# Customer-Sited Technologies: RPS Results-to-Date and Future Outlook

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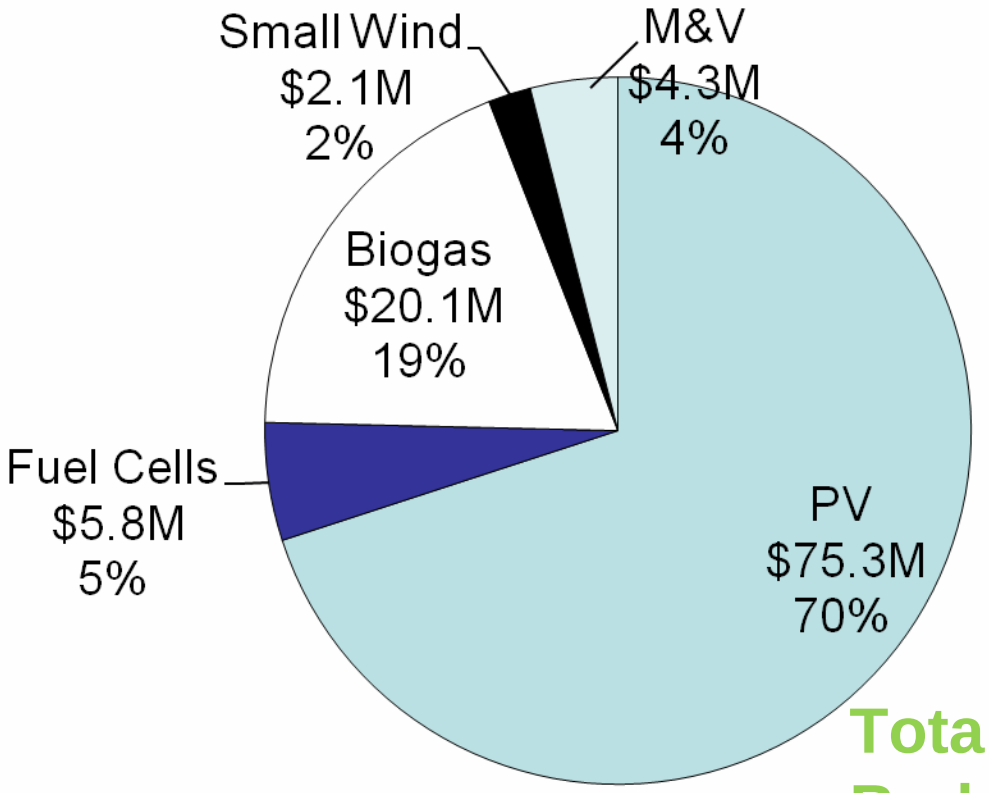
# Current CST Budget

