

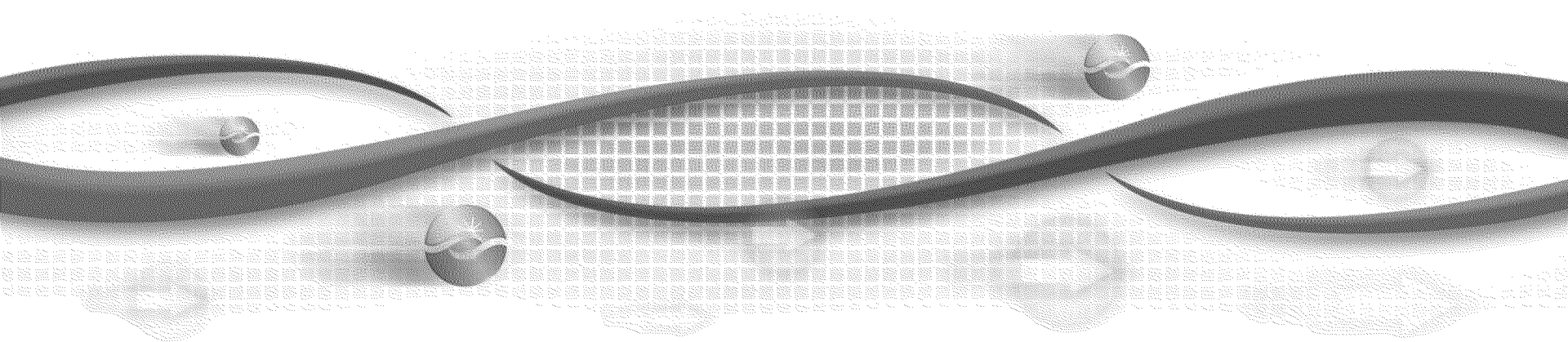


California ISO
Shaping a Renewed Future

Benefits of a Multi-year Resource Adequacy Program

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What does the ISO need?

The balancing authority area must have sufficient resources secured and available in the right places and with the right capabilities to ensure reliability and fulfill state policy objectives.

Rapid Structural Changes are Impacting our Industry's Traditional Means of Producing and Delivering Energy

Policy and technology are driving change:

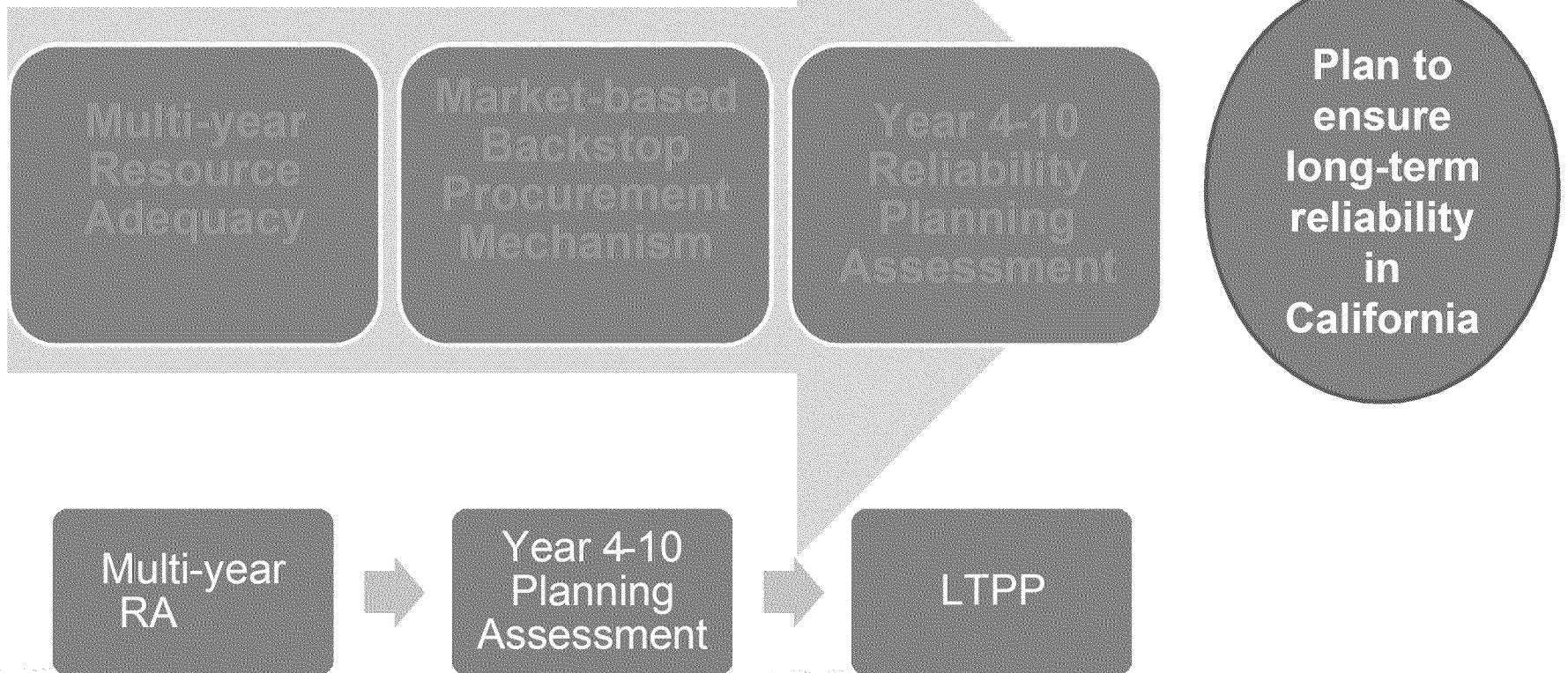
- Once Through Cooling policy to protect marine life.
- Increasing Renewable Portfolio Standard.
- Growing numbers of distributed energy resources.

