

CITY OF WISCONSIN DELLS MEETING AGENDA

MEETING DESCRIPTION: PARKING BOARD

DATE: WEDNESDAY, MAY 29, 2019 TIME: 5:30PM LOCATION: MUNICIPAL BUILDING COUNCIL CHAMBERS, 300 LACROSSE STREET, WIS. DELLS, WI 53965

	COMMITTEE MEMBERS		
Ald. Ben Anderson - Chair	Ald. Mike Freel	Police Chief Jody Ward	Nick Morse
Mayor Ed Wojnicz	Ald. Dan Anchor	DPW Director David Holzem	Keith Koehler

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|----------|---|
| 1 | Call to Order, Attendance Noted |
| 2 | Approval of the March 25, 2019 Meeting Minutes |
| 3 | Information/Discussion/Decision on the Installation of Electric Car Charging Stations in Some Municipal Parking Lots |
| 4 | Discussion/Decision on Use of New Municipal Parking Lots for Events and the Installation of Tents |
| 5 | Date/Time/Agenda Item for Next Meeting, if Needed |
| 6 | Adjournment |

	Ald. Ben Anderson, Chairperson
	Posted: May 23, 2019

	<p>Open Meetings Notice: If this meeting is attended by one or more members of the Common Council who are not members of this committee, their attendance may create a quorum of another city commission, board or committee under the Wisconsin Open Meetings Law; However no formal action will be taken by any governmental body at the above stated meeting other than the body, committee, commission, or board identified in this meeting notice. Please be advised that upon reasonable notice, the City of Wisconsin Dells will furnish appropriate auxiliary aids and services to afford individuals with disabilities an equal opportunity to participate in meeting activities.</p>
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CITY OF WISCONSIN DELLS
PARKING BOARD MEETING MINUTES
MONDAY, MARCH 25, 2019

1. Chairperson Anderson called the meeting to order at 5:45P.M. Notice of the meeting was provided to the *Dells Events*, WNNO Radio, and posted in accordance with State Statutes.

Present: Ald. Ben Anderson, Mayor Ed Wojnicz, Ald. Mike Freel, Ald. Dan Anchor, Public Works/Utilities Director David Holzem, Police Chief Jody Ward, Nick Morse, and Keith Koehler.

Others: Ald. Brian Holzem, Ald. Terry Marshall, City Clerk/Coordinator Nancy Holzem, City Planner/Zoning Administrator Chris Tollaksen, City Attorney Joseph Hasler, Tim Mikonowicz, Fiorella Neira, Lukasz Lyzwa, and Christopher Jardine from the *Dells Events*.

2. Motion by Ald. Koehler seconded by Ald. Freel to approve the February 11, 2019 meeting minutes. Motion carried unanimously.

3. Fiorella Neira Broadway Parking Request

At their last meeting, the Board reviewed a request submitted by Fiorella Neira for a parking stall to be vacated on Broadway as part of her new office building project. The stall would be used as an open space in front of steps she would be adding in the grassy median area going up to the sidewalk in front of her business. Lukasz Lyzwa from General Engineering presented an updated site plan for the project and stated a parking stall would no longer be needed if a four foot area could be hashed marked in front of the entrance to the steps. Motion by Mayor Wojnicz seconded by Ald. Freel to approve line marking in that area to reflect an opening for the stairs. Motion carried unanimously.

4. Future agenda item to include electric car parking areas. No date was set for the next meeting.
5. Motion by Ald. Anchor seconded by Mayor Wojnicz to adjourn. Motion carried unanimously and the meeting adjourned at 5:50P.M.



Nancy Holzem
City Clerk/Coordinator



ZEF ENERGY

Building a Zero Emissions Future

EV Charging for Beginners: Let's Talk Charging!

ZEF Energy

Your EV Infrastructure Development Partner



EV Charging 101

The objective of the next 10 minutes:

1. Learn what an EVSE is
2. Understand Level 1 & 2 EVSEs
3. Learn about DC Fast Chargers
4. Understand the speed of charging between different methods of charging

This is a brief overview, it is not exhaustive.



Workplace Charging

Battery Charging Primer

How do you charge a battery?

When you recharge your AA's or your traditional Lead Acid car battery, you need a CHARGER.

BATTERIES NEED DC POWER!

A charger typically plugs into mains AC power, converts it to DC, then pushes DC into the battery, controlling the rate of charger to ensure safety of the battery.

