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Building a Next-Generation Mix of Energy Resources: Procurement Best Practices

Webinar

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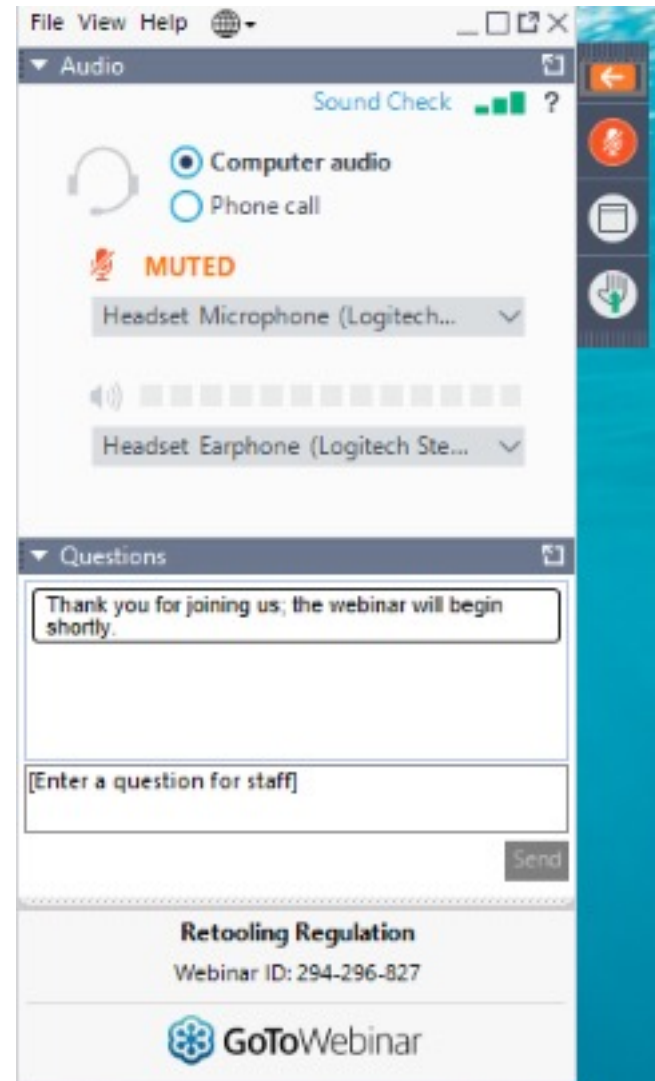
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**Moderator:
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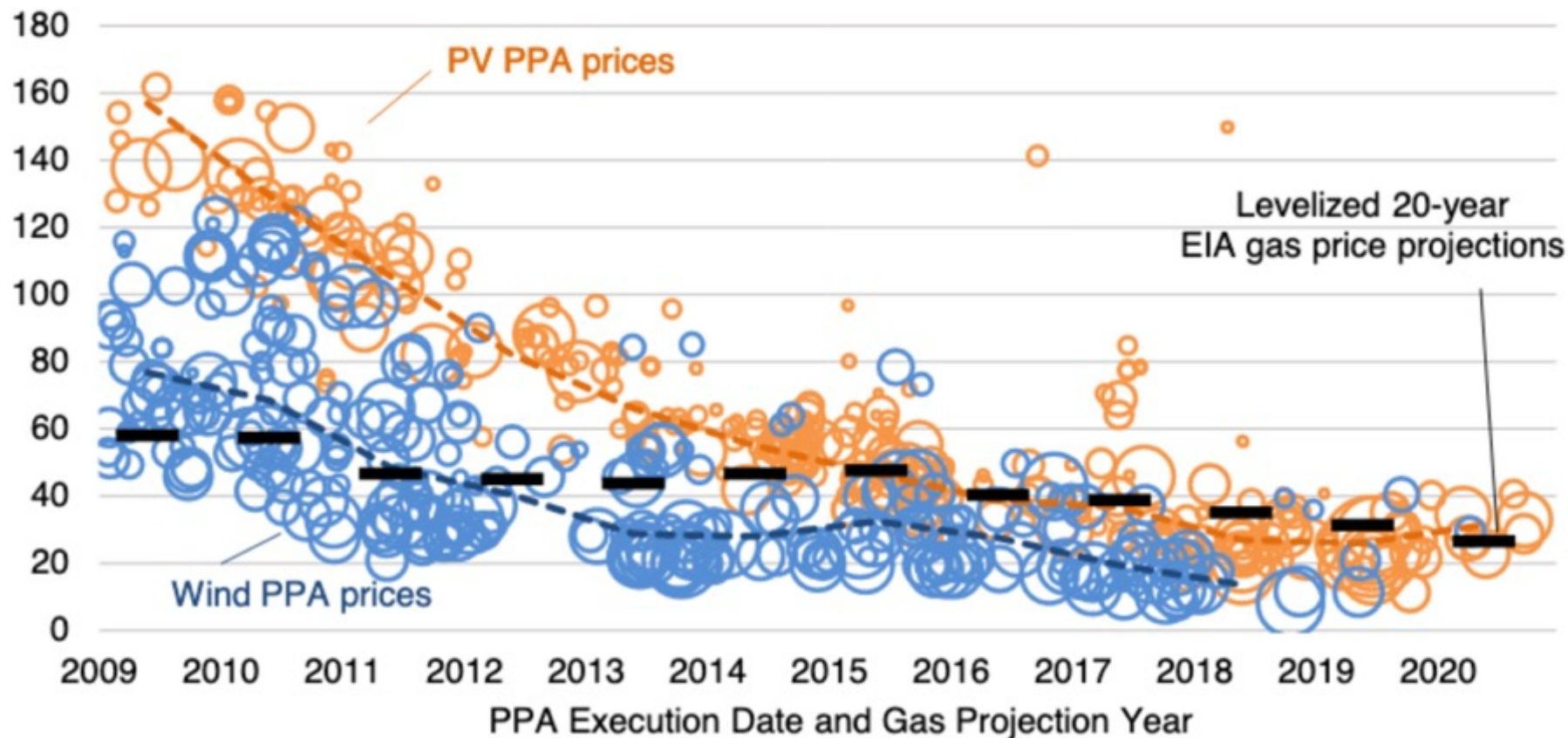
Questions?