Opportunity

- Link planning and procurement functions across multiple years to address these structural changes and secure resources in the right places with the right capabilities.

Linking planning and procurement functions provide a more holistic and complete view of short and long-term system needs

The Joint Reliability Plan



Benefits of a Multi-year Resource Adequacy Program



Benefit: Minimizes Disorderly Retirement

No clear forward market exists that assures a flexible resource should remain in the market in the near-term with the expectation the resource will be needed in the mid-term

- A capacity commitment up to 3 years forward will help mitigate the risk of disorderly retirement.
- Conversely, if a 3 year RA requirement is met, then allows for the orderly retirement of unneeded resources.
- Protects marginal resources that may be flexible but expensive and not included in a LSE's current procurement, which occurs beyond the year ahead.

Benefit: Links Procurement and Planning Functions

- Multi-year provides link, with accompanying year 4-10 planning assessment, with LTPP authorizations
- Provides market participants a more holistic and complete view of resource needs over the short and long-term horizon
 - Informs investment decisions
 - Informs the capabilities needed on the system
- Will introduce new reports and information about system needs over a longer-term horizon into the public domain

Benefit: Encourages Preferred Resources

- Enables more time for a developer to create a program or product supplied by preferred resources as resource adequacy capacity, e.g. a demand response program.
- Creates an obligation, and therefore certainty around the development of preferred resources, which will allow for the orderly retirement of unneeded resources.

Benefits: Provides Investment Signals

- Better aligns capacity procurement with the timing of investment decisions- upgrades, repowers, capacity additions, flexibility.
- New information and studies that give details about forecast system conditions beyond the year ahead.
- Allow generators to comply with environmental regulations- signal to comply or retire.

A multi-year requirement must include 100% forward capacity requirements for flexible resources.

- The flexible resources at risk of retirement are the resources on the margin:
 - Resources with high operational costs
 - Resources that will require significant investment to remain in service
 - Generic resources that will require investment to become flexible
- The flexible requirement must be 100% into the future in order for the multi-year RA forward requirement to mitigate the risk of retirement

LSE contract information is not a substitute for instituting a multi-year RA requirement.

- Contract information is shows a portion of load serving entities' multi-year forward positions
 - These contracts may be financial hedges as the LSEs are under no regulatory obligation to maintain contracts for mid-term capacity
 - There is likely inconsistent forward procurement by LSEs since procurement is tied to an individual LSE's risk assessment
- However, with multi-year RA, forward contracting may show that there is sufficient capacity to mitigate the risk of disorderly retirement beyond 3 years under the expectation that LSEs will increase forward contracting out to years 4 & 5 as part of their risk assessment