An EV IS NO DIFFERENT!



Traditional 12v Lead Acid Car Battery Charger

EVSE Primer Pt.1

How do you charge an EV?

You typically use something called an EVSE.

What is an EVSE?

Electric Vehicle Supply Equipment. It is technically not a charger. Provides a VERY SAFE way of getting AC power from the wall into a vehicle. It has an internal GFI, with a rugged cord and vehicle plug.

How do I use an EVSE?

Plug one end into either 120v or 240v outlet, or hardwire into 240v. Plug the other into the car. Easy!



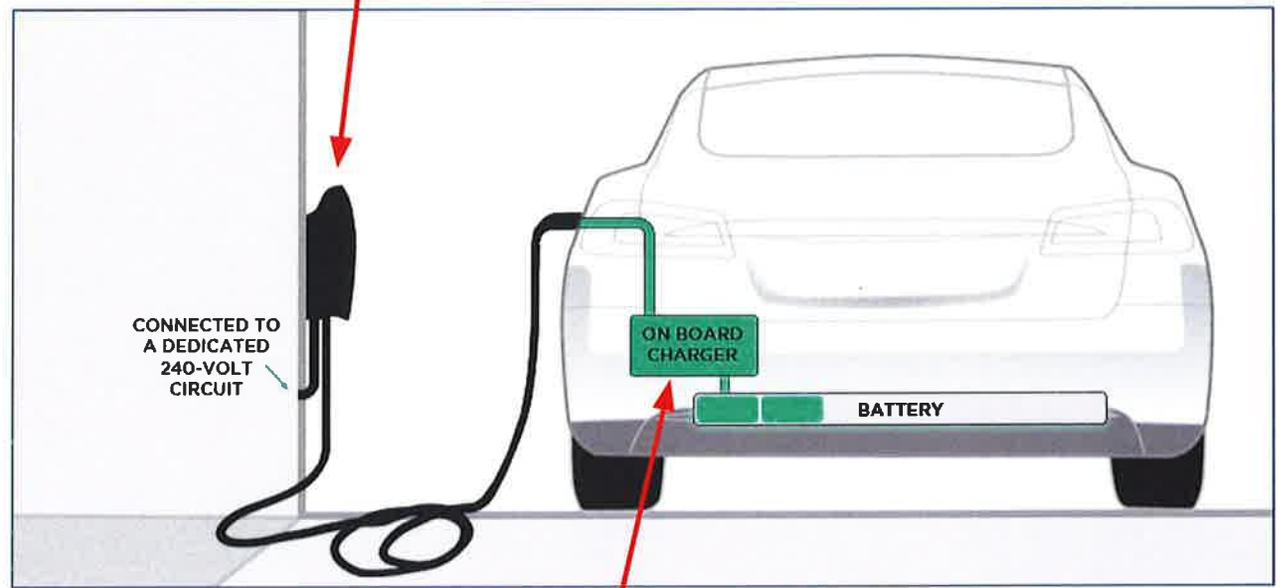
EVSE

EVSE Primer Pt.2

How does the battery charge, if the EVSE is just a glorified safety cord?

The on-board charger! It converts AC to DC, then passes DC electricity into the battery, just like any other battery.

EVSE - Passes AC through the cord, acts as a GFI



**On-Board Charger
- AC to DC**

EVSE - Level 1 vs Level 2

120v <= 12 Amps



Nissan Level 1 EVSE
Comes FREE with vehicle

How fast do they charge?

Chevy Bolt:

Level 1: 42 hours

Level 2: 8 hours

Tesla Model S:

