Introduction

Over the next five years, Louisiana will receive approximately $73 million dollars for electric vehicle (EV) infrastructure through the Infrastructure Investment and Jobs Act (IIJA). The Louisiana Department of Transportation and Development (LA DOTD) will administer the deployment of electric vehicle charging station infrastructure throughout the State.

As part of the EV infrastructure deployment, Congress has made National Electric Vehicle Infrastructure (NEVI) Formula Program funds available for expenditure by state transportation agencies. These funds will cover 80 percent of the EV infrastructure expenses with a minimum of 20 percent non-federal match covered by grant recipients. The NEVI program requires each state to submit a deployment plan to FHWA by August 1, 2022. LA DOTD has contracted with Louisiana Clean Fuels, Inc. and Grant Management Group, LLC to timely submit this plan. The draft of this plan is now published for a 30-day comment period ending July 18, 2022.

In addition, LA DOTD recently submitted an alternative fuel corridor (AFC) nomination to FHWA on May 13, 2022 to designate routes for electric chargers and hydrogen fuel. The AFC nomination is important to the overall NEVI program as we hope to provide connectivity between charging stations within Louisiana and along corridors across state lines.

Louisiana is among the most vulnerable states to the impacts of climate change. Louisianans are already experiencing direct physical, mental, and financial tolls as well as indirect impacts to social systems and ecosystems that are struggling to cope with extreme weather events, heat, drought, flooding, and other manifestations of climate change. As is the case globally, Louisiana’s low-income communities, communities of color, Indigenous peoples, and other marginalized residents are hit especially hard.

These impacts are projected to get much worse over the coming decades if there is not significant global action to curb greenhouse gas (GHG) emissions. The Louisiana Climate Action Plan contains 28 strategies and 84 specific actions to reduce GHG emissions across the entire state’s economy. Under “Strategy 9” of the Transportation section of the Climate Action Plan, our task is to “accelerate adoption and accessibility of low- and zero-emission vehicles and fuels”. The successful deployment of electric vehicles will play a major role in our attempts to achieve our goals and meet our carbon emission reduction goals.
Louisiana can support greater adoption of clean vehicles by expanding the infrastructure to support this transition, including charging and fueling stations that are accessible to more drivers and passengers across income levels. This strategy includes actions focused on light-duty passenger vehicles as well as actions tailored to the additional technological and infrastructural needs to transition medium- and heavy-duty transportation, shipping, and aviation to low or zero-carbon fuels. The State of Louisiana can lead by example through efforts to transition public fleets to low- and zero-emission vehicles.

As low-and zero-emission vehicles become increasingly available for passenger transit, steps need to be taken to ensure strategic and equitable statewide buildout of vehicle electrification infrastructure, with measures to prioritize access for underserved and overburdened communities. The LA DOTD intends to strategically utilize these federal funds to deploy electric vehicle charging infrastructure across the State in a way that increases access for all communities. To that end, the Climate Action Plan sets a goal of 250 stations per 100,000 residents by 2050. These sites include level 2 workplace and other publicly accessible charging in addition to the DC Fast Chargers on the AFV corridors.

**Timeline**

In 2018, Louisiana Clean Fuels developed a base EV Corridor Plan for the state of Louisiana that met the standards of previous rounds of the FHWA Alternative Fuel Corridor program. The National Electric Vehicle Infrastructure (NEVI) Formula Program Guidance from FHWA was published earlier this year with new guidelines for speed, quantity, and location of DC Fast Chargers. When the new guidance was published in February...
of 2022, the LA DOTD created an EV Planning Committee to begin the work of developing an Electric Vehicle Infrastructure Plan. Pending approval, LA DOTD will begin developing grant programs and soliciting proposals for DC Fast charging stations. The goal is to have the grant programs developed by December 2022 and the solicitation published by the first quarter of 2023.

State Agency Coordination

In February 2022, LA DOTD established an EV planning committee involving representatives from FHWA, Louisiana Department of Environmental Quality (LDEQ), and Louisiana Department of Natural Resources (LDNR). This committee met bi-weekly to discuss alternative fuel corridors and LA DOTD’s EV Infrastructure Plan as it relates to NEVI formula funds. This interagency coordination contributed to the timely submittal of the Round 6 Alternative Fuel Corridor Nomination on May 13, 2022 and assisted with submission of the Louisiana Electric Vehicle Infrastructure Plan prior to the August 1, 2022 deadline.

In addition, the committee created a Public Involvement Plan and distributed surveys to the general public through an EV webpage on LA DOTD’s website and social media outlets, and distributed surveys to the Tribal Nations through consultation via FHWA. The committee also actively planned outreach through webinars and public meetings to engage citizens in EV planning initiatives, and has collaborated with Southeast Louisiana Clean Fuels Partnership (a Clean Cities Coalition) and the Center for Sustainable Energy.

EV Committee Members:
- Louisiana Department of Transportation and Development
- Louisiana Department of Environmental Quality
- Louisiana Department of Natural Resources
- Grant Management Group, LLC
- Louisiana Clean Fuels, Inc. (a Clean Cities Coalition)
- Federal Highway Administration - Louisiana Division

Public Engagement

LA DOTD and its project partners developed a public outreach plan and resources that both explain the program and solicit public feedback from the community and stakeholders. The resources included a landing page for the program on the LA DOTD website, an online survey, social pinpoint site (a map based public input method for suggested charging locations), social media posts, and multiple virtual public meetings to discuss the plan. These resources opened a line of communication with the public for the program and input from the public was used to draft the plan. LA DOTD will maintain these resources going forward as they develop the program.
Public Involvement Resources:
- LA DOTD program landing page
- Online Survey
- My Social Pinpoint (Coming Soon)

Stakeholders Involved in Plan Development

Following the publication of the NEVI Guidance documents in February 2022, LA DOTD has had conversations with utilities, Metropolitan Planning Organizations, private sector companies, non-profit organizations, and other various entities. The feedback collected from these meetings and correspondence helped inform the plan and guide development of the overall Electric Vehicle Infrastructure program in Louisiana.

In order to incorporate quality feedback from the public, the LA DOTD and its project partners held one-on-one calls, virtual meetings, and one hybrid (in person meeting with virtual component) with targeted stakeholders during the development of the state plan. The draft plan was published on June 20, 2022 for a one-month public comment period and will be made available on the LA DOTD website. The LA DOTD intends to host meetings (virtual and in person) with stakeholders between June 22, 2022 and July 20, 2022 to gather their feedback on the draft plan. Comments and feedback from stakeholders will also be accepted through the official LA DOTD email account, DOTD-EVProgram@la.gov for the entire 5-year project period.

Outreach Conducted and Planned by LA DOTD For State EV Plan Development

<table>
<thead>
<tr>
<th>Entity</th>
<th>Type of meeting</th>
<th>Date held</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports</td>
<td>Virtual / Feedback Session</td>
<td>TBD</td>
</tr>
<tr>
<td>American Association of State Highway Transportation Officials EV Practitioner's Working Group</td>
<td>Virtual Feedback Sessions</td>
<td>Monthly</td>
</tr>
<tr>
<td>International Brotherhood of Electrical Workers Business Development (AL, FL, GA, MS, LA)</td>
<td>Virtual Meeting</td>
<td>April 21, 2022</td>
</tr>
<tr>
<td>Adjacent State DOT (Mississippi Department of Transportation)</td>
<td>One-on-One Call</td>
<td>May 9, 2022</td>
</tr>
<tr>
<td>EVSE Company</td>
<td>Virtual / Feedback Session</td>
<td>May 11, 2022</td>
</tr>
<tr>
<td>EVSE Company</td>
<td>Virtual / Feedback Session</td>
<td>June 2, 2022</td>
</tr>
</tbody>
</table>
Additionally, the open lines of communication with and the involvement of various stakeholder groups in the plan’s development ensures that the deployment, installation, operation, and use of EV charging infrastructure will achieve equitable and fair distribution. LA DOTD will continue such meetings throughout the 30-day comment period and beyond.

