



# 2019 Three-Year Policy Initiatives Roadmap and Annual Plan

Market and Infrastructure Policy

November 27, 2018

# STAKEHOLDER COMMENTS

## Stakeholders support the three-year roadmap and annual plan (1 of 2)

- PG&E believes the 2019 Annual Plan may be too ambitious
  - The annual plan is appropriate given state environmental policies
- Public interest organizations believe the ISO should plan and execute and EIM benefits study and revisit governance
  - EIM Entities are performing a feasibility assessment in which the ISO is participating. After completion, we will then evaluate whether governance changes are needed

## Stakeholders support the three-year roadmap and annual plan (1 of 2)

- NV Energy, Powerex, and Seattle City Light believe the ISO should include a separate initiative for 2019 to address real-time resource sufficiency test
  - The ISO is implementing changes to the RST in 2018. A holistic review of the RST will be evaluated in EDAM
- eMotorWerks, CEDMC, oHmConnect, and PG&E support ESDER 4 and advocate for expanded scope
  - ESDER 4 is not yet scoped. Scope items will be solicited during the stakeholder process

# Primary drivers of proposed three-year roadmap

- Operational challenges pointing to day-ahead market enhancements that will help manage net load in real time
- Continued improvements to EIM to meet the needs of an expanding market
- Extending day-ahead market enhancements to EIM balancing areas provides regional benefits
- Increasing risk of retirement leading to increase in RMR driving need to reform the RA program
- Lower barriers to DER and storage market participation

# Extending DAM to EIM Entities provides additional regional benefits

- Key benefits:
  - Allows EIM participants to benefit from day-ahead market enhancements
  - Day-ahead unit commitment and scheduling across larger footprint improves market efficiency and more effectively integrates renewables
- Key principles:
  - Each balancing authority retains reliability responsibilities
  - States maintain control over integrated resource planning
    - Resource adequacy procurement decisions remain with local regulatory authority
    - Transmission planning and investment decisions remain with each balancing authority and local regulatory authority
  - Voluntary Market, like EIM

# Scope of stakeholder initiative to extend day-ahead market to EIM Entities

- Transmission provision for Day-Ahead Market
  - Transmission cost recovery
- Day-ahead resource sufficiency evaluation
  - Provide functionality to enable entities to trade capacity for resource sufficiency tests
- Mechanism to distribute congestion revenues
- Full network model enhancements
- Day-ahead GHG attribution for states with carbon cost policies
- Governance to account for larger market scope

## Emerging trends altering the California resource procurement and resource adequacy landscape

- Existing focus on summer peak demand is failing to secure the right resources and capabilities as the grid transforms
- Load migration is causing utilities to alter long-term contracting practices and minimize stranded procurement risk
- State policies promoting procurement of renewable and distributed energy resources is changing the fleet's attributes
- Certain gas resources needed for reliability are in need of significant maintenance and capital investment
- Lower energy market prices lead to revenue inadequacy and potential uneconomic retirements



# Collaborate with the CPUC to align resource adequacy with the transforming needs of the grid

## CAISO's Priorities for CPUC RA Track 2 (2020 RA)

- Establish multi-year resource adequacy framework with a central buyer for system, local and flexible capacity
- RA procurement by local area and sub-area
- Update “transitional” effective load carrying capability values for wind and solar resources
- Modify RA showing timeline to enable orderly retirement decisions

## CAISO's Priorities for CPUC RA Track 3 (2021 RA)

- Adopt a 1-in-5 year demand forecast during months with highest peak demand uncertainty
- Adopt effective load carrying capability methodology that accurately reflects reliability contribution of resources
- Address resource availability needs in local capacity areas