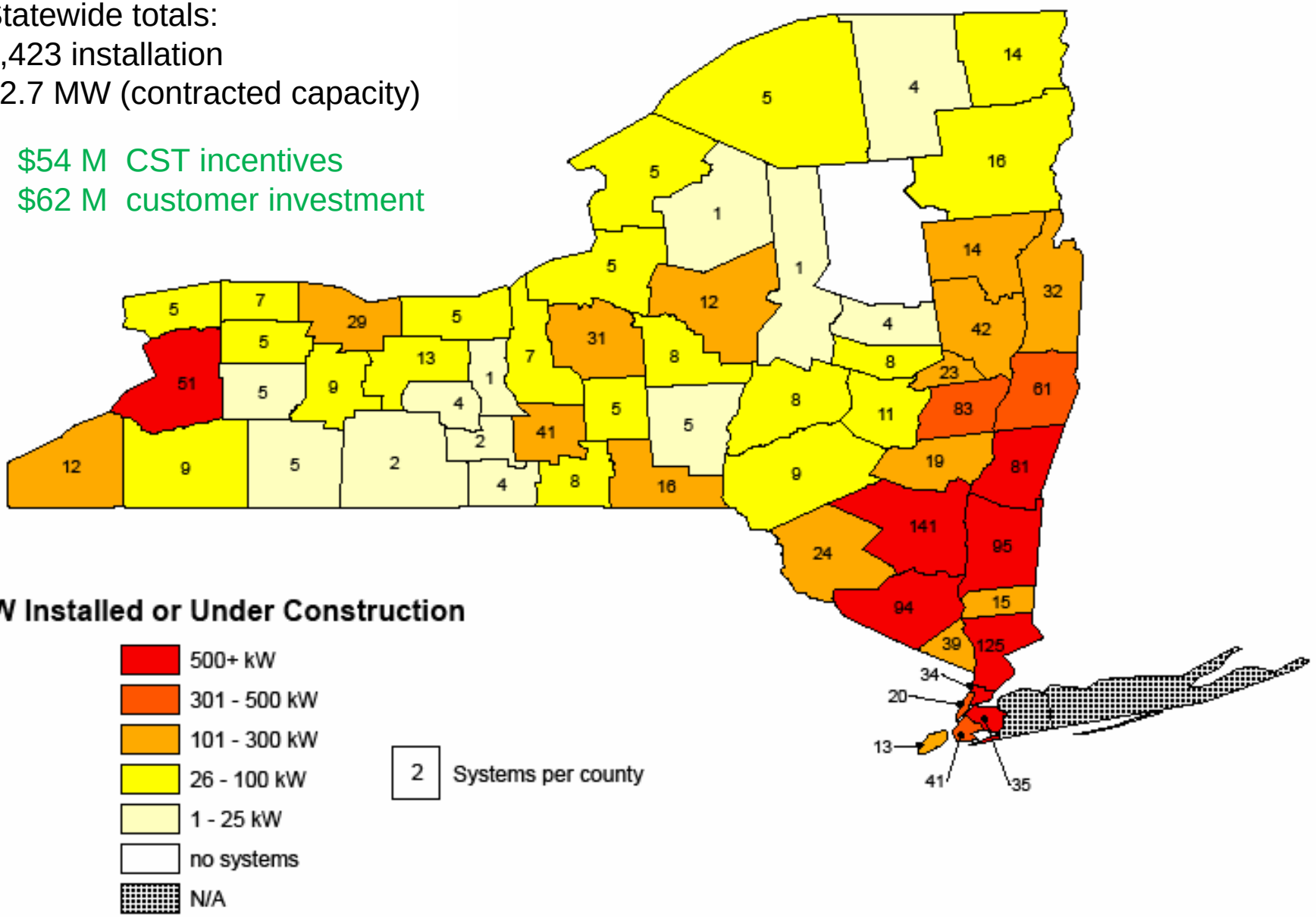



**Total CST Program Budget: $107.6M**

# CST- Funded PV Installations (9/30/09)

Statewide totals:
