



NASUCA Presentation: GridFAST and EV Service Connection Roadmap

June 25, 2025

Jen Robinson
Watson Collins

Agenda



1. EVs2Scale general program updates
2. GridFAST portal
3. EV Service Connection Roadmap for small fleets and MFH
4. NASUCA member takeaways

The Electrical Grid Challenge

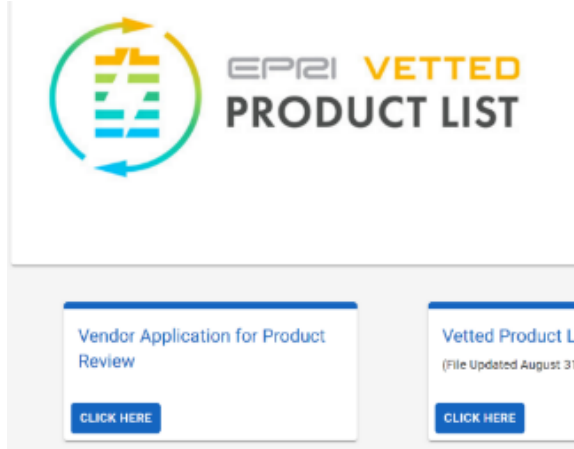
- There are **3,200 utilities in North America (+145 in Canada)** – each with different processes, tools, regulators
- **Planning and integrating new electrical loads** on the grid is typically a **multi-year process**
- **Uncertainty** in where/when loads are expected **prevents utilities (and utility regulators) from being able to plan**
- Utilities (and regulators) **must have confidence in when and where loads** are coming in order to accelerate interconnection times

Early engagement with utilities is critical

4 Major EVs2Scale Deliverables Now Released

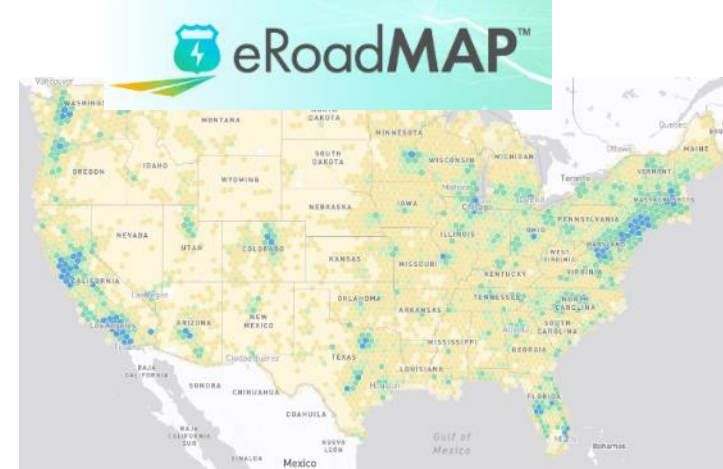


1



- 105 vendors and 750 products "listed"
- Vendors now have access to over \$1.8B in utility and state grant programs
- <https://www.epri.com/vpl>

2



- Visualization of planned/expected EV loads
- Cited in over 10 state proceedings to date
- <https://erodmap.epri.com/>

3

GridFAST

GridFAST: Your central portal for collaboration on EV projects

EVs2Scale energy

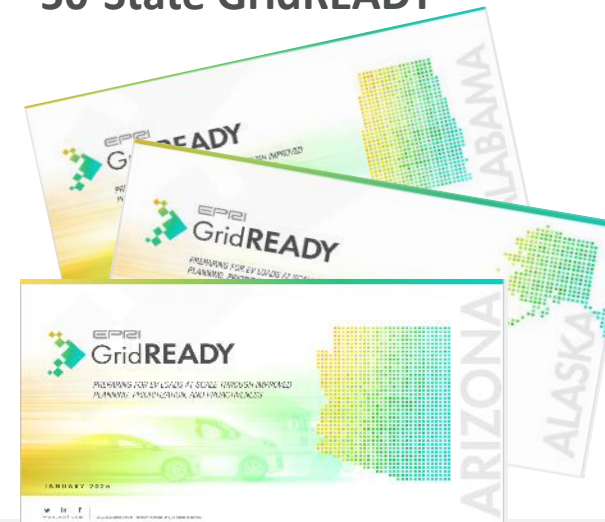


Create your FREE account at <http://GridFAST.com>

- Industry portal for early project planning (and ultimately service requests)
- <http://GridFAST.com>

4

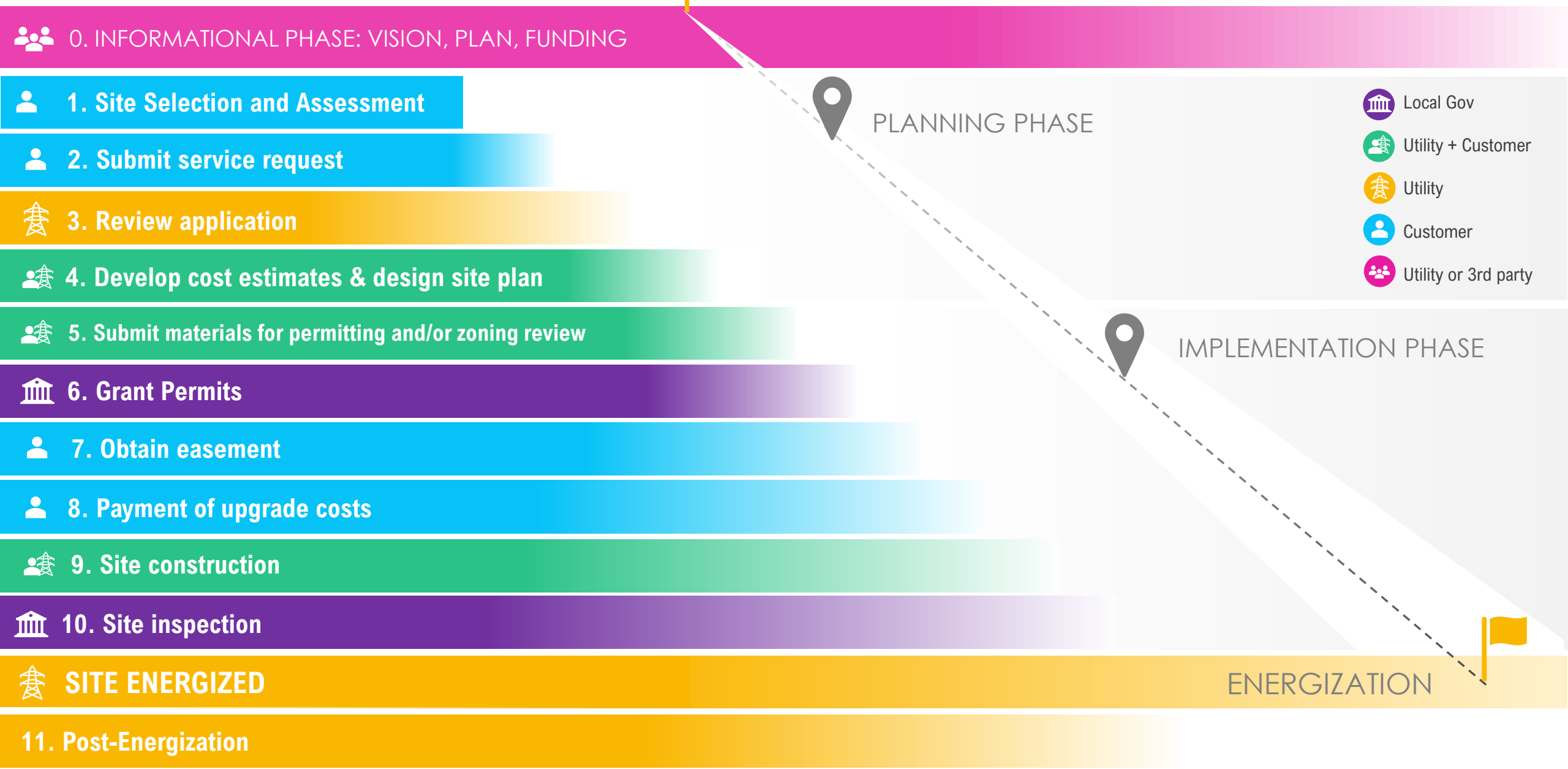
50-State GridREADY



- Promotes a common data-based understanding of need for proactive grid planning
- Available to all NGOs and state leaders
- No state left behind
- [EPRI EVs2Scale2030](https://www.epri.com/evs2scale2030)
[GridREADY | Powered by Box](https://www.epri.com/evs2scale2030)

