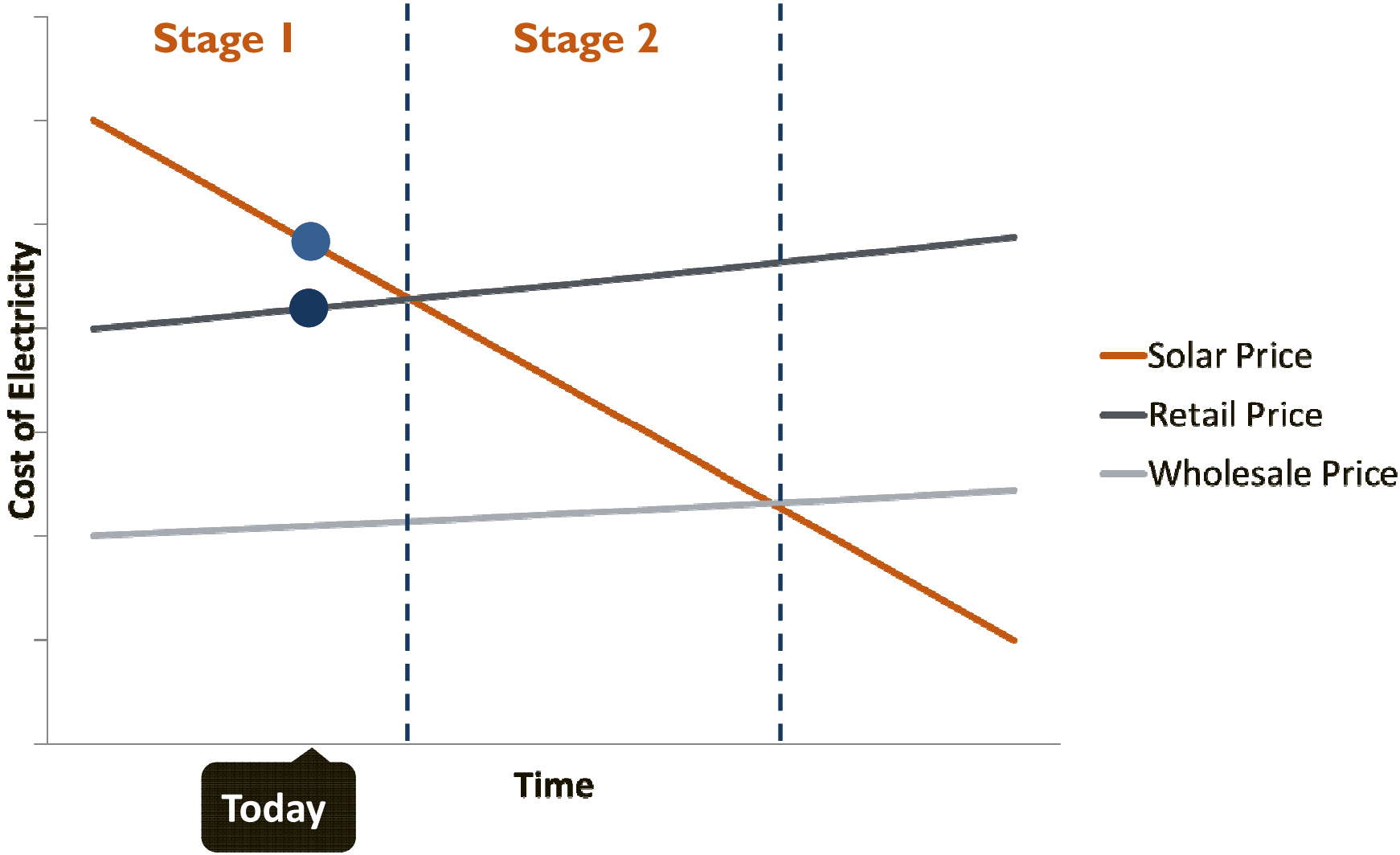
Source: NREL, 2014; PMJ, 2014; srectrade.com

Solar installations spiked in 2010, but demand still present

# The Cost of Solar in the US



# The Cost of Solar in the US



# The Cost of Solar in the US

## Comparison of US and German Solar Costs

