

Charging Infrastructure Considerations

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City of Orlando
Fleet & Facilities Mgmt
A service support Division
in the Office of Business
and Financial Services

EV's/Chargers/Infrastructure/Solar
You need them all for a successful
EV future!

City of Orlando



Say hello to
my little
friend!

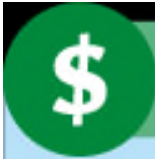


ESA Renewables Commissions City of Orlando Rooftop Solar Installation

Collaboration opens the door to green business opportunities, sustainable energy generation and job creation in Orlando, Florida.

March 7, 2013—ESA Renewables, an industry leader in providing turnkey solar solutions, announced the commissioning of the [City of Orlando Fleet Maintenance Building Solar Project](#). ESA developed and constructed the 420 kilowatt (kW) roof-mounted photovoltaic solar array on the Fleet Maintenance Building located on South Westmoreland Drive in Orlando.

“The collaboration between the City of Orlando, OUC and ESA Renewables presents a promising opportunity for Orlando,” said Jeffrey Burkett, President of ESA Renewables. “Not only does this project contribute to the sustainability of our economy through job creation, it also has a positive impact on the environment and our communities. We are excited to be involved with this project for many years to come through our Operation and Maintenance (O&M) services.”



GREEN ECONOMY



Orlando is a hub for green companies and green jobs that benefit the environment or conserve natural resources.



<http://www.cityoforlando.net/greenworks/>



Why do they call
it the
H-Bldg?

**Current 10 acre
Site Conditions:**

**Solar Array
produces 420 KW
feeding directly into
Orlando Utilities Commission Grid**

**Our Stand-By Generator
produces 500 KW
when land power fails**

**The new array will produce an
additional 250 KW**

Every newly constructed building must be Solar Ready!

Expanding solar deployments!



KMF
ARCHITECTS

SGM
ENGINEERING

We are
deploying
Solar on
ten more
existing
facilities
this year.

We are also
deploying two-
hundred
additional
Charging
Stations
this year.





Orlando utility cuts ribbon on solar plant, announces plans for much more

Kevin Spear

By KEVIN SPEAR

ORLANDO SENTINEL DEC 06, 2017





OUC solar power sized for new era
By KEVIN SPEAR
ORLANDO SENTINEL JAN 22, 2018



When you're driving down World Drive near Epcot Center Drive, you probably won't even notice the solar panels next to you. You probably won't even notice them from the monorail. You'll need to get high up in the air to see the newest huge Hidden Mickey.



Phase 1



4Q18 we began the expansion of the Solar Array to make our ten acre site Net Zero even though we operate from 6 AM to 10:30 PM.



We will charge 32 EV Motor Pool units from the new Solar as well.

www.cityoforlando.net/greenworks/



ENERGY STORAGE



Talking with GE and Rivian now.