**LA DOTD Has Met with the Following Organization as of June 21, 2022:**
- Various Metropolitan Planning Organizations and Regional Transportation Planning Organizations;
- Counties and cities, including coordination with existing EV charging programs;
- Clean Cities coalitions: Louisiana Clean Fuels and the Southeast Louisiana Clean Fuel Partnership;
- Tribal governments;
- Electric utilities and transmission and distribution owners and regulators;
- Private sector EV charging station owners and network operators;
- Unions and other labor organizations;
Outreach with Tribal Governments

LA DOTD has partnered with the Federal Highway Administration and State DOTs to conduct a joint webinar on June 14, 2022, to engage the Tribal Nation with land interest in Louisiana. These tribes include the Chitimacha Tribe, Coushatta Tribe, Tunica-Biloxi Tribe, and the Jena Band of Choctaw Indians. The participating DOT’s include Mississippi (MDOT), New Mexico (NMDOT), Texas (TxDOT), Oklahoma (ODOT), and Arkansas (ARDOT); all of which are located in FHWA Regions 6 and 4. In addition to the virtual meeting, we have provided the Tribal Nation with surveys to engage them in our plan and gather their feedback. The following map shows tribal lands in relation to LA DOTD’s nominated alternative fuel corridors.

Plan Vision and Goals

The Louisiana EV plan is designed to enable residents and businesses who currently own or want to purchase electric vehicles to fuel quickly and safely across the state for work, recreation, and travel. In order to accomplish this goal, the State intends to develop competitive grant programs that allow for a phased approach to the buildout of electric vehicle supply equipment (EVSE) over 5 years that meets the FHWA requirements of DC Fast Chargers, spaced a maximum of 50 miles apart, within one mile of an interstate exit, with speeds of at least 150kW and electric...
capacity of at least 600kW. Rural areas and those with historically low EV adoption rates and low highway utilization numbers will be encouraged to build out their sites in phases over the 5-year period of the program.

The Louisiana State Plan will be updated on an annual basis which will allow public and private entities to apply for funding to build stations that fit the qualifications set forth by FHWA’s Round 6 of the Alternative Fuel Corridors Program on February 10, 2022. Based on current ownership, EV utilization is low in underserved areas of Louisiana. Additionally, underserved areas with low EV ownership and/or high levels of poverty may receive operating assistance. This ensures a continuous national network and addresses equity issues in rural and urban areas.

A minimum of 30 new locations will be needed to satisfy the 50-mile maximum spacing requirements from FHWA. The 30 locations will complement existing locations installed by the private sector. A full list of Electric Alternative Fuel Corridors and Stations can be found in the “Existing and Future Conditions” section of this document.

5-Year Goals:

Year 1

Year one will focus on building out the Electric Alternative Fuel Corridors to meet FHWA guidance. Initial analysis conducted by the State indicates that approximately 30 sites will be needed to complete nominated EV corridors statewide. As Louisiana intends to offer competitive grants for the installation of public DC Fast Chargers, the state can only award proposals that fit the criteria set forth by FHWA and the state plan. Additional outreach and education may be needed to reach more qualified site hosts and to encourage them to apply for funding. A full list of the nominated EV corridors can be found in the Existing and Future Conditions section of this document.

<table>
<thead>
<tr>
<th>Y1 Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host one in-person expo for potential applicants and at least 2 additional virtual events to encourage quality proposals to the LA DOTD grant solicitation.</td>
</tr>
<tr>
<td>Award up to 10 projects and distribute approximately $9 million for DC Fast Chargers</td>
</tr>
<tr>
<td>Conduct a funding decision review process conducted at end of fiscal year to ensure that diversity, equity, and inclusion (DEI) goals and network reliability are being met.</td>
</tr>
<tr>
<td>Collect data from the network to assess usage and identify trends for future development</td>
</tr>
</tbody>
</table>

Year 2

Year 2 will again focus on further building out of the Electric Alternative Fuel Corridor. After the first round of projects is awarded, LA DOTD will assess the success of the program’s grant solicitation, evaluate installation and commissioning timelines, etc., in order to determine how to
adjust the strategy going forward. As Louisiana intends to offer competitive grants for the installation of public DC Fast Chargers, the state can only award proposals that fit the criteria set forth by FHWA and the state plan. Additional outreach and education may be needed to reach more qualified site hosts and to encourage them to apply for funding.

<table>
<thead>
<tr>
<th>Y2 Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct grantees feedback session with Year-1 Awardees to determine effectiveness of program</td>
</tr>
<tr>
<td>Host at least 2 educational outreach events to encourage quality proposals to the LA DOTD grant solicitation</td>
</tr>
<tr>
<td>Award up to 12 projects and distribute approximately $11 million for DC Fast Chargers</td>
</tr>
<tr>
<td>Collect data from the network to assess usage and identify trends for future development</td>
</tr>
</tbody>
</table>

**Year 3**

Year 3 will focus on building out of any remaining sites Electric Alternative Fuel Corridor. LA DOTD intends to continuously monitor the grant program and make adjustments using the lessons learned in years one and two. Once we achieve complete corridors, as per the FHWA standards, we will move to awarding projects under the distributed “Scenario 2” model discussed later on in this document. Monitoring will include site visits to ensure grant recipients are properly installing and maintaining the charging sites and meeting Justice40 requirements and data collection regarding the usage and cost of electricity.

<table>
<thead>
<tr>
<th>Y3 Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous monitoring of grant program by LA DOTD overseeing the grant recipients’ use of NEVI funds to ensure continued compliance with state and federal requirements</td>
</tr>
<tr>
<td>Award at least 6 more grants based on availability of funds to close remaining gaps in the corridors and create redundancy in the charging network and to ensure that underserved areas are being adequately covered</td>
</tr>
<tr>
<td>Collect data from the network to assess usage and identify trends for future development</td>
</tr>
</tbody>
</table>

**Year 4**

LA DOTD intends to continuously monitor the grant program and make adjustments using the lessons learned in years one, two, and three. Monitoring will include site visits to ensure grant recipients are properly maintaining the charging sites and meeting Justice40 requirements. In addition, monitoring will also include collecting data regarding the usage and cost of electricity.
Y4 Goals

Continuous monitoring of grant program by LA DOTD overseeing the grant recipients’ use of NEVI funds to ensure continued compliance with state and federal requirements.

Award grants based on availability of funds to close remaining gaps in the corridors and begin to create redundancy across the network.

Collect data from the network to assess usage and identify trends for future development

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Year 5

Within 5 years of implementing the NEVI plan, LA DOTD intends to completely build out designated corridors to fulfill the FHWA standards, should funding be sufficient to do so. Once the corridors are fully built out, any remaining NEVI funds may be spent on EV charging infrastructure on other public roads or in other publicly accessible locations that are open to the general public. These sites and study areas have been identified through extensive analysis of various available data sources and is illustrated on the “Scenario 2” map on page 25 of this document.

