Senate Bill 671 – Station Development Cost

Station Development Cost Breakdown

Funding for publicly accessible initial viable network projects should come from public and private sources. Some public funding already exists, but additional state and federal funding is needed to support sustained station development, especially as demand for zero-emission infrastructure is expected to increase over time.

Summary of funding needs:

2025 initial viable network – existing public funds available with support from private investment.
2035 initial viable network - $10-$15 billion total needed from all fund sources will be needed.

Individual station cost estimates

The cost for building each hydrogen fuel cell electric vehicle station is estimated to be approximately $9 million to $13 million. The cost for building each battery electric vehicle station is estimated to be approximately $5 million to $9 million. A detailed breakdown of capital expenditure estimates is included in Exhibit 1.

Exhibit 1. Breakdown of total estimated capital expenditure costs for station development

Breakdown of total estimated capital expenditure cost for station development

AS OF 05/04/2023 DRAFT PRELIMINARY – FOR DISCUSSION

	Cost category	BEV[1] cost estimate (USD, millions)	FCEV[2] cost estimate (USD, millions)
Permitting and design costs	PA&ED	$1.6	$1.6
	Design & engineering	$0.3	$0.3
Construction costs	Right of way*	$1-3	$1-3
	Hardware & installation	$0.9	$4.7
	Site construction (building, roof, periphery, signage)	$2-3	$2-3
Currently not included in adjustment	Grid upgrades /capacity	$2-7	N/A
Updated per station cost estimate		~$5-9 million	~$8.6-12.6 million
Updated total MVN (2025+) cost range[3,4]		~$375-765+million	~$130-190+million

1 Battery Electric Vehicle
2 Fuel Cell Electric Vehicle
3 Minimum Viable Network
4 Assumes 75-85 BEV and 15 FCEV stations in MVN and estimated 849 FCEV and 509 BEV stations in 2035.
5 Project Approval & Environmental Document
6 Trade Corridor Enhancement Program

Source: CTC working group; CTC infrastructure assessment model; US Department of Energy National Renewable Energy Laboratory.
Note: estimates for other construction costs and potential grid upgrades were derived based on a scan of existing project costs for charging and refueling stations statewide and nationally, including those provided to CTC in previously awarded and/or existing applications.
*If the project lead owns their own right of way and does not need utility relocation, then the project could have zero right of way costs.