



Education, Outreach, and Equity

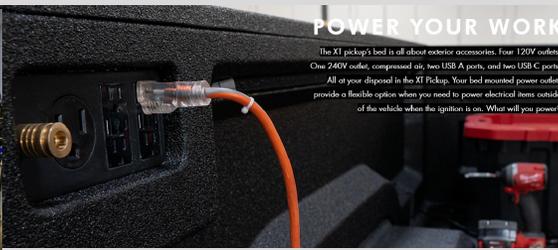
October 8, 2021

In the News



At \$14 billion, Ford builds its largest plant
in its history for the F150

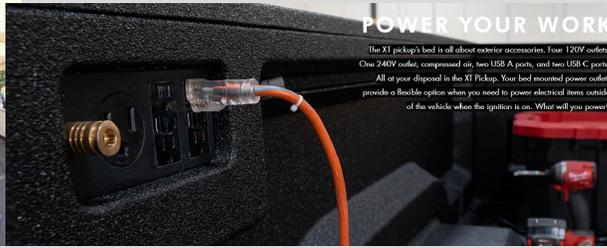
And creating 3 new battery factories
in partnership with SK Innovation



In the News



**Lucid Motors kicked off EV productions
in Casa Grande**



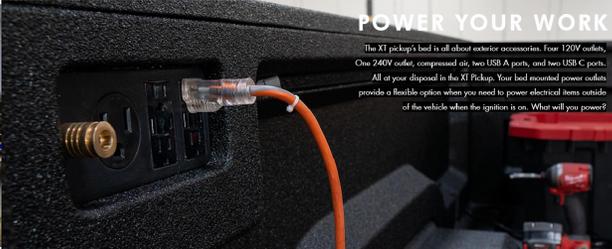
POWER YOUR WORK
The X1 pickup's bed is all about exterior accessories. Four 120V outlets, one 240V outlet, compressed air, two USB A ports, and two USB C ports. All at your disposal in the X1 Pickup. Your bed-mounted power outlets provide a flexible option when you need to power electrical items outside of the vehicle when the ignition is on. What will you power?