Y5 Goals

Approximately 75 DC Fast Charger sites installed statewide / 300 ports

Corridors designated as fully built out by FHWA Standards

If adequate funding remains after corridors are deemed “complete”, then off corridor projects may apply for an receive funding for chargers

Collect data from the network to assess usage and identify trends to create a program evaluation report

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Contracting

For development of this NEVI plan and the nomination of alternative fuel corridors, LA DOTD has contracted with Louisiana Clean Fuels, Inc. and Grant Management Group, LLC as consultants to assist with the EV planning and outreach efforts. To implement the statewide plan using NEVI funds, LA DOTD intends to administer a competitive grant program which will involve legal agreements with grant recipients to whom NEVI funds will be disbursed for the installation, operation, and maintenance of electric vehicle charging stations throughout the State. The grant recipients will be responsible for identifying their vendors who will be responsible for meeting all federal requirements for charging infrastructure. LA DOTD and the hired consultants will conduct community outreach through webinars and public meetings to engage communities where EV charging infrastructure will be installed. LA DOTD is also gathering public and tribal feedback through surveys.
LA DOTD intends to monitor the grant recipients’ progress to ensure the charging stations remain operational and adequately maintained to ensure efficient delivery of ongoing operations and maintenance activities during and after the NEVI funds are allocated.

**Existing and Future Conditions**

At the end of 2020, there were approximately 1,881 Battery Electric Vehicles (BEV) registered in Louisiana. By the end of 2021, there were 3,065 BEVs showing a 62.95% growth in electric vehicle adoption over a very difficult period where many businesses were closed due to Covid. While the state of Louisiana’s adoption rate is much lower than the rest of the nation, popularity of more affordable models and high gas prices have contributed to the increase in popularity of EVs in our state.

**EV Adoption by Parish - Q4 2021**

The map below shows the distribution of registered fully electric vehicles by parish in the state of Louisiana as of the fourth quarter of 2021.
Existing EVSE in Louisiana as of May 31, 2022
Via: https://afdc.energy.gov/stations

<table>
<thead>
<tr>
<th>DC Fast Chargers</th>
</tr>
</thead>
<tbody>
<tr>
<td>● 17 DCFC locations with 91 ports</td>
</tr>
<tr>
<td>○ 8 non-Tesla DCFC locations with 19 ports</td>
</tr>
<tr>
<td>○ 3 non-Tesla locations fit the Round 6 standards for FHWA EV Corridors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2 Public Charging</th>
</tr>
</thead>
<tbody>
<tr>
<td>● 130 locations with 266 ports</td>
</tr>
<tr>
<td>○ 119 non-Tesla locations with 184 ports</td>
</tr>
</tbody>
</table>

**Vehicle Availability**

The Alliance of Automotive Innovation has indicated, in statements to the Louisiana Dealers Association (LADA), that the automotive industry will invest over $330 billion in EV’s by 2025 and grow the number of available EVs for sale from roughly 60 models today, to over 130 models by 2026. The LADA has stated that Louisiana dealers stand ready and are currently investing millions of their own dollars in facilities and training to sell these models. Currently dealerships across the nation are experiencing the same supply chain issues as many other industries. Many dealerships in Louisiana have commented on how hard it is to keep an EV or a PHEV on the lot as they don’t get many from the manufacturers yet, and when they do, the vehicles sell fast - often in just one day. Many vehicle manufactures are telling customers that it will take up to a year for delivery of vehicles once they have been ordered. These issues around electric vehicle availability are not unique to Louisiana and are being experienced by states all across the country.
Louisiana Utilities and their Service Areas

Electric utilities that service the study area are Entergy, Cleco, Lafayette Utility Services, LEPA, AEP/SWEPCO, and members of the Association of Louisiana Electric Cooperatives. The utility companies maintain that they have adequate capacity, but it is unknown how much work will be needed to complete the “make ready” for individual sites along our corridors. The availability of 3-Phase power will be a minor issue in most of the state. However, there are instances where waivers may be required to keep the cost of getting power to the site down to acceptable levels.

<table>
<thead>
<tr>
<th>Types of Utilities in Louisiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor-owned utilities (IOUs)</td>
</tr>
<tr>
<td>For-profit Owned by shareholders</td>
</tr>
<tr>
<td>Example: Entergy &amp; SWEPCO (AEP)</td>
</tr>
</tbody>
</table>

Regulators

SWEPCO, DEMCO, SLEMCO and Entergy Louisiana are regulated by the Louisiana Public Service Commission (LPSC) (http://www.lpsc.louisiana.gov)

Entergy New Orleans is regulated by the New Orleans City Council

Cleco’s rates are regulated by the Federal Energy Regulatory Commission (FERC) in Washington, D.C. CLECO files all rates charged to customers in the form of a rate schedule or tariff with the appropriate regulatory commission.

Municipal Power Companies (“Municipalities”) are often regulated by Local government (city council or elected or appointed board) and in some cases, a state board.
The EPA defines ecoregions as “areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources.” Louisiana is subdivided into six “Level III” EPA ecoregions: **South Central Plains** ecoregion (northwestern and center-west parishes); **Mississippi Alluvial Plain** ecoregion (northeastern, center-east, and southeastern parishes); **Mississippi Valley Loess Plains, Southeastern Plains, and Southern Coastal Plains** ecoregions (southeastern inland parishes); and **Western Gulf Coastal Plain** ecoregion (southwestern parishes). The listed ecoregions are further subdivided into smaller regions denoting more detailed comparisons of land areas within the state, however, for the sake of brevity this document will summarize only the six Level III ecoregions that make up the state.

Major land uses in the South-Central Plains EPA ecoregion consists of timber production, livestock grazing, and oil and gas production. Dominant vegetation includes pines (native short-leaf pines are now largely replaced by commercial pine plantations), several varieties of oak,
sweetgum, and understory growth including sumac, greenbriar, and hawthorn. Rolling plains are one distinguishing feature of this ecoregion that differentiates it from the flatter Mississippi River Valley plains or Gulf Coast plains. The major body of water running through this ecoregion is the Red River. The Red River floodplains are naturally bottomland hardwood forests, but have been largely cleared for crop cultivation and grazing, although some wooded areas remain. Crops dominating this region include cotton, soybeans, corn, wheat, and rice.

The Mississippi Alluvial Plain EPA ecoregion spans the entire length of Louisiana (north to south), following the current course of the Mississippi River and covering some areas west of the river, and north near Lakes Maurepas and Pontchartrain. Climates are notably variable throughout the region, with temperatures and precipitation increasing from north to south, however there are many commonalities along the river corridor. Constructed levees restricted river overflow and opened adjacent land for agricultural use. Northern and central Louisiana climates and soil are amenable to cultivation of cotton, soybeans, corn, and rice; while southern Louisiana agriculture is dominated by sugarcane, with some soybeans and pastures. This ecoregion is also home to extensive wetland habitats. Though deforestation and development have reduced cohesion of wetland habitats over time, this region remains a major bird migration corridor and is rich with biodiversity. Bald cypress and water tupelo trees can be found in freshwater wetland areas throughout this ecoregion, as well as oak in more well-draining areas. The southern portions of this ecoregion are host to many live oak, laurel oak, and Spanish moss.

The main distinguishing feature of the Mississippi Valley Loess plains EPA ecoregion is the prominent presence of loess – loosely compacted wind-blown sediment. Soils in this ecoregion tend to be sandy, silty, and well-draining in comparison to the dense clayey deposits found in the Mississippi Alluvial Plains. This ecoregion covers a relatively small portion of southeast Louisiana, including much of East Baton Rouge Parish, and West and East Feliciana Parishes. Land use in this region hosts a heavy presence of pine plantations, pasture, and crop land, however urban use covers a large portion in the Baton Rouge vicinity.