ENERGIZATION JOURNEY

Typical Service Connection Process



EPRI has 3 major efforts to streamline various steps of this journey:


 0. INFORMATIONAL PHASE: VISION, PLAN, FUNDING

 1. Site Selection and Assessment

 2. Submit service request

 3. Review application

 4. Develop cost estimates & design site plan

 5. Submit materials for permitting and/or zoning review

 6. Grant Permits

 7. Obtain easement

 8. Payment of upgrade costs

 9. Site construction

 10. Site inspection

 **SITE ENERGIZED**

11. Post-Energization

1

GridFAST:

up to the service request, for projects 1+ years out

3

GridFAST Express:

DCFC typology catalogue, impacts Site Selection and Assessment (Step 1), Develop Cost Estimates and Design Site Plan (Step 4)

2

Grid Connection Roadmap:

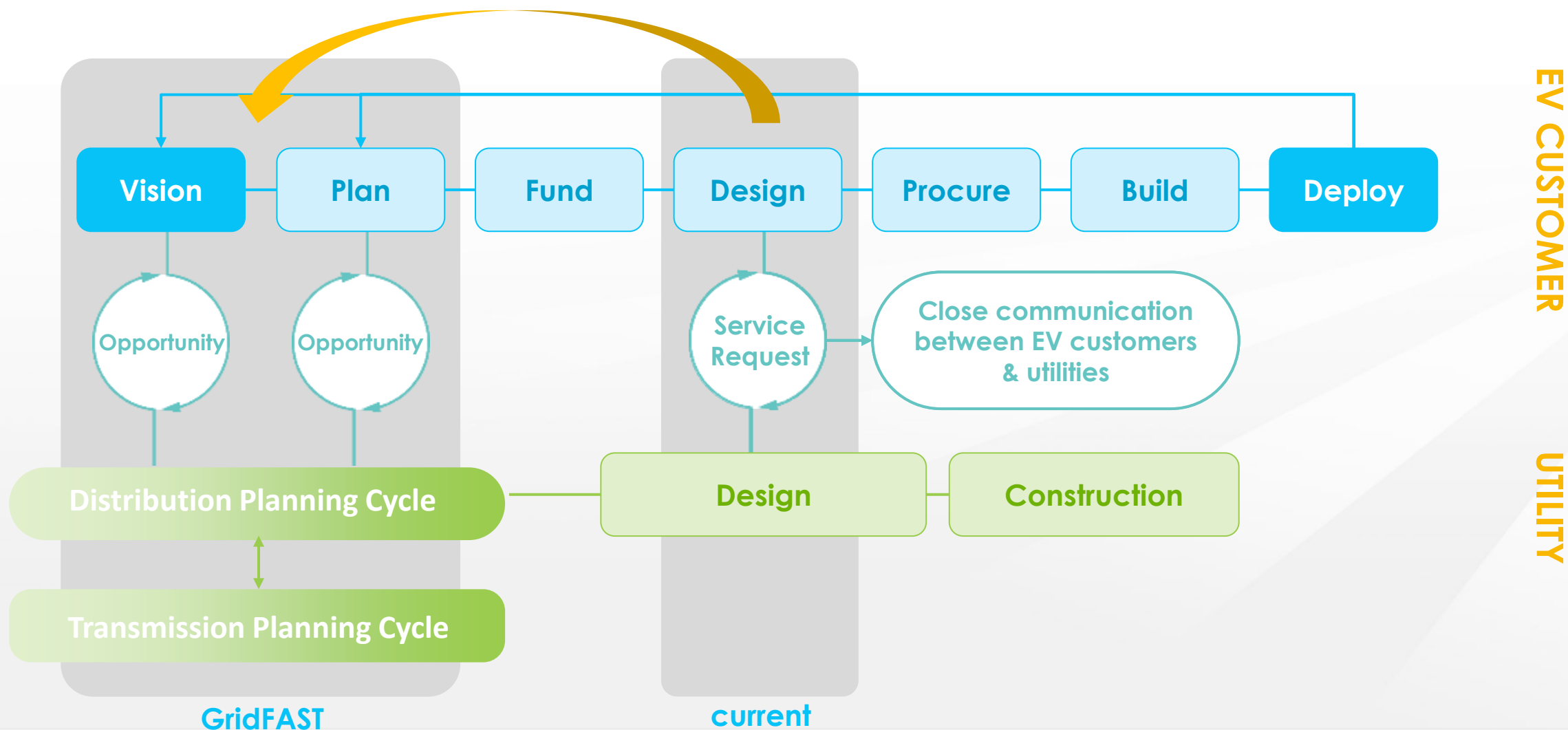
all steps, geared towards small customers though solutions benefit all

GridFAST



Grid Interconnection Problem

How might we help EV customers and utilities get actionable information earlier?





Customers shared pain points that informed GridFAST

GridFAST addresses customer pain points



"I've spent many weeks trying to figure out which utilities serve which of our locations – and I'm still not done... **make this information available to us.**"

"...enable us to make good decisions. Because **right now, everyone's just operating on a lot of assumptions, and that can be dangerous.**"

"I had 10 utilities for 11 sites... they're all different utilities... **All the utilities' processes are different.**"



Powering utility insights

GridFAST addresses utility pain points



"**90% of customer forms are returned for incomplete information.** Tracking down this input significantly increases our workload. Customers just don't understand what we're looking for."


"**There are thousands of fleets in our service territory – we know about 38"**

"**EV customers traditionally have not been a managed account.** The managed account team doesn't have the bandwidth to understand EV customer needs nor the time to build relationships."

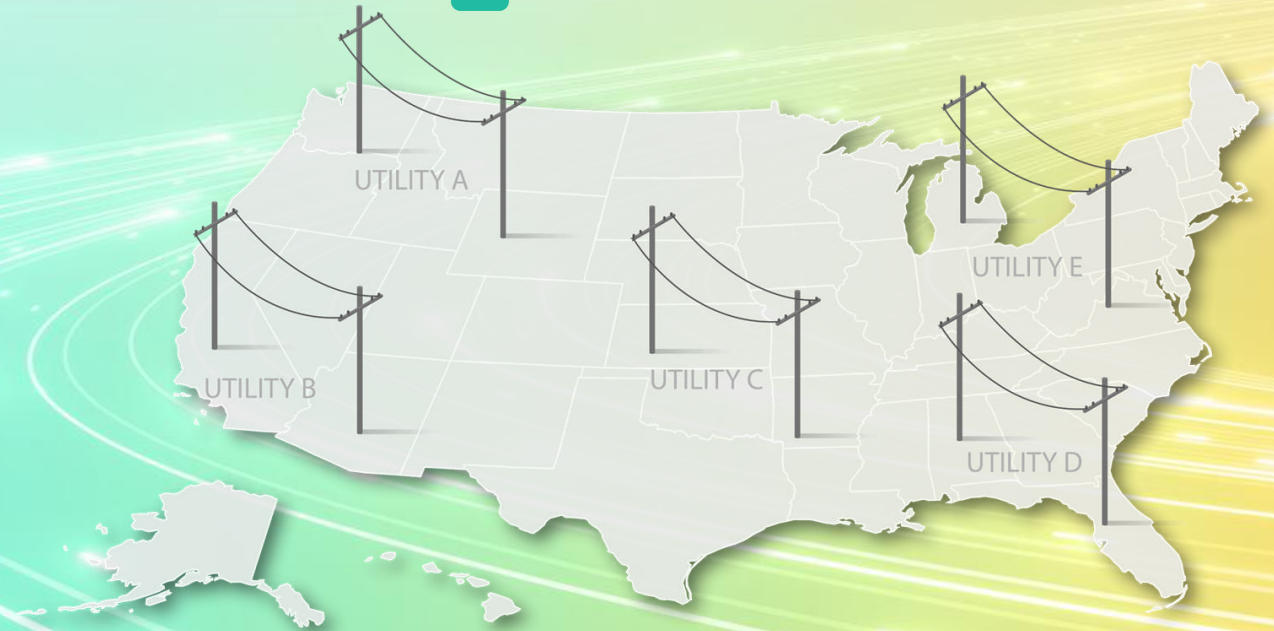
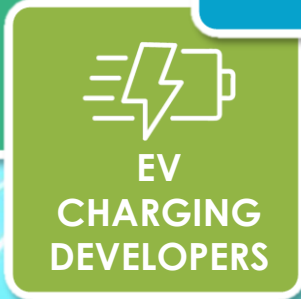
GridFAST: Your central portal for collaboration on EV projects



