



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Michigan.gov/EGLE

Request for Proposals
CHARGE UP MICHIGAN
Light-Duty Zero Emission Vehicle Supply Equipment
Program

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CONTENTS

I. General Grant Information.....	1
A. Grant Description and Objectives	1
B. Background Air Quality and Priority Area Information	1
C. Eligible and Ineligible Applicants.....	2
D. Charging Station Definition and Eligible Associated Equipment.....	2
E. Eligible and Ineligible Projects	2
F. Funding Source and Grant Amounts	3
G. Funding Levels and Match Requirements and Restrictions	3
H. Project Partners.....	3
I. Emission Reduction Calculations.....	3
J. Expenses and Payment.....	4
K. Grant Recipient Monitoring and Reporting.....	4
L. Grant Application Evaluation	4
M. Project Clarifications/Revisions.....	5
N. Grant Agreement.....	5
O. Online Resources.....	5
P. Assistance.....	5
Q. Confidentiality.....	5
R. Submission Deadlines	5
II. Appendixes	6
Appendix A - Eligible DCFC Station Locations with Coordinates and Location Descriptions – Table.....	7
Appendix B - Eligible DCFC Station Locations – Map	10
Appendix C - Draft Grant Agreement Boilerplate.....	11
Appendix D - Grant Application Materials: Checklist for Grant Proposal Submission, Grant Proposal Cover Sheet, Grant Proposal Template, Budget Proposal Form, Fleet Tracker Data Sheet	12

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I. GENERAL GRANT INFORMATION

A. Grant Description and Objectives

The Department of Environment, Great Lakes, and Energy (EGLE) is allocating \$9,721,052 dollars in grant funds through Charge Up Michigan in two phases. Phase I funding is directed toward developing a Direct Current Fast Charging (DCFC) network in partnership with Michigan electric utility companies to provide worry-free electric vehicle (EV) travel throughout Michigan by 2030. Phase II, which will start in January 2020, will be directed toward DCFC and Alternating Current (AC) charging (also known as Level 2) infrastructure projects. Both RFPs are supported with Volkswagen settlement funds allocated to Michigan through the State Mitigation Trust.

The objectives of this grant are to:

- Reduce light-duty vehicle emissions, particularly nitrogen oxides (NOx) and fine particulate matter (PM2.5).
- Improve air quality where vehicles are idle and along roadways where vehicles travel.
- Increase protection of human health and the environment.
- Incentivize the utilization of technologies that have the greatest emission reductions.

B. Background Air Quality and Priority Area Information

Air pollution resulting from light-duty cars, sports-utility vehicles, and trucks fueled by gasoline, diesel, and flex fuel (E85) emit both greenhouse gases (GHGs) and smog-forming pollutants from their tailpipes. Tailpipe emissions are a serious concern that have negative effects on human health and the environment. Smog or ground level ozone forming emissions, such as nitrogen oxide (NOx), carbon monoxide, particulate matter, and formaldehyde are usually trapped close to the ground, and can form a haze that pollutes the air. This is especially prevalent over cities where light-duty traffic and vehicle concentration are higher, especially during summer months. Vehicle emissions causing smog (ground level ozone) can make it difficult to breathe, especially for those with lung diseases such as asthma, emphysema, and chronic bronchitis. Growing children are particularly vulnerable to the harmful effects of emissions. In addition, carbon dioxide makes up roughly 99 percent of the total GHGs emitted from the tailpipe, with light-duty vehicles emitting most of those carbon dioxide emissions within the transportation sector.

Ground level ozone is created by chemical reactions between NOx emissions and volatile organic compounds in the presence of sunlight. Ground level ozone causes considerable damage to plants, agricultural crops, animals, habitat, and ecosystems. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and airway inflammation. It also can reduce lung function and harm lung tissue. Ozone can worsen bronchitis, emphysema, and asthma, leading to increased medical care.

Michigan has several areas that exceed air quality standards. These areas are defined as counties (or partial counties) that are designated non-attainment or maintenance for a National Ambient Air Quality Standard criteria pollutant.

There are currently ten counties in Michigan that are identified as air quality priority areas because they are designated as non-attainment for the 2015 ozone standard. These counties are: Wayne, Oakland, Monroe, Macomb, St. Clair, Livingston, Washtenaw, Muskegon, Berrien, and Allegan.