1,423 installation
12.7 MW (contracted capacity)

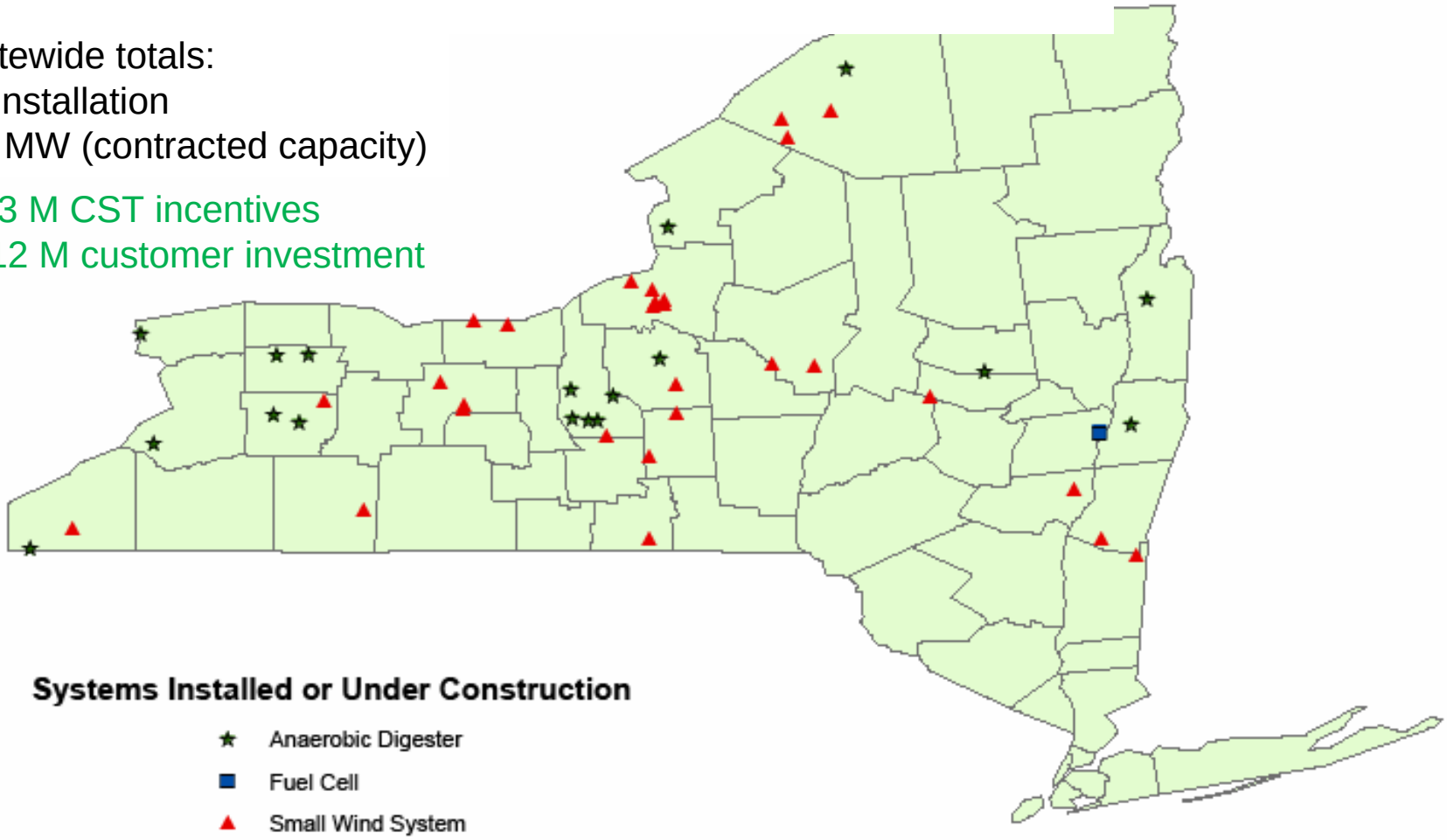
$54 M CST incentives
$62 M customer investment