EV customers get the right utility connections, capacity info (where available), and standardized information

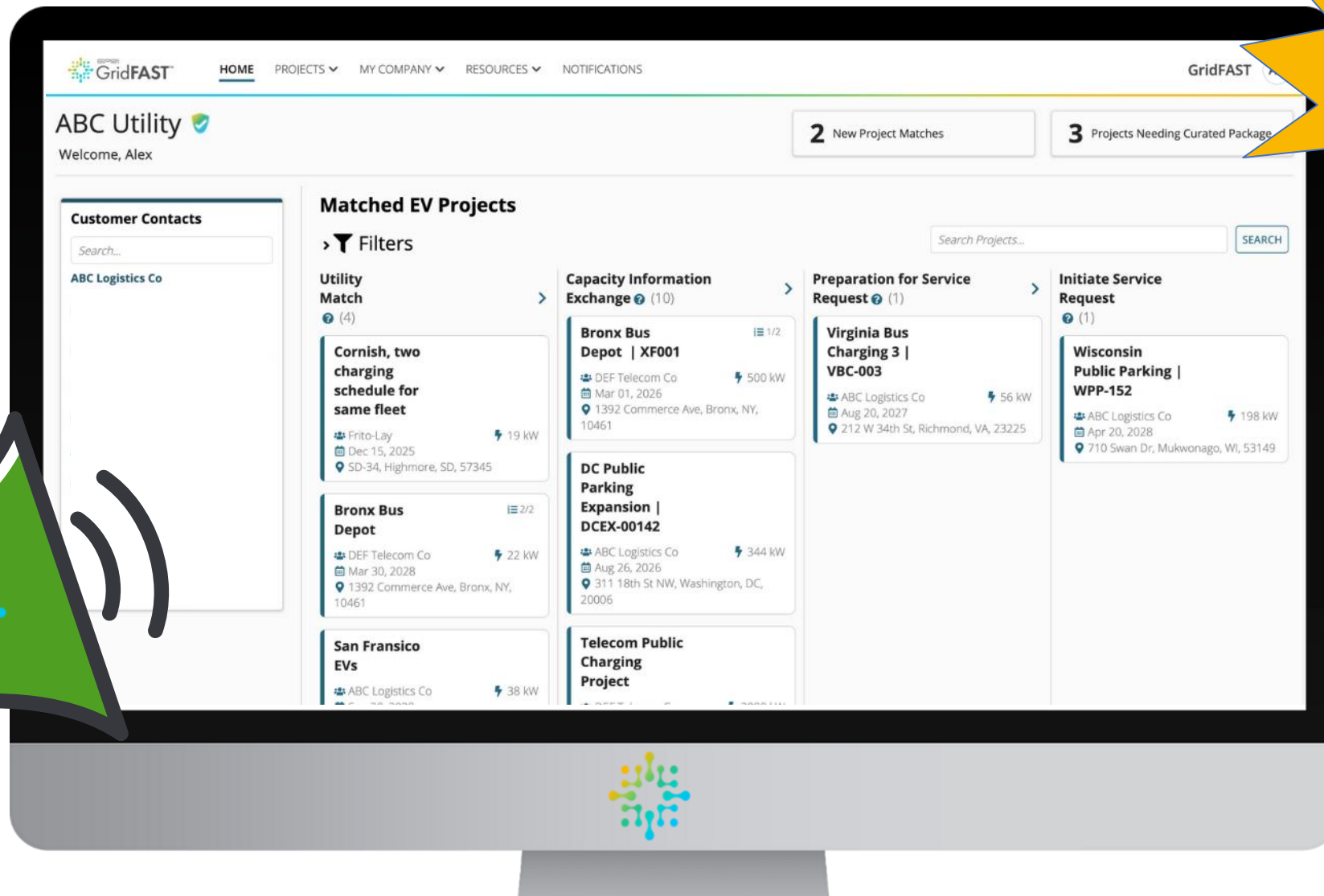
 **GridFAST™**
Secure Online Data
Exchange Platform

Utilities get early insight into new EV loads coming, project readiness, and right-sized load estimates

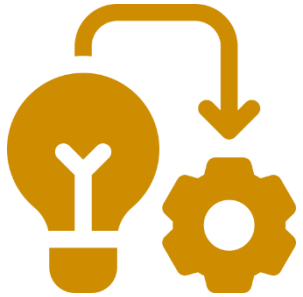


Create your **FREE** account at <http://GridFAST.com>

GridFAST is Public <http://GridFAST.com>



How GridFAST works



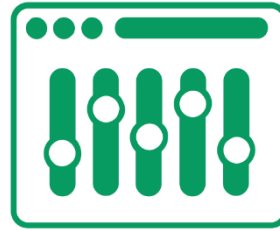
Project Input

EV customers enter their project concepts into GridFAST, and can view hosting capacity maps, if available



Utility Match

GridFAST matches EV projects to the relevant utility to start the exchange based on vetted information



Capacity Information Exchange

GridFAST is an easy and secure system for utilities to provide program and processes info to EV customers



Preparation of Service Request

EV customers finalize project details

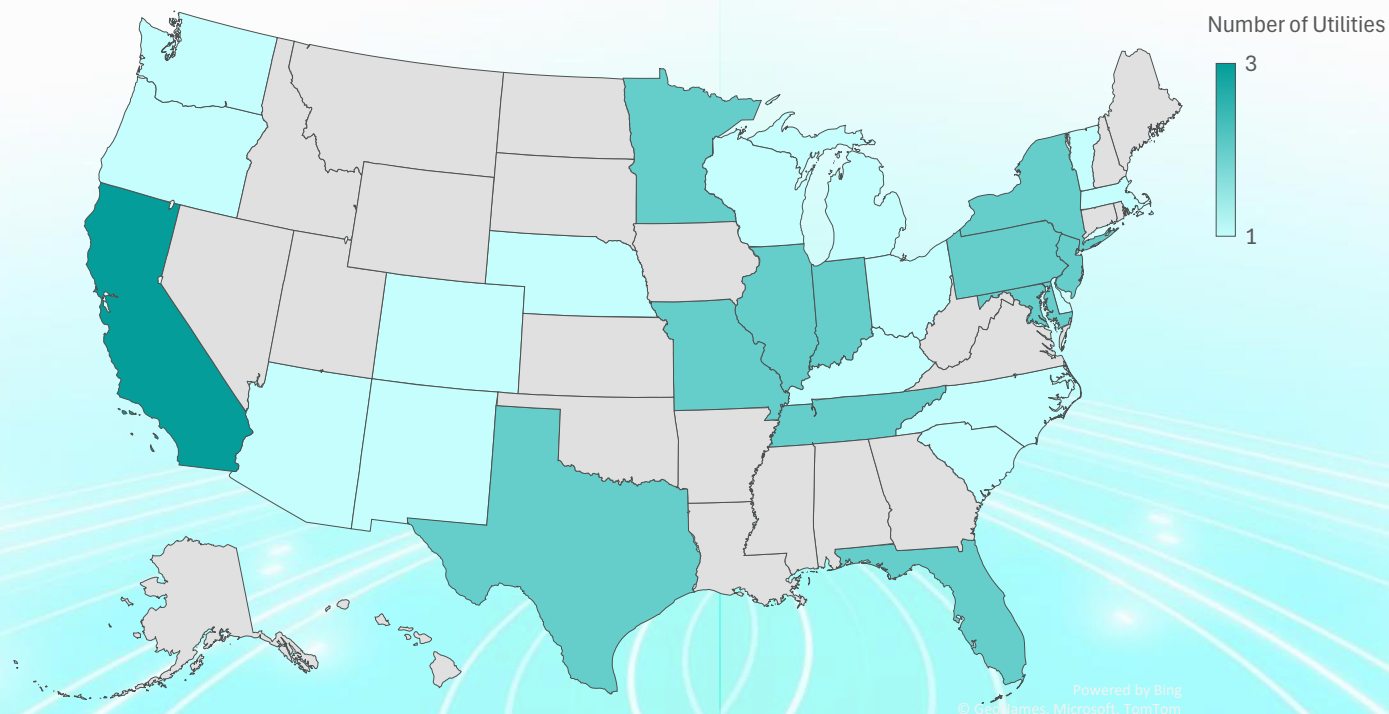


Service Request

EV customer information in GridFAST submitted to utility when they're ready to move forward