Northern St. Helena, Tangipahoa, and Washington Parishes make up the Southeastern Plains ecoregion of Louisiana. This landscape is home to oak-pine and mixed hardwood forests, pastures, cropland, and growing residential and commercial development. Dairy is a prominent industry here. Soils of this ecoregion are largely sandy, gravelly, and well-draining.

Eastern Livingston Parish, southern Tangipahoa Parish, and southern St. Tammany Parish make up the Southern Coastal Plains ecoregion of Louisiana. Lower elevations than the Southeastern Plains and wetter soils are characteristic of this ecoregion. Habitats here include marshes and swampy lowlands. Soils range from poorly to moderately well-draining. Floodplains in this ecoregion contain forests of bald cypress, water tupelo, and oak-dominated hardwood forests.

The Louisiana portion of the Western Gulf Coastal Plain ecoregion spans from the Sabine River to the Atchafalaya Basin. The southernmost latitudes of this ecoregion contain the Chenier plains which are largely treeless, but do contain live oak and hackberry with a palmetto-heavy understory, and extensive salt or brackish-water grassy marshes along the Gulf Coast. Much of the northern portions of this ecoregion are dominated by grasslands and herbaceous plant species, with inclusions of live oak and long-leaf pine. The area has suffered urbanization and
conversion to croplands and pastures. Crops include sugarcane, rice and crawfish agriculture, and soybeans. Soils of this ecoregion are primarily clayey and poorly draining, though sandy, loamy textures are somewhat present at surface-levels in some areas.

According to EPA, statewide average annual precipitation falls somewhere between 44.8 – 84.7 inches per year, with northern regions generally receiving between 50 – 60 inches per year, and southern regions receiving between 60 – 70 inches per year. According to National Oceanic and Atmospheric Administration (NOAA) maps depicting areas vulnerable to storm surge flooding, areas as far north as central Livingston Parish may be vulnerable to storm surge flooding during a Category 1 storm. During a Category 5 storm, areas as far north as northern Pointe Coupee Parish may be vulnerable to storm surge flooding.

Sources:

https://gaftp.epa.gov/EPADataCommons/ORD/Ecoregions/la/la_front.pdf

https://enviroatlas.epa.gov/enviroatlas/interactivemap/

https://noaa.maps.arcsig.com/home/index.html

State Travel Patterns, Public Transportation Needs, Freight and Other Supply Chain Needs

Louisiana has a total of 934.7 miles of Interstate highways. LA DOTD has nominated all of its Interstate highways as EV corridors. LA DOTD feels that in order to build out its statewide charging network the interstate highways should be completed first. Freight movement by truck in Louisiana relies heavily on the Interstate Highway System. I-10, I-12 and I-20 provide much of the east-west movement for trucks, while I-49, I-55, and I-59 facilitate north-south truck freight movements. There are also Interstate loops and spurs in a number of the State’s metropolitan areas. In Louisiana, trucking accounts for approximately 58 percent of the tonnage moved in, out and through the state (excluding pipelines).

Alternative Fuel Corridors - Corridor Networks

LA DOTD, in partnership with the Louisiana Department of Environmental Quality (LDEQ), the Louisiana Department of Natural Resources (LDNR), and many other partners, submitted Round 6 nominations for designation of alternative fuels corridors in Louisiana in accordance with 23 U. S. C. 151(a) on May 13, 2022. The state nominated multiple Interstate Highway Systems, including some loops and spurs, with additional nominations for US 90 (Future I-49) from I-10 in Lafayette to I-910 in New Orleans, and Louisiana Highway 1 / Louisiana Highway 3225 from US 90 south to Port Fourchon, a major energy corridor for our nation.

After round 6 nominations are approved by FHWA, most interstate corridors in Louisiana will be on the Electric Alternative Fuel Corridors network as either Corridor Ready or Corridor Pending. Once approved, these interstate routes in Louisiana will be eligible for the National Electric Vehicle Infrastructure (NEVI) program.
### FHWA Round 6 - Electric Alternative Fuel Corridor Definitions

<table>
<thead>
<tr>
<th>Corridor Ready</th>
<th>Corridor Pending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public DC Fast Charging:</td>
<td>A strategy/plan and timeline for public DC Fast Charging stations separated by more than 50 miles.</td>
</tr>
<tr>
<td>- No greater than 50 miles between one station/site and the next on the corridor.</td>
<td></td>
</tr>
<tr>
<td>- No more than 1 mile from Interstate exits or highway intersections along the corridor.</td>
<td></td>
</tr>
<tr>
<td>- Stations should include four Combined Charging System (CCS) connectors - Type 1 ports (simultaneously charging four electric vehicles).</td>
<td></td>
</tr>
<tr>
<td>- Site power capability should be no less than 600 kW (supporting at least 150 kW per port simultaneously across 4 ports).</td>
<td></td>
</tr>
<tr>
<td>- Maximum charge power per DC port should not be below 150 kW.</td>
<td></td>
</tr>
</tbody>
</table>

### Round 6 FHWA Alternative Fuel Corridor EV “Pending” Nominations

[Map of Round 6 FHWA Alternative Fuel Corridor EV “Pending” Nominations]
Round 5 Approved and Pending Corridors for Electric Vehicles

Existing Locations of Charging Infrastructure Along AFCs

LA DOTD feels that the NEVI formula funding is critical to helping Louisiana do its part to reduce carbon emissions in order to provide a more sustainable future for generations to come. As a part of our previous strategy to complete our EV corridors, the LDEQ utilized a DC Fast Charging Master Plan created by Louisiana Clean Fuels that suggested charging sites that met all of the previous FHWA Alternative Fuel Corridor standards. Since the NEVI guidance and Round 6 standards were published, we learned that many of the stations that were awarded funding will no longer qualify under the new standards. Fortunately, three of the Electrify America (EA) stations that were installed along I-10 still qualify under the new standards and EA has indicated that they intend to install chargers along Interstate 20 in Louisiana.

As of “Round 5” of the FHWA Alternative Fuel Corridor nominations for EVs, Louisiana has two approved “pending” EV corridors, one along Interstate 10 and the other on Interstate 12 from previous nomination rounds. There is also a small section of a complete EV corridor (under the old requirements) on Interstate 10 from the Texas border to Lake Charles, LA. At the time this draft of the Louisiana Electric Vehicle Infrastructure plan was created, the LA DOTD had not yet heard back on the status of the “Round 6” EV corridor nominations submitted in May 2022.
### Existing DC Fast Chargers in Louisiana