In the News



Atlis Motor Vehicles revealed it's new XT-1 EV pickup truck prototype



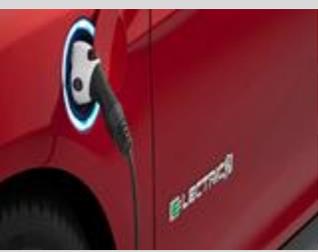
In the News



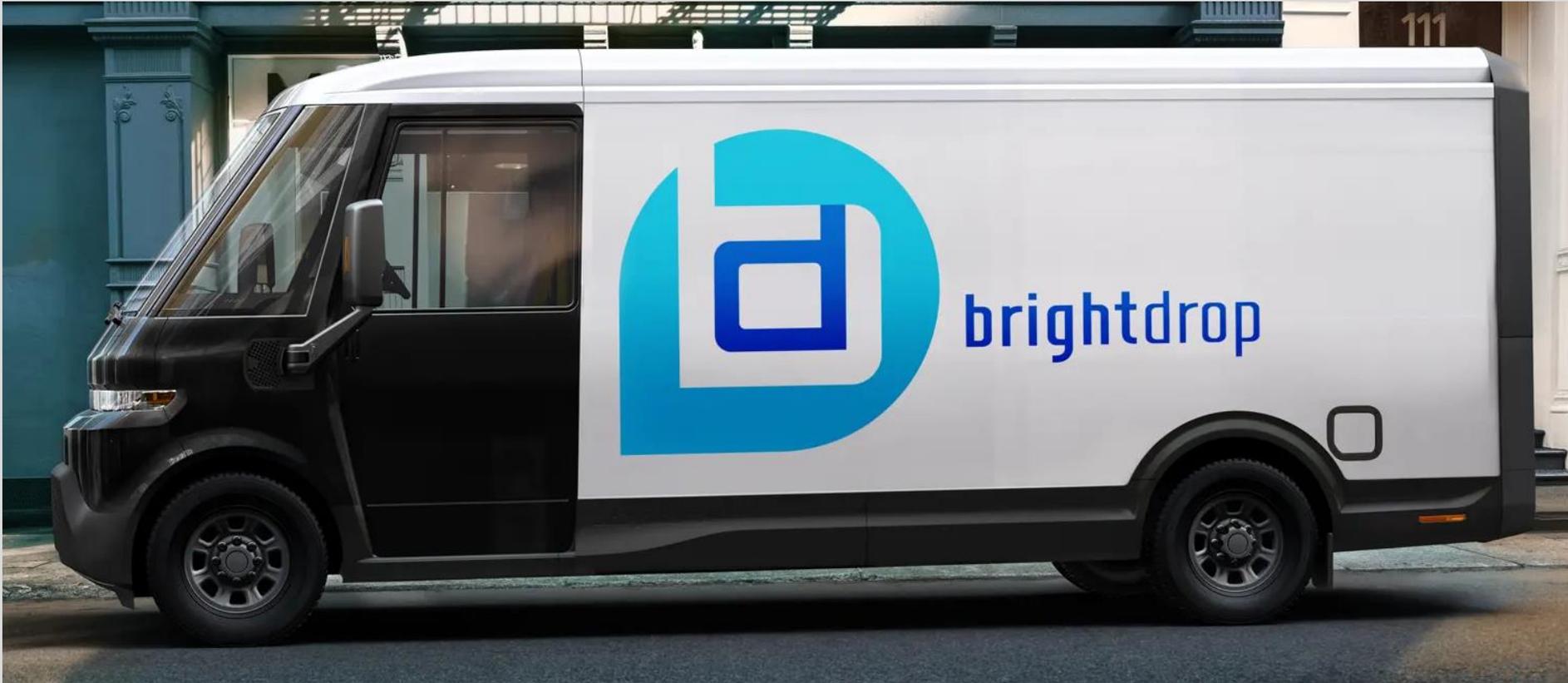
POWER YOUR WORK

The XT pickup's bed is all about exterior accessories. Four 120V outlets, One 240V outlet, compressed air, two USB A ports, and two USB C ports.

All at your disposal in the XT Pickup. Your bed mounted power outlets provide a flexible option when you need to power electrical items outside of the vehicle when the ignition is on. What will you power?



In the News



**GM's Bright Drop
is launching a second
electric delivery van,
the EV410**

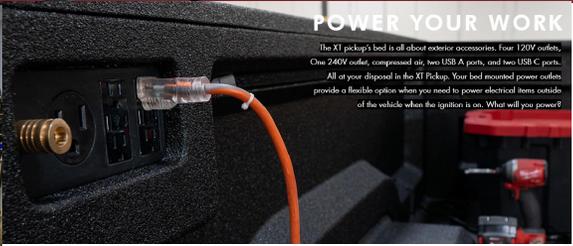


POWER YOUR WORK

The XI pickup's bed is all about exterior accessories. Four 120V outlets, one 240V outlet, compressed air, two USB A ports, and two USB C ports. All at your disposal in the XI Pickup. Your bed-mounted power outlets provide a flexible option when you need to power electrical items outside of the vehicle when the ignition is on. What will you power?

Electric Vehicle Ad Hoc Committee Meeting

October 1, 2021



POWER YOUR WORK
The X1 pickup's bed is all about exterior accessories. Four 120V outlets, One 240V outlet, compressed air, two USB A ports, and two USB C ports. All at your disposal in the X1 Pickup. Your bed mounted power outlets provide a flexible option when you need to power electrical items outside of the vehicle when the ignition is on. What will you power?



AUGUST 30, 2021

Timeline of Electrifying Automakers



**40% of all models
by 2030**



**100% of all models
by 2030**

- Audi
- Daimler
- Fisker
- Fiat
- GM
- Jaguar
- Jeep
- Land Rover
- Lucid
- Mazda
- Mitsubishi
- Mercedes
- Polestar
- Rivian
- Tesla
- Volvo

Infrastructure Bill



EV Charging and Refueling Grant Program

- Establishes a new grant program at DOT
- 50% set aside each year for Community Grants to install charging infrastructure

\$2.5 Billion

EV Charging Formula Program

- Establishes a National Electric Vehicle Formula Program at DOT
- State Funding Only