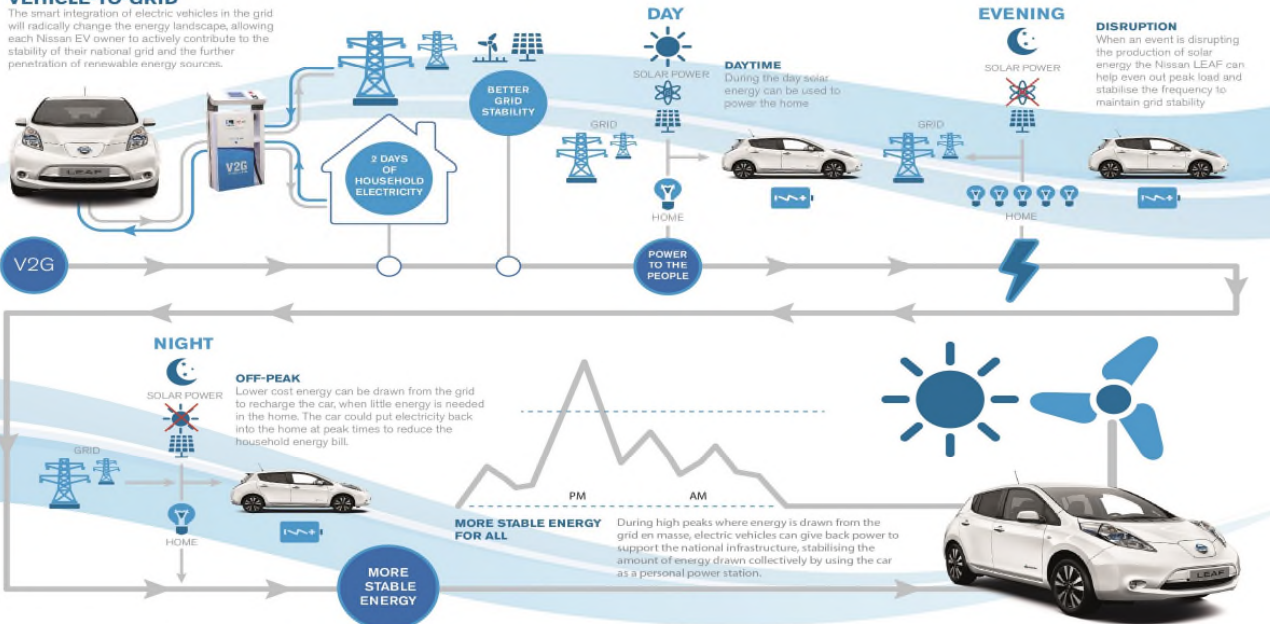


POWER TO THE PEOPLE

NISSAN'S VISION FOR THE ENERGY GRID PUTS THE POWER IN YOUR HANDS

VEHICLE-TO-GRID

The smart integration of electric vehicles in the grid will radically change the energy landscape, allowing each Nissan EV owner to actively contribute to the stability of their national grid and the further penetration of renewable energy sources.



Go for it Dave!



**V2G (Vehicle to Grid)
Utility Collaboration**

**V2B (Vehicle to Building)
Plug into Rec Centers when
the power goes out**

With a little help from our friends @ NISSAN

Cornelius Willingham

Manager, Electric Vehicle

Fleet Business Development

Southeast & Mid Atlantic Regions

Nissan North America

404 655-5370

cornelius.willingham@nissan-usa.com

& @ Fermata Energy

Facundo Tassara

Director of Fleet Business Development

386-631-6412

facundo@fermataenergy.com



Richard Raustad is a Research Engineer with the Florida Solar Energy Center at the University of Central Florida. Mr. Raustad also leads the technical team for UCF's Electric Vehicle Transportation Center.

Phase 2



<http://www.gosolar.us.com/>



In addition to Phase 2, City Commons Parking Garage 16 unit Pilot

Cindy & Gordon Baier

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GoSolar, LLC

100 Chesterfield Business Pkwy, Suite 200

Chesterfield, MO, 63005



<http://www.gosolar.us.com/>



RECHARGE MOBILITY HUB



- News
- OUC in the News
- Careers at OUC
- Investor Relations
- The History of OUC
- OUC Commission
- Governing Board**
- Agenda & Meetings
- Company Publications
- Facts & Facilities
- Press & Media
- Reliability
- Improving Our Systems
- Business Hours & Locations
- Post Employment Benefit Reporting
- Government Legislation
- Open Government

You have to be
partnered with
your local Utility!

[Home](#) / [About OUC](#) / [OUC Commission](#) / [Governing Board](#)

Governing Board

OUC's Commission

OUC's five-member governing board, known as the Commission, is responsible for setting the utility's rates and operating policies. All Commissioners, with the exception of the Mayor of Orlando (an ex officio member), can serve up to two consecutive four-year terms. They serve without compensation.



Contact a Commissioner via [email](#)



Cesar Calvet
President



Gregory D. Lee
Immediate Past President



Britta Gross
First Vice President



Larry Mills, Th.D.
Second Vice President



Buddy Dyer
Mayor / Commissioner

Secretary
Clint Bullock

Assistant Secretaries
Mindy Brenay
W. Christopher Browder
Beth Mason



EV & Hybrid Focus

Current Inventory		Currently in Process	
# of Vehicles	Type	# of Vehicles	Type
196		252	
75	All Electric LSEV		
9	Ford Escape Hybrids		
6	Nissan Leafs	15	Nissan Leafs *
1	Ford Focus EV		
1	Ford Focus C-Max		
6	Chevy Volts		
4	Ford Fusion Hybrids		
74	Toyota Camry Hybrids	15	Toyota Camry Hybrids
4	Zero Motorcycles	4	Zero Motorcycles
15	Chevy Bolts	15	Chevy Bolts *
1	Orange EV Yard Dog	1	Orange EV Yard Dog
		2	Residential Refuse EV's
		100	Workhorse W-15
		100	Ford F-150's (Rivian Tech)

GREEN FLEET

Orlando Buys Its First Electric Work Truck

March 4, 2019 • by [Thi Dao](#)

<https://www.government-fleet.com/326343/orlando-buys-its-first-electric-work-truck>

Check out the video at this link



<https://cflccc.org/>



<http://www.driveelectricflorida.org/>

* Using the Climate Mayors Electric Vehicle Purchasing Collaborative

<https://driveevfleets.org/>

<https://www.electrificationcoalition.org/programs/climate-mayors-ev-procurement-collaborative/>