**Please send
questions through
the Questions pane**



Cost of Solar and Wind Power Drops Below Fuel Cost for Many Gas-Fired Plants

Levelized PPA and Gas Price (2019 \$/MWh)



Source: Bolinger, M., et al (2020). *Utility-Scale Solar Data Update*, Lawrence Berkeley National Laboratory



How to Build Clean Energy Portfolios

A Practical Guide to Next-Generation Procurement Practices



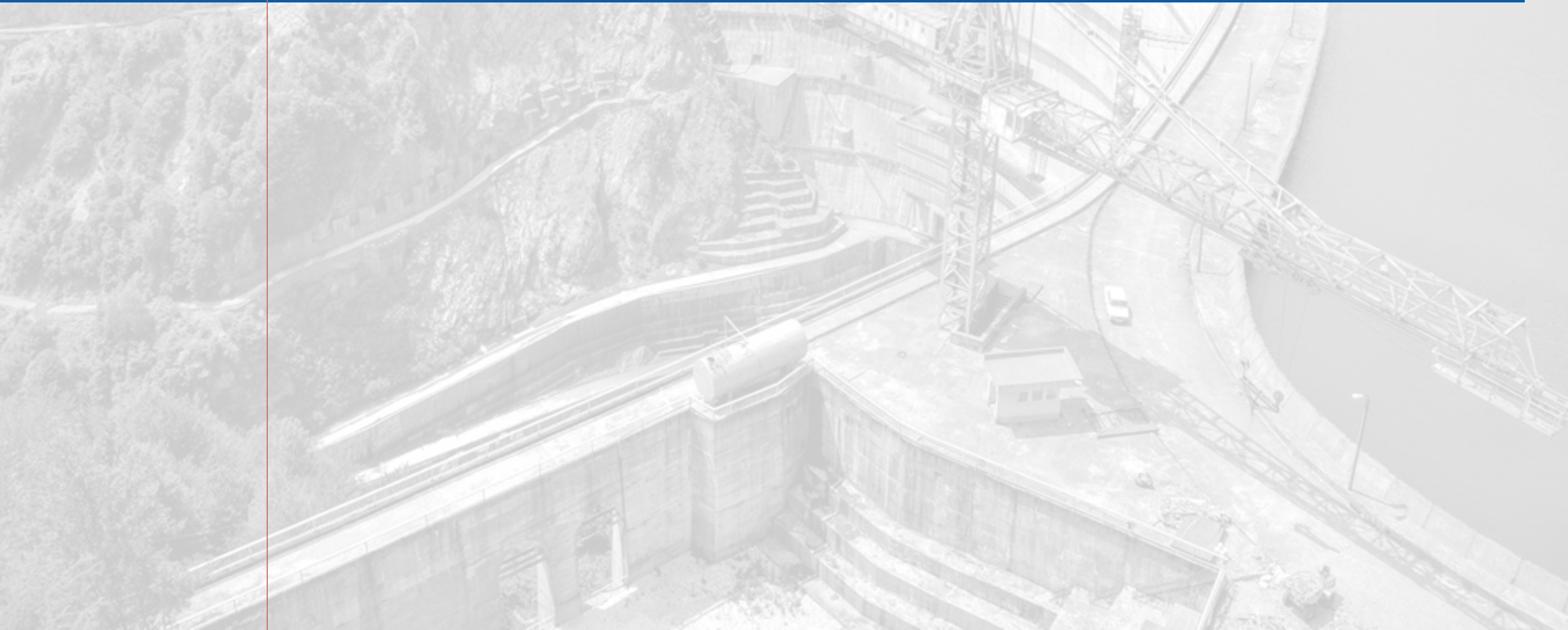
REGULATORY ASSISTANCE PROJECT

FEBRUARY 2021

Getting the Most Out of Low-Cost Solar and Wind: Seven Strategies for State Regulators

Fredrich Kahrl and Max Dupuy

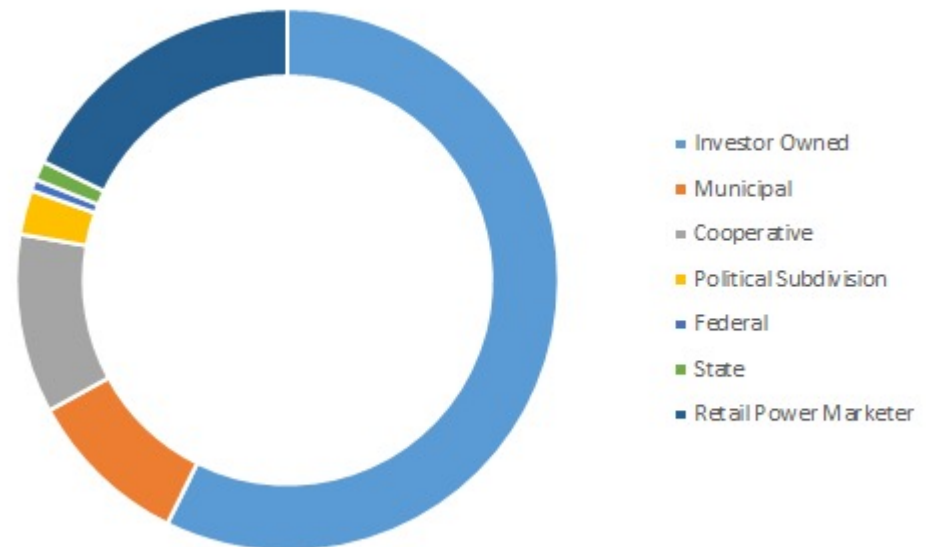
A Changing Landscape



Regulation Plays a Pivotal Role

- Most electricity in the U.S. is sold by regulated utilities
- Most investment in new resources is via regulated utilities
- Even in restructured states, regulators often shape resource mix through utility programs