# Other CST- Funded Installations (9/30/09): Anaerobic Digesters, Fuel Cells, Small Wind

Statewide totals:
47 installation
5.4 MW (contracted capacity)

$13 M CST incentives
$ 12 M customer investment



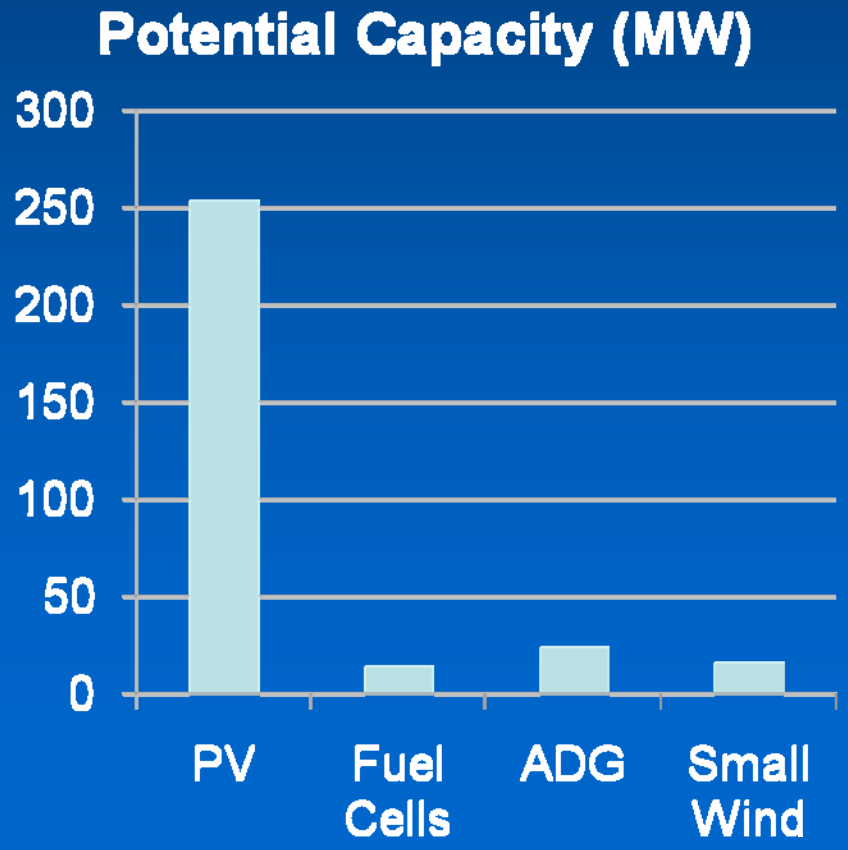

*ADG and Fuel Cell incentives: performance based*

# Progress Relative to Commission CST Goals & Policy Objectives

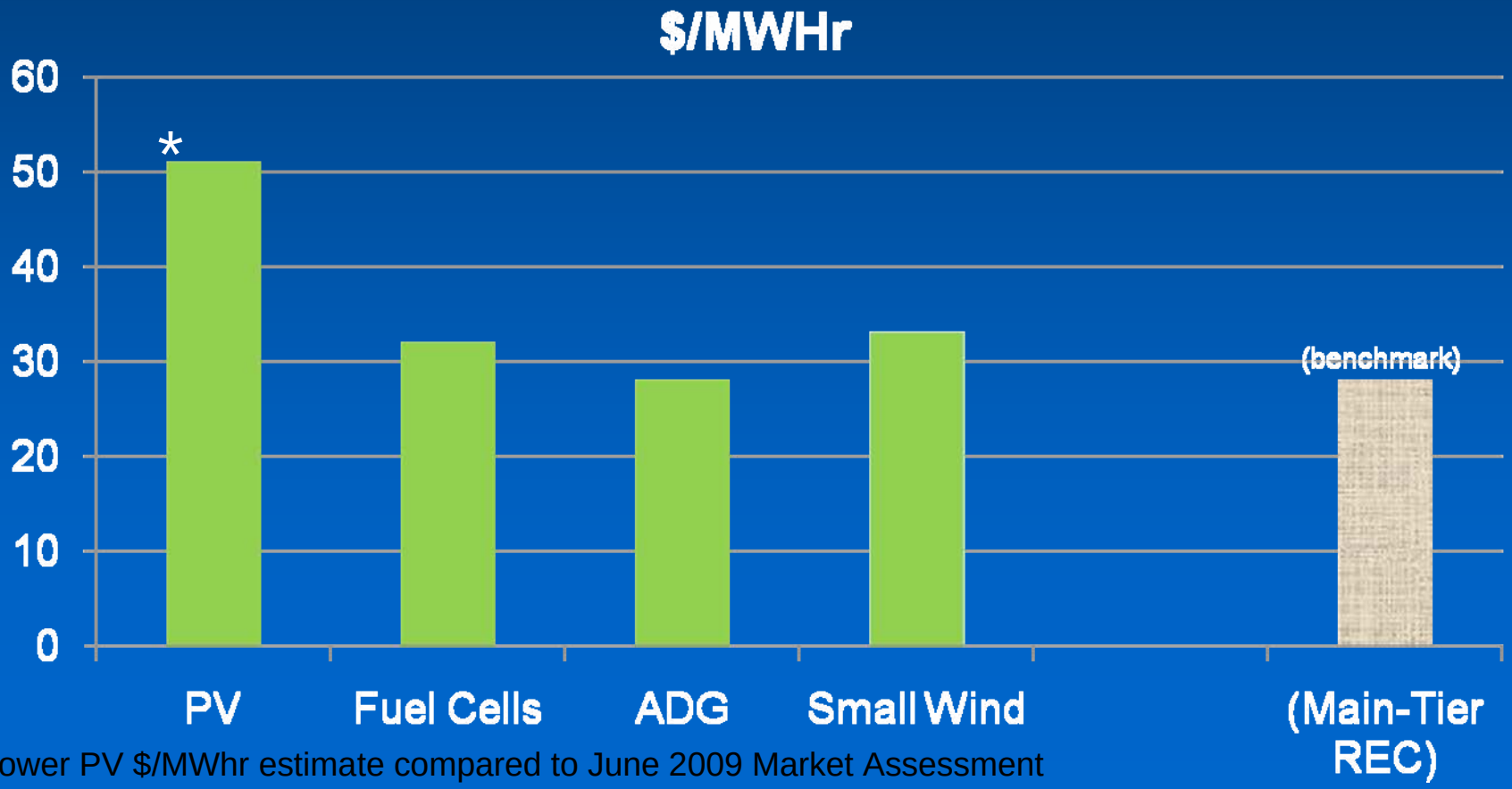
- CST MWhr target:
  - 50% of the 2013 target
  - Exceeded MWhr target established in Operating Plan
- Support fuel diversity
- Opportunities for small customers to participate in renewable markets
- Potential to create/sustain jobs
- Support load pockets
- Building a market infrastructure & developing options for a lower carbon energy future