<table>
<thead>
<tr>
<th>State EV Charging Location Unique ID</th>
<th>Charger Level (DCFC, L2)</th>
<th>Route</th>
<th>Location</th>
<th>Number of EV Connectors</th>
<th>Distance from Interstate</th>
<th>Meets FHWA Speed &amp; Connector Standards</th>
<th>EV Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCFC I-10</td>
<td>DCFC</td>
<td>I-10</td>
<td>701 Baronne St, New Orleans</td>
<td>1</td>
<td>0.9 miles from I-10</td>
<td>Needs upgrade</td>
<td>Non-Networked</td>
</tr>
<tr>
<td>DCFC I-10</td>
<td>DCFC</td>
<td>I-10</td>
<td>1932 Rees Street, Breaux Bridge</td>
<td>6</td>
<td>0.8 miles from I-10</td>
<td>Yes</td>
<td>Electrify America</td>
</tr>
<tr>
<td>DCFC I-10</td>
<td>DCFC</td>
<td>I-10</td>
<td>525 N Cities Service Hwy, Sulphur</td>
<td>4</td>
<td>1.3 miles from I-10</td>
<td>Yes, if granted exception for distance from corridor</td>
<td>Electrify America</td>
</tr>
<tr>
<td>DCFC I-12 / I-55</td>
<td>DCFC</td>
<td>I-12 / I-55</td>
<td>2030 Hammond Square Drive, Hammond</td>
<td>4</td>
<td>.9 miles from I-12 1.8 Miles from I-55</td>
<td>Yes</td>
<td>Electrify America</td>
</tr>
<tr>
<td>DCFC I-10</td>
<td>DCFC</td>
<td>I-10</td>
<td>791 Taos St, Slidell</td>
<td>1</td>
<td>0.4 miles from I-10 2 miles from I-12</td>
<td>Needs Upgrade</td>
<td>ChargePoint Network</td>
</tr>
<tr>
<td>DCFC I-49</td>
<td>DCFC</td>
<td>I-49</td>
<td>7520 Coliseum Blvd, Alexandria</td>
<td>1</td>
<td>5 miles from I-49</td>
<td>No</td>
<td>ChargePoint Network</td>
</tr>
<tr>
<td>DCFC I-49</td>
<td>DCFC</td>
<td>I-49</td>
<td>1515 Dorchester Drive, Alexandria</td>
<td>1</td>
<td>4 miles from I-49</td>
<td>No</td>
<td>ChargePoint Network</td>
</tr>
<tr>
<td>DCFC I-10</td>
<td>DCFC</td>
<td>I-10</td>
<td>6606 Johnston St, Lafayette</td>
<td>1</td>
<td>7 miles from I-10</td>
<td>No</td>
<td>ChargePoint Network</td>
</tr>
</tbody>
</table>
Known Risks and Challenges

Vehicle availability, transformer shortages, nationwide demand for EVSE charging equipment, and potential labor shortages of trained and qualified EVSE installers are significant barriers to success for projects awarded under the state’s competitive grant program. Additionally, Buy America requirements may make procurement a difficult and taxing process for grant awardees.

Weather conditions such as flooding, hurricanes, and their corresponding power outages may also reduce the amount of time that site owners and operators have to get their projects up and running.

These ongoing supply chain issues for vehicles, EVSE, labor, raw materials, transformer, and microchip shortages do have the potential to extend project implementation timelines. The LA DOTD acknowledges these difficulties and will do their best to work with vendors and planning partners to complete the network as soon as possible.
EV Charging Infrastructure Deployment

Through a competitive grant process, LA DOTD will partner with the private sector to develop the EV Charging Network along the interstate corridors. As Louisiana currently has minimal infrastructure, the strategy of the LA DOTD is to get a robust network of DC Fast Charging stations that satisfy the FHWA Alternative Fuel Corridor requirements for EVSE. As part of the strategy to create a seamless national EV charging network, the LA DOTD is coordinating with nearby DOTs through participation in the National Alternative Fuels Corridor Council, which is facilitated by Clean Cities coalitions.

Building upon a previous study conducted by Louisiana Clean Fuels, the LA DOTD is conducting its own updated analysis of existing and projected EV adoption rates, existing EV charging stations, and existing EV infrastructure using DOE’s Alternative Fuels Data Center in order to model the regional volume of public Level 2 and DCFC EV infrastructure needed to support EV adoption in our state annually. This study will also allow the state to pinpoint the optimal locations for charging stations needed based on weighting criteria determined through the stakeholder feedback process (e.g., EV or charging density, equity, alternative fuel corridors, environmental justice areas) and will allow the LA DOTD to prioritize the identified locations for site selection based on characteristics (e.g., military or tribal areas, parks, travel destinations or other points of interest) specified through the stakeholder process.

LA DOTD is contemplating two distinct approaches to the charging infrastructure planning which both satisfy AFC requirements: a Distributed and a Clustered approach. The results for the clustered scenario and the distributed scenario are shown below. In both cases the AFC criteria are satisfied, i.e., there is an AFC compliant charger at least every 50 miles. However, the Clustered approach has fewer AFC stations but more ports at some stations (up to 20 ports), whereas the Distributed approach has more stations but each station has only 4 ports. The Clustered approach prioritizes charging demand in urban areas by siting multiple larger stations in metropolitan areas with higher traffic volumes, whereas the Distributed approach focuses on filling the current fast charging service gap along freeways by placing a high density of small charging stations in these areas.

Initial applicant scoring criteria for grant recipients will be based on the vision and goals of the plan. These might include but are not limited to:

- Locations within 1 mile of a designated alternative fuel corridor
- Site readiness with adequate kW capacity in place
- Inclusion of on-site energy storage and/or solar that reduces total project costs
- On-site amenities such as lighting, shelter, and nearby attractions and/or facilities
- Ability to fund 20% or more of the infrastructure costs
- Job training / apprenticeship programs for maintenance and operations
- Disadvantaged Business Enterprise (DBE) goals for vendors
- Business strategy for continuous operations and maintenance beyond 5 years
## List of Proposed Criteria Categories and Possible Criteria

<table>
<thead>
<tr>
<th>Criteria Categories</th>
<th>Description</th>
<th>Possible Criteria</th>
</tr>
</thead>
</table>
| **Existing Charging Infrastructure** | Existing chargers in various scopes of geography (1 mi, 2mi, 4mi, 8mi, 16mi), and distance to these chargers. | Count of existing L2 chargers  
Count of DCFC (non-Tesla) chargers  
Count of DCFC (Tesla) chargers  
Distance to the nearest AFC  
Distance to the nearest AFC-compliant charging station  
Distance to the nearest L2 chargers  
Distance to the nearest DCFC (non-Tesla) chargers  
Distance to the nearest DCFC (Tesla) chargers |
| **Mobility Goals** | Existing travel demand variables in various scopes of geography (1mi, 2mi, 4mi, 8mi, 16mi). | Freeway traffic VMT (vehicle-miles-traveled)  
Surface road traffic VMT  
Total VMT  
Distance to the nearest freeway ramp  
Count of registered vehicles  
Count of registered electric vehicles (EV)  
Amenities  
Count of points of interest (POI)  
Non-Compliant AFC Nearby |
| **Accessibility and Equity Goals** | Spatial characteristics of the region that identify the less-advantaged groups or those who should benefit the most from this project, in various scopes of geography (1mi, 2mi, 4mi, 8mi, 16mi). | Median income  
Apartment units  
Household vehicles  
Justice-40 identified disadvantaged communities (DACs)  
Tribal areas  
Military areas |

### Typical Specifications for Electric Alternative Fuel Corridor:

- CCS Connector (industry standard)
- 150-350kW Max Power (higher power acceptable assuming costs are not prohibitive)
  - 400-800 volts, 150-600 amps, 3 phase
- Any shared circuits provide a minimum of 150kW per vehicle
- Idle fee after charging complete/time limit exceeded
- Minimum 4 DC Fast Charge units per station
- Max 8 units per station
- Pull through spaces for vehicles with trailers
- Open 24/7 and publicly available
- Adequate lighting, restrooms, ADA compliant
• Plug to Charge Preferred (payment handled by vehicle when plugging in) payments by phone/app/card will also be acceptable
• Include contactless payment methods from all major debit/credit card providers
• Compatible with OPCC communications
• Spaces marked “EV Only”
• Signs recommending charging to 80%
• Real-time station location, operational status, and cost/fees available through a freely accessible API to third-party software developers
• Vendor required to make usage data per location available to LA DOTD on a quarterly basis
• Signage directing users to charging locations
• Charging station/vehicle awnings
• Must allow for customers to report outages, malfunctions, and other issues in real-time

**Funding Sources**

LA DOTD will develop a program where third parties fund the non-federal share of the NEVI Formula Program. Operations and maintenance funds will be available for the first five years of station operations for select locations that qualify as rural, underserved, and or disadvantaged communities.