Level 1: 100 hours

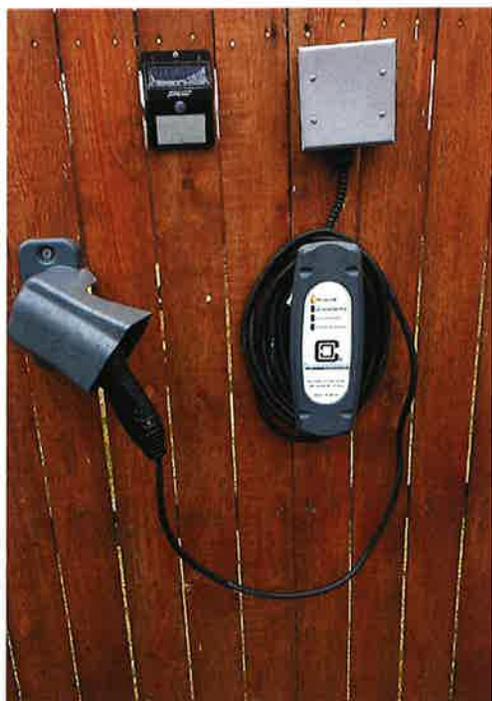
Level 2: 6 hours

240v 6 - 80 Amps



ZEP Level 2 EVSE
Cost range: ~\$400 - ~\$1,000

Level 2 EVSE Install Examples



FAST Charging Primer Pt. 1

A Level 1 or Level 2 EVSE looks good for my home, or my workplace. What about when I'm on the road?

DC Fast Charging! Charge 35x faster than Level 1, charge 7 times faster than Level 2.

You can get 100 miles of range in 30 minutes on a 50kW charger.



**ZEF DC 50kW Fast Charger
Cost range: \$60k - \$150k installed (range for
50kW-150kW chargers)**

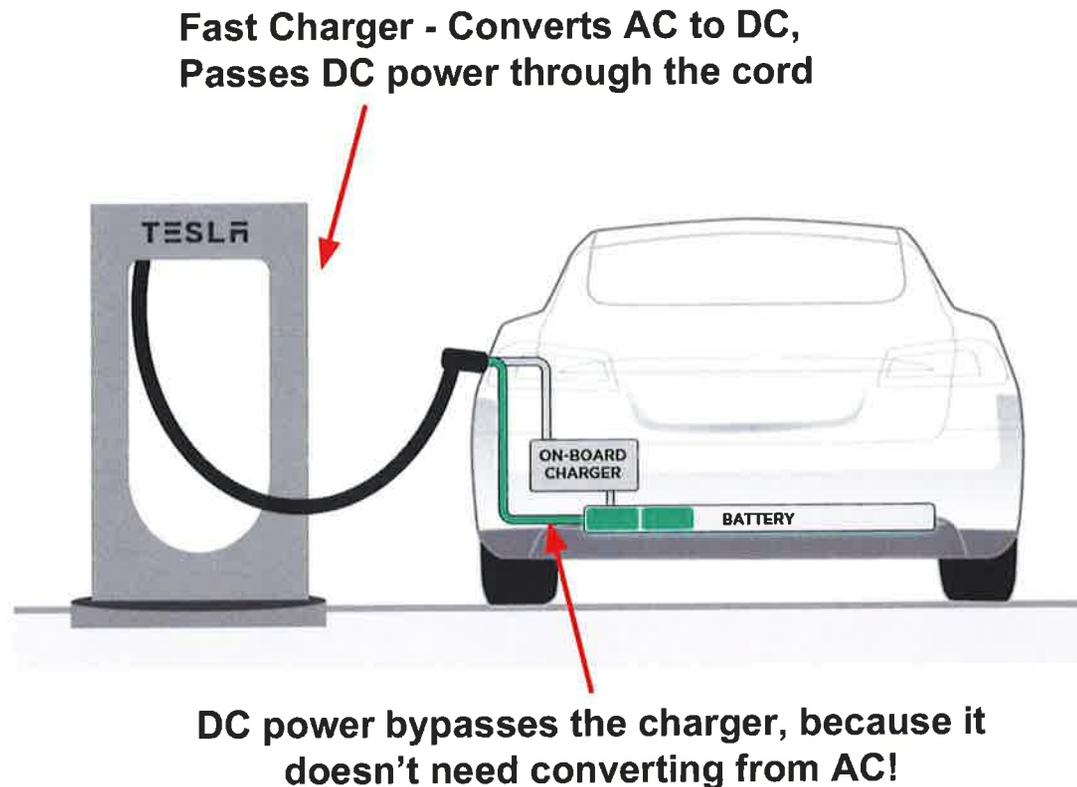
FAST Charging Primer Pt. 2

How does the battery charge?

The DC Power coming from the Fast Charger is ready to go **STRAIGHT INTO** the battery. The on-board charger can be bypassed.

How quickly can I charge?

Anything from 100 miles to 250 miles every 30 minutes. Perfect for a rest stop!