# Future Considerations: CST Estimated Market Potential

| Resource Category | Capacity in MW by 12/31/2015 | Annual Generation in MWh by 12/31/2005 |
|---|---|---|
| PV | 253 | 288,484 |
| Fuel Cells | 15 | 114,180 |
| ADG | 24 | 170,607 |
| Small Wind | 16 | 28,308 |
| Total | 308 | 601,579 |



# Future Considerations: Projected 2010-2015 CST Program Cost

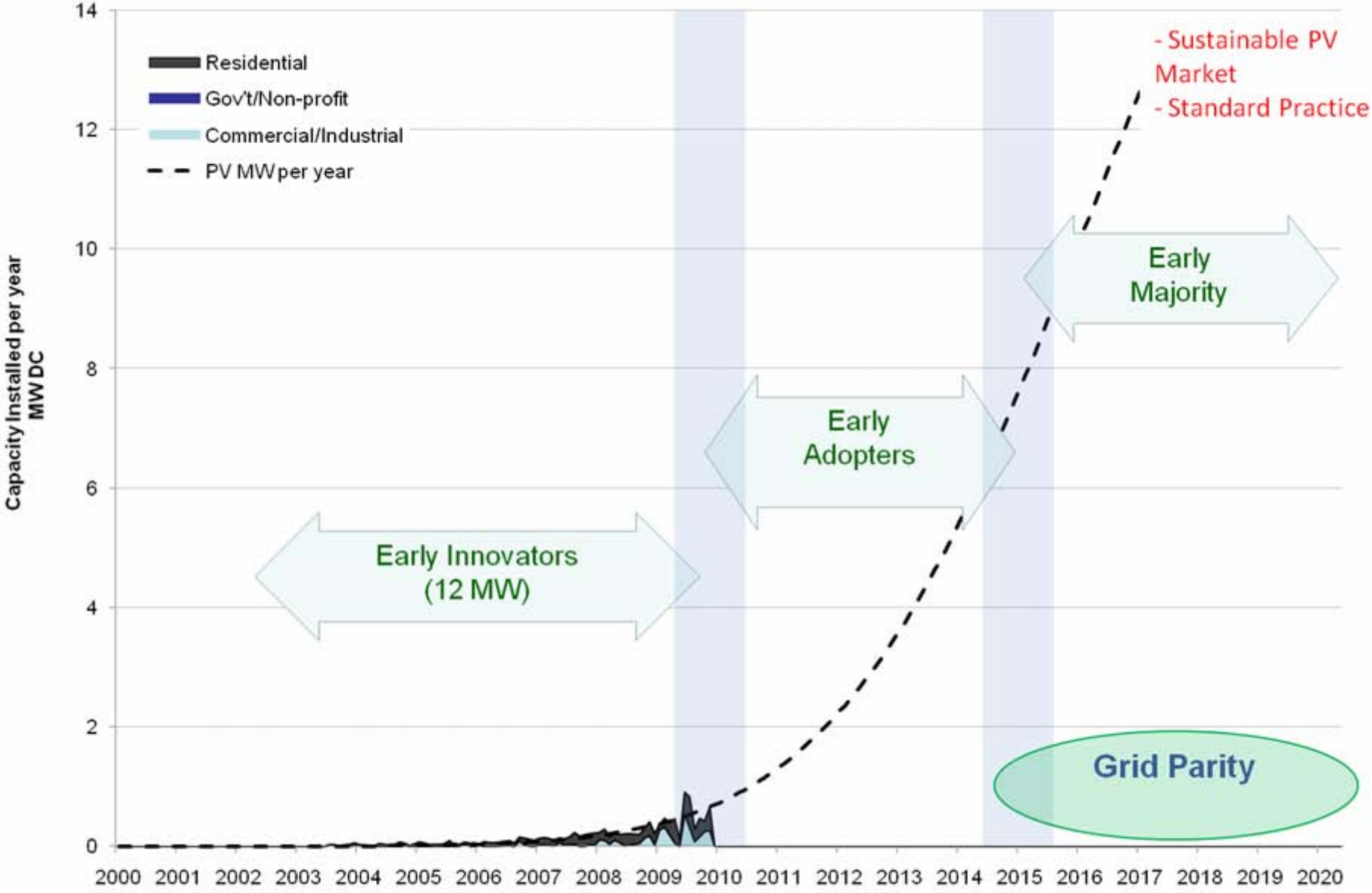



* Lower PV $/MWhr estimate compared to June 2009 Market Assessment

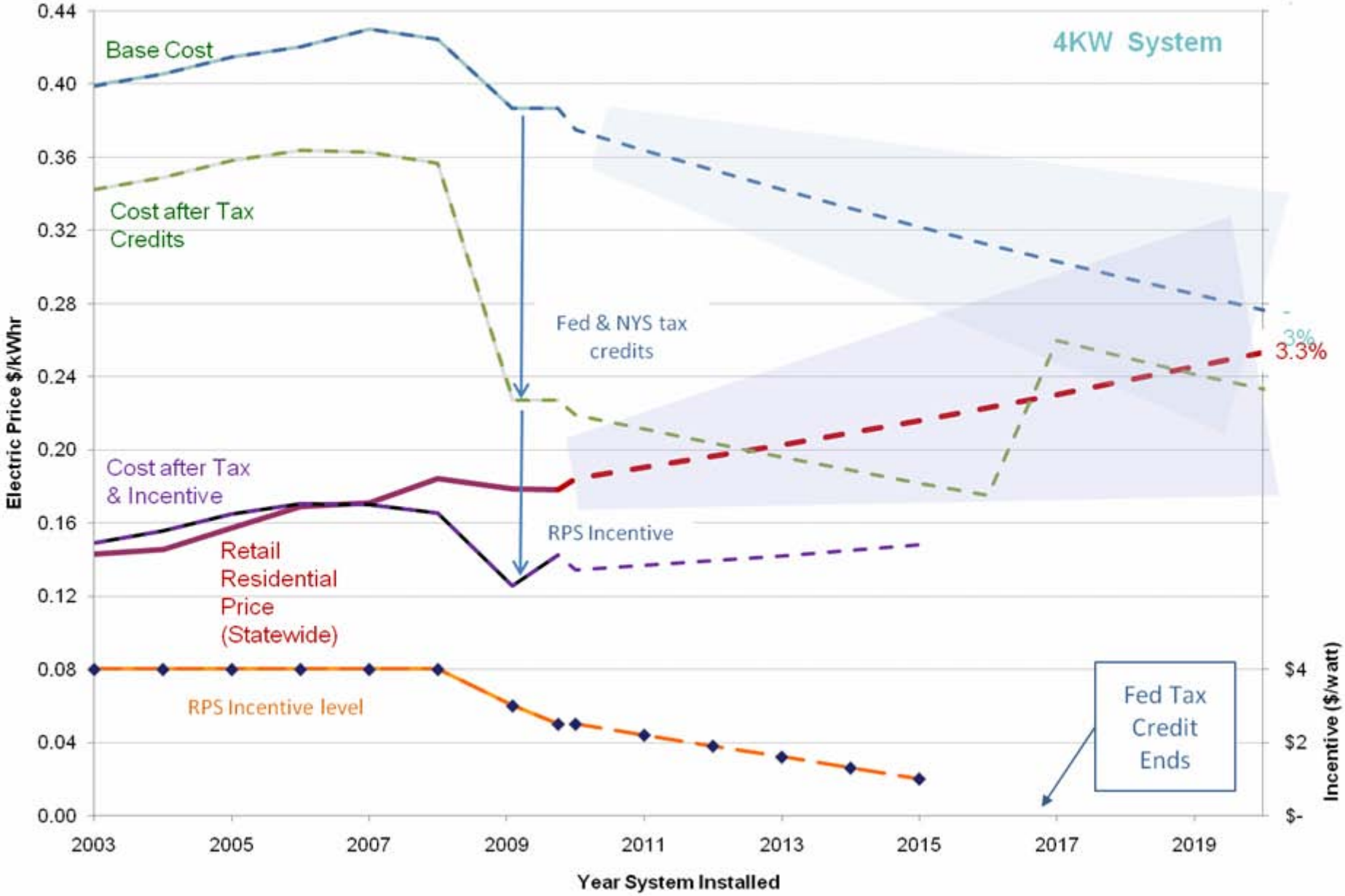
# Lesson Learned & Future Considerations: PV

