

Implications of electrical vehicle supply equipment (EVSE) in facilities

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Value Chain

- EVSE manufacturer
- Utility/electricity provider
- Network operators
- Individual site owners
- Consumer/EV owner

Implications of providing charging stations

Benefits:

- Customer attraction
- Revenue generation through user charging and parking
- Employee retention
- Advertising opportunities
- LEED certification

Revenue and Costs

- Equipment costs -
- Costs of Level I and Level II chargers to site owners range from \$400-\$800 and \$800- \$3,000, respectively
- Installation costs -
- Installation costs can vary widely depending on location and the electrical system already in place. This cost typically falls between \$2,000 and \$10,000.
- Maintenance costs -
- Maintenance costs of the machine fall on the low side, around \$300 per year, does not include administrative costs.
- Marginal electricity costs (\$0.05 to \$0.10 per kWh) and demand costs (\$4 to \$ 15 per kW)
- Depreciation over equipment's life time (For tax purposes, straight line depreciation over 7 year life)
- Subsidies and rebates
- Cost of equity (12%)
- Revenue through users (charge based on fixed and variable costs, revenue share models may be useful)

Key factors influencing EV charging stations viability and profitability

- Utilization
- Public willingness to pay for use
- Parking turnover
- Tax credits
- Ancillary revenue
- Revenue sharing models
- Enhanced purchasing power developed amongst providers
- Long term contracts with users
- Leverage EVSE with providing “Green PR”
- Unless site owners begin to obtain more control over revenues and costs in the value chain, profitability will be minimal and financial benefits will be low or non existent