Share of Sales to Ultimate Customers by Provider Type (EIA-861)



Current Discussion Has 1980s Roots

- Discussions around design and implementation of utility procurement and programs have roots in 1980s
- Regulators sought results consistent with competitive outcomes and incentives aligned with public policy goals



Source: Rose et al., 1991, "Implementing a Competitive Bidding Program for Electric Power Supply"

Issues Are Now More Complex

- Emphasis on incentive alignment and competitive outcomes is still top of mind
- But our current landscape is more complex:
 - Evolving goals
 - Rapid technology cost declines
 - New resource characteristics
 - More value for flexibility
 - IT, gridmod, and network efficiency

Regulators Can Help to Upgrade Utility Planning, Procurement, Programs

- Upgrading utility planning, procurement, and programs requires attention in a few key areas:
 - Clearer articulation of goals
 - Better integration of planning, procurement, and programs
 - Shift to all-source procurement
 - Strengthening competitive design
 - Improving methods, modeling, and metrics
 - Better management of risk and uncertainty

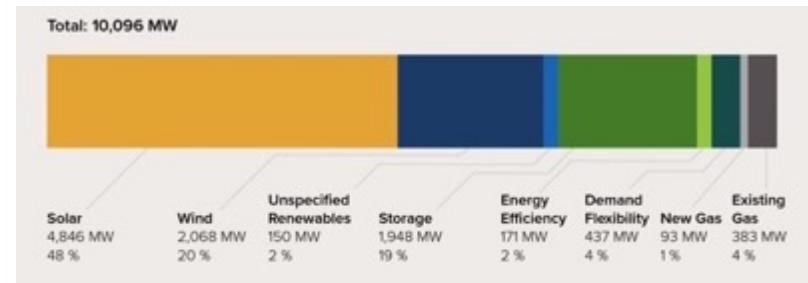
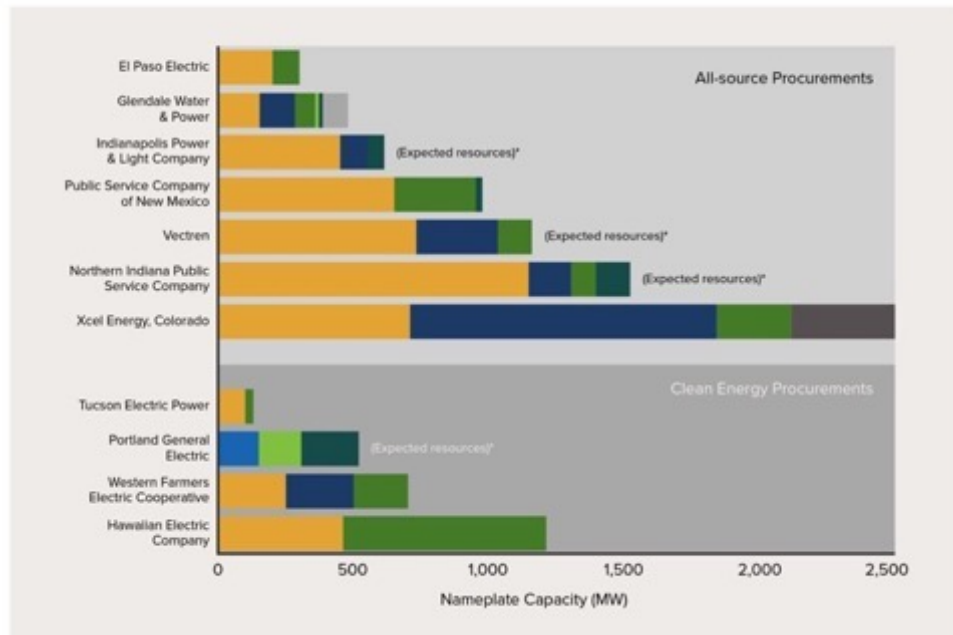
All-Source Procurement Successes and Recommendations