The potential funding sources for the non-federal sources will vary based on the applicants. We expect and will encourage applicants to provide the match in cash with the potential incentives for matching in excess of 20%. We understand that asset management firms have an interest in working with local governments and non-government organizations on financing implementation of EV Charging Infrastructure in exchange for profit sharing similar to the arrangements they have for funding basic utility infrastructure. The program also has the interest of venture capital firms that can partner with owners and operators.

**Estimated Cost to Develop an EV Charging Network in Louisiana**

<table>
<thead>
<tr>
<th>Description</th>
<th>Locations</th>
<th>DC Fast Chargers</th>
<th>Federal Funding (total)</th>
<th>Private Funding</th>
<th>5 YR Operations &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt Fuel Corridors</td>
<td>*30</td>
<td>120</td>
<td>$21,000,000</td>
<td>$6,000,000</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Non-Corridor Specific or Corridor Redundancy</td>
<td>61</td>
<td>244</td>
<td>$42,700,000</td>
<td>$12,200,000</td>
<td>$6,100,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>91</td>
<td>364</td>
<td>$63,700,000</td>
<td>$18,200,000</td>
<td>$9,100,000</td>
</tr>
</tbody>
</table>

*Minimum number of chargers needed to achieve “complete” corridors.
Based on discussions with several major utilities and charging providers, as well as a review of existing literature regarding charging infrastructure costs, we have estimated the per-site (4 plugs, 600kW total site power) costs to be as follows:

- Equipment + Installation: $900,000
- 5 Years Operations and Maintenance: $100,000

This number is highly variable based upon expected utilization of each charger, site-specific installation costs, and many other factors that depend on the specifics of each project and as such, the numbers above are meant only to serve as estimations for general planning purposes.

We anticipate that Louisiana will require approximately a minimum of 30 DCFC sites to satisfy the 50-mile minimum distance requirements under the FHWA Alternative Fuel Corridor program for all of the highways that were nominated in our “Round 6” corridor nomination package. After that requirement is satisfied and after LA DOTD and the FHWA deem Louisiana’s corridors to be “fully built-out”, the state may prioritize installing additional chargers along and off the nominated corridors to better serve high use areas and to achieve redundancy in underserved areas. More analysis is needed before it can be determined which approach the state will take for the final EV infrastructure plan. The results of this analysis will be ready by the August 1st deadline and will be included in the final draft of this document.

2022 Infrastructure Deployments/Upgrades

Specific strategies are being explored and will be finalized by August 1, 2022. Two scenarios, as shown below, are being considered to provide the best coverage possible for EV owners in our state.

Proposed DC Fast Chargers (TBD)

<table>
<thead>
<tr>
<th>State EV Charging Location Unique ID*</th>
<th>Route (note AFC)</th>
<th>Location</th>
<th>Anticipated EV Network (if known)</th>
<th>Utility Territories</th>
<th>Anticipated Station Ownership** (if known)</th>
<th>FY22 Funding Amount</th>
<th>FY23-FY26 Funding Amount (Optional)</th>
</tr>
</thead>
</table>
| *Defined by the State – this should match the unique ID in the State’s applicable GIS databases. It should be clear that the Unique IDs correspond to general locations for proposed installations rather than pinpoint geocoordinates.  
**Federal Government Owned (FG), Jointly Owned (J), Local/Municipal Government Owned (LG), Privately Owned (P), State/Provincial Government Owned (SG), or Utility Owned (T)
Scenario 1: Clustered. Approximate Location of Planned EV Infrastructure along nominated EV Corridor (6th Round)

The “Clustered” scenario below indicates the approximately 30 sites needed to achieve Electric Alternative Fuel Corridors under FHWA guidelines. The legend in the map below indicates the recommended number of plugs per site as indicated by the State’s initial analysis.
Scenario 2: Distributed. Approximate Location of Planned EV Infrastructure along nominated EV Corridor (6th Round)

The “Distributed” scenario map below indicates study areas as suggested by the State’s initial EV charging infrastructure siting analysis. The sites indicated are ones that would potentially be of interest to the State once the AFV corridors requirements are satisfied.

Upgrades of Corridor Pending Designations to Corridor Ready Designations

At the time this document was drafted, the state did not have any new corridors that were able to be designated as “Ready”. As part of the 5-year EV implementation plan, the state will reevaluate the status of the corridors and conduct an annual gap analysis to determine when previously nominated pending corridors can be upgraded to “Ready” or “Complete” status. The goal of the implementation plan is precisely to accomplish this feat.
Round 6 FHWA Alternative Fuel Corridor EV “Pending” Nominations

Increases of Capacity/Redundancy Along Existing AFC

LA DOTD examined its existing charging stations and after applying Round 6 standards, there are only three sites along the I-10 that qualify. As Louisiana has little to no existing AFC corridors for EVs, it is essentially starting from ground zero. It is understood that redundancy in EV infrastructure in metropolitan areas will likely be necessary to achieve Justice40 goals. However, our first priority will be to complete any approved Pending EV Corridors so that they can achieve “Signage Ready” status. Any NEVI funds remaining, after basic corridor build out is achieved and certified by FHWA, will go to increasing capacity / redundancy in high use areas, ensuring that evacuation routes are adequately covered with accessible fast chargers. Additionally, these funds will go to identifying and adding chargers to previously underserved “charging deserts” on state routes or other non-corridor highways.

Electric Vehicle Freight Considerations

LA DOTD will address freight following the release of FHWA guidance in the fall of 2022 and through stakeholder engagement with organizations such as the Louisiana Motor Transport Association and port authorities.

The initial focus is on passenger vehicles and light duty trucks, not freight vehicles. Infrastructure for charging electric freight vehicles will likely be pursued through federal discretionary grant programs.
Public Transportation Considerations

Transit agencies in a few metro areas in Louisiana have already begun adding electric transit buses to their fleets. East Baton Rouge Parish’s transit system, the Capital Area Transit System, currently has 9 electric BYD buses with plans to procure 11 more by the end of 2022. Shreveport’s transit system currently has 5 fully electric Proterra buses. Other transit agencies around the state have shown strong interest in these buses such as the cities of Monroe and Lafayette. Additionally, with the publication of the EPA’s Clean School Bus funding programs, many school districts around the state are now considering applying for funding assistance to procure electric school buses. While the conversion of public transportation vehicles to alternative fuels, including battery-powered electric, has been underway for many years in Louisiana, the charging occurs “behind the fence” on the public transit agency or school property and is not accessible by the public.

FY23-26 Infrastructure Deployments

Specific strategies are being explored and will be finalized by August 1, 2022. Two scenarios, as shown above on pages 24 and 25, are being considered to provide the best coverage possible for EV owners in our state. The first couple of years, funding awards will likely focus on building out of the approximately 30 sites needed for satisfy Electric Alternative Fuel Corridor requirements by the FHWA. Once the state achieves complete corridors, as per the FHWA standards, LA DOTD will move to awarding projects under the distributed “Scenario 2” model.

State, Regional, and Local Policy

The EV infrastructure plan will rely on third party entities to coordinate with municipalities on zoning and permitting. Discussions with stakeholders during the development of the EV infrastructure plan demonstrated that utilities and EVSE companies were well equipped to handle zoning and permitting processes as part of their normal business practices. LA DOTD will monitor developments at the state and local level during the implementation of this plan and provide updates to state and local officials when requested. The LA DOTD, in partnership with its contractors, may provide educational resources and assistance to applicants and stakeholders on best practices as needed.

Implementation

The State strategy is to encourage EV deployment in rural and underserved communities. We will conduct outreach efforts with elected officials, non-governmental organizations, unions, disadvantaged businesses, citizens, and potential workforce participants. This effort will focus on the potential economic, workforce, wealth building and transformational transportation opportunities for these struggling communities.

The installation and operation of EV charging stations in these communities can create new revenue sources for financially challenged but strategically located towns and cities by attracting EV owners to visit their shops, restaurants, and local attractions. It will allow communities to utilize their relationships with utilities to help insure affordability and community access. These
relationships can be built to include community revenue sharing, partnerships with automobile dealers to focus on building EV ownership particularly in places that are more distant.

**Strategies for EVSE Operations & Maintenance**

Grant applicants receiving awards will follow agreed-upon requirements for operation and maintenance. Monitoring and service level agreements for station performance will be specified in award agreements. LA DOTD will monitor station up-time through vendor reported usage data and general user satisfaction on publicly accessible third-party charging websites. Operation and maintenance costs will be evaluated per location over time. Enforcement of idle fees will be the responsibility of the vendor/station operator.

**Strategies for Identifying Electric Vehicle Charger Service Providers and Station Owners**

In addition to its existing solicitation methods to advertise, select, and award contracts to electric vehicle charging equipment service providers/property owners, the LA DOTD will partner with its Clean Cities coalitions to both solicit applications and to educate potential applicants on the grant process. Part of our strategy to assist grant applicants with identifying qualified electric vehicle charger service providers will be to host an EVSE expo with an in-person vendor expo with educational sessions put on by EVSE supply companies, engineering and consulting firms, utilities and other experts. Additionally, relevant educational resources will be made available and published on the LA DOTD website. These resources may include webinars, videos, and links to technical help documents.

As part of the feedback process for the EV plan development, it has become clear that utilities and charging equipment (EVSE) companies have the expertise and ability to locate suitable locations for charging stations within LA DOTD’s recommended EV study areas. Additionally, EVSE companies are well equipped to maintain the equipment for the site owners and hosts. LA DOTD will monitor the progress of awarded projects with regular correspondence between the vendor and project team as spelled out in award agreements.

**Strategies for EVSE Data Collection & Sharing**

The LA DOTD is aware of the substantial data submission requirements that each funded project must provide to the LA DOTD on a quarterly and annual basis. Contracts with grant applicants will include requirements to provide anonymized usage data for analysis by the LA DOTD. According to the DRAFT standards, real-time availability of each plug needs to be available online through an open API (so third-party apps can provide the data). The following will likely need to be available in real-time:

- Location
- Connector type
- Power level
- Status
- Number of ports meeting ADA requirements
- Pricing (in $/min, $/kWh, or $/mi)
Working with its stakeholders and U.S. Joint Office of Energy and Transportation, the LA DOTD will develop its data management plan according to the final specifications when published.

**Strategies to Address Resilience, Emergency Evacuation, Snow Removal/Seasonal Needs**

The Louisiana Fuel Team was developed in an effort to supplement the state's emergency response to the public's need for fuel during times of evacuation and/or other emergencies. The group is comprised of public and private sector volunteers working together to gain greater efficiency in making fuel available prior to, during, and after an emergency such as a hurricane.

The state Department of Natural Resources (DNR) serves as the lead agency to oversee the Fuel Team Playbook, while the Department of Agriculture and Forestry (LDAF) serves as the lead state agency for coordination and optimization of the emergency fuel supply.

With hurricane season starting earlier and ending later each year, and with the intensity of said storms also increasing, the need to include alternative fuel vehicles and EVs into the state’s emergency response and preparedness plans is critical. Additionally, EV owners need a reliable charging network for continued travel that is also designed to help the public evacuate from extreme conditions. To address the need for EVSE along evacuation routes, we nominated US 90, LA 1 and LA 3235 which make up a key evacuation route for coastal areas.

LA DOTD will include considerations to address extreme weather, infrastructure degradations, and cyber and physical security into its final plan. The department and Fuel Team should explore and establish readiness capabilities to mitigate these risks. Priorities include placing charging stations in safe, well-lit locations near interchanges and crossroads that are easily accessible, near commercial or public sites, and with adequate physical and cyber security, communications systems, and power aligned to priority grid capabilities. Beyond that, there are several developing capabilities which we will assess and implement when proven capable and needed.

Emerging technologies and new business models that include mobile EV charging, fast chargers designed with battery backup systems and solar, and vehicles with bi-directional charging capabilities can all be part of a resilience plan that state DOTs could adopt in the future to assist motorists during emergency evacuation events.

**Strategies to Promote Strong Labor, Safety, Training, and Installation Standards**

LADOTD expects vendors selected under this program to emphasize safety in all aspects of station development, installation, and maintenance. LA DOTD will add training and certification criteria to the scoring matrix for vendor evaluation in the solicitation process. The state will follow the FHWA minimum standards which address workforce certification and safety requirements.
**Civil Rights**

This EV Charging Infrastructure Program will be implemented utilizing all proposed planning guidelines and recommendations for deployment. This will be pursuant to all federal, state, and local regulations and statutes to ensure compliance with the Americans with Disabilities Act (ADA) and Title VI of the Civil Rights Act of 1964 (Title VI). The ADA prohibits discrimination against persons with qualified disabilities regarding the usability and or participation of all programs, services, activities or benefits offered by LA DOTD. LA DOTD ensures that no person in Louisiana shall on the grounds of race, color or national origin, be excluded from participation in, be denied benefits of otherwise be subjected to discrimination under any program activity.

**Equity Considerations**

This NEVI Plan will align with the Justice40 Initiatives by focusing on deployment in urban and rural underserved communities. Thirty percent of Louisiana’s population lives in poverty. The implementation of the NEVI Program offers opportunities for entrepreneurial and workforce initiatives in these communities. The program will give special consideration to third party applications that are directed to these communities.

The initial EV growth in the State may occur predominantly in more urban areas and/or in neighborhoods of affluence due to the current higher initial cost of EVs and the current need to charge them at home or access limited charging sites. Our plan is based on the assumption that as the EV industry grows, and prices decrease, we can expect more affordability and access to passenger and light truck vehicles through direct ownership of new, used or shared vehicle services.

As we equitably plan for our EV deployment, we are aware that some communities may not have sufficient resources or experience with EV. Our initial approach will install the EV charging stations along the designated alternative fuel corridors which are mostly in rural areas, then move to a more distributed model that will increase reliability and increase accessibility along the charging network that includes underserved areas. We will then engage our MPOs to collaborate with their communities and develop local needs that acknowledge existing infrastructure and focus on needs in underserved communities. We will involve local leaders and stakeholders in urban and rural communities in developing our plans. Outreach will be essential to our planning. It will inform our plans and make adjustments to them possible based on what we learn in the process. We will use all media types to gather information and input for our plan. As award projects, we will require the vendors to review, evaluate, and site locations that comply with our approved NEVI Plan and are in compliance with federal requirements and guidelines made available by the Joint DOT/DOE office.