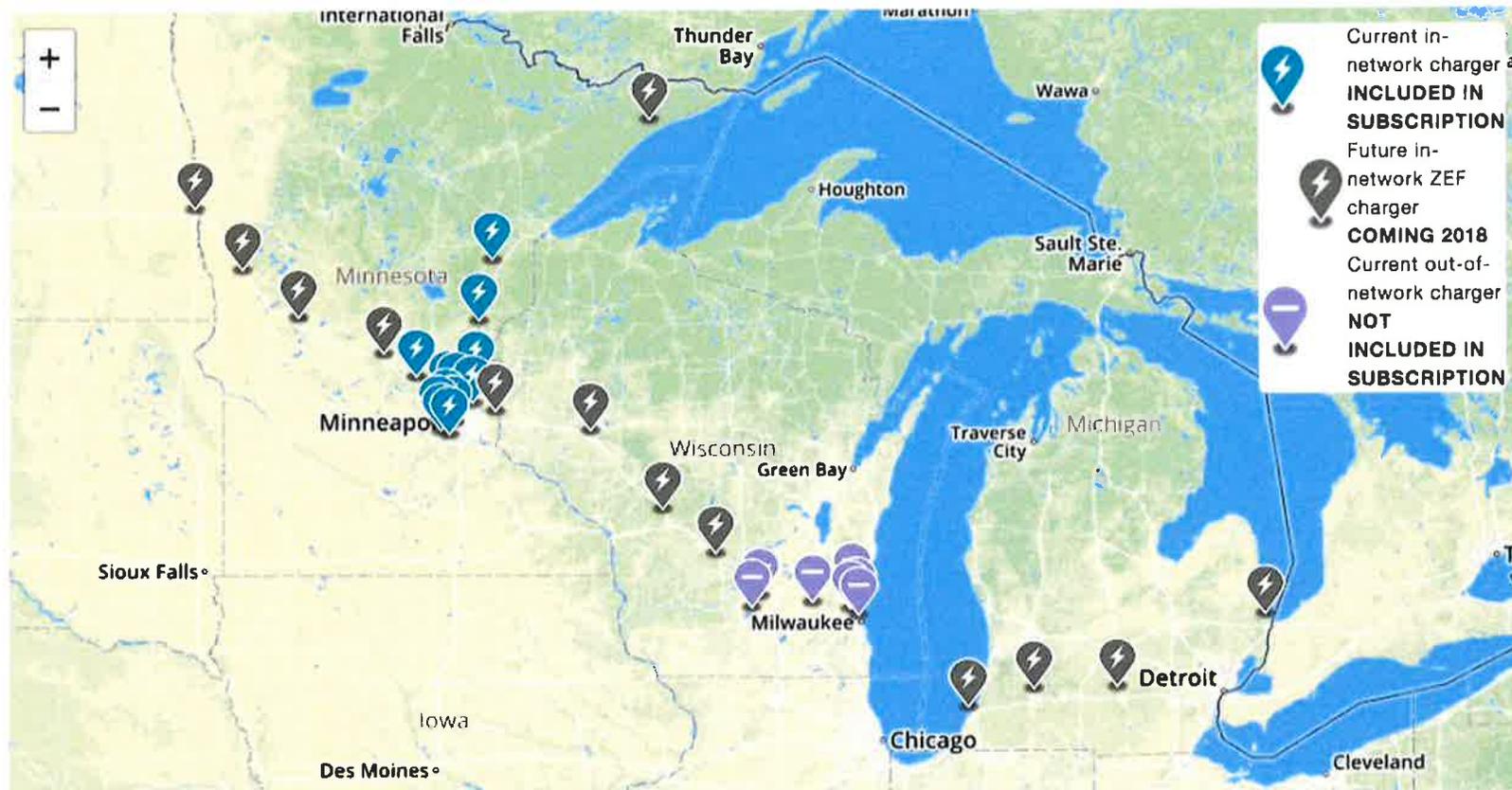
What did we learn?

	Charging power (typical)	Time to fully charge	Range per half hour of charging	Maximum traffic in 24 hours
Level 1	1.4 kW	21 hours	3 miles	1
Level 2	7 kW	4 hours	12 miles	6
DC Fast Charger	50 kW+	30 mins (80%)*	100 miles	36

Note: These figures are based on Nissan Leaf 24kWh model

*Under ideal conditions, final 20% takes 45 mins

What's Happening 2018?



