

**DOCKETED**

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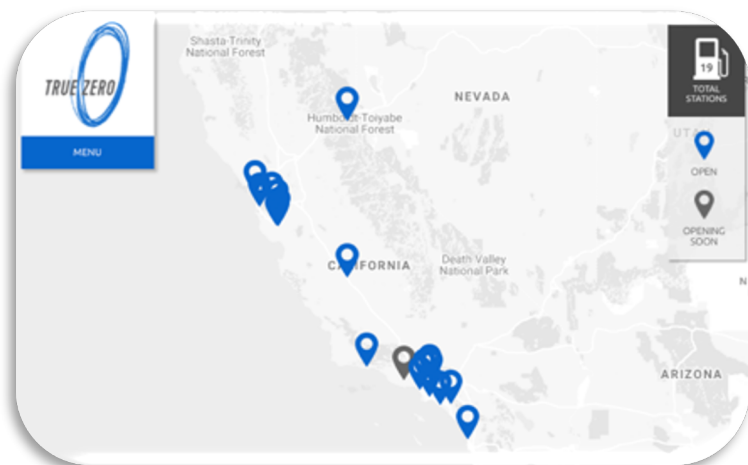
FirstElement Fuel Inc.

California Energy Commission

July 2, 2020

# CEC's Hydrogen Refueling Infrastructure Program Provides Tremendous Value in Delivering Results and Lessons Learned

- FirstElement Fuel has put CEC grant dollars to work to build the world's most heavily used network of hydrogen stations (20 stations open with 19 more in development);
- Our network has the highest availability in the world, it has completed over 550,000 fills, replaced over 113 Million gasoline miles with ZEV miles, and avoided over 71 Million pounds of CO<sub>2</sub>;
- We have raised over \$90 Million in private financing;
- Created hundreds of California jobs in the process.



- Enabled the launch of fuel cell electric vehicles in California, with nearly 9,000 cars on the road today;
- Private sector companies are learning how to achieve scale in the performance of hydrogen stations -- this is driving interest from other sectors (transit/commercial/heavy duty);
- Market initiation has unlocked larger private investments, which continue to grow relative to public investment;
- Key policies are achieving greater renewable content and driving aggressive carbon reduction in hydrogen mobility



# (1) Learning: Higher Capacity Stations are Critical to Success

First generation retail stations had a single fueling position and low capacity delivery system - this has constrained the FCEV growth and made it difficult to reduce cost to the consumer.



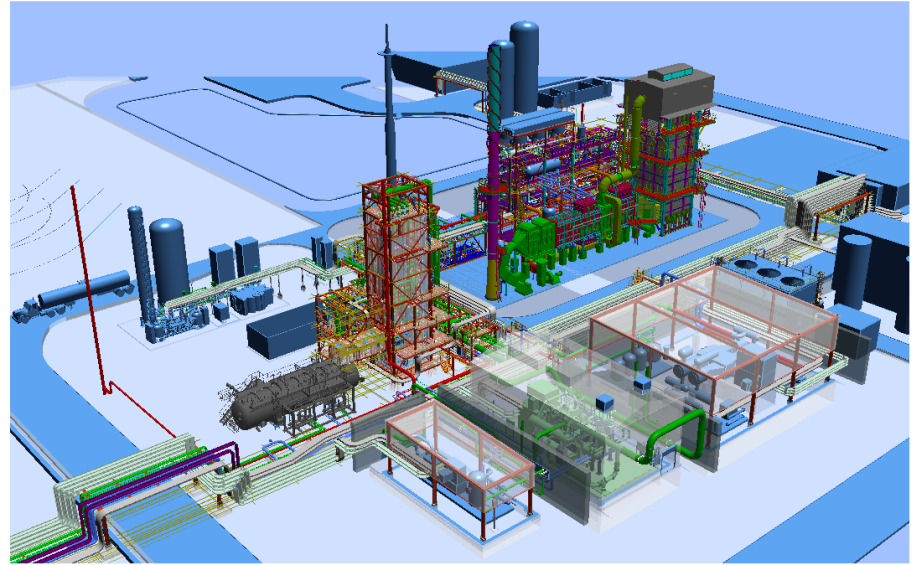
FirstElement identified the issue early on and worked to develop higher capacity fueling stations with multiple fueling position and is significant reduction in cost to the consumer.