Rivian Is The Reason Ford's F-150 All-Electric Demo Makes Sense



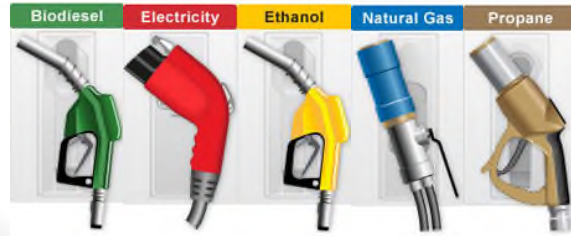
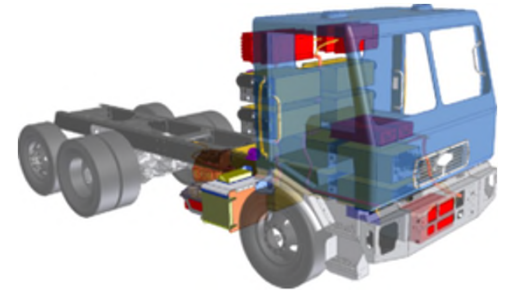
We already told Ford we will take 100 F-150's as soon as they are available.



Lots of new stuff in the making

We ask Rivian to partner with BYD. Rivian Battery Tech could help BYD achieve the range we need to make EV Refuse Trucks happen in Orlando!

We are developing Specs for two EV Refuse Trucks now.



We use all of these now



<https://cflccc.org/>

& NREL is going to help us with Hydrogen production



<https://www.youtube.com/watch?v=bXFHgoon7lg&feature=youtu.be>

Two of these Electric Autonomous shuttles went into operation in Lake Nona September 18, 2019.

<https://www.go-beep.com/>



Autonomous Mobility Solutions
First Autonomous Vehicles in Central Florida
now in Service in Lake Nona

Together with the Mobility Company Beep and Shuttle Manufacturer NAVYA, Orlando's Lake Nona Launches Driverless Shuttles Within the 17-Square-Mile Community

The greatest obstacle to date has been vehicles operated by people & pedestrians!

The Shuttle is functioning flawlessly!



City of Orlando





www.dannar.us.com

Transform Your Fleet

Transform Your Community

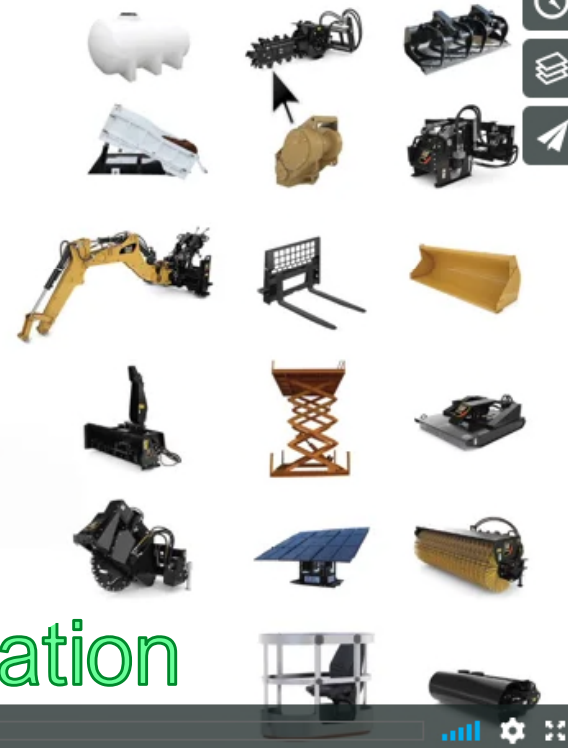
Gary Dannar | Founder & CEO

Cell 864-616-4444 | Email gdannar@dannar.us.com

Muncie | San Jose | San Clemente

Getting
One
Now!

One platform and
multiple transformations



Remote
Controlled
with a one
mile range.

Not
Autonomous,
yet.

DANNAR Mobile Power Station



What else are we looking for?

EV and Or Autonomous:

- Refuse Trucks
- Street Sweepers
- Commercial Mowers
- More EV Motor Pool Vehicle Options

just to name a few.

Implementation of EV & Solar is cheaper than it has even been and it keeps going down.

The only question to ask is: When will you dive in and begin realizing the savings?



Whether or not you are collecting my freely radiated energy, I'll be playing here all day!

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Whether or not you are collecting my freely radiated energy, I'll be playing here all day!



And so will I.



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and there is so much
more...

What kind of a footprint will
you leave?