Utilities Using All-Source Procurement Have Largely Procured Utility-Scale Clean Energy

EXHIBIT 12

Resource Mixes of Recent and Planned Resource Procurements by Utilities



El Paso Energy Procurement

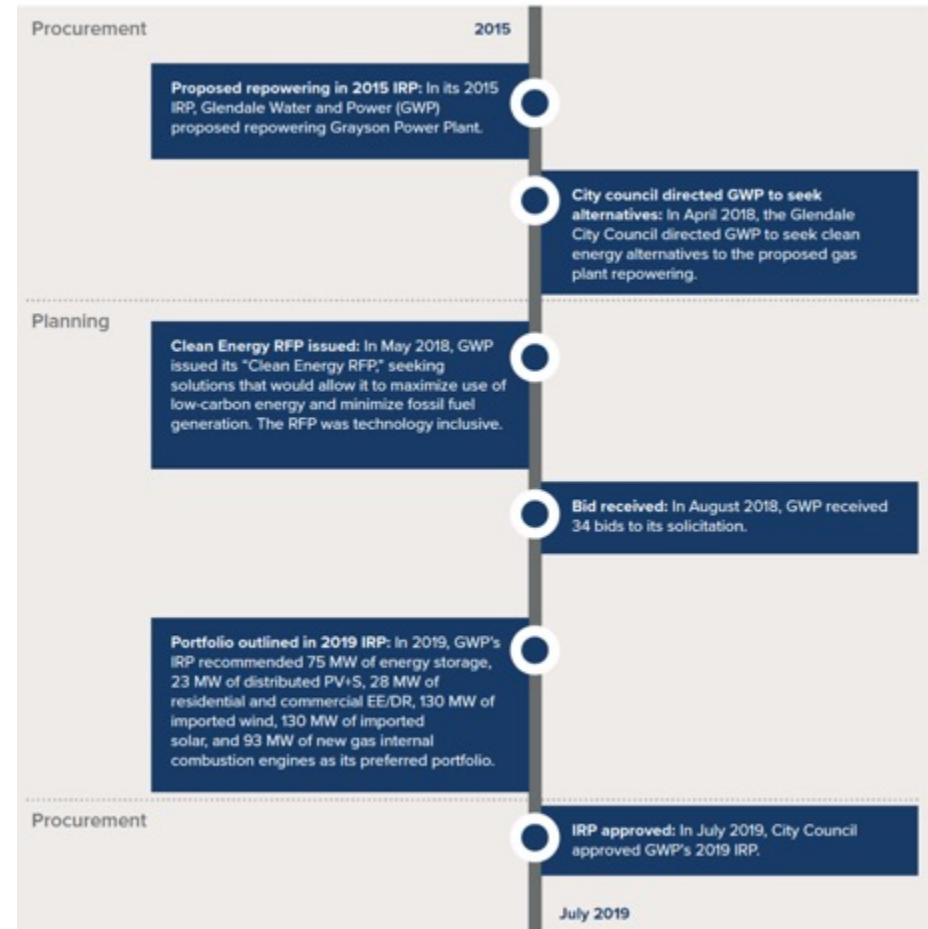
Solar at \$15/MWh, Solar/Storage at \$21/MWh

- 370 MW of capacity need (growth and 196 MW of fossil gas retirements)
- Solicitation produced 88 bids
- Winning bid included 200 MW solar and 100 MW storage

Glendale Saved Customers \$125 Million

All-source planning
---> cost-effective
all-source portfolio
(\$125 million less than
\$350 million Grayson
repower)

