



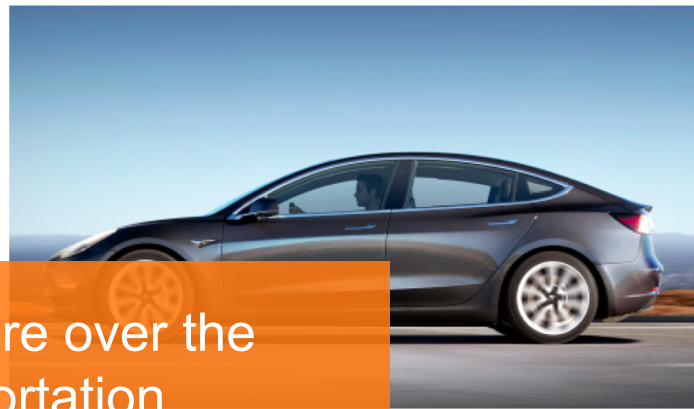
Future-Proofing Payment Technology for Electric Transportation in the T-Bill

Vermont Senate Committee on Transportation

Presented By: Kevin Miller – Director, Public Policy

April 15, 2021



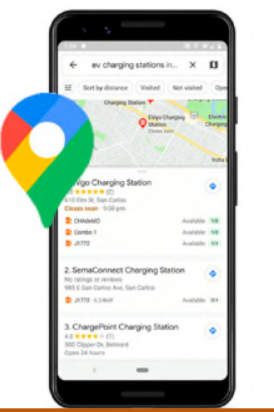




The Future of Mobility Is Electric



No major industry will change more over the next two decades than transportation.



Full Integration into Driver Ecosystem

Automotive Platforms	Consumer Platforms	Fleet Platforms
	  <p>"Alexa, ask ChargePoint if my car is plugged in."</p> 	  <p>Roaming Integrations with Other Charging Networks</p> 

Best Practice is Driver Choice in Payment Methods

Multiple payment options provides for the best driver experience

RFID



EMV
Contactless
Cards



Mobile
App



Apple &
Android Pay



24/7 Phone
Support



Payment Industry is Already Going Contactless

+ Existing Card Fleet

- 300 million of VISA's fleet are now tap and pay capable (out of approximately 350 million cards) ~85% and growing
- As of Dec. 2020, 84 of the top 100 US merchants accept contactless payments.
- Mastercard reports that 51% of Americans use contactless payment methods.

+ Next Steps for Payment Industry

- Within 12-24 months, 100% of personal credit cards will allow contactless payments.
- MasterCard's data shows a 40% surge in contactless payments in the first quarter of 2020 alone.

+ What is Driving the Transition?

- The key drivers of increasing adoption of contactless payments are concerns due to **security, reliability, cost, accessibility, and health.**

Key Drivers Towards Contactless Payments (1)

+ Security

- **MSR** and **EMV chip** readers are a major fraud risk due to **skimming** and **shimming**, which amounts to amounting to \$10s of billion of dollars per year.
- Security concerns exacerbated by in the unattended segment, e.g. gas stations, vending machines, and EV chargers.
- “Contactless Only” card readers eliminates this fraud risk from skimmers & shimmers

+ Reliability

- **MSR** and **EMV chip** card readers are the major failure modes for payment terminals deployed outdoor.
- This is a major concern in industries that require high uptime (e.g., EV Chargers)
- Use of contactless-only card readers eliminates this reliability issue.

+ Cost

- **MSR** and **EMV chip** credit card reader would add approximately \$3,000 to the cost of a charging station.
- This represents a 50% to 100% increase in capital costs for Level 2 charging stations, and is also an unnecessary expenditure for DC fast charging stations.

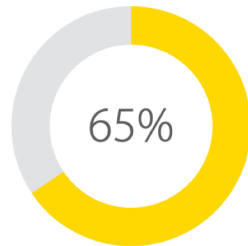
Key Drivers Towards Contactless Payments (2)

+ Accessibility

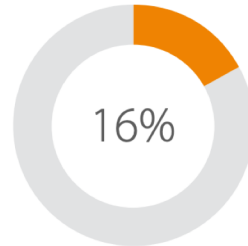
- MSR/EMV chip cards can be loaded into “digital wallets”
- Contactless technology is increasingly incorporated into prepaid cards.

+ Health

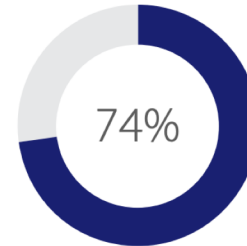
- A 2021 report by VISA identifies that only 16% of consumers want to revert to old methods of payment after a COVID-19 vaccine is widely available:



Nearly two thirds (65%) of consumers say that post-vaccine, they would prefer to use contactless payments as much as, or even more than, they are currently.



Only 16% of consumers say they would revert to their old methods of payments even after a vaccine is widely available.



74% expect consumers to still prefer contactless payments once a vaccine is widely available.

MSR/EMV Chip Mandate Inconsistent with Statute

Table 1. Statutory Payment Requirements in New England

State	Year	Citation	Payment Requirement
CT	2016	Public Act No. 16-135	The owner or operator of a public electric vehicle charging station... that requires payment of a fee <i>shall provide multiple payment options that allow access by the public.</i>
MA	2016	Ch. 448 of the Acts of 2016	The owner or operator of a public electric vehicle charging station <i>shall provide payment options that allow access by the general public.</i>
NH	2018	SB 575	The owner or operator of a public electric vehicle charging station that requires payment of a fee <i>shall provide multiple payment options that allow access by the public.</i>
VT	2018	Act No. 59 of 2019	Electric vehicle supply equipment available to the public <i>shall provide multiple payment options that allow access by the public.</i>

MSR/EMV Chip Mandate Inconsistent with Best Practices

Table 2. State Requirements for Payment Processing at EV Charging Stations		
<i>Mandates MSR/EMV Chip readers</i>	<i>Rescinded Initial Mandate of MSR/EMV Chip readers</i>	<i>Does <u>Not</u> Mandate how Card Payments are Processed</i>
Vermont	Colorado* Oregon***	New Hampshire** Alabama Alaska Arkansas Connecticut Florida Hawaii Idaho Indiana Iowa Louisiana Maine Maryland Massachusetts Michigan Minnesota Montana Nebraska New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Pennsylvania Rhode Island South Dakota Texas Utah Virginia Washington

Alternative Amendment Language

- + Amend 30 V.S.A. § 201 as follows:
- + *“Electric vehicle supply equipment available to the public” shall... provide multiple payment options that allow access by the public, if a fee is required, and shall not require persons desiring to use such public electric vehicle supply equipment to pay a subscription fee or otherwise obtain a membership in any club, association, or organization as a condition of using such electric vehicle supply equipment, but may have different price schedules that are conditioned on a subscription or membership in a club, association, or organization; **provided, that programs or state incentives for electric vehicle supply equipment shall not be conditioned upon the availability of any one specific method for processing payment options that allow access by the public.***