Utilities Continue to Join

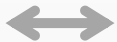


Utilities in 30 States



The benefits of GridFAST increase as more users engage

EV Customers



~ 3,200 US Utilities



GridFAST Lite
(Free version –
limited coordination)

Match-
making



GridFAST
(Industry portal for
project planning)

Customer and
utility coordination



GridFAST+
(Full service request
functionality)

Service Request via API

Which roles/departments are ideal utility users?



Customer-facing:

Fleet Advisory Services

Account Managers

Business Development

Service Application Engineers

Planning or Analytics:

Distribution Planning

Load Forecasting Specialists

GridFAST | Customer's Project Summary View



GridFAST HOME PROJECTS MY COMPANY RESOURCES NOTIFICATIONS

ABC Logistics Co
Welcome, Alice

Start Your GridFAST Journey Here
+ CREATE PROJECT

Utility Contacts
Search...

- ABC Utility**
AU Alex Utility
Alex's email address
- Southern California Edison Co.**
XH Xuan Hua
Xuan's email address
- Pacific Gas & Electric Co.**
DK Dean Kunesch
Dean's email address
555-123-1234
PP Polly PG&N
Polly's email address
- Minnesota Valley Electric Coop**
OU Oliver Utility
Oliver's email address
- Portland General Electric Co.**
PU Portia Utility
Portia's email address

My EV Projects
Filters

Project Input (2)

- ABC Fleet charging | ABC**
Aug 19, 2027 907 kW
1044 Pilgrim St, Stockton, CA, 95205
Pacific Gas & Electric Co.
- ABC Fleet charging 2 | Lodi fleet**
Oct 01, 2027 Unknown kW
24 W Lodi Ave, Lodi, CA, 95240
Pacific Gas & Electric Co.

Utility Match (5)

- New TITAN Test**
Jun 30, 2025 143 kW
SE Harmony & Railroad, Portland, OR, 97222
Portland General Electric Co.
- New TITAN Test Project**
Jun 30, 2025 720 kW
SE Harmony & Railroad, Portland, OR, 97222
Portland General Electric Co.
- Test EV Realty**
Jan 21, 2026 17500 kW
345 california st, San Francisco, CA, 94104
Pacific Gas & Electric Co.
- San Fransico EVs**
Sep 28, 2028 38 kW
1476 Folsom St, San Francisco, CA, 94103
ABC Utility
- Parent-Child Test**
Oct 29, 2036 23 kW
100 24th Ave N, St Cloud, MN, 56303
Minnesota Valley Electric Coop

Capacity Information Exchange (7)

- TITAN Test Project | new dc fast chargers**
Jul 22, 2025 160 kW
51 Terry A Francois Blvd, San Francisco, CA, 94158
Pacific Gas & Electric Co.
- DC Public Parking Expansion | DCEX-00142**
Aug 26, 2026 344 kW
311 18th St NW, Washington, DC, 20006
ABC Utility
- Maryland Truck Depot 6 | MTD-06**
Aug 20, 2027 120 kW
3200 Ginger Bread Ct, Ellicott City, MD, 21042
ABC Utility
- Maryland Truck Depot 6**
Aug 24, 2028 63 kW
3200 Ginger Bread Ct, Ellicott City, MD, 21042
ABC Utility
- New York EV Public Charging 02390**
Feb 01, 2033 3438 kW
1450 Lexington Ave, New York, NY, 10128
ABC Utility

Preparation for Service Request (2)

- Virginia Bus Charging 3 | VBC-003**
Aug 20, 2027 56 kW
212 W 34th St, Richmond, VA, 23225
ABC Utility
- Template Project**
Oct 08, 2027 38 kW
14080 Francisquito Ave, Baldwin Park, CA, 91706
Southern California Edison Co.

Initiate Service Request (1)

- Wisconsin Public Parking | WPP-152**
Apr 20, 2028 500 kW
710 Swan Dr, Mukwonago, WI, 53122
ABC Utility

Search Projects... SEARCH

« < 1 - 5 of 7 > »

All my
Projects at
a Glance

GridFAST | Customer's Project Summary View



GridFAST

HOMEPROJECTSMY COMPANYRESOURCESNOTIFICATIONS

GridFASTAC

ABC Logistics Co

Welcome, Alice

Start Your GridFAST Journey Here

+ CREATE PROJECT

Start your EV project at any stage and share key details with the right utility to get support for load estimation and expedite electrification.

Utility Contacts

Search...

ABC Utility

AU Alex Utility

Alex's email address

Southern California Edison Co.

XH Xuan Hua

Xuan's email address

Pacific Gas & Electric Co.

DK Dean Kunesch

Dean's email address

555-123-1234

PP Polly PG&N

Polly's email address

Minnesota Valley Electric Coop

OU Oliver Utility

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San Fransico EVs

Sep 28, 2028

38 kW

1476 Folsom St, San Francisco, CA, 94103

ABC Utility

Parent-Child Test

Oct 29, 2036

23 kW

100 24th Ave N, St Cloud, MN, 56303

Minnesota Valley Electric Coop

Capacity Information Exchange (7)

TITAN Test Project | new dc fast chargers

Jul 22, 2025

160 kW

51 Terry A Francois Blvd, San Francisco, CA, 94158

Pacific Gas & Electric Co.

DC Public Parking Expansion | DCEX-00142

Aug 26, 2026

344 kW

311 18th St NW, Washington, DC, 20006

ABC Utility

Maryland Truck Depot 6 | MTD-06

Aug 20, 2027

120 kW

3200 Ginger Bread Ct, Ellicott City, MD, 21042

ABC Utility

Maryland Truck Depot 6

Aug 24, 2028

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3200 Ginger Bread Ct, Ellicott City, MD, 21042

ABC Utility

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Feb 01, 2033

3438 kW

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ABC Utility

Preparation for Service Request (2)

Virginia Bus Charging 3 | VBC-003

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212 W 34th St, Richmond, VA, 23225

ABC Utility

Template Project

Oct 08, 2027

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14080 Francisquito Ave, Baldwin Park, CA, 91706

Southern California Edison Co.

Initiate Service Request (1)

Wisconsin Public Parking | WPP-152

Apr 20, 2028

198 kW

710 Swan Dr, Mukwonago, WI, 53149

ABC Utility

Search Projects...

SEARCH

<< < 1 - 5 of 7 > >>

All my Utility Contacts at a Glance

Screenshot for illustrative purposes only; not real companies or data

GridFAST | Customer's Project Summary View

GridFAST HOME PROJECTS MY COMPANY RESOURCES NOTIFICATIONS GridFAST AC

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Initiate Service Request (1)

- Wisconsin Public Parking | WPP-152**
Apr 20, 2028 198 kW
710 Swan Dr, Mukwonago, WI, 53149
ABC Utility

Search Projects... SEARCH

<< 1 - 5 of 7 >>

Stage of My Projects as Planning Matures (from left to right)

Screenshot for illustrative purposes only; not real companies or data

GridFAST | Example of a Customer Site Project

The screenshot displays the GridFAST web application interface. At the top, a navigation bar includes links for HOME, PROJECTS, MY COMPANY, RESOURCES, and NOTIFICATIONS. The user is logged in as 'GridFAST PP'. The main header shows 'Project ID 00478 | Parnassus Ave Logistics Center', with the project name circled in red. To the right of the header are buttons for 'UPDATE UTILITY ADVISOR', 'UPDATE PROJECT STAGE', and 'CONFIGURE PROJECT PACKAGE'. Below the header is a tabbed interface with 'Summary' selected, followed by 'Charging Information', 'Contacts', 'Project Package', and 'External Communication'. A note states: 'Click through the tabs above to explore all the information provided by the customer.'