Glendale Water and Power's Recent Planning and Procurement Processes

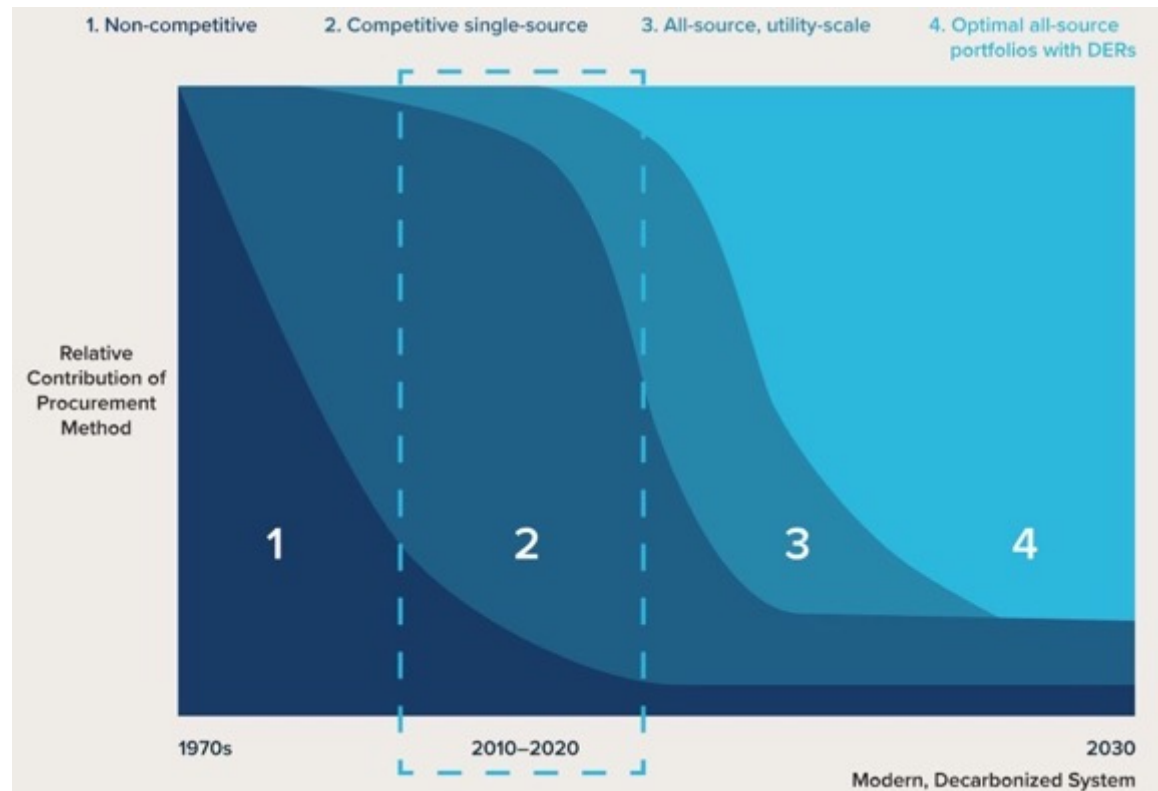


Glendale's Winning Portfolio Includes the Demand Side

- Utility-scale generation: 93 MW gas, 120 MW solar, 130 MW wind
- 28 MW EE/DR, 23 MW distributed PV, and 75 MW storage

