



Phase 1: Review the landscape and gather the team

## Step 2

Assemble internal and external stakeholders and create a project management strategy

### Things to do

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- Identify the roles and departments that electrification may touch (including but not limited to the list below) and bring them onto the project to ensure alignment early in the process:
  - Fleet implementation
  - Procurement
  - Finance
  - Executive sponsor
  - Sustainability leadership
  - Utility issues (the appropriate role may be in Procurement or Government Affairs)
- Cultivate an internal “champion” to be the project manager who can spearhead the endeavor.
- Begin working with the financial team to address how changes in “fuel” source will affect accounting/budget practices within departments (i.e., transitioning from a gas/diesel expense to an expense within the utility bill).
- Do preliminary research on available funding, incentives or grants to help finance the venture and ease initial sticker shock when pitching the plan to stakeholders.
- Tell your electric utility (or utilities, if applicable) that you’re considering electrifying your fleet and that you’ll be able to give them more information about energy needs (including geographic specifics) after your feasibility assessment (which will come in Step 3).
- Begin asking your utility questions about infrastructure and resources (see Step 2 resources to learn more):
  - Does the utility have a hosting capacity map available for developers?
  - What does the utility cover in terms of make ready?
  - What is the process and time frame for make ready work?
  - What utility, state and federal incentives or programs are there for...
    - Electric vehicle supply equipment (EVSE)?
    - Managed charging?
    - Distributed energy resources that limit peak demand?
- Begin asking your utility questions about pricing rates and timing (see this fact sheet for details):
  - Are there special rates for EVs?
  - What is the current rate structure?
  - Are there peak demand or other time-related rates?
  - What is the cost per kWh?
  - Are there incentives for electrification available?



## **Step 2** (continued)

### **Notes**

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Dotted lines for note-taking.

Phase 2: Identify what is possible now

## Step 3

Conduct a feasibility analysis on your fleet

### Things to do

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- Install data loggers on current vehicles to collect data on use and duty cycle.
  - This data will help determine which routes can be electrified first.
- Assess which duty cycles/routes are best suited to electrification by analyzing what their range needs are in a day and when there is sufficient downtime in the duty cycle for that vehicle to charge.
  - Some vehicles may need to use fast-charging infrastructure to be electrified, but this does not rule them out of the process — it just needs to be a consideration when planning the charging infrastructure in a later step.
- Determine energy needs by factoring in how many vehicles you plan to electrify and the mix of slow versus fast chargers.
- Determine ideal locations for charging stations, considering whether you will have them at one or multiple sites and how the location will help meet your energy needs.
- Request cost estimates from vehicle providers and charging station providers, including managed charging costs and solar and storage opportunities.
- Model the total cost of ownership, considering estimated grant funding as well as utility rates and resources that you learned about in Step 2.
- Discuss the results of your feasibility assessment with your utility.
- Conduct a mapping exercise to understand where electrifying would have the most impact on improving air quality

### Notes

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Phase 2: Identify what is possible now

# Step 4

Plan out charging infrastructure

## Things to do

- Decide where your vehicles will charge (e.g., at the depot, in the field, or at employees' homes [typically light-duty vehicles only]).
- Work with your utility to determine if your site currently has enough energy infrastructure to support the increased demand and how to accommodate the increased demand if new infrastructure is necessary.
  - Speak with your utility about how on-site solar or managed charging and storage could minimize or remove the need for a utility grid buildout plan.
- Begin planning how vehicle charging can be optimized.
  - Fueling vehicles with gas or diesel was a daily errand, but charging will require a paradigm shift and must be planned out. Additionally, some number of fast chargers will be critical for maintaining business operations.
- Do a final calculation of the amount of energy your fleet will require from the electric grid. It's critical to get this right (see the Step 4 resources for guidance).
- Talk with your utility about the interconnection process and their timing and requirements.
- Check if any of the changes to your site or energy infrastructure will require permits from the city. Gather information about the timelines and requirements for any necessary permits.

## Notes

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Phase 2: Identify what is possible now

# Step 5

Create initial fleet electrification timeline

### Things to do

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- Research EVs that are available and that are in production or development, identify near-term deployment opportunities, and categorize long-term aspirational prospects.
  - This will affect what areas of the fleet to prioritize early in the process if the required vehicles are not available right away.
- Determine your electrification milestones. They should be achievable but should push you at the same time.
- Based on the information you have so far, consider which factors will likely influence which vehicles/routes you electrify first: available technology, budget, legislation, health impacts of communities on specific routes (e.g., decreasing emissions on routes that place a significant pollution burden on low-income communities).

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Phase 3: Create a plan for near-term deployment

## Step 6

Prove the business case of electrification and secure internal buy-in

### Things to do

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- Review and refine total cost of ownership and emissions reduction estimates.
  - Remember to factor in utility rates and policies. Utility rates and incentives can impact your total cost of ownership in significant ways.
- Calculate preliminary estimates on costs and savings.
- Prepare internal review/approval document for senior staff.
  - Include digestible data around emission reductions, total cost of ownership, changing regulatory landscape, etc.
  - Communicate that electrification is a long-term strategy and can take several years to achieve.
- Obtain internal go/no-go approval.
- Once senior staff approval is received, decide on a potential project path and a pilot to test out models and vehicle capability.

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Phase 3: Create a plan for near-term deployment

# Step 7

Begin applying for publicly available funding, incentives and grants

## Things to do

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- Research what grant funding is applicable to your scenario.
- Begin writing and applying for grants.
  - Check with your vehicle manufacturer to see if they provide grant writing services.
- Check with your utility to see if any incentives are available for electrification, such as those through California's Low Carbon Fuel Standard (LCFS).

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Phase 3: Create a plan for near-term deployment

# Step 8

Begin vehicle and charging infrastructure procurement

### Things to do

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- Research your organization's purchasing requirements and restrictions for new vehicles (e.g., do all vehicles have to be purchased from a pre-approved list or manufacturer?).
- Bring in the larger interdepartmental team at your organization and specifically work with Procurement to understand the supplier base, obtain internal alignment on vendor selection, develop an RFP and obtain competitive bids.
- Determine the specific timing for ordering and installing charging infrastructure (including on-site solar and battery storage) that is required to meet the milestones in the overall timeline created in Step 5.
- Negotiate with suppliers on vehicle availability and pricing.
- Obtain internal approvals on capital funding and project.
- Apply for the required make ready buildout for the site with the utility.

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# Your roadmap to fleet electrification

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Phase 4: Deploy

## Step 10

Track progress, evaluate success and share lessons learned

### Things to do

- Track results of the pilot as it is implemented.
- Report out pilot results.
- Highlight successes.
- Evaluate barriers.
- Determine whether the KPIs were useful.
- Develop strategy to share lessons learned with internal and external audiences.

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Phase 5: Expand adoption (go back to feasibility assessment)

# Step 11

Determine phase two for EV transition

## Things to do

- Establish a goal for continued advancement of electrification.
- Develop a long-term planning framework for this transition.
  - Percentage of trips covered by electric truck
  - Number of chargers installed
  - Number of fossil trucks retired
  - Emissions reduced

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