Fast Charger Network Expansion

Matthew Blackler - CEO

matthew@zefenergy.com

(612) 254 4596

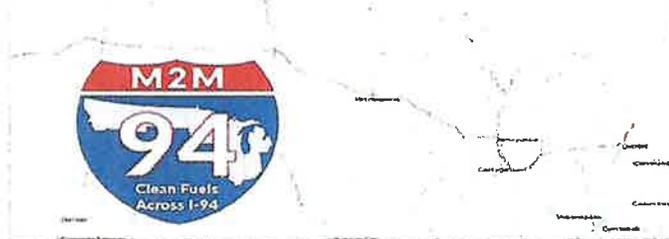
Wisconsin Clean Cities — M2M I-94 Clean Fuels Corridor & Designation

In December 2016 Gas Technology Institute (GTI) received \$4.9 million from the U.S. Department of Energy to deploy projects for multi-fuel stations and alternative fuel vehicles along Interstate 94 (I-94) from Port Huron, Michigan to the North Dakota border for the Michigan to Montana I-94 Clean Fuels Corridor & Designation Project



U.S. Fuels Across America's Highways
I-94 Corridor Opportunities
Michigan to Montana (M2M)

The Michigan to Montana (M2M) I-94 Clean Fuels Corridor project seeks to ensure a 1,500-mile span of I-94 from Port Huron, Michigan to Billings, Montana will have adequate fueling sites to serve alternative fuel and electric vehicle driver needs.



While I-94 is a major interstate highway connecting the Great Lakes and intermountain regions of the United States, there are several gaps in alternative fueling infrastructure between Michigan and Montana. The M2M project, being led by Gas Technology Institute through a \$4.9 million U.S. Department of Energy Grant awarded in December 2016, is being facilitated in partnership with Clean Cities Coalitions along the M2M route, including Wisconsin Clean Cities. The coalitions are working to give public and private fleets and individual drivers more options to fuel with cleaner alternatives such as electricity, compressed natural gas (CNG), and propane autogas.



Significant opportunities exist to fill gaps in alternative fueling across I-94 to better serve the general public, federal, state, municipal and private fleets. Doing so meets the goals of the Fixing America's Surface Transportation (FAST) Act, boosts economic activity and increases national energy security.

Potential alternative fuel demands along I-94 include military bases and facilities, national parks and sites and more than 230 truck stops in six states.