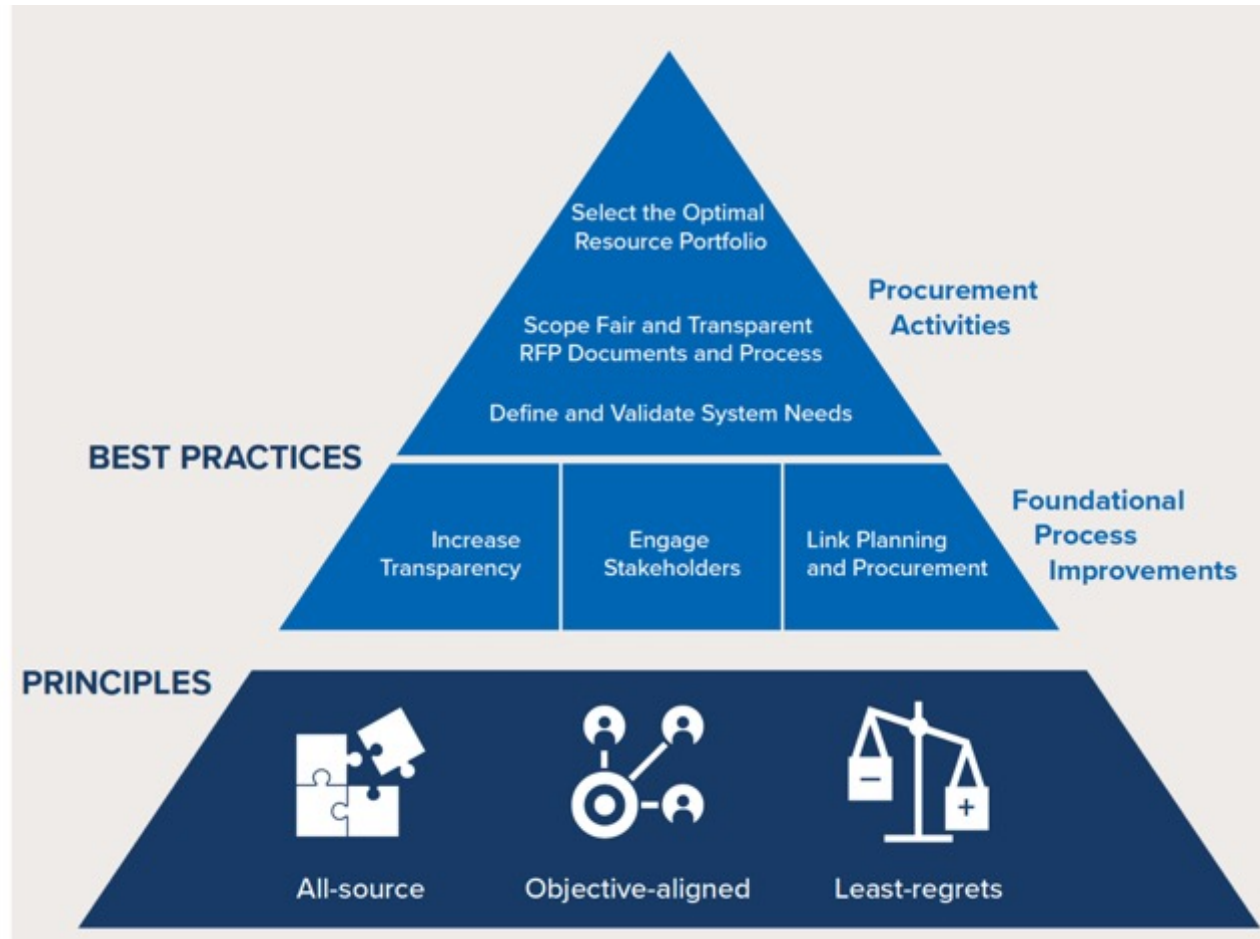


Despite Early Successes, Very Few Have Procured Both Utility-Scale and Distributed Energy Resources



Next-Generation Requirements

Changes to Procurement Activities and the Process



Recommendations for Regulators

- Ensure that evaluation criteria for selecting the optimal resource portfolio are aligned with public policy outcomes.
- Ensure that need for new resources is well-defined, transparent, and linked to findings from a well-vetted resource planning process.
- Ensure that all resource providers have opportunities to offer all capabilities from each of the resource options they bid.
- Ensure that the bidding process is open, transparent, and evaluated fairly. Evaluation criteria used to select bids should be transparent and communicated clearly to bidders prior to bid submission deadlines.

Recommendations for Utilities

- Proactively bring a wide range of stakeholders into the analysis of needs and defining the evaluation process for selecting portfolios.
- Use cost and operational data from competitive bids, not internal estimates, to inform planning and procurement activities.
- Work with bidders prior to, during, and after solicitations to understand what data they need to give their best bids.

About RAP

The Regulatory Assistance Project (RAP)[®] is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org