Key Details

Project Name	Parnassus Ave Logistics Center	Address	101 Parnassus Ave San Francisco, CA 94117
Planned In-Service Date	Feb 19, 2025	Latitude/Longitude	37.76471 / -122.4501
Peak Load	45 kW		

Project Information

Project Name	WP San Marco TEST	Planned In-Service Date	Feb 19, 2025
Customer	Frito-Lay		
Project Type	Fleet Charging		
Stage	Capacity Information Exchange		
Size	Small		

Location Information

Address
101 Parnassus Ave
San Francisco, CA 94117
Latitude/Longitude
37.76471 / -122.4501

How long do you plan to operate at the location?
2 to 5 years

When the project starts, do you expect to be the landowner or tenant?
Landowner

Completed Steps
Zoning Restrictions (if applicable) and Permit Requirements Identified, Site Layout Drafted

Utility Information

Assigned Utility Confirmed
Pacific Gas & Electric Co.

Utility Advisor
PP Polly PG&N
Polly's email address

Project Plan

Project Plan ID 00401
Total Associated Projects 1

This project is the only phase @ this location.

View Plan

Customer Contacts

JR Jen Robinson
Jen's email address

Data Export

GENERATE PROJECT PDF

Internal Notes

Type here to add a new message

0/2000

These messages will only be visible to users within your company

No messages to display

Map

Google Map

Hosting Capacity Map

Map Satellite

John F Kennedy Dr

Fell St

Oak St

Lincoln Way

Hugo St

Irving St

11th Ave

10th Ave

9th Ave

8th Ave

7th Ave

6th Ave

5th Ave

4th Ave

3rd Ave

2nd Ave

1st Ave

Market St

19th St

18th St

17th St

16th St

15th St

14th St

13th St

12th St

11th St

10th St

9th St

8th St

7th St

6th St

5th St

4th St

3rd St

2nd St

1st St

Golden Gate Park

Inner Sunset

Parnassus Heights

Ashbury Heights

Clarendon Heights

Buena Vista

Corona Heights

The Castro

Eureka Valley

Duboce Triangle

Report a map error

Site Address

Screenshot for illustrative purposes only; not real companies or data

GridFAST | Example of a Customer Site Project



GridFAST

HOMEPROJECTSMY COMPANYRESOURCESNOTIFICATIONS

GridFAST

Project ID 00478 | Parnassus Ave Logistics Center

UPDATE UTILITY ADVISORUPDATE PROJECT STAGECONFIGURE PROJECT PACKAGE

SummaryCharging InformationContactsProject PackageExternal Communication

Click through the tabs above to explore all the information provided by the customer.

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Parnassus Ave Logistics Center

Planned In-Service Date

Feb 19, 2025

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Feb 19, 2025

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Google Map

Hosting Capacity Map

Map

Satellite

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PG&E
Confirmed

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21

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EPRI

GridFAST | Example of a Customer Site Project

Customer's
Planned
in-Service
Date

The screenshot displays the GridFAST web application interface. At the top, a navigation bar includes links for HOME, PROJECTS, MY COMPANY, RESOURCES, and NOTIFICATIONS. The user is logged in as 'GridFAST' with a profile picture (PP). The main header shows 'Project ID 00478 | Parnassus Ave Logistics Center', with the project name circled in red. To the right of the header are buttons for 'UPDATE UTILITY ADVISOR', 'UPDATE PROJECT STAGE', and 'CONFIGURE PROJECT PACKAGE'. Below the header, a tabbed interface shows 'Summary' as the active tab, with other tabs for 'Charging Information', 'Contacts', 'Project Package', and 'External Communication'. A note states: 'Click through the tabs above to explore all the information provided by the customer.'

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Customer	Frito-Lay		
Project Type	Fleet Charging		
Stage	Capacity Information Exchange		
Size	Small		

Location Information

Address
101 Parnassus Ave
San Francisco, CA 94117
Latitude/Longitude
37.76471 / -122.4501

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Utility Information

Assigned Utility Confirmed
Pacific Gas & Electric Co.

Utility Advisor
PP Polly PG&N
Polly's email address

Map **Satellite** **Google Map** **Hosting Capacity Map**

The map shows the location of the project in San Francisco, near Parnassus Ave and Golden Gate Park. The map includes labels for various streets and neighborhoods like Golden Gate Park, Parnassus Heights, and the Castro.

Project Plan

Project Plan ID 00401
Total Associated Projects 1

This project is the only phase at this location.

View Plan

Customer Contacts

JR Jen Robinson
Jen's email address

Data Export

GENERATE PROJECT PDF

Internal Notes

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GridFAST | Utility's Project Summary View

Pacific Gas & Electric Co.

Welcome, Polly

Customer Contacts

Search...

Amazon

Carlos Customer
Carlos' email address
555-123-1234
555-123-1234

Collin Customer
Collin's email address

Claire Customer
Claire's email address

EVgo

Jen Robinson
Jen's email address

Voltaire Charging

Ken Lim
Ken's email address

Frito-Lay

Jen Robinson
Jen's email address

ABC Logistics Co

Alice Customer
Alice's email address

Georgia State

Allan Customer
Allan's email address

Maggie's EVs Inc

Maggie Dong
Maggie's email address

Daimler Trucks North America LLC

Diego Quevedo
Diego's email address
555-123-1234

Matched EV Projects

Filters

Search Projects...

Utility Match (14)

Trading Override

Amazon 56 kW
Feb 15, 2025
100 Sebastopol Rd, Santa Rosa, CA, 95407

ABC EVs

Maggie's EVs Inc 75 kW
Dec 31, 2025
55 Stony Point Rd, Santa Rosa, CA, 95404

Test EV Realty

ABC Logistics Co 17500 kW
Jan 21, 2026
345 california st, San Francisco, CA, 94104

Fleet Depot

Amazon 3656 kW
Aug 30, 2026
984 Hensley St, Richmond, CA, 94801

W Contra Costa Unified School District (WCUSD) Bus Electrification

Amazon 84 kW
Oct 01, 2026
3000 Parker Road, Richmond, CA, 94806

Capacity Information Exchange (21)

WP San Marco TEST

Frito-Lay 45 kW
Feb 19, 2025
101 Parnassus Ave, San Francisco, CA, 94117

The Largest Charging Depot in the World | 001

Voltaire Charging 28000 kW
May 14, 2025
Tuolumne Meadows Lodge Rd, Yosemite National Park, 95321

Kens House

Voltaire Charging 2100 kW
May 29, 2025
3420 Hillview Ave., Palo Alto, CA, 94304

Dorito distribution center in SF

Frito-Lay 188 kW
Jul 16, 2025
320 San Bruno Avenue, San Francisco, CA, 94103

TITAN Test Project | new dc fast chargers

ABC Logistics Co 160 kW
Jul 22, 2025
51 Terry A Francois Blvd, San Francisco, CA, 94158

Preparation for Service Request (5)

Service Request Test, Frito-Lay, PG&E

Frito-Lay 75 kW
Jul 01, 2025
931 S Van Ness Ave, San Francisco, CA, 94110

samantha (sr test)

Frito-Lay 38 kW
Sep 24, 2025
139 Mendosa Ave, San Francisco, CA, 94116

Cheetos (EV Common App test 3)

Frito-Lay 100 kW
Oct 21, 2025
Castro St & 23rd St, San Francisco, CA, 94114

EVgo site in San Bruno | EVG457

EVgo 990 kW
May 29, 2031
404 San Bruno Ave W, San Bruno, CA, 94066

New match test

Amazon 2362 kW
Dec 03, 2040
415 De Leon Ave, Fremont, CA, 94539

Initiate Service Request (3)

EV Fleet South San Francisco

Amazon 115 kW
Nov 12, 2026
323 Miller Ave, South San Francisco, CA, 94080

FritoLay service connection request (test EV Common app) in PG&E service territory

Frito-Lay 800 kW
Nov 18, 2026
Castro St & 23rd St, San Francisco, CA, 94114

test for PG&E

Amazon
Jul 11, 2029
1100 Elm Dr, Novato, CA, 94945

1 - 5 of 14

1 - 5 of 21

All Customer Projects at a Glance

GridFAST | Utility's Project Summary View

GridFAST HOME PROJECTS MY COMPANY RESOURCES NOTIFICATIONS

Pacific Gas & Electric Co. Welcome, Polly

2 New Project Matches 14 Projects Needing Curated Package

Customer Contacts

Search...