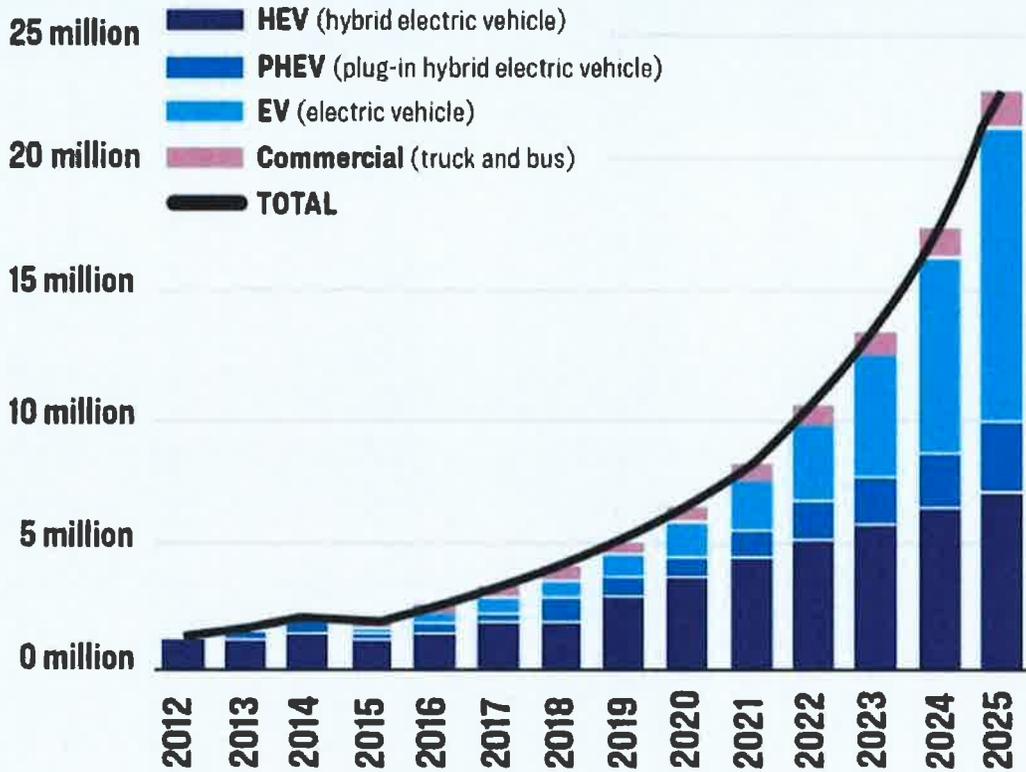
Project Partners



To learn more about Wisconsin Clean Cities, visit us online at www.wicleancities.org

Wisconsin Clean Cities | 231 W. Michigan St. P321 | Milwaukee WI 53203 | (414) 221-4958 | info@wicleancities.org

EXPECTED GROWTH OF ELECTRIC VEHICLE SALES



SOURCE: ROSKILL & UBS ESTIMATES

Site "Check Off" sheet for determining site favorability.

There's good reason to offer electric vehicle drivers a place to park and recharge quickly. 89% of EV drivers typically make a purchase when charging at a retail location; 83% of respondents prefer to shop more frequently at locations that offer EV charging. Hosting a Fast Charging charger gives your property DC fast charging and Level 2 charging capabilities while bolstering your commitment to the environment and your bottom line.

Not every location is right for a Fast Charging Station charger. Here are a few of the factors we consider when choosing a Fast Charging Station site:

Opportunity for retail engagement.

A Fast Charging Station charger delivers the fastest charge possible for most vehicles, but we prefer locations that provide the opportunity for some form of retail experience while the vehicle is being recharged.

Proximity to major thoroughfares.

A Fast Charging Station sites are intended to extend the range of electric cars. And people typically drive extended distances on major thoroughfares. They just go hand in hand.

Visibility from the road.

Fast Charging Station sites can be identified through wireless digital technology, but easy visual identification is still valuable., but a site visit is preferable.

Easy ingress and egress.

Have you ever had trouble getting to a location that is easily seen from the road but wasn't easy to access? It's no fun, right?

Access to an electrical grid.

To install a station in a cost-effective manner, 3 phase 480 VAC power should be available on the street side of a building and not behind it.

8/30/2018



Building a Zero Emissions Future

DCFC Charging Hubs:

Why Partnering with ZEF is a Good Decision

- 1) ZEF Energy owns and operates the largest EV fast charging network in the Upper Midwest Region.
- 2) ZEF Energy plans to install new stations and pay a percentage* of station revenue to site hosts where the chargers will be located.
- 3) ZEF Energy seeks active partners to help identify site hosts in select communities and regions which meet the requirements set out by the Funding Entity
- 5) We have unparalleled regional experience and have a low-overhead cost operation. We offer a "Made in Minnesota" product
- 6) A small financial commitment is required from the partners. ZEF will bear the cost of procuring, installing, operating and maintaining the charging equipment and the risk of project development.
- 7) We make it easy to provide EV charging to your community/region.

*ZEF Energy's standard Site Host Agreement pays 7% of gross annual charger revenue to the host for use of the site

11/16/2018

Partnering with ZEF Energy for the M2M grant opportunity is a good decision.

- 1) ZEF Energy owns and operates the largest EV fast charging network in the Upper Midwest.
- 2) ZEF builds the new stations and pay a percentage* of station revenue to site hosts where the chargers will be located.
- 3) ZEF seeks active partners to help identify site hosts in select communities and regions which meet the requirements set out by the M2M grants
- 4) Partners will make a non-binding commitment to help ZEF identify sites in area's that must be is awarded by the M2M grant opportunity.
- 5) A small financial commitment is required from partners, ZEF will bear the cost of procuring, installing, operating and maintaining the charging equipment and all risk of project development.
- 6) Zef Energy makes it easy to provide EV charging to your community/region.

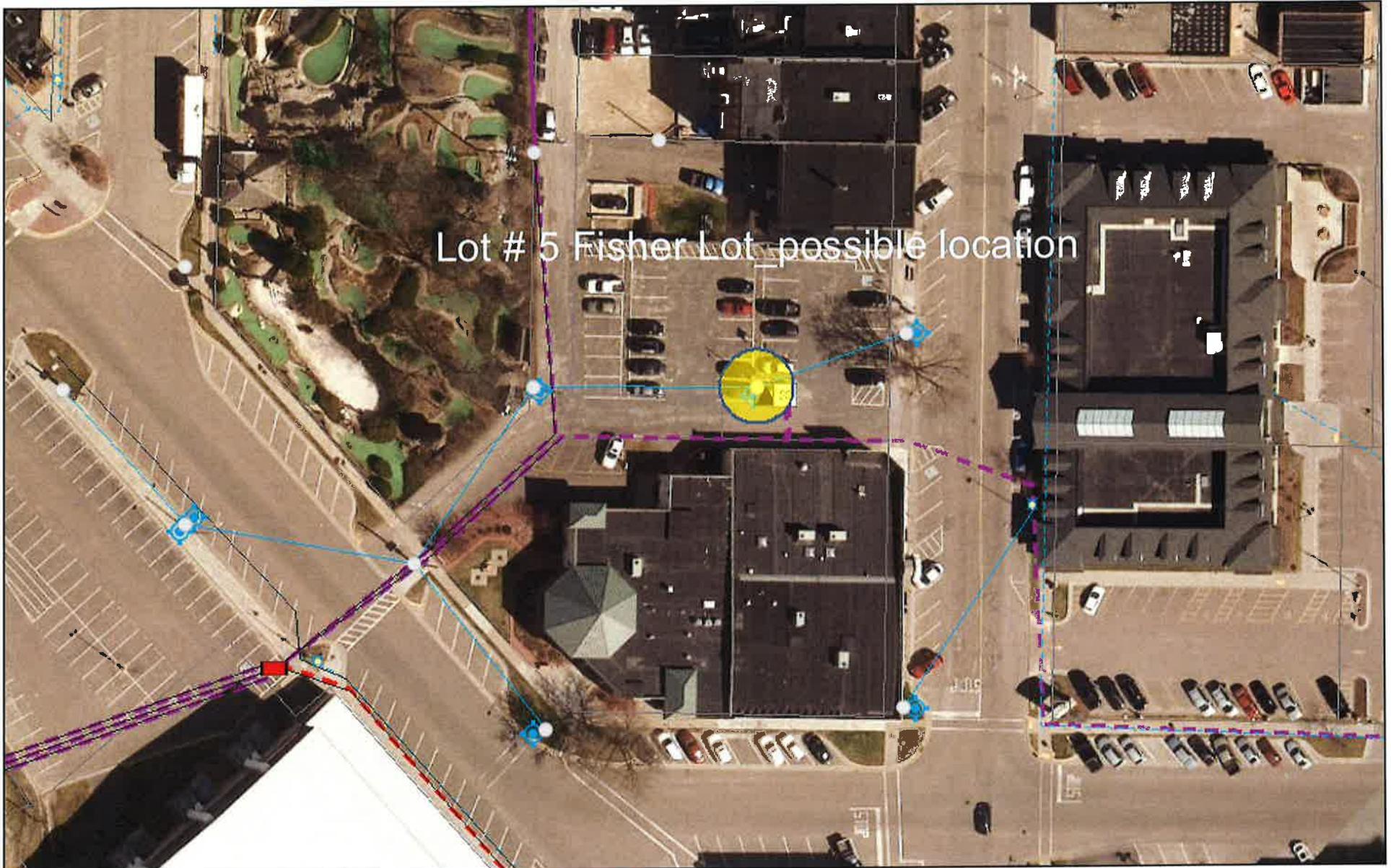
Hosting benefits.

- ZEF's standard Site Host Agreement pays 7% of gross annual charger revenue to the host for use of the site.
- A case study highlights the benefits that a major retail chain experienced, after installing charging stations, including an average increased dwell time of 50 minutes.

*ZEF's standard Site Host Agreement pays 7% of gross annual charger revenue to the host for use of the site

8/30/2018

Wisconsin Dells Electrical Map



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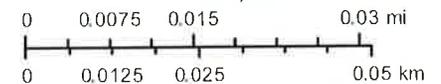
Areas

- Override 1
- Switchgear

- Pole
- UG Transformer 3-Phase
- URD Pull Box

- Street Light - Ornamental
- Street Light
- Conduit
- Secondary-OH

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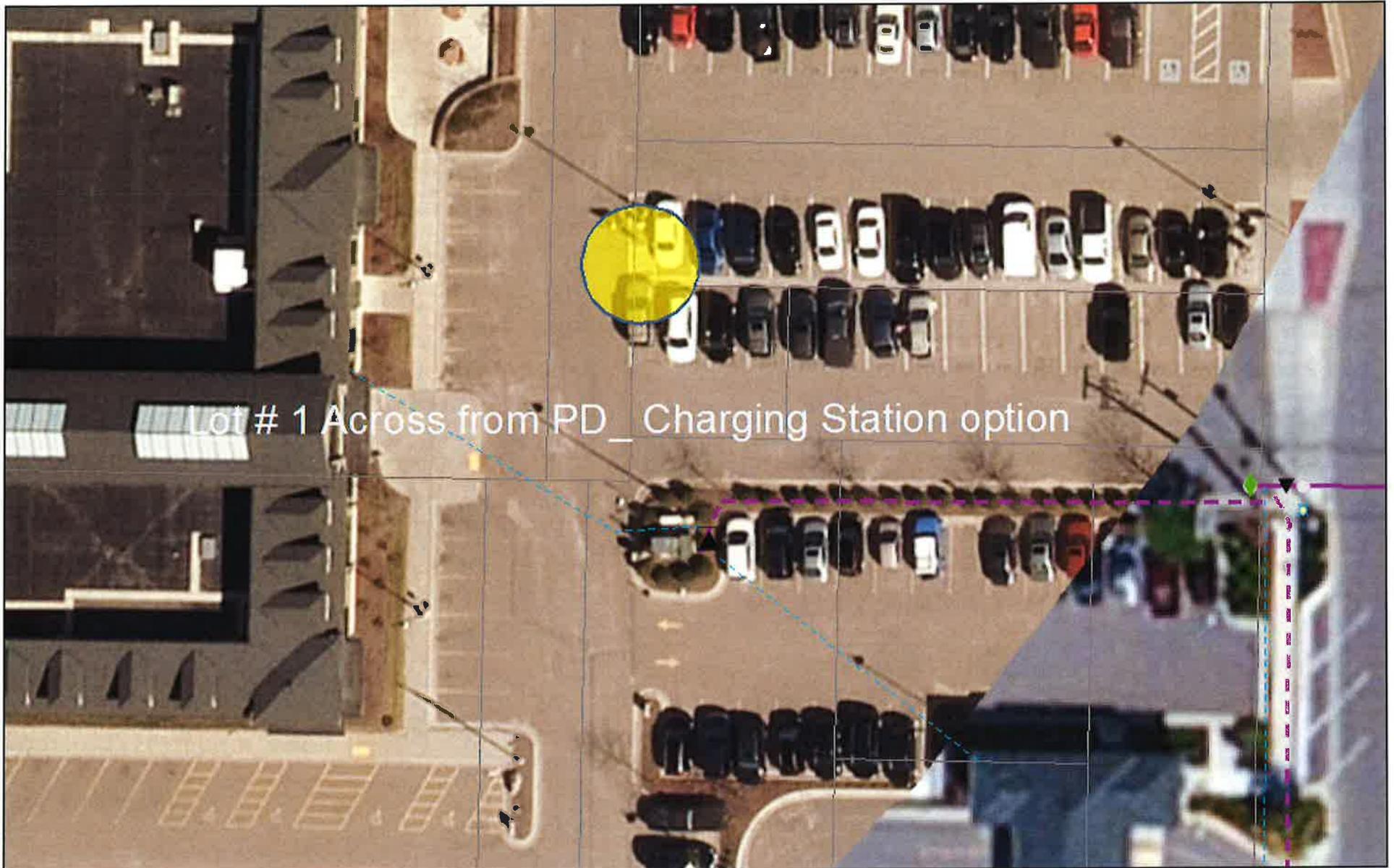


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,



Electrical Utility

Wisconsin Dells Electrical Map



Lot # 1 Across from PD_Charging Station option

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Areas

 Override 1

 Riser

 Pole

 OH Transformer 1-Phase

 UG Transformer 3-Phase

 Street Light - Ornamental

 Secondary-UG

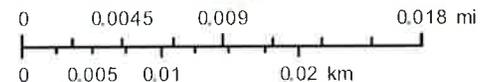
 4kV OH 3-Phase

 4kV UG 3-Phase

 Columbia Co Properties

 City Boundary

1:544



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,



Electrical Utility