C. Eligible and Ineligible Applicants

Any public or private organization located in Michigan, or those outside of Michigan that have demonstrated significant experience installing and maintaining electric vehicle charging stations and have a significant presence in Michigan, are eligible to apply for this grant (See Section E and the Grant Agreement for additional requirements).

Entities or individuals that are currently suspended or debarred by the State of Michigan and/or the federal government are ineligible applicants. EGLE may also deem an applicant ineligible due to a compliance or enforcement issue, an outstanding financial liability with the state, or other legal concern.

D. Charging Station Definition and Eligible Associated Equipment

A charging station is a system of components that provide a DC (direct current) output that is supplied to a vehicle for the purpose of recharging electric vehicle storage batteries. Specific to this RFP, the charging station must be able to charge a light-duty vehicle with a minimum battery capacity of 60kWh and charge at a minimum of 50kW but future-proof to 100kW or greater. Also, the charging station must always be available to the public.

Eligible charging station equipment is defined as a charger stand, charge cord, power outlet, backup power, and software. Battery storage may also be considered. As the technology continues to change and improve, other necessary equipment may be required. Exceptions to the above list must be approved in writing by EGLE.

Equipment must be new, meet all appropriate Occupational Safety and Health Administration (OSHA) standards, and meet the applicable utility's requirements. Installation and continuing maintenance must be performed per the National Electric Code (NEC) adopted by the local jurisdiction and per the utility's requirements. In absence of specific standards required by the utility and/or local jurisdiction, the most recent version of NEC Article 625 Electric Vehicle Charging System, at time of installation, must be followed. Installations also must include access for persons with disabilities and comply with the Americans with Disabilities Act (ADA). Failure to comply with appropriate standards as noted above may result in disqualification.

The electric utility will specify allowable brands of charging station equipment. In absence of this specification, applicants can see Section P for assistance. No wireless chargers will be eligible for funding for this phase.

E. Eligible and Ineligible Projects

Eligible projects are those that meet the electric utility requirements and place DC fast charging stations in locations that correspond to the table in Appendix A. The table lists latitude and longitude coordinates from Google Maps, and the charging station must be located within a radius of 5 miles from that location. If this is not possible, include in the proposal why this is not possible and the rationale for choosing the alternative location. The table in Appendix A was developed in coordination with the following two reports, focusing on the Mixed Technology Scenario with Full Tourism in the second listed report.

- Electric Vehicle Charger Placement Optimization in Michigan: Phase I – Highways (Feb 19, 2019)
 - [Michigan.gov/Documents/Energy/EV-Charger-Placement-Opt-PhaseI-Final-Report-021319_646220_7.pdf](https://www.michigan.gov/Documents/Energy/EV-Charger-Placement-Opt-PhaseI-Final-Report-021319_646220_7.pdf)
- Electric Vehicle Charger Placement Optimization in Michigan: Phase I – Highways (Supplement I: Full Tourism Analysis) (Apr 29, 2019)
 - [Michigan.gov/Documents/Energy/Tourism-SupplementaryReport_662002_7.pdf](https://www.michigan.gov/Documents/Energy/Tourism-SupplementaryReport_662002_7.pdf)

Any locations outside those listed in the table in Appendix A will not be accepted for this phase unless approved by EGLE.

F. Funding Source and Grant Amounts

A total of \$9,721,052 is available for DCFC EV charging station grants. Grant funds shall be distributed in two phases over the next three years, with EGLE reserving the right to accelerate or decelerate grant amounts within that time frame, depending upon the number of applications, application receipt timing, and other considerations. Within Phase I, EGLE will distribute 80 percent (\$7,776,842) to Direct Current Fast Charging (DCFC) infrastructure as outlined in the *Electric Vehicle Charger Placement Optimization in Michigan: Phase I – Highways and Tourism* report and 20 percent (\$1,944,210) toward DCFC and Level 2 charging infrastructure projects in Phase II. The grant time period may also be extended based upon any currently unforeseen circumstances. Grants will be provided to eligible entities partnering with a Michigan electric utility generator and will be funded with dollars allocated to Michigan via the State Mitigation Trust in accordance with requirements in the *Environmental Mitigation Trust Agreement for State Beneficiaries and the Michigan Volkswagen Settlement Beneficiary Mitigation Plan*.