\$5 Billion

Bus Transportation & Infrastructure

\$11 Billion



Electric Vehicle Ad Hoc Committee Meeting

October 1, 2021

SC #1 – Education, Outreach & Equity



Topic 1: Equity

- A. Produce a list of equity-focused policies, programs and actions that the City could consider to show leadership in EV equity.**
- B. Produce recommendations for the size and scale of the program**
It should consider:
- a list of equity issues and questions
 - a list of possible metrics/outcomes
 - recommendations on possible incentives and rebates to individuals
 - recommendations on incentives and rebates that can be offered to developers and builders in disadvantaged communities
- c. Provide recommendations that align with Justice40 initiatives guidance to deliver 40 percent of the overall benefits from Federal investments to disadvantaged communities**

SC #1 – Education, Outreach & Equity



Topic 2: Education and Outreach

A. Produce recommendations for Community Outreach and Education size of the needed program(s), education materials needed, list of stakeholders, number of residents and businesses to engage, the number of staff needed for this program, and the possible City incentives

The framework should consider:

- forms of outreach such as public meetings, surveys, canvassing, and other outreach tactics
- understanding resident and small business mobility and transportation needs
- outreach to high schools and universities.
- tracking participation from disadvantaged communities' members
- work hours and time of day for charging; include listening sessions
- outreach efforts including publications/media in Spanish.

c. Produce the content for a needs assessment survey

D. Provide a list of content needed for an information repository or webpage made available to the public regarding information and outreach data such as interactive GIS maps, business information, and FAQs.

SC #2 – Public, Workplace & Home Charging Infrastructure



Topic 1: Public and City Provided EV Charging Infrastructure

- A. Provide recommendations for the design of a Public EV Charging Program that considers:**
- **EV siting criteria—including charging infrastructure in the right-of-way**
 - **alternative cost-sharing/user-fees for public EV charging sessions.**
 - **alternative funding such as advertising-funded charging stations**
 - **other recommendations such as streetlight right-of-way charging, vehicle to grid, equity issues**
 - **optimization for the grid considering time-of-use loads and demand charges**
 - **collaborative multi-city EV charger buy programs**
 - **local utility coordination and collaboration**

SC #2 – Public, Workplace & Home Charging Infrastructure



Topic 2: Workplace and Business EV Charging Infrastructure

- A. Produce a recommendation for potential incentives and requirements for EV Ready Building Codes or zoning ordinances:**
- recommendations to businesses on the cost and design of EV charger installs.
 - streamlining or expedited permitting to use as an incentive.
- B. Recommendations to strongly encourage daytime/workplace charging including:**
- a strategy on how to coordinate education and outreach efforts to small, medium, large scale businesses
 - a value proposition to include daytime/off peak incentives for promoting daytime/workplace charging
 - types of incentives that would influence businesses.
 - coordination with businesses to provide additional charging along transit corridors
 - shovel-ready ideas if funding available through infrastructure bill.

SC #2 – Public, Workplace & Home Charging Infrastructure



Topic 3: Home Charging Infrastructure

- A. Produce a recommendation for potential incentives and requirements for EV Ready Building Codes or zoning ordinances including:**
- streamlining the EV charger permitting process for new construction, retrofit and major upgrades of multi-family, single-family, and commercial properties.
 - opportunities/incentives to developers and builders
 - an education and outreach program highlighting the benefits
 - a list of building and development stakeholders to gain their support and gather input
 - funding strategies for EV Ready Building Codes and zoning ordinances
- B. Identify the content for a clearinghouse/central data/information source for multi-family installation that could provide information on how to find right product for their property and financing options.**

SC #3 – City Fleet & Charging Infrastructure



Topic 1: Purchase of Electric Fleet Vehicles

A. Produce recommendations on eligibility requirements for replacing existing internal combustion engine equipped vehicles with EVs when due or nearly due for replacement if EVs meet the business needs considering:

- operational needs and total cost of ownership.
- EV fleet transition purchasing policies that may require EV as a first-choice option
- local, state, and federal funding opportunities
- prioritizing replacements based on vehicle age, mileage and maintenance costs.
- an up-to-date list of eligible replacement options as new models come to market.