# Resource Adequacy enhancements to evolve program to align with operational needs

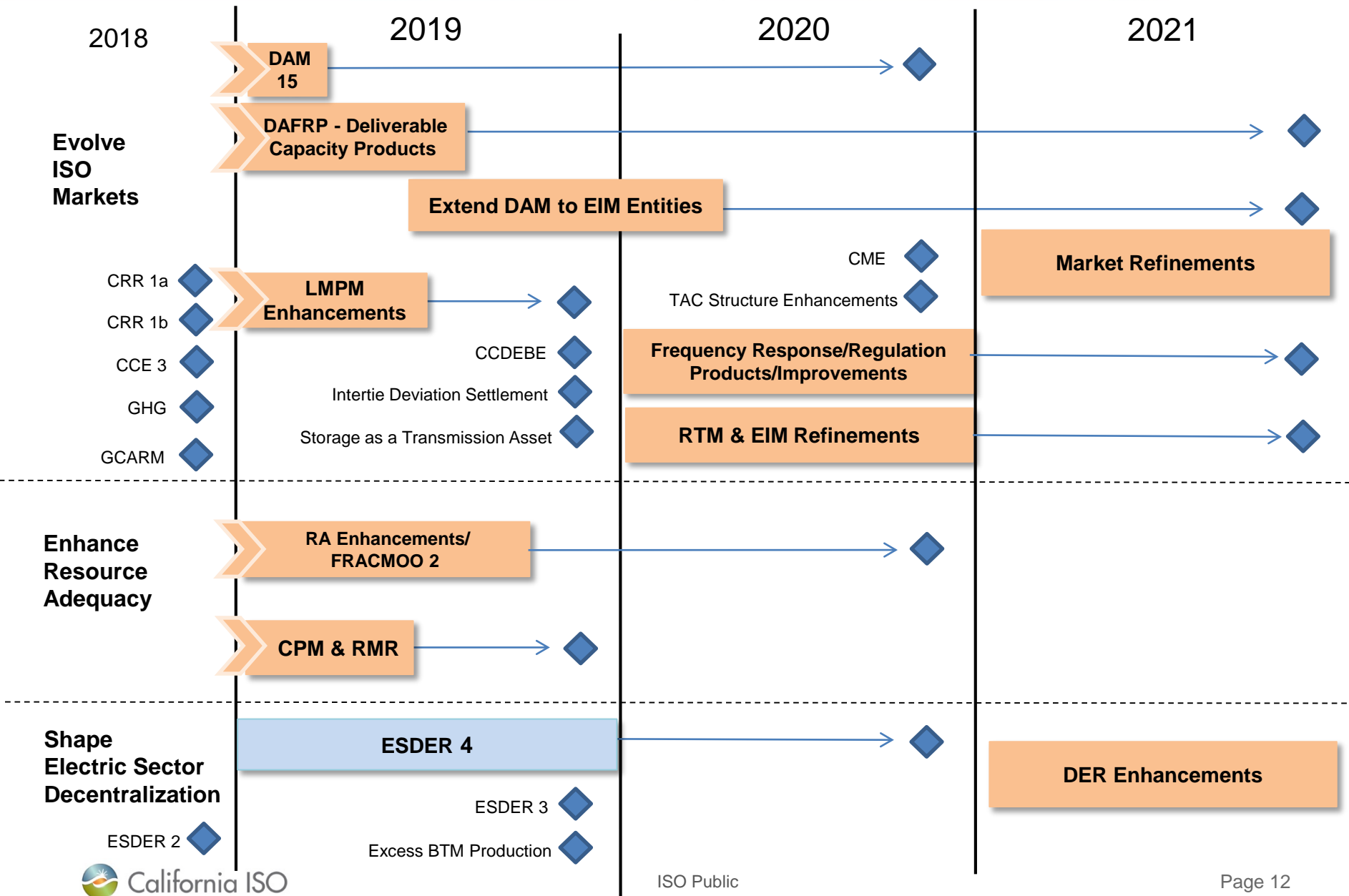
- RA Enhancements Phase 1 (Fall 2019 implementation)
  - Support CPUC RA Proceeding Track 2
    - Multi-year needs assessments/load forecasting
    - RA validation tools, portfolio analysis, production simulation
    - Revise RA timeline
- RA Enhancements Phase 2 (Fall 2020 implementation)
  - FRACMOO 2
  - Capacity valuation rules
  - Multi-year CPM and RMR
  - Local availability assessments
  - RA validation tools, portfolio analysis, production simulation
  - Slow response resources as local RA
  - Review of MIC
  - MOO review

## ESDER initiative will continue to refine DER and storage participation models and lower integration barriers

- Expand DER and storage modeling to optimally capture value and leverage resource design attributes that support grid reliability
- FERC Order No. 841 compliance
- Regulatory framework to address:
  - DER and storage resource adequacy qualification rules
  - Qualifying capacity counting of DERs, e.g. weather sensitive DR
- Clearly define multi-use applications to ensure sensible service and value stacking that supports reliability and optimizes resource value

