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<table>
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<tr>
<th>Docket Number:</th>
<th>20-IEPR-01</th>
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<tr>
<td>Project Title:</td>
<td>General/Scope</td>
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<tr>
<td>TN #:</td>
<td>232209</td>
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<tr>
<td>Description:</td>
<td>*** THIS DOCUMENT SUPERSEDES TN 232208 *** The 2020 Integrated Energy Policy Report Update (2020 IEPR Update) will consist of three products (1) a report on transportation trends, challenges, and opportunities; (2) an update to the demand forecast; and (3) an assessment of microgrids. Commissioner Patty Monahan will lead the transportation analysis and is the lead commissioner for the overall 2020 IEPR Update, while Commissioner Andrew McAllister will lead the demand forecast and Chair David Hochschild will lead the assessment of microgrids.</td>
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<td>Filer:</td>
<td>Harrison Reynolds</td>
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<td>Organization:</td>
<td>California Energy Commission</td>
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<td>Submitter Role:</td>
<td>Commission Staff</td>
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<td>Submission Date:</td>
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<td>2/24/2020</td>
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In the matter of: ) Docket No. 20-IEPR-01 )
Preparation of the )


The 2020 Integrated Energy Policy Report Update (2020 IEPR Update) will consist of three products (1) a report on transportation trends, challenges, and opportunities; (2) an update to the demand forecast; and (3) an assessment of microgrids. Commissioner Patty Monahan will lead the transportation analysis and is the lead commissioner for the overall 2020 IEPR Update, while Commissioner Andrew McAllister will lead the demand forecast and Chair David Hochschild will lead the assessment of microgrids.

The California Energy Commission (CEC) develops the IEPR biennially. On odd years (for example, 2019), the IEPR is a relatively comprehensive state energy policy report, while on even years (for example, 2018), the IEPR is a shorter update on key topics. The 2020 IEPR Update will focus on the transportation sector, the state’s largest source of greenhouse gas (GHG) emissions.

Legislative Authority for the IEPR

Public Resources Code Section 25301(a) requires that, at least every two years, the CEC “conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC shall use these assessments and forecasts to develop and evaluate energy policies and programs that conserve resources, protect the environment, ensure energy reliability, enhance the state’s economy, and protect public health and safety.”

Public Resources Code Section 25302(c) requires the CEC to prepare an update in alternate years to provide a progress report on issues raised in the biennial IEPR or to identify new energy issues that have arisen during the intervening year. The 2020 IEPR Update will fulfill that requirement.

Pursuant to Public Resources Code Section 25300(d), “The Legislature further finds and declares that timely reporting, assessment, forecasting, and data collection activities are essential to serve the information and policy development needs of the Governor, the Legislature, public agencies, market participants, and the public.”

Climate-Related Energy Policies

California laws and executive orders mandate that the state’s energy system must quickly transition away from fossil fuel combustion and towards zero and near-zero emission fuels and technologies, while protecting consumers and ensuring disadvantaged communities benefit from this transition. The
following statutes and executive orders provide some examples of California’s commitment to equitable and clean energy.

- SB 32 (Pavley, Chapter 249, Statutes of 2016) set a statewide goal of reducing California’s GHG emissions 40 percent below 1990 levels by 2030.
- AB 197 (Garcia, Chapter 250, Statutes of 2016) required that the state’s climate change policies be transparent and equitable, with clear benefits for disadvantaged communities.
- SB 100 (De León, Chapter 310, Statutes of 2018) established a renewable electricity goal of 60 percent by 2030 and codified the state’s commitment to developing a carbon-free electricity sector by 2045.
- SB 1339 (Stern, Chapter 566, Statutes of 2018) requires the CEC, California Public Utilities Commission (CPUC), and the California Independent System Operator to help transition microgrids from a promising emerging technology solution to a commercial product that helps California meet its energy goals.
- In 2018, EO B-55-18 established a statewide goal of achieving carbon neutrality by 2045.

The transportation sector is the largest source of GHG emissions in California, and various state policies require the state to accelerate deployment of zero and near-zero emission vehicles including:

- In 2012, EO B-16-2012 set a goal of reaching 1.5 million zero-emission vehicles by 2025.
- The 2017 Scoping Plan: led by the California Air Resources Board with support from 20 additional state agencies, highlighted the importance of transitioning to zero emission cars, trucks, buses, and equipment, while increasing the use of clean, low carbon fuels where zero-emission options are not yet available.
- In 2018, EO B-48-18 called for at least 5 million zero-emission vehicles by 2030, as well as 250,000 plug-in electric vehicle chargers (including 10,000 direct fast current chargers), and 200 hydrogen refueling stations by 2025.
- In 2019, EO N-19-19 required the state to redouble efforts to reduce GHG emissions, specifically highlighting the need to reduce increased fuel consumption in the transportation sector including by reducing vehicle miles travelled and accelerating progress toward zero-emission vehicles.