B. Produce recommendations for potential EV fleet goals, timelines, and metrics for success.

SC #3 – City Fleet & Charging Infrastructure



Topic 2: Purchase of Electric Fleet Charging Infrastructure

A. Provide recommendations for the content of a City Operations EV Fleet Charging strategy that provides:

- mix of EV charger types (networked or non-networked) based on data needs
- alternative funding strategies
- rates of installation in advance of the purchase of EVs (just-in-time, versus mass upgrades and future proofing infrastructure through oversizing)
- an approach for “managed charging” that minimizes utility costs and leverages energy storage and microgrids.
- best practice approaches such as the DOE EVSE tool to calculate number of L1/L2/DCFC
- electric vehicle infrastructure training program

B. Establish fleet charging goals & timelines for procurement & installations.

SC #3 – City Fleet & Charging Infrastructure



Topic 3: Charging Infrastructure for Employees

A. Establish employee charging infrastructure goals and timelines for installations that considers:

- cost recovery for employee EV charging and parking (user fees versus city paid as an incentive for sustainable commuting).
- recommended locations and timing
- an Employee EV etiquette policy (i.e., vacate parking stall when charging session is complete).
- level and type of charging infrastructure to be installed (Level 1 or 2 and DCFC, networked vs non-networked).
- other incentives to encourage daytime charging and EV purchases.



Electric Vehicle Ad Hoc Committee Meeting

October 1, 2021

SC #1 – Education, Outreach & Equity



Topic 1: Equity

- A. Produce a list of equity-focused policies, programs and actions that the City could consider to show leadership in EV equity.

- B. Produce recommendations for the size and scale of the program(s) and possible approaches to enhance equity-focused community engagement. It should consider:
 - a list of equity issues and questions that need to be addressed in the EV Roadmap including mobility needs, emission reduction goals, and approaches that do not add risks and burdens to disadvantaged areas.
 - a list of possible metrics/outcomes that can be used to establish targets or items to measure.
 - recommendations on possible incentives and rebates (to supplement utility incentives, and federal/grant funding) the city could offer individuals for purchasing an EV.
 - recommendations on incentives and rebates that can be offered to developers and builders to assist in EV charging infrastructure deployments in disadvantaged areas.

- C. Provide recommendations that align with the Justice40 initiatives that provide guidance to local communities to deliver 40 percent of the overall benefits from Federal investments in climate and clean energy to disadvantaged communities to be used in developing the EV Roadmap.

SC #1 – Education, Outreach & Equity



Topic 2: Education and Outreach

- A. Produce recommendations for Community Outreach and Education that informs the size of the needed program(s) such as list of education materials needed, list of stakeholders, number of residents and businesses to engage, the number of staff needed for this program, and the possible City incentives (to supplement utility incentives, and federal/grant funding). The framework should consider:
 - recommended forms of outreach such as public meetings, surveys, canvassing, phone banks and/or other outreach tactics to encourage participation.
 - understanding resident and small business mobility and transportation needs and the corresponding EV benefits.
 - outreach to high schools and universities.
 - tracking participation from disadvantaged communities' members to ensure their input is included in the development of programs and policies.
 - work hours and time of day for charging; include listening sessions to inform the approach.
- B. Explore possible partnerships with local media (print/cable/tv) to assist with outreach efforts including publications/media in Spanish.
- C. Produce the content for a needs assessment survey to assess public's awareness, needs and understanding of EVs and EV charging.
- D. Provide a list of content needed for an information repository or webpage made available to the public regarding information and outreach data such as interactive GIS maps, business information, and FAQs.

SC #2 – Public, Workplace & Home Charging Infrastructure



Topic 1: Public and City Provided EV Charging Infrastructure

A. Provide recommendations for the design of a Public EV Charging Program that considers:

- EV siting criteria to help in identifying a list of recommended areas for additional charging infrastructure installations on City-managed properties—including the potential for charging infrastructure in the right-of-way/on-street.
- alternative cost-sharing/user-fees (no cost vs paid, and other variations) for public EV charging sessions.
- alternative funding such as advertising-funded charging stations to assist in offsetting the costs of EV charger installations.
- other charging recommendations such as streetlight right-of-way charging, vehicle to grid, equity issues, and support for nearby multi-family residents.
- optimization for the grid considering time-of-use loads and demand charges considering use cases for Level 1 EV charging infrastructure.
- collaborative multi-city EV charger buy programs across US and/or Valley to lower up front equipment cost.
- local utility coordination and collaboration on EV charger installs to assist with utility goals and leverage economies of scale.