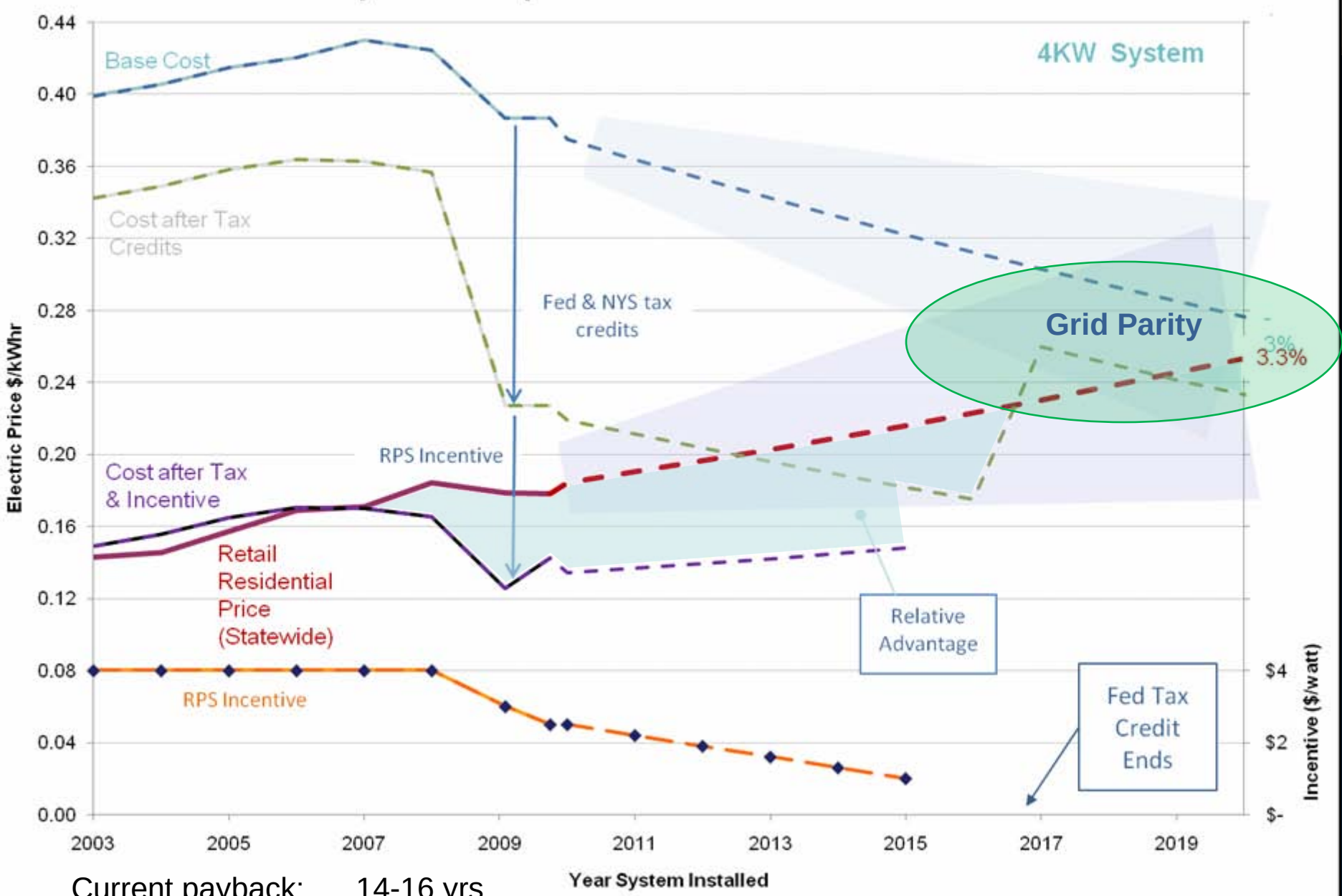
- Manage cash flow/Ratchet down incentives
- Move from individual to business eligibility and integrate w Efficiency Service providers where possible
- Financing may be key
- Options for geographical targeting
- Demonstrate utility value and strategic locational value
- Move toward performance-based payments for larger projects

# Installation of Photovoltaic Systems in NYS



# Residential Electric Price
## 20 yr cost of production from PV vs Retail






Current payback: 14-16 yrs

2010-2015: 14 yr payback, $51/MWhr, $296M to achieve the market potential of 253 MW

# Lessons Learned & Future Considerations: Digesters

- Need to expand service provider base
- Need training
- Address institutional barriers on interconnection
- Recognize resource limitations

# Lessons Learned and Future Considerations: Small Wind

- Emerging market w/ limited service providers in NYS
- Allow for larger projects