Scope of the 2020 IEPR Update

Transportation

The CEC will evaluate current transportation trends, challenges, and opportunities for dramatically cutting emissions; achieving state goals for zero-emission vehicles (including battery electric vehicles and hydrogen fuel cell electric vehicles); and ensuring that the transportation sector contributes its fair share towards reaching a carbon neutral economy by 2045. The report and workshops will include a strong focus on equity and impacts to disadvantaged communities. The report will also assess near- and longer-term strategies for cutting emissions from passenger and commercial vehicles and setting a course for deep decarbonization. Topics that will be addressed in the 2020 IEPR update include:

- An evaluation of current transportation trends and challenges, including a shift towards larger passenger vehicles and increases in vehicle miles travelled.
- How the “three revolutions” of electrification, automation, and mobility as a service could impact transportation energy demand, emissions, access, and livability.
- Discussion on the importance and opportunities of energy resilience in the context of zero-emission fuels and vehicles.
- Update on the status of the zero-emission vehicle market in California, the U.S., and globally, including battery electric vehicles and hydrogen fuel cell vehicles.
- A roadmap for intelligently integrating electric vehicles into the grid.
• An evaluation of existing charging and hydrogen refueling infrastructure and an exploration of the infrastructure needed to meet the state’s 2025 and 2030 zero-emission vehicle goals, as well as the state’s 2045 carbon neutrality goal.
• Discussion of the role of near-zero emission fuels and vehicles, with a focus on commercial trucks and off-road equipment.
• An assessment of current clean transportation funding programs, (including the CEC’s Clean Transportation Program), workforce training investments, and trends toward an equitable economy.

Electricity and Natural Gas
The 2020 IEPR Update will include an updated 10-year forecast of electricity consumption and peak electricity demand for California and for individual utility planning areas within the state.¹ The forecast will also examine natural gas demand, supply, and reliability. The CEC will update the 2019 California Energy Demand forecast to reflect (1) updated econometric and demographic data and another year of historical load data and (2) updated projections for photovoltaics and storage through benchmarking of new interconnection data. The CEC will also assess potential impacts of different plug-in electric vehicle charging behaviors during hours of peak electricity demand.

Microgrids
CEC research has demonstrated the value of microgrids² in providing grid resiliency during short term outages, wildfires, public safety power shutoffs and other events during which grid services are disrupted.³ The 2020 IEPR Update will include an assessment of microgrids and put forward policy recommendations on how microgrids can best be used to increase grid reliability while supporting a clean and affordable energy future in California.

Commissioner Monahan directs the CEC staff to use the following general schedule:

<table>
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<tr>
<th>Task/Event</th>
<th>Date(s)</th>
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<tr>
<td>Final Scoping Order released</td>
<td>February 2020</td>
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<tr>
<td>Public workshops on specific topics</td>
<td>March 2020 – December 2020</td>
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<tr>
<td>Release draft 2020 IEPR Update</td>
<td>October 2020</td>
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<tr>
<td>Release final 2020 IEPR Update</td>
<td>January 2021</td>
</tr>
<tr>
<td>Adopt 2020 IEPR Update</td>
<td>February 2021</td>
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As workshop topics and dates are finalized, the CEC will post notices on its website and notify stakeholders at least 10 days in advance of each workshop date. The schedule will be posted and regularly updated at the 2020 IEPR Update, https://www.energy.ca.gov/2020iepr.

¹ Achieving SB 100 will require both supply and demand side solutions (docket number 19-SB-100). AB 3232 (Friedman, Chapter 373, Statutes of 2018), requires the CEC to assess the potential of achieving building emission reductions of 40 percent below 1990 levels by 2030 (docket number 19-DECARB-01). These on-going efforts have significant implications for electricity and natural gas demand, and will inform critical forecasting topics, such as customer-owned resources and fuel-substitution that will be further addressed in future iterations of the CEC’s energy demand forecasts.

² Microgrids combine distributed energy resources with a controller to manage energy use. A key feature of microgrids is the ability to continue operating even if the surrounding electricity grid experiences an outage.

³ The CEC is coordinating with the CPUC on microgrid research and implementation activities.

Any policy recommendations contained in the 2020 IEPR Update will be based on the record developed during the proceeding, including data and technical analyses by the staff and stakeholders. As appropriate, the CEC will incorporate analyses and information developed in other proceedings at the CEC and by other agencies. Participants should use the IEPR docket number 20-IEPR-01 and associated dockets when submitting information:

- 20-IEPR-01 General/Scope
- 20-IEPR-02 Transportation
- 20-IEPR-03 Electricity and Natural Gas
- 20-IEPR-04 Microgrids

Public input is essential to ensure a complete and thorough record. Commissioner Monahan encourages all interested and affected participants to actively participate in this process. Commissioner Monahan will direct staff to work with relevant federal, state, local, and other agencies to identify and address energy infrastructure and related environmental challenges.

Public Advisor and Other Commission Contacts

The CEC’s Public Advisor’s Office provides the public with assistance in participating in CEC proceedings. For information on how to participate in this forum, or to request language services or other reasonable accommodations, please contact the Public Advisor, Noemí O. Gallardo, at Publicadvisor@energy.ca.gov, or by phone at (916) 654-4489, or toll free at (800) 822-6228 or via fax at (916) 654-4493. Requests for language services and reasonable accommodations should be made at least five days in advance. The CEC will work diligently to accommodate late requests.

Media inquiries should be directed to the Media and Public Communications Office at Mediaoffice@energy.ca.gov or (916) 654-4989.

Technical questions should be directed to Heather Raitt, Assistant Executive Director for Policy Development, at (916) 654-4735 or by email at Heather.Raitt@energy.ca.gov.

Availability of Documents

When new information is posted, an email will be sent to those on the energypolicy list serve. Those interested in receiving these notices can subscribe in the lower right corner at the 2020 IEPR Update page, 2020 IEPR Update, https://www.energy.ca.gov/2020iepr, or alternatively manage existing list serves or sign up for others at the CEC List Servers, https://www.energy.ca.gov/listservers/index_cms.html.

Dated: Monday February 24, 2020, at Sacramento, California

Original signed by

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Patty Monahan
Lead Commissioner
2020 IEPR Update

Mail List: energypolicy, diversity, dcag, barriers