**Identification and Outreach to Disadvantaged Communities (DACs) in the State**

LA DOTD will reach out to a wide spectrum of interest groups and stakeholders. Colleges, universities, churches, neighborhood associations, environmental justice groups, etc. LA DOTD will include disadvantaged businesses and use its unified compliance group to access those groups they regularly engage to inform them of the EV opportunities.
Process to Identify, Quantify, and Measure Benefits to DACs

**TBD**

**Benefits to DACs through this Plan**

LA DOTD will make an effort to measure the benefits, direct and indirect, of this plan on disadvantaged communities. We look forward to national standards being established by the DOE/DOT office and FHWA for measuring the benefits.

One of our strategies will be to use the installation of charging stations to increase access to locally owned businesses, cities, and towns. While travelers charge in these communities, this offers an opportunity for additional income to local economies that will create growth and wealth there. Indirect benefits will be improved air quality due to zero emissions for electric vehicles. A benefit of the use of electric vehicles will be the lower cost of ownership and operation of EVs over their internal combustion engine (ICE) counterparts.

**Labor and Workforce Considerations**

Louisiana has an opportunity to create new workforce opportunities in the implementation of its EV charging program. Installers, maintenance technicians, electrical workers, and various other trades will be needed to serve this new industry.

LA DOTD will work with the Louisiana Workforce Commission, Board of Regents and colleges and universities to develop training programs to respond to these work opportunities.

LA DOTD will employ all the resources of its Compliance Section to provide opportunities to contract with federally disadvantaged business enterprises (DBE’s) as either prime contractors or subcontractors. The level of DBE participation will be included as part of the scoring criteria in ranking grant applications for EV charging infrastructure. Further, grant applicants will be encouraged to engage with community residents and stakeholders to maximize workforce participation.

**Cybersecurity**

LA DOTD is committed to ensuring that cyber security charging networks, electric vehicles, including Electric Vehicle Charging Networks, do not pose a cybersecurity privacy risk of physical damage to people or property to Louisiana at United States. Third party’s contractors who own, operate and maintain the EV charging stations and the data produced are required to share anonymized data on a recurring basis. Third party contractors should also publish station locations, power ratings, and costs to various sites tracking EV charging stations including the US Department of Energy’s Alternative Fuel Data Center (AFDC.gov). Additionally, annual usage data will be made available to and collected by Clean Cities coalitions in the state to track usage trends in funded sites. The coalitions will in turn, report the data to the DOTD.

As part of award agreements, prior to issuance of the award or other funding, the third party will be required to:
● Provide details about how they have hardened their infrastructure to minimize cybersecurity risks to protect their station, the network of stations or the electrical infrastructure
● Provide cybersecurity plan that demonstrates the cybersecurity maturity of the recipient and its compliance with the Louisiana, regulatory and federal cybersecurity requirements
● Demonstrate how the recipient will maintain and improve cybersecurity throughout the life of proposed solution
● Alert the LA DOTD and Cybersecurity and Infrastructure Security Agency (CISA) of any known suspected network of system compromises
● Report any cyber-related incidents (along with data related to the incident) in a timely fashion to LA DOTD
● Provide evidence on how the cybersecurity plan was implemented

Program Evaluation

To evaluate the grant program, LA DOTD’s 5-year plan includes monitoring the grant recipients’ sites through site visits to ensure proper maintenance and compliance with state and federal guidelines, as well as monitoring utility usage at the sites. These guidelines include ensuring the sites continue to meet Justice40 requirements where at least 40% of overall program benefits are delivered to disadvantaged communities through jobs, training, business development, etc. LA DOTD will oversee and monitor the criteria annually.

In addition, EV data will be available on LA DOTD’s Open Data Portal at https://data-ladotd.opendata.arcgis.com/ with a web map application for easy viewing. Data will include charging station types for Level 2 and DC Fast Charger stations and their locations. Statistics, data summaries, and shapefiles are also available online at the Alternative Fuel Data Center, along with an interactive map of EV charging locations throughout the State that is validated annually.

Program evaluation will involve online data collection quarterly and annually. Applicants will be required to provide data to identify charging station use, reliability, maintenance, and installation cost information. Annual data will be collected related to the organization operating, maintaining or installing Electric Vehicle Supply Equipment (EVSE) as well as information on certifications of local business certified to do the work.

Data collection of particular interest will be network connectivity of electric vehicle charging infrastructure locations, real-time accessibility through mapping locations.

Program evaluation will continue throughout the life of the grant program. The grant program is designed for the installed infrastructure to be maintained for a 5-year period of time. An onsite review of each site will be performed. Maintenance funds will be disbursed based on satisfactory compilation of the site visit and evaluation.
Discretionary Exceptions (if any)

As analysis of the potential sites is completed and a strategy is employed for the Louisiana EV Infrastructure Plan, LA DOTD may request exemptions from some or all of the FHWA AFC requirements such as: that charging infrastructure is installed every 50 miles, be within one mile of the interstate, the number of chargers, and/or speed requirements at a particular site. Any exception requested will be supported by a reasoned justification from the LA DOTD that demonstrates the exception will help support a convenient, affordable, reliable, and equitable national EV charging network. Only those projects in disadvantage communities, rural areas, or where grid capabilities are limited will be considered for exceptions.
Appendix A: Supporting Materials (As Applicable)

Round 5 Approved and Pending Corridors for Electric Vehicles
## Sites / study areas proposed in LA DOTD’s Round 6 Corridor Nomination

<table>
<thead>
<tr>
<th>Location</th>
<th>Corridor</th>
<th>Description</th>
<th>Status</th>
<th>Closest Distance</th>
<th>Closest Location</th>
<th>Closest ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaux Bridge</td>
<td>I-10/12</td>
<td>Walmart 402 Breaux Bridge</td>
<td>Existing</td>
<td>46.2</td>
<td>Baton Rouge South</td>
<td>5</td>
</tr>
<tr>
<td>Sulphur</td>
<td>I-10/12</td>
<td>Walmart 234 Sulphur</td>
<td>Existing</td>
<td>7</td>
<td>Lake Charles West</td>
<td>31</td>
</tr>
<tr>
<td>Hammond</td>
<td>I-10/12</td>
<td>Target T2551 - Hammond, LA</td>
<td>Existing</td>
<td>35.8</td>
<td>Kentwood</td>
<td>27</td>
</tr>
<tr>
<td>Jennings</td>
<td>I-10/12</td>
<td>Exit 64 Vicinity</td>
<td>Proposed</td>
<td>33.6</td>
<td>Lake Charles East</td>
<td>30</td>
</tr>
<tr>
<td>Baton Rouge South</td>
<td>I-10/12/1-130</td>
<td>Downtown, Exit 155A vicinity</td>
<td>Proposed</td>
<td>11.3</td>
<td>Baton Rouge North</td>
<td>32</td>
</tr>
<tr>
<td>Gonzales</td>
<td>I-10/12</td>
<td>Exit 177 vicinity</td>
<td>Proposed</td>
<td>23.9</td>
<td>Baton Rouge South</td>
<td>5</td>
</tr>
<tr>
<td>Kenner</td>
<td>I-10/12</td>
<td>Exit 221 vicinity</td>
<td>Proposed</td>
<td>10.3</td>
<td>New Orleans Lakeway</td>
<td>33</td>
</tr>
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<td>Slidell</td>
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