SC #2 – Public, Workplace & Home Charging Infrastructure



Topic 2: Workplace and Business EV Charging Infrastructure

- A. Produce a recommendation for potential incentives and requirements for EV Ready Building Codes or zoning ordinances. Also consider:
- recommendations to businesses on the cost and design of EV charger installs.
 - streamlining or expedited permitting to use as an incentive.
- B. Provide recommendations that will strongly encourage daytime/workplace charging hosted by existing employers including:
- a strategy on how to coordinate education and outreach efforts to small, medium, large scale businesses (funding, benefits, incentives); including leveraging commercial property owners/management companies to reach multiple businesses.
 - a value proposition to include daytime/off peak incentives for promoting daytime/workplace charging highlighting benefits such as the lower carbon intensity of daytime electricity, lower cost of daytime energy, reduction of range anxiety, and mitigation of “duck curve” impacts by shifting loads from the early evening to the daytime.
 - types of incentives that would influence businesses.
 - coordination with businesses to provide additional charging along transit corridors and city and/or federal funding incentives.
 - shovel-ready ideas if funding available through infrastructure bill.

SC #2 – Public, Workplace & Home Charging Infrastructure



Topic 3: Home Charging Infrastructure

A. Produce a recommendation for potential incentives and requirements for EV Ready Building Codes or zoning ordinances including:

- **streamlining the EV charger permitting process for new construction, retrofit and major upgrades of multi-family, single-family, and commercial properties.**
- **opportunities/incentives to developers and builders to provide for future proofing.**
- **an education and outreach program for residential builders, developers highlighting the benefits of EV charging and funding sources.**
- **a list of building and development stakeholders (home builders, multi-family and commercial developers) to use in communicating and coordinating with to gain their support and gather input regarding best practices for EV charging implementations.**
- **funding strategies for EV Ready Building Codes and zoning ordinances to be used to help incentivize building communities and reduce barriers to MF residents.**

B. Identify the content for a clearinghouse/central data/information source for multi-family installation that could provide information on how to find right product for their property and financing options.

SC #3 – City Fleet & Charging Infrastructure



Topic 1: Purchase of Electric Fleet Vehicles

- A. Produce recommendations on eligibility requirements for replacing existing internal combustion engine equipped vehicles with EVs when due or nearly due for replacement if EVs meet the business needs considering:
- required ranges to meet operational needs, miles traveled per day, anticipated advances in technology for medium and heavy duty models, and total cost of ownership.
 - EV fleet transition purchasing policies that may require EV as a first-choice option, where applicable, and make and model availability meets the user needs.
 - local, state, and federal funding opportunities to support capital and operating expenses.
 - current replacement cycles prioritizing replacements based on vehicle age, mileage and maintenance costs.
 - a process for keeping an up-to-date list of eligible replacement options as new models come to market.
- B. Produce recommendations for potential EV fleet goals, timelines, and metrics for success.

SC #3 – City Fleet & Charging Infrastructure



Topic 2: Purchase of Electric Fleet Charging Infrastructure

- A. Provide recommendations for the content of a City Operations EV Fleet Charging strategy that provides:
- selecting mix of EV charger types (networked or non-networked) based on data needs (tracking of mileage, maintenance schedules, department charges).
 - alternative funding strategies to assist in offsetting the cost of EV charger installations.
 - recommended rates of installation in advance of the purchase of EVs (just-in-time, versus mass upgrades and future proofing infrastructure through oversizing) that considers lead time needed for permits.
 - an approach for “managed charging” and guidelines for fleet use that minimizes utility costs and demand charges/peak times and leverages energy storage and microgrids.
 - best practice approaches such as the Department of Energy Alternatives Fuels Data Center EVSE tool to calculate number of L1/L2/DCFC and/or combinations needed for fleet use.
 - electric vehicle infrastructure training program technical requirements for safety and performance measures.
- B. Establish fleet charging goals and timelines for procurement and installations.

SC #3 – City Fleet & Charging Infrastructure



Topic 3: Charging Infrastructure for Employees

A. Establish employee charging infrastructure goals and timelines for installations that considers:

- cost recovery for employee EV charging and parking (user fees versus city paid as an incentive for sustainable commuting).
- recommended locations and timing for rollout of employee/workplace charging.
- an Employee EV etiquette policy to maximize use of charging infrastructure (i.e., vacate parking stall when charging session is complete).
- recommendations on level and type of charging infrastructure to be installed (Level 1 or 2 and DCFC, networked vs non-networked).
- other incentives to encourage daytime charging and EV purchases.