Summary of the California Zero Emissions Climate Action Plan By Dr. Hari Lamba

Proposed in Book, "Brighter Climate Futures – A Global Energy, Climate & Ecosystem Transformation," Dr. Hari Lamba, Regent Press, Berkeley, California, USA, Sept. 2020. This summary is also downloadable from the website www.brighterclimatefutures.com.

California Climate Goals defined by Legislation (Top level ones)

1. Senate Bill 32 (Passed in 2016) requires the state to achieve 40% reduction in greenhouse gas (GHG) emission reductions by 2030.
2. CARB (California Air Resources Board) is the state agency that is tasked with coming up with a Scoping Plan by 2022 for meeting these GHG emission reduction goals – as such it has been holding open meetings and workshops to define the Plan. CARB also has the responsibility to oversee the state's Cap and Trade program (see main proposal).
3. Senate Bill 350 (passed 2015) and Senate Bill 100 (passed 2018) require the state to get 60% of all its electricity from renewable energy by 2030 and 100% from carbon free sources by 2045.

Summary Highlights of Lamba's proposed California Climate Action Plan

California Should Up its Ambitions

With other nations like the UK aiming for 68% GHG emission reductions and the EU aiming at 55% reductions by 2050, California should up its ambition and increase the GHG reduction target to within the 50-80% range. In addition, in cooperation with the other related state agencies, CARB needs to define a program to start REPLACING its fossil fuel electric power plants with Solar PV (photo-voltaic) plus battery power plants. Most added energy needed because of electrification (substituting fossil fuels by electrical energy) should come from distributed and rooftop Solar PV. The attempt by electrical utility companies to kill rooftop solar should be fought at every level, and so must the attempt to raise transmission access charges due to unneeded expansions in electrical transmission lines.

Overcoming the Variability of Renewable Energy

To overcome the variability aspect of renewable energy (when the sun is not shining or the wind is not blowing), the state should up its ambition to store large commercial quantities of solar and wind energy in small, medium and large battery systems, and green hydrogen produced mainly through electrolysis of water. It should put resources to the RDD&D

(Research, Development, Demonstration & Deployment) for the statewide production, transport, storage and end uses of Green Hydrogen, but only that made from renewable energy. This is managed by the California Energy Commission (CEC).

Transitioning its Transportation to Zero emissions

Most of the state's GHG emissions come from transportation. The state needs to tie its programs for establishing electric vehicle charging with distributed solar plus battery production so that all of the added electric power needed to charge vehicles comes from renewables. In addition, distributed solar PV should be used along with hydrogen electrolysis units to produce green hydrogen for supply to fuel cell vehicles.

The accompanying zero emissions climate action plan for California aims at a 50% reduction in GHG emissions by 2030 and achieving zero emissions by 2050, as the IPCC had defined in its 1.5C Report.

Also download your free full description of the proposed Global Climate Action Plan, and spread the word far and wide. Feel free to print, post and distribute this summary – copying and distribution permission – unlimited.