Amazon

Carlos Customer
Carlos' email address
555-123-1234
555-123-1234

Collin Customer
Collin's email address

Claire Customer
Claire's email address

EVgo

JR Jen Robinson
Jen's email address

Voltaire Charging

KL Ken Lim
Ken's email address

Frito-Lay

JR Jen Robinson
Jen's email address

ABC Logistics Co

AC Alice Customer
Alice's email address

Georgia State

AC Allan Customer
Allan's email address

Maggie's EVs Inc

MD Maggie Dong
Maggie's email address

Daimler Trucks North America LLC

DQ Diego Quevedo
Diego's email address
555-123-1234

Matched EV Projects

Filters

Utility Match (14)

Testing Override
Amazon 56 kW
Feb 15, 2025
100 Sebastopol Rd, Santa Rosa, CA, 95407

ABC EVs
Maggie's EVs Inc 75 kW
Dec 31, 2025
55 Stony Point Rd, Santa Rosa, CA, 95404

Test EV Realty
ABC Logistics Co 17500 kW
Jan 21, 2026
345 california st, San Francisco, CA, 94104

Fleet Depot
Amazon 3656 kW
Aug 30, 2026
984 Hensley St, Richmond, CA, 94801

W Contra Costa Unified School District (WCCUSD) Bus Electrification
Amazon 84 kW
Oct 01, 2026
3000 Parker Road, Richmond, CA, 94806

Capacity Information Exchange (21)

WP San Marco TEST
Frito-Lay 45 kW
Feb 19, 2025
101 Parnassus Ave, San Francisco, CA, 94117

The Largest Charging Depot in the World | 001
Voltaire Charging 28000 kW
May 14, 2025
Tuolumne Meadows Lodge Rd, Yosemite National Park, 95321

Kens House
Voltaire Charging 2100 kW
May 29, 2025
3420 Hillview Ave., Palo Alto, CA, 94304

Dorito distribution center in SF
Frito-Lay 188 kW
Jul 16, 2025
320 San Bruno Avenue, San Francisco, CA, 94103

TITAN Test Project | new dc fast chargers
ABC Logistics Co 160 kW
Jul 22, 2025
51 Terry A Francois Blvd, San Francisco, CA, 94158

Preparation for Service Request (5)

Service Request Test, Frito-Lay, PG&E
Frito-Lay 75 kW
Jul 01, 2025
931 S Van Ness Ave, San Francisco, CA, 94110

samantha (sr test)
Frito-Lay 38 kW
Sep 24, 2025
139 Mendosa Ave, San Francisco, CA, 94116

Cheetos (EV Common App test 3)
Frito-Lay 100 kW
Oct 21, 2025
Castro St & 23rd St, San Francisco, CA, 94114

EVgo site in San Bruno | EVG457
EVgo 990 kW
May 29, 2031
404 San Bruno Ave W, San Bruno, CA, 94066

New match test
Amazon 2362 kW
Dec 03, 2040
415 De Leon Ave, Fremont, CA, 94539

Initiate Service Request (3)

EV Fleet South San Francisco
Amazon 115 kW
Nov 12, 2026
323 Miller Ave, South San Francisco, CA, 94080

FritoLay service connection request (test EV Common app) in PG&E service territory
Frito-Lay 800 kW
Nov 18, 2026
Castro St & 23rd St, San Francisco, CA, 94114

test for PG&E
Amazon 96 kW
Jul 11, 2029
1100 Elm Dr, Novato, CA, 94945

Search Projects... SEARCH

« < 1 - 5 of 14 > »

« < 1 - 5 of 21 > »

Screenshot for illustrative purposes only; not real companies or data

All My Customer Contacts at a Glance

GridFAST | Utility's Project Summary View

GridFAST

HOME

PROJECTS

MY COMPANY

RESOURCES

NOTIFICATIONS

Pacific Gas & Electric Co.

Welcome, Polly

Customer Contacts

Search...

Amazon

Carlos Customer

Carlos' email address

555-123-1234

555-123-1234

Collin Customer

Collin's email address

Claire Customer

Claire's email address

EVgo

Jen Robinson

Jen's email address

Voltaire Charging

Ken Lim

Ken's email address

Frito-Lay

Jen Robinson

Jen's email address

ABC Logistics Co

Alice Customer

Alice's email address

Georgia State

Allan Customer

Allan's email address

Maggie's EVs Inc

Maggie Dong

Maggie's email address

Daimler Trucks North America LLC

Diego Quevedo

Diego's email address

555-123-1234

Matched EV Projects

Filters

Utility Match (14)

Capacity Information Exchange (21)

Preparation for Service Request (5)

Initiate Service Request (3)

2 New Project Matches

14 Projects Needing Curated Package

Testing Override

Amazon

Feb 15, 2025

100 Sebastopol Rd, Santa Rosa, CA, 95407

56 kW

WP San Marco TEST

Frito-Lay

Feb 19, 2025

101 Parnassus Ave, San Francisco, CA, 94117

45 kW

Service Request Test, Frito-Lay, PG&E

Frito-Lay

Jul 01, 2025

931 S Van Ness Ave, San Francisco, CA, 94110

75 kW

EV Fleet South San Francisco

Amazon

Nov 12, 2026

323 Miller Ave, South San Francisco, CA, 94080

11 kW

ABC EVs

Maggie's EVs Inc

Dec 31, 2025

55 Stony Point Rd, Santa Rosa, CA, 95404

75 kW

The Largest Charging Depot in the World | 001

Voltaire Charging

May 14, 2025

Tuolumne Meadows Lodge Rd, Yosemite National Park, 95321

28000 kW

samantha (sr test)

Frito-Lay

Sep 24, 2025

139 Mendosa Ave, San Francisco, CA, 94116

38 kW

FritoLay service connection request (test EV Common app) in PG&E service territory

Frito-Lay

Nov 18, 2026

Castro St & 23rd St, San Francisco, CA, 94114

80 kW

Test EV Realty

ABC Logistics Co

Jan 21, 2026

345 california st, San Francisco, CA, 94104

17500 kW

Kens House

Voltaire Charging

May 29, 2025

3420 Hillview Ave., Palo Alto, CA, 94304

2100 kW

Cheetos (EV Common App test 3)

Frito-Lay

Oct 21, 2025

Castro St & 23rd St, San Francisco, CA, 94114

100 kW

test for PG&E

Amazon

Jul 11, 2029

1100 Elm Dr, Novato, CA, 94945

96 kW

Fleet Depot

Amazon

Aug 30, 2026

984 Hensley St, Richmond, CA, 94801

3656 kW

Dorito distribution center in SF

Frito-Lay

Jul 16, 2025

320 San Bruno Avenue, San Francisco, CA, 94103

188 kW

EVgo site in San Bruno | EVG457

EVgo

May 29, 2031

404 San Bruno Ave W, San Bruno, CA, 94066

990 kW

W Contra Costa Unified School District (WCCUSD) Bus Electrification

Amazon

Oct 01, 2026

3000 Parker Road, Richmond, CA, 94806

84 kW

TITAN Test Project | new dc fast chargers

ABC Logistics Co

Jul 22, 2025

51 Terry A Francois Blvd, San Francisco, CA, 94158

160 kW

New match test

Amazon

Dec 03, 2040

415 De Leon Ave, Fremont, CA, 94539

2362 kW

« < 1 - 5 of 14 > »

