Access to Innovative Financing for EV Charging

EV Charging Carbon Coalition, Roadmap 10 Conference: June 2017
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EV Charging Carbon Coalition (EVCCC) Mission/Partners

To open up access to the carbon capital markets for EV charging systems in order to strengthen their business case fundamentals and accelerate deployment

Beyond GM’s business case development:

Founding members:

• Audi/VW Group
• Exelon
• EVgo
• Siemens
• Connecticut Green Bank
• Carbon Neutral Cities Alliance (including Portland, Seattle, San Francisco, Palo Alto, NYC, Minneapolis, Vancouver BC, Sydney, Adelaide, AU)
How To Access Voluntary Market Carbon Credit Capital

- For example, Chevrolet pioneered a new Verified Carbon Standard (VCS) methodology enabling campuses to certify energy efficiency carbon credits -- which were then purchased (by Chevy and also retired on behalf of the planet)
EVCCC’s Progress: Key Carbon Capitalization Steps

Stage 1: Completed
- Carbon Business Case
  - Carbon Business Case: proved salience of carbon capital to accelerate EV charging investment
- Methodology White Paper
  - Outline core logic for EV Charging methodology
  - Stakeholder reviews

Stage 2/3: Underway
- Pilot Project Development
- Methodology Development/Approval
  - Formal methodology written and accredited
  - Pilot projects designed in parallel to ensure alignment
- Project Credit Verification/Sales
  - Pilot project credits verified
  - Expansion to new project credits
Top Line: Carbon ROC Very Material 
Contribution to Target Return on Capital of 5-10%

At average operating rates

ROC contribution for FIRST EV installation:

At $3-10/ton  
At CA LCFS $25-100/ton

DCFC ($85k)

3 charges/day 0.5-2% 4-18%
10 charges/day 2-6% 15-60%
Level 2 ($8.5k) 1.4%-4.7% 12-47%

1 charge/day

ROC contribution for average installation (of 4):

At $3-10/ton  
At CA LCFS $25-100/ton

DCFC ($43k) 3-11% 29-113%
10 charges/day
Level 2 ($3k) 3-10% 25-100%

CARBON ROC DROPS STRAIGHT TO BOTTOM LINE
Optimizing EV Charging Carbon Capital Within Compliance Market Systems

- Cap and Trade
- LCFS
- RPS
- EV Transportation

→ WA State pioneering use of set asides under its cap (CAR) to issue in-state carbon credits in covered sectors – while avoiding double counting
This New Capital Access is a Priority Given VC CleanTech Pressures

➤ “Cleantech clearly does not fit the risk, return or time profiles of traditional VC investors. As a result, the sector requires a more diverse set of actors and innovation models ... More “patient capital” ...” MIT

EVCCC’s carbon credit methodology under development seeks to provide a 5-10% return on CapX for EV charging infrastructure.

**EVCCC seeks to open up access to the carbon capital markets for EV charging systems in order to strengthen their business case fundamentals and accelerate deployment.**

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**Biz case confirms 5-10% return on capital; higher ROC in LCFS markets**

- **2016**

**EVCC Coalition formed to develop carbon methodology standard for EV charging**

- **2016**

**New methodology set to be approved by Verified Carbon Standard**

- **End 2017**

**First pilot projects seek certification under new methodology to issue credits**

- **Early 2018**

**First certified EV charging carbon credits to be sold**

- **2018**
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Carbon Business Case: proved salience of carbon capital to accelerate EV charging investment
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CARBON ROC DROPS STRAIGHT TO BOTTOM LINE
Optimizing EV Charging Carbon Capital Within Compliance Market Systems

- Cap and Trade
- LCFS
- RPS
- Interdependencies
- EV Transportation

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