G. Funding Levels and Match Requirements and Restrictions

The grant amount will be the lesser of 33.3 percent of the total cost or a direct match of the amount the electric utility is paying and can only be used for eligible EV charging equipment. The total grant amount will not exceed \$70,000 per station location, unless the applicant can clearly show the specific location requires a significant number of DC fast chargers, and the applicant and electric utility will provide funding for 66.7 percent of the total allowable equipment cost.

Funds under this award cannot be used for matching funds in state or federal grants where prohibited. It is the grantee's responsibility to determine if any restrictions apply to match funds from other sources.

Funds under this award cannot be used for lobbying or intervention in state or federal regulatory or adjudicatory proceedings, and cannot be used to sue the state or federal government or any other government entity. Likewise, a grantee may not use grant funds as matching funds for federal Supplemental Environmental Project Funds, or Supplemental Environmental Projects required under a consent order.

H. Project Partners

Applicants must partner with the electric utility that services the area being applied for installation. These electric utilities are typically investor-owned utilities, municipal-owned electric utilities, or electric cooperatives. All work must follow and be approved by the partner utility.

I. Emission Reduction Calculations

To calculate the emission reduction benefits, the grantee must track the type of vehicles that utilize the chargers. After tracking the list of vehicles using the chargers, applicants must use the Argonne National Laboratory AFLEET Tool to retrieve emissions results [AFLEET-Web.ES.Anl.gov/AFLEET/](http://Web.ES.Anl.gov/AFLEET/). Data entered into the tool must be included in the Fleet Tracker Data Sheet, and the emission reduction results must be included in the Grant Proposal Template.

J. Expenses and Payment

EGLE will direct Wilmington Trust, N.A., to reimburse the grantee for eligible costs upon completion of the approved project and after all required documentation has been received and approved by EGLE.

Any expenses incurred before the grantee is accepted into their electric utility EV rebate program, including the grant applicant's expenses for preparing the rebate and Charge Up Michigan application, are not eligible for reimbursement. Only agreed upon equipment costs are reimbursable.

K. Grant Recipient Monitoring and Reporting

Grantees will be required to report semiannually to EGLE on the status of their projects. Reporting shall follow the schedule outlined in the Grant Agreement Boilerplate and include a complete description of the status, development, implementation, and any modification of the project.

EGLE may also send a usage survey and questionnaire to grantees for completion as part of the grant agreement for up to five years after the grant agreement ends. Survey information may be used to monitor compliance with grant agreement requirements, report out on effectiveness of projects, and to formulate future Request for Proposals (RFPs).

Information requested may include, but is not limited to:

- Number of charging events per year. Seasonal (summer, spring, fall, winter) data may be required.
- Number of charging events by vehicle model, aggregated if necessary, per year.
- Availability, or up time, of chargers per year.
- Number of times chargers went down per year, with summary data as to the main reasons why and for how long.
- Average time per charge and how much energy delivered.
- Annual maintenance costs.
- Problems with technology chosen.
- Attributes of technology chosen.

EGLE may conduct a site visit to inspect the new charging stations up to five years following the award.

L. Grant Application Evaluation

Applications must be submitted online at: [Michigan.gov/Energy/0,4580,7-364--487842--,00.html](https://www.michigan.gov/Energy/0,4580,7-364--487842--,00.html).

Grant applications will be evaluated by a panel composed of state government staff and private sector experts, and final decisions will be made by EGLE. Grant applications will be evaluated based on several factors including, but not limited to:

- Project description.
- Station location and access to nearby amenities.
- Station design, facility requirements, and minimum station specifications.
- Project communication and strategic partnerships.
- Budget, budget narrative, business model, and proof of financial security (i.e., ability to cover costs not paid for by grant to complete the project).
- Organization, staff experience, and qualifications.
- Innovation and sustainability.

- Pounds of NOx, PM2.5 and other emissions reduced for the life of the charging station.
- Grant cost effectiveness (total NOx emissions reduced divided by grant amount).
- Total cost effectiveness (total NOx emissions reduced divided by project total).

M. Project Clarifications/Revisions

During the grant application review process, applicants may be contacted for clarification and for the purpose of negotiating changes in the project, the timeline, and grant amounts. EGLE reserves the right to award grants for amounts other than those requested and/or request changes to, or clarification of, the proposed work plan.

N. Grant Agreement

Each grantee must formally enter into a grant agreement. The grant agreement will address the conditions of the award, including implementation of the project and grant deliverables. Once the grant agreement is signed, the grantee is expected to comply with all conditions of the agreement and shall provide a copy of the grant agreement to all partners. It is important that applicants read and understand all requirements in the Request for Proposals and draft Grant Agreement Boilerplate.

O. Online Resources

Below are Websites that provide useful information and resources to aid in the development of the grant proposal:

- US Department of Energy, Alternative Fuels Data Center, Developing Infrastructure to Charge Plug-In Electric Vehicles
 - AFDC.Energy.gov/Fuels/Electricity_Infrastructure.html
- US Department of Energy, Plug-In Electric Vehicle Handbook for Public Charging Station Hosts
 - AFDC.Energy.gov/Files/pdfs/51227.pdf
- State of Michigan Prosperity Regions:
 - Michigan.gov/Documents/DMB/Prosperity_Map1_430346_7.pdf
- Fuel Transformation Program Website:
 - Michigan.gov/DEQVWSettlement
- State of Michigan, Optimized EV Charger Placement Plan Website:
 - Michigan.gov/Energy/0,4580,7-364--487840--,00.html

P. Assistance

This RFP is being issued by EGLE, Materials Management Division. You may contact the Environmental Assistance Center at 800-662-9278 with questions about this RFP, or check the Michigan Fuel Transformation Website at Michigan.gov/DEQVWSettlement for more information.

Q. Confidentiality

All information and materials regarding this grant are subject to the Freedom of Information Act.

R. Submission Deadlines

Proposals must be submitted electronically online at:
SurveyMonkey.com/r/2019ChargeUpMichigan.

The submission window will remain open until all of the funds for Phase I are exhausted.

II. APPENDIXES

- A. Eligible DCFC Station Locations with Coordinates and Location Descriptions – Table
- B. Eligible DCFC Station Locations – Map
- C. Draft Grant Agreement Boilerplate
 - Attachment A—Project Specific Requirements
- D. Grant Application Materials: Checklist for Grant Proposal Submission, Grant Proposal Cover Sheet, Grant Proposal Template, Budget Proposal Form

APPENDIX A - ELIGIBLE DCFC STATION LOCATIONS WITH COORDINATES AND LOCATION DESCRIPTIONS – TABLE

Note: Use Google Maps to input latitude and longitude coordinates to correspond to this table.

Node	Latitude	Longitude	Zip Code	City	Description
1	47.119868	-88.58343	49931	Houghton	US-41 and M-26
2	46.537494	-87.39525	49855	Marquette	US-41 and M-28
3	46.492086	-84.3706	49783	Sault Saint Marie	I-75
4	46.534859	-89.17862	49912	Bruce Crossing	US-45 and M-28
5	46.097721	-88.34778	49920	Crystal Falls	US-2 and US-141
6	45.926675	-86.97498	49878	Rapid River	US-41 and US-2
7	45.779153	-84.73344	49701	Mackinaw City	I-75 and US-23
8	44.768933	-85.63421	49684	Traverse City	US-31 and M-37
9	44.656485	-84.70036	49738	Grayling	I-75 and M-72
10	45.060704	-83.43153	49707	Alpena	US-23 and M-32
11	43.955967	-86.38445	49431	Ludington	US-31 and US-10
12	43.828597	-84.74894	48617	Clare	US-10 and US-127
13	43.595995	-83.94843	48706	Bay City	I-75 and US-10
14	42.973046	-85.67759	49504	Grand Rapids	I-196 and US-131
15	42.72425	-84.50996	48912	Lansing	I-496 and US-127
16	42.984824	-83.7335	48507	Flint	I-75 and I-69 and US-23
17	42.972439	-82.48838	48060	Port Huron	I-69 and I-94
18	42.134883	-86.36811	49022	Benton Harbor	I-94 and I-196
19	42.237977	-85.63795	49024	Portage	I-94 and US-131
20	42.297453	-84.99667	49068	Marshall	I-94 and I-69
21	42.225771	-83.68569	48108	Ann Arbor	I-94 and US-23
22	42.34966	-83.09829	48204	Detroit	I-94 and I-96
23	41.809165	-83.45033	48133	Luna Pier	I-75
24	46.58529	-88.47228	49919	Covington	US-41 and US-141 and M-28
25	45.370149	-84.97084	49770	Petoskey	US-131 and US-31
26	45.027432	-84.68828	49735	Gaylord	I-75 and M-32
27	44.716742	-85.18996	49646	Kalkaska	US-131 and M-66
28	44.20545	-85.4124	49601	Cadillac	US-131 and M-115
29	43.887497	-85.52815	49677	Reed City	US-131 and US-10
30	43.424696	-85.49591	49329	Howard City	US-131 and M-46

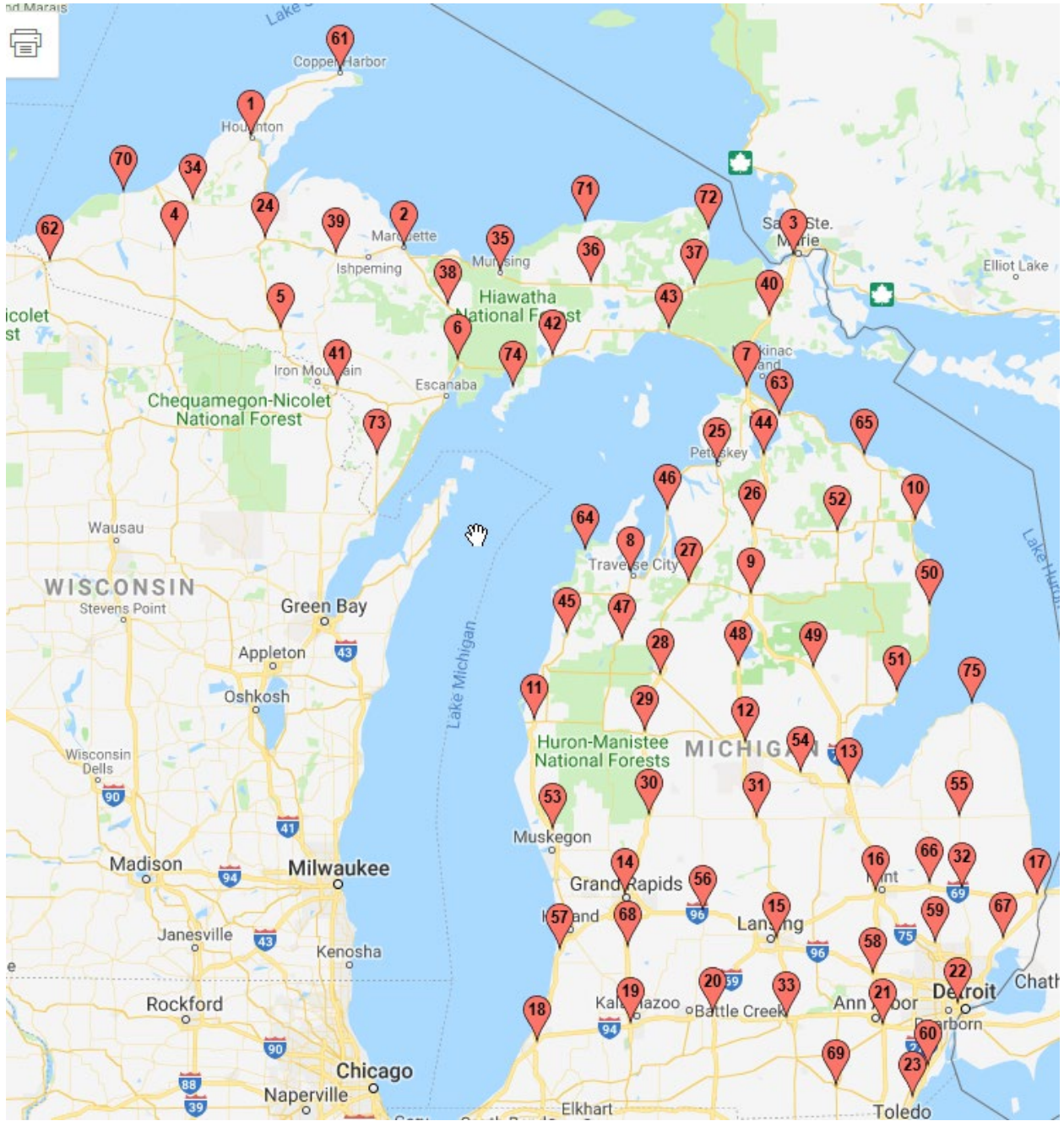
Note: Use Google Maps to input latitude and longitude coordinates to correspond to this table.

Node	Latitude	Longitude	Zip Code	City	Description
31	43.407943	-84.66132	48801	Alma	US-127 and M-46
32	43.000984	-83.07116	48444	Imlay City	I-69 and M-53
33	42.272121	-84.42702	49202	Jackson	I-94 and US-127
34	46.784551	-89.03412	49553	Ontonagon	M-26
35	46.406186	-86.65042	49862	Munising	M-28
36	46.345627	-85.94475	49883	Seney	M-28
37	46.332058	-85.14513	49748	Hulbert	M-28
38	46.22643	-87.05964	49891	Trenary	US-41
39	46.49724	-87.92008	49814	Champion	M-28 and M-95
40	46.163953	-84.56102	49780	Rudyard	I-75
41	45.787258	-87.90981	49870	Norway	US-2 and US-8
42	45.952916	-86.24486	49854	Manistique	US-2
43	46.093975	-85.33953	49762	Naubinway	US-2
44	45.410854	-84.60532	49749	Indian River	I-75
45	44.430458	-86.12888	49614	Bear Lake	US-31
46	45.116122	-85.35021	49648	Kewadin	US-31
47	44.405302	-85.70561	49668	Mesick	M-37 and M-115
48	44.250248	-84.80404	48629	Houghton Lake	US-127
49	44.245962	-84.22602	48661	West Branch	I-75
50	44.589461	-83.31687	48738	Greenbush	US-23
51	44.107737	-83.56809	48703	Au Gres	US-23
52	44.997465	-84.02975	49709	Atlanta	M-33 and M-32
53	43.338786	-86.24427	49445	Muskegon	US-31
54	43.659042	-84.3183	48642	Midland	US-10
55	43.414724	-83.08717	48453	Marlette	M-46 and M-53
56	42.879412	-85.07516	48846	Ionia	I-96
57	42.657365	-86.18347	49453	Saugatuck	I-196
58	42.524122	-83.75481	48114	Brighton	I-96 and US-23
59	42.698293	-83.27696	48326	Auburn Hills	I-75
60	41.992333	-83.32712	48166	Newport	I-75

Note: Use Google Maps to input latitude and longitude coordinates to correspond to this table.

Node	Latitude	Longitude	Zip Code	City	Description
61	47.468933	-87.892955	49918	Cooper Harbor	Fort Wilkins State Historic Park
62	46.463433	-90.144172	49938	Ironwood	Lake Gogebic State Park
63	45.627511	-84.480919	49721	Cheboygan	Cheboygan State Park
64	44.897862	-85.98946	49636	Glen Arbor	Sleeping Bear Dunes National Lakeshore; Leelanau State Park
65	45.412896	-83.826161	49779	Rogers City	P. H. Hoefft State Park; Thompson's Harbor State Park
66	43.039666	-83.321093	48446	Lapeer	Metamora-Hadley Recreation Area
67	42.720932	-82.743791	48048	New Haven	Algonac State Park
68	42.67417	-85.657741	49348	Wayland	Yankee Springs Recreation Area
69	41.875144	-84.042719	49221	Adrian	Lake Hudson Recreation Area; W. J. Hayes State Park
70	46.830061	-89.572474	49953	Ontonagon	Porcupine Mountains
71	46.67191	-85.984782	49883	Grand Marais	Pictured Rocks National Lakeshore; Muskallonge Lake State Park
72	46.627602	-85.037479	49768	Paradise	Tahquamenon Falls State Park
73	45.410786	-87.609427	49887	Stephenson	J. W. Wells State Park; Menominee River State Recreation Area
74	45.780552	-86.55347	49835	Garden	Fayette Historic State Park
75	44.046441	-82.993809	48467	Port Austin	Albert E. Sleeper State Park; Port Crescent State Park

APPENDIX B - ELIGIBLE DCFC STATION LOCATIONS – MAP



APPENDIX C - DRAFT GRANT AGREEMENT BOILERPLATE

**APPENDIX D - GRANT APPLICATION MATERIALS: CHECKLIST FOR GRANT
PROPOSAL SUBMISSION, GRANT PROPOSAL COVER SHEET, GRANT
PROPOSAL TEMPLATE, BUDGET PROPOSAL FORM**