Scenarios for Charging Information Services – Business Model Development

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EVs and Charging infrastructure – Indirect Network effects
Project Focus

- Business models of charging information service providers

- Formal partnerships between charging information service providers and other related stakeholders

- A set of scenarios for future development
  - Business models and Consolidation
Method and Data – Business Models & Scenarios

• 25 players (web search + snowball sampling): Charging service information (such as geographical location, charging standard, service levels, route planner), interface types (web interface, apps etc.), commercial or not - for profit, revenue model, inclusion of roaming and payment systems, geographical coverage, ownership etc.

• Players must either manage a database or provision data

• Most of the players originate from dedicated charging map services including app capabilities.

• In addition, the study includes seven in-depth interviews with representatives of operators, energy companies, charging information service providers, platform providers and industry alliances.

• Also network structures of formal partnerships between charging information service providers and other players. 147 companies are included in the network visualization.
Classification of partnership companies - How information service providers integrate data?
Operator network growth – Swedish Market – Consolidation and Expansion

*Chart from Uppladdning.nu Insights*
Jämtkrafts laddstationer växlar upp till CLEVER


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* Nytt datum: 18 januari 2016.

I juni gick Jämtkraft in som delägare i CLEVER, den nya laddoperatören på den svenska marknaden. Det blir synligt nu när närmare 50 laddstationer inom Green Highway profileras.
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VATTENFALL: INCHARGE VÄXR PÅ VÄSTKUSTEN GENOM SAMARBETE MED GÖTEBORG ENERGI
Information service provider

“Virtual operator”

Operator 1
Operator 2
Operator 3
Operator 4
Information service provider

“Virtual operator”

Operator 1
Operator 2
Operator 3
Operator 4
1. Operator information-consolidation business model

- Consolidation of operator data, Types of “Virtual Operators”:
  1. An operator with a platform and/or charging management system or
  2. An information service provider who buys access to a platform or a charging management system and becomes a consolidator

- Capture a portion of the revenue stream from payment
- Developing or acquiring access to platforms and standardized interfaces for roaming and payment management
- Software and hardware integration
- Contractual agreements
- Add value to end-users – one user interface, large geographical coverage
- Utilization of scale: the number of charging points associated with its roaming and payment clearing system
2. Community-based business model

- Focus on *independence* and not-for-profit projects. Submission to databases are open to anyone and user-data (i.e. drivers/users of EVs) are seen as important sources of data.
  - User data as a complement to operator data
  - User contribution and indirect network effects
  - Source of data and information provision services
  - Utilization of scale - number of charging points associated with user generated data
  - Revenue opportunities for instance as independent data/information service providers, advertising revenue etc.
- Compare Plugshare.com in US and Uppladdning.nu Insights
Future scenarios

• Further formal partnerships for operator-consolidation over large geographical areas.
• Real-time data and navigation/route optimization – further system integration
• Community based business models likely to cover larger and larger areas
• As operators consolidate and search for scale effects, + pressure from automotive industry, wider pan-national services likely to be expected.
• Market transparency on electricity prices could limit the margins and limit the benefit of adding additional players in the chain
• Entrance of new players providing more general information services – such as Waze and Here.
• Effective standardization on roaming and payment processes could re-shape operator-consolidation business model.
Q &A

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