# Proposed Three-year Policy Roadmap of Major Initiatives

◆ = Implementation



# Additional new initiatives on 2019 annual plan address important issues

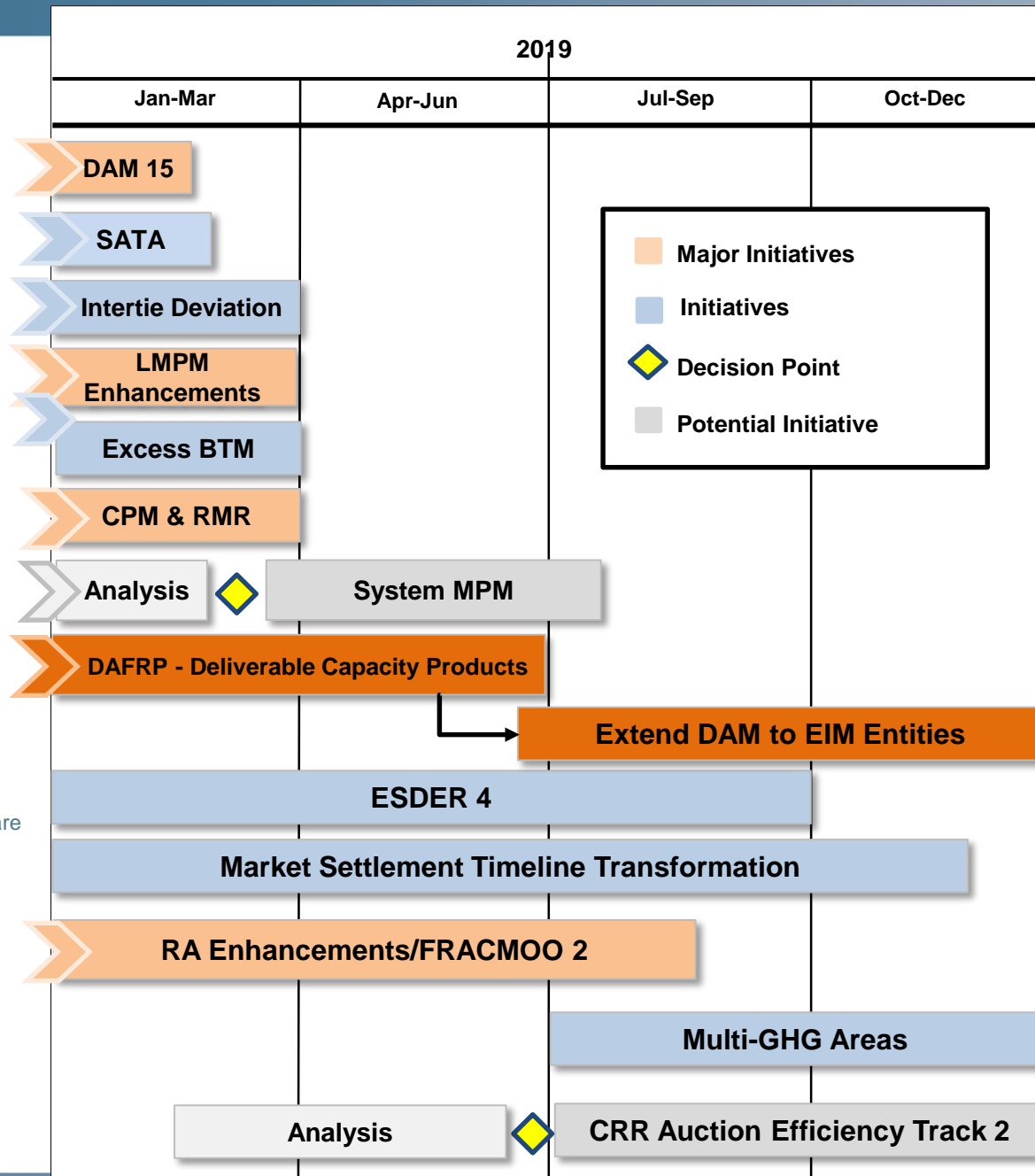
- Multi-GHG Areas
  - Other states considering carbon reduction policies that will need to be incorporated into EIM
- Market Settlement Timeline Enhancements
  - Settlement timelines need to be updated with current market processes

# Potential initiatives based on results from analysis

- **System Market Power Mitigation**
  - DMM raised concerns in 2017 annual report
  - CAISO to perform analysis of market competitiveness within balancing area
  - Share analysis with stakeholders
  - Commence initiative to address any identified issues
- **Congestion Revenue Rights Auction Efficiency Track 2**
  - Analyze effectiveness of Track 1a and 1b measures
  - Share analysis with stakeholders
  - Commence initiative to address any remaining issues

# 2019 Draft Annual Plan

\*Timeframes are approximate and are subject to change



## 2019 Policy Initiatives Roadmap process schedule

- Final roadmap and annual plan – Nov 15
  - Comments due Dec 6 ([initiativecomments@caiso.com](mailto:initiativecomments@caiso.com))
- EIM Governing Body briefing – Nov 29
- CAISO Board of Governors briefing – Dec 13
  - Post final roadmap