



Fact Sheet: Proposed Decision Implementing Load-Serving Entity Integrated Resource Planning Process (R.16-02-007)

Background

On December 28, 2017, the CPUC issued its *Proposed Decision Setting Requirements for Load Serving Entities Filing Integrated Resource Plans*, which proposes an integrated resource planning process. This first of a kind effort is designed to ensure that the electric sector is on track to help the State achieve its statewide 2030 GHG reduction target, at least cost, while maintaining electric service reliability and meeting other State goals.

This Proposed Decision is the culmination of two years of staff work, including 13 webinars, 8 workshops, 11 staff proposals and review of thousands of pages of public comments from 150 parties.

Proposed Integrated Resource Planning (IRP) Process

The Proposed Decision establishes IRP as a two-year planning cycle. The first year of the cycle is designed to evaluate the appropriate GHG emission planning targets for the electric sector, and to identify the optimal mix of system-wide resources capable of meeting these GHG planning targets. The second year is designed to consider the suite of actions each Load Serving entity (LSE) proposes to take to meet these GHG targets. LSEs each have their own local constraints and opportunities, and in the second year the CPUC will consider authorizing LSEs to procure resources within the next 1-3 years to meet GHG planning targets.

Proposed Electric Sector GHG Planning Target

The Proposed Decision recommends a statewide electric sector GHG Planning Target of 42 million metric tons (MMT) by 2030. The 42 MMT Planning Target by 2030 represents a 50% reduction in electric sector GHG emissions from 2015 levels and a 61% reduction from 1990 levels. This target is within the 30-53 MMT range that the California Air Resources Board's 2017 Climate Change Scoping Plan estimated the electric sector will emit in 2030. To meet a 42 MMT target the electricity sector will need to go beyond current policies already underway, including achieving between 53–57% renewable resources by 2030. Though a 30 MMT scenario modeled shows positive air quality and economic benefits in disadvantaged communities, it represents too high a cost burden for the electric sector relative to other sectors. The 42 MMT target does not increase costs to the point that it would create disincentives to electrify transportation and natural gas appliances in buildings.

Proposed Reference System Portfolio of Energy Resources

The Proposed Decision adopts an optimal Reference System Portfolio of energy resources to meet the 2030 GHG Planning Target, which indicates a need for approximately 10,200 MW of new supply-side renewable energy resources and 2,000 MW of new battery storage resources by 2030. The Reference System Portfolio provides general planning direction for how LSEs and policymakers can achieve State GHG reduction goals at least cost, while ensuring electric service reliability. When LSEs file their IRPs, they must include at least one scenario that conforms to the Reference System Portfolio. LSE procurement may result in a resource mix that differs from the Reference System Portfolio, depending on the outcomes of LSE solicitations.

Proposed GHG Planning Price



The Proposed Decision adopts a GHG Planning Price of \$150 per metric ton of carbon dioxide equivalent (CO₂e) in 2030, which reflects the marginal cost of GHG abatement associated with the Reference System Portfolio and meeting the 42 MMT Planning Target by 2030 at least cost. The GHG Planning Price is distinct from Cap-and-Trade allowance prices. It reflects the expected amount LSEs should be willing to pay for marginal GHG emissions reductions in order to meet the electric sector's 42 MMT GHG Planning Target in IRP, and it is a tool to guide LSE procurement and planning, not a compliance instrument.

LSE IRP Filing Requirements

The Proposed Decision requires LSEs to file IRPs on May 1 of even-numbered years. Small LSEs (i.e. those that serve less than 700 GWh) may file an alternative plan with less detailed data requirements. LSE IRPs must propose how they will meet the GHG Planning Target and other policy goals given their unique resources and local community preferences. LSEs must address expected impacts on disadvantaged communities and describe outreach to disadvantaged communities. LSEs proposing to develop new natural gas resources or re-contract with existing natural gas resources must make a showing as to why another lower-emission resource could not meet the need identified.

Early Procurement of Renewables to Capture Federal Tax Credits is Not Warranted in this IRP Cycle

The Proposed Decision recommends a steady approach to ongoing procurement of zero-carbon resources over the planning horizon to 2030, which subjects ratepayers to less financial risk. Analysis indicates there is no need for early procurement on a reliability basis or to meet the GHG emissions reductions targets until around 2026. Estimated cost savings from capturing the federal tax credits are highly uncertain and may not accrue to ratepayers. The Proposed Decision does not preclude LSEs from pursuing early procurement of renewables and some CCAs will need to procure renewables to meet their RPS mandates.

Issues of Statewide Interest

Renewable Curtailment is Cost-Effective over the Current IRP Planning Horizon

Staff conducted modeling scenarios to test the cost-effectiveness of economic renewable curtailment. The results demonstrated that over the current IRP planning horizon (2018-2030) economic curtailment of solar PV (in which generators are paid for each MWh of energy curtailed, and thus left economically indifferent) is a lower-cost solution to meet GHG emissions targets and system ramp rates than making additional capital investments in baseload renewables or pumped hydro energy storage solely to avoid curtailment.

It is Cost-Effective for Some Existing Natural Gas Plants to Remain to Support Grid Reliability Through 2030

IRP analysis shows that as more zero-carbon renewable resources continue to be built, the role of existing natural gas plants will evolve: they will be dispatched for fewer hours of the day, and they will be used more intermittently, primarily to support grid reliability. Current analysis suggests it may be more cost-effective to maintain some of these existing resources as their usage declines than to replace them entirely before 2030 with zero-carbon resources. The modeling does not identify a need for new gas resources. More analysis is needed to understand these relative costs.

Procurement of Long Lead-Time Resources Is Not Necessary at Present

The Proposed Decision finds that there is no need in this IRP cycle to direct procurement activity specifically aimed towards long lead-time, high capital cost resources like pumped energy storage, geothermal energy, and out-of-state wind. However, it is important to continue to evaluate the costs and benefits of these resources in each IRP cycle, since they may prove necessary for reliability and/or economic reasons by 2030.

Proposed Decision - <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M201/K974/201974336.PDF>