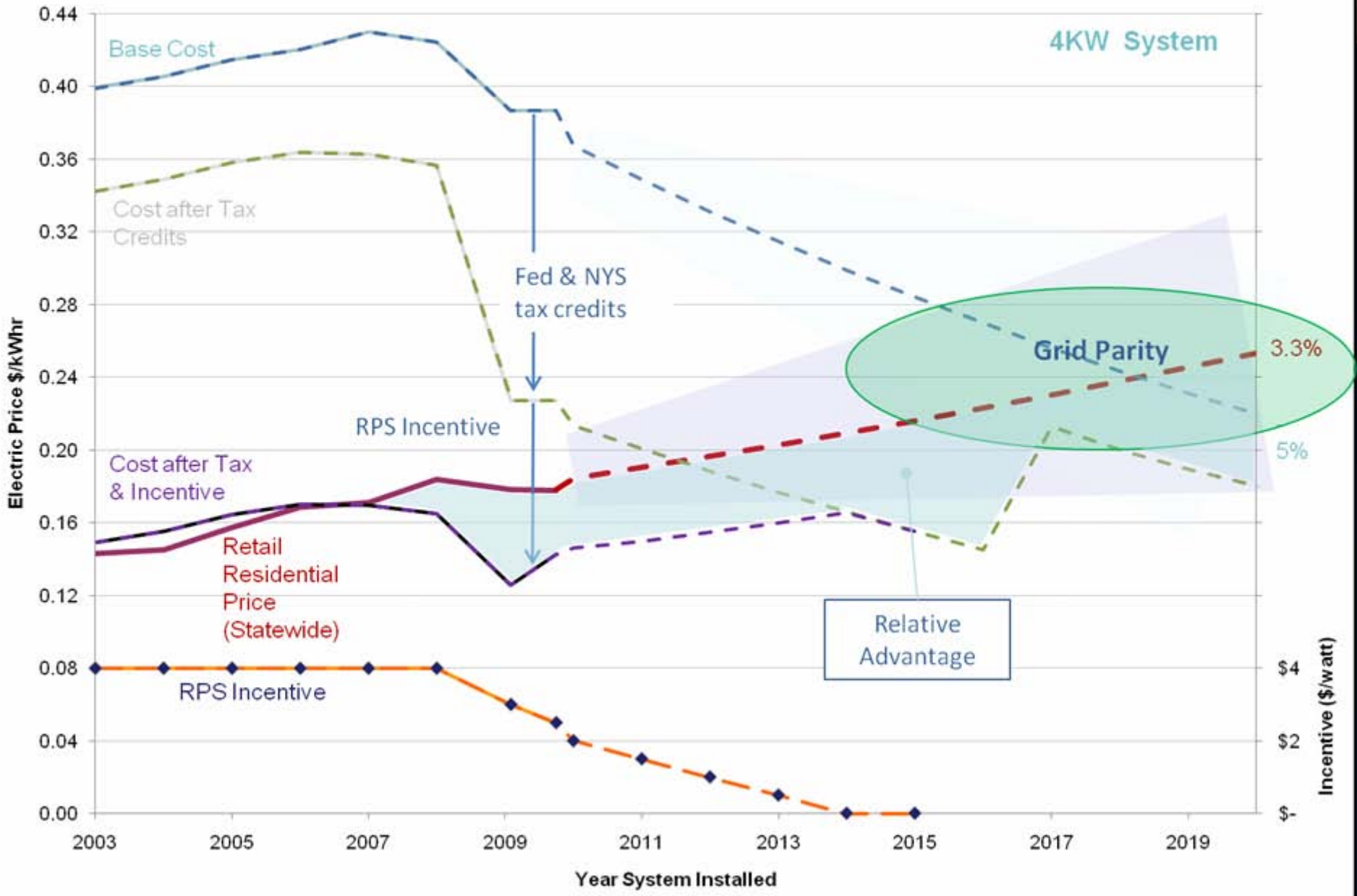
# Lessons Learned and Future Considerations: Fuel Cells

- Rapidly evolving technology & marketplace
- Market for small systems did not materialize
- Need to adjust size cap

# Summary Lessons Learned and Future Considerations

- Made significant progress toward creating sustainable markets
- Opportunities to improve the program going forward and maximize value
- Options to address load pockets and geographical focus
- Carefully track and adjust incentives
- Provide a path for new CST technologies to enter the RPS program

# Supplemental Slides




2010-2015 payback: ~16 yrs

Cheaper modules, lower incentives

# Combined SBC/RPS PV Applications Received