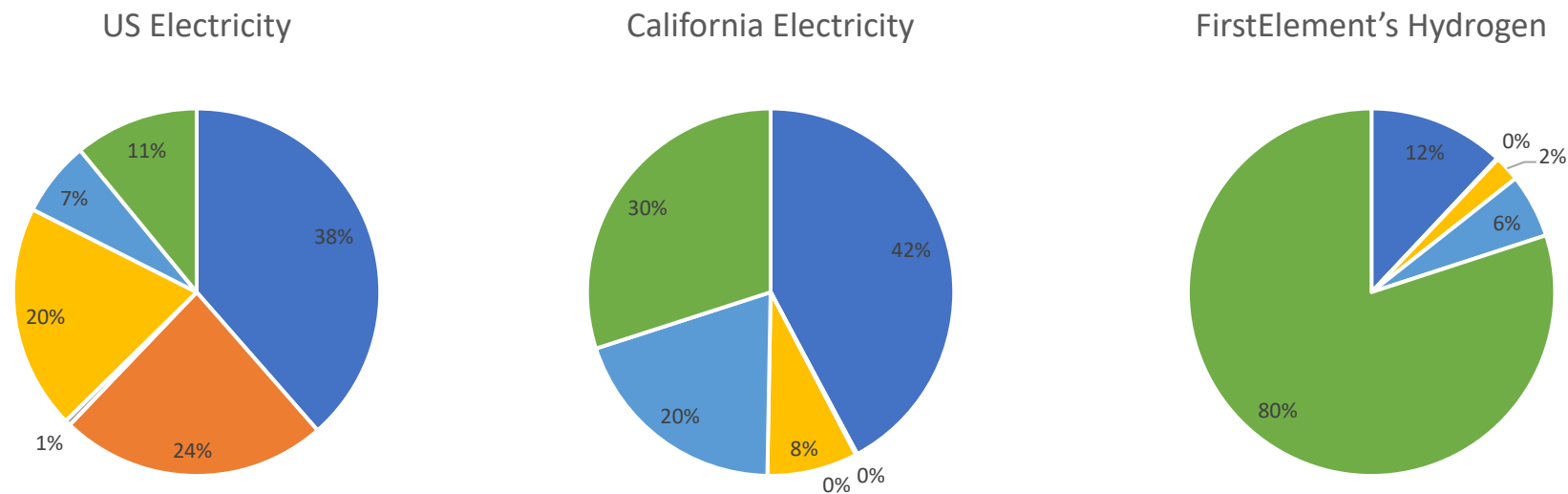


## (2) Learning: Hydrogen Fuel Supply Chain Needs to be Dedicated and More Robust

IRVINE, Calif., Nov. 26, 2018 /PRNewswire/ -- In a pivotal development for the hydrogen fuel cell electric vehicle market, **FirstElement Fuel Inc** has entered into a renewable hydrogen supply agreement with Air Liquide, which in turn will invest more than \$150 Million to build a new liquid hydrogen production facility. The arrangement will enable FirstElement Fuel to provide 100% renewable hydrogen for customers of its **True Zero Network**, which will help the company achieve its goal of retailing hydrogen with zero greenhouse gas impact.



### (3) Renewable Content: FirstElement is Exceeding Standards



■ Natural Gas ■ Coal ■ Petroleum ■ Nuclear ■ Conventional Hydro ■ Renewable

*\*Renewable includes Wind, Biomass, Solar, Geothermal*