« < 1 - 5 of 21 > »

Phase of Projects as Planning Matures (from left to right)

Screenshot for illustrative purposes only; not real companies or data

Streamlining EV Service Connections for Small Fleets and MFH

DOE-Funded “Charging Infrastructure Service Connection Simplification Resource”, CIISR



EV Service Connection Roadmap:



- Solution ideas, informed by customer and utility pain points, to **streamline the EV service connection process to achieve scale.**
- Geared towards small fleets and MFH customers, but the **solutions benefit all customers.**

1. EV Service Connection Roadmap:

<https://www.epri.com/research/programs/053122/results/3002031160>

2. Research Report:

<https://www.epri.com/research/programs/053122/results/3002031384>

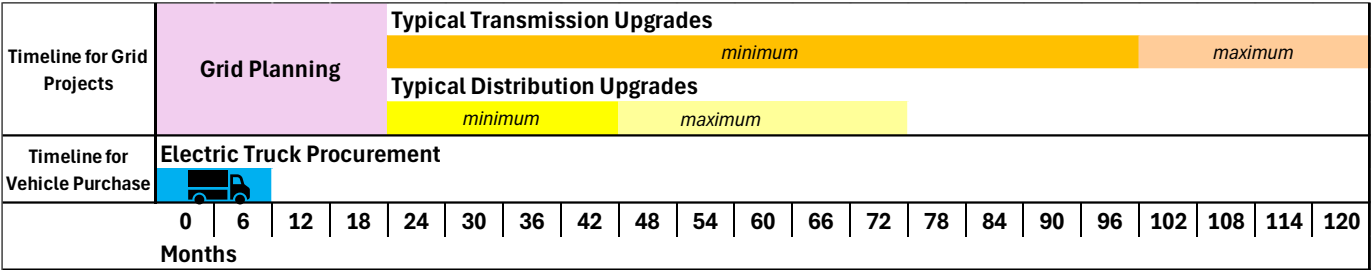


Alliance for Transportation Electrification



EV Charging Infrastructure Service Connections:

Efficiency Is Important



- EV adoption at scale is coming→ utilities must be prepared for the increase in service requests for new or upgraded service.
- EV charging infrastructure service requests are different from other service requests:
 - Customers receive vehicles much quicker than other typical service requests (e.g., buildings).
 - Projects may require more discussions with the utility to determine how managed charging and other non-grid build solutions (non-wires alternatives) may apply to the project.
- **Smaller EV customers have different challenges than larger customers:**
 - EV charging represents a new relationship with the utility for the small customer.
 - Small customers have limited resources compared to national companies.
 - Much of the grid connection conversation has been related to larger customers.
 - Small customers will make up a large portion of service requests at scale.

Project focus is on small customers, so no customer is left behind in the transition to EVs.

EV Charging Infrastructure Service Connections:

Defining a Small Customer



What is a small customer?

- No specific vehicle class, vehicles can be varied (e.g. pick-up trucks or SUVs or delivery vans or semi-trucks).
- Generally, <10 vehicles in the fleet.
- Vehicles can be parked at home or at a rented/owned office HQ.
- Primary business is varied but usually classified by the type of business carried out: e.g. food service, flower delivery, tool sales, maintenance services.
- Multi-family housing (MFH) developers, owners, and building managers are also small customers in this report. They face similar challenges to those of small fleets.
- Property size can vary, but the EVSE installed is around 1-10 EVSE.



Small Fleet Customer Examples:

- A plumbing company with 2 pick-up trucks.
- A laundry delivery service with 3 sprinter vans but expanding to 5.
- A “mom and pop” freight delivery business with five Class 8 vehicles.



Multi-Family Housing Examples:

- A MFH owner of an 8-unit building installing 8 EVSE
- A property manager of an 80-unit building installing 4 EVSE in an underground garage
- An individual condo owner installing one EVSE

An Updated EV Service Connection Process

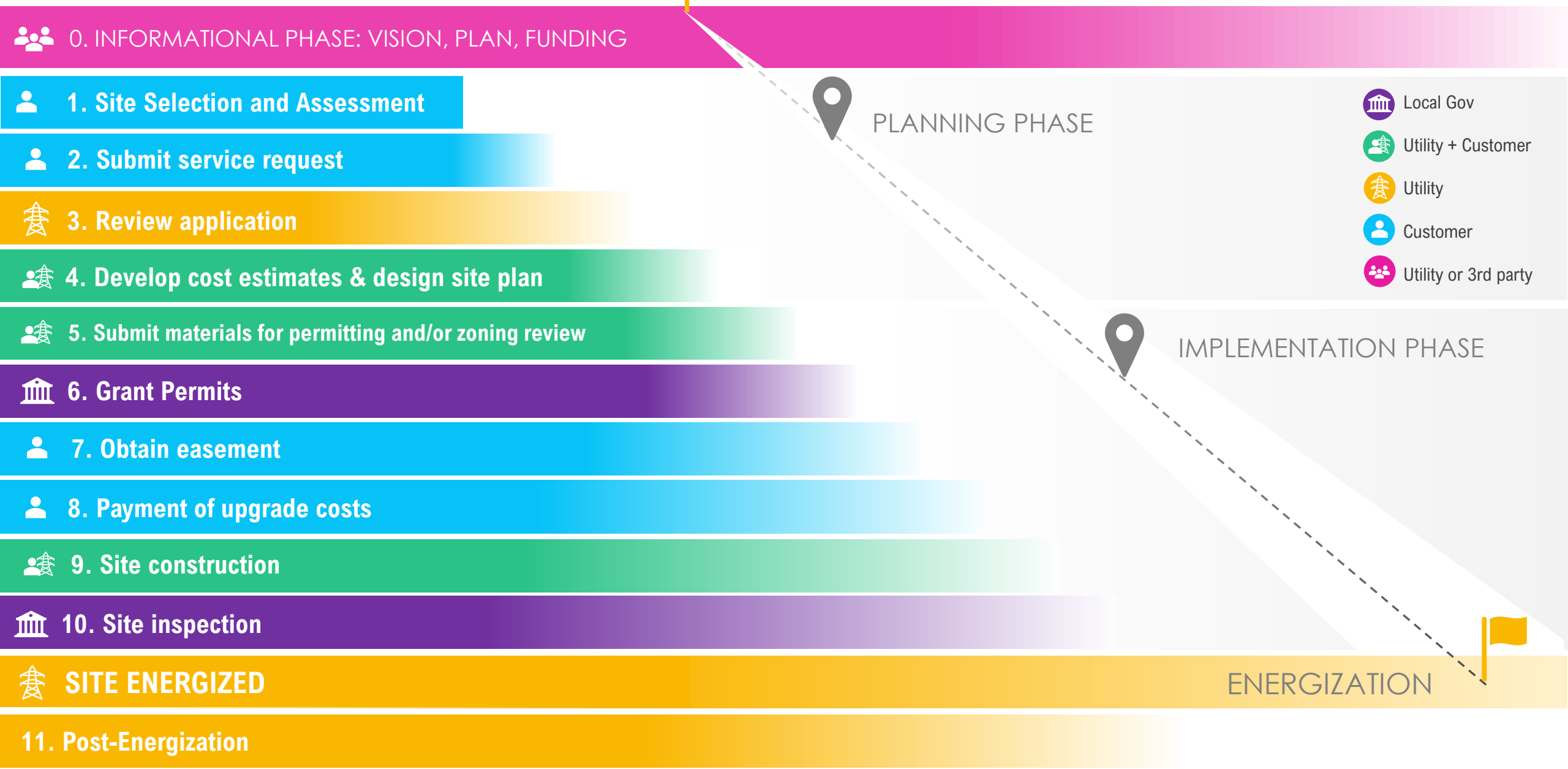


Research and feedback showed the need to update the typical service connection process at many utilities:

- Add in a “pre-step” and “post-step” in the energization journey.
- Factor in whether the customer owns the space or land where the EV charging infrastructure will be installed.
- Factor in which steps can be completed in parallel.
- Determine which small customers may not need a service upgrade compared to those who do.

ENERGIZATION JOURNEY

Typical Service Connection Process



Solution Ideas for a Streamlined EV Service Connection Process

1



- > Take challenges
- > Identify opportunities and solutions
- > Categorize the solutions into the energization journey steps.

2



- > Rank the opportunities at each step based on easiest to implement (lowest hanging fruit), compared to harder to implement and could even require regulatory approval.

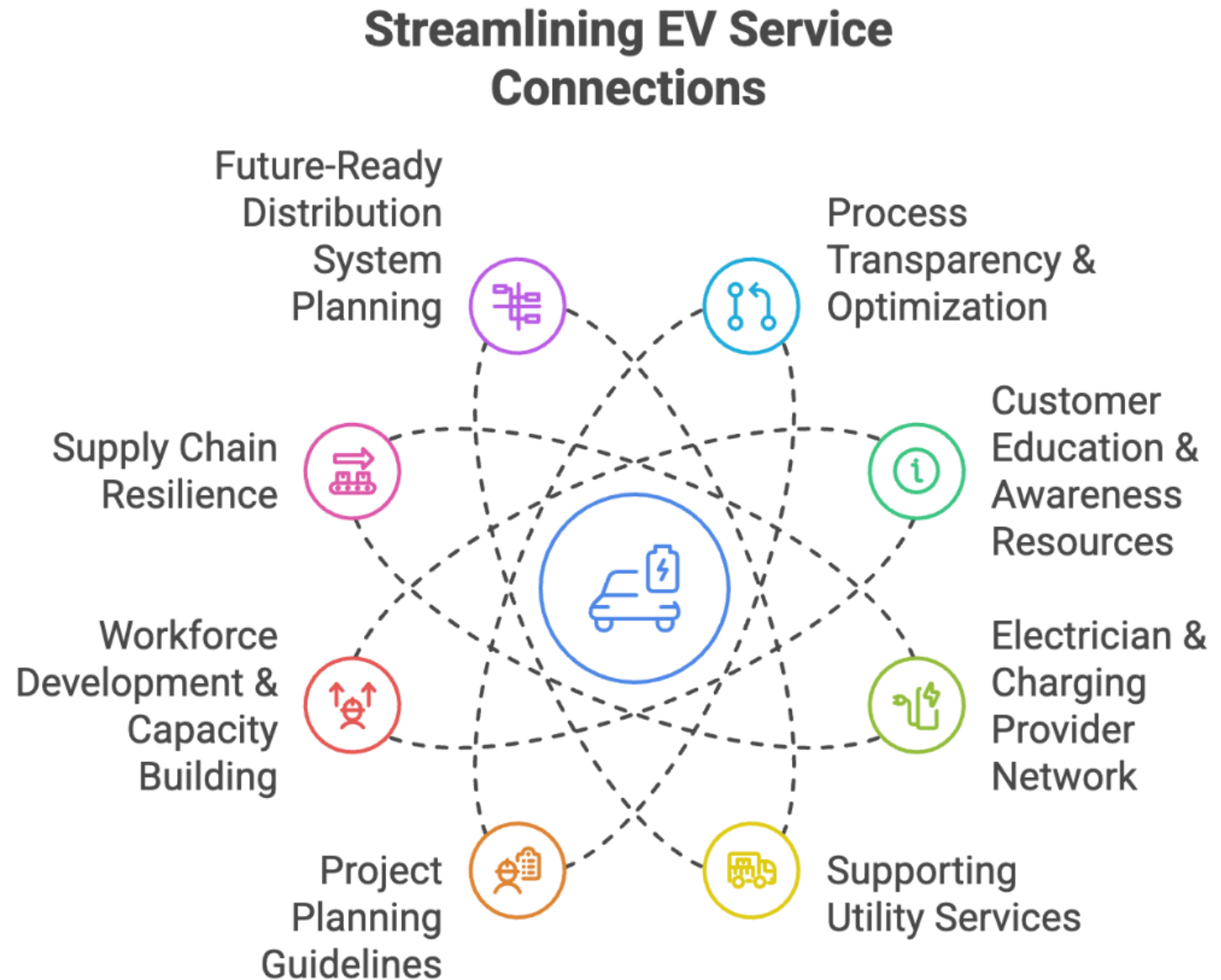
3



- > Mark solutions with the biggest impact in streamlining the process or improving customer engagement and education efforts with a lightning bolt.

44 total solutions!

Solution Ideas for a Streamlined EV Service Connection Process



Solution Ideas for a Streamlined EV Service Connection Process

Step 1: Identify the Site.

1. Ensure customer is aware of low-cost solutions such as smart plugs, smart meter panels and other related solutions that maximize panel space.
2. Point to or maintain a list of public charging depots and share it with fleet customers.
3. Provide a list of qualified consultants / contractors to support the site design, engineering and the remainder of the energization journey.
4. Publish load hosting capacity maps.

Solution Ideas	Rank
Step 1: Identify the Site	
<p>Ensure customer is aware of lower cost solutions such as smart plugs, smart meter panels and other related solutions that maximize panel space. In places with panel constraints, smart meter panels can manage and control when some devices are in use and when others are not (e.g. if the a/c is on, the EVSE is off). Smart plugs are similar. Other related solutions include installing smart EVSEs that allow for a customer, such as a MFH customer, to be able to charge their tenants without more meters. While these technologies are more commonly in use on the residential side, their adoption is growing for commercial customers.</p> <p>Utilities should explore further how they can serve some types of EVSE installations as separate customer accounts, rather than treating them as a load under an existing customer account. These are designs that can reduce charging site complexity if it is assumed that EVSEs that contain metering and protection are allowed to be directly connected as utility customers. This can work for some shared MFH housing, and some public parking applications that have overhead service. With the MFH project, the EVSE is added as an additional customer on existing shared secondaries; there is no new meter needed, nor a breaker panel, which saves money and time. For the small fleet parking in a public parking lot, the overhead service drop is directly to the EVSE, and eliminates the need for any separate utility meter, trenching, conduit or breaker panel. More information and considerations are available in EPRI's report, "Shared EV Charging Sites: Cost Components and Cost Reduction Strategies."</p>	1
<p>Point to or maintain a list of public charging depots and share it with small fleet customers. While some small fleet customer may desire to have their own EVSE, others may find value in accessing public charging or public charging depots. The utility could point to websites where public charging stations are listed (e.g. PlugShare, DOE Alt Fuels Database), or the utility could maintain a list of the currently locally available (not planned, as this may be sensitive and confidential information) public charging depots that the small fleet customer could access and share this with customers. Other organizations, such as Clean Cities groups, may also maintain their own lists, and utilities can refer customers to their websites. This shows customers the variety of charging options available. Even if customers ultimately install their own charging infrastructure, this list can become a part of their resilience plan (e.g., for when their chargers are down/require maintenance).</p>	2
<p>Provide a list of qualified consultants/contractors to support the site design, engineering and the remainder of the energization journey. For some small fleet and MFH customers, it may be desirable to hire a qualified consultant and/or contractor to assist with the site design, preliminary engineering, if applicable, and the remainder of the energization journey. Of course, not all customers will have the budget to be able to work with a consultant. Utilities can assist in this step by partnering with local Clean Cities organizations, municipalities, and/or local nonprofits to develop a list of consultants and/or contractors for these kinds of projects. Consultants/contractors will also be able to assist with ADA requirements potentially needed at the site for access to EV charging stations.</p>	3
<p>Publish load hosting capacity maps. While not all small fleet and MFH customers might utilize a load hosting capacity map, they can be very helpful for customers who would utilize the maps to identify site or depot locations with capacity. A load hosting capacity map is an indicator of the amount of new load that can be added to the distribution system without triggering grid upgrades. Utilities could update these maps monthly, biweekly, or even daily; some utilities have or are developing online maps that can be directly accessed by customers. Utilities could also include information on how to read and interpret the maps. NARUC offers some resources on the grid data sharing conversations to have in advance with the appropriate stakeholders (e.g., regulators, governing boards). It should be noted, however, that a hosting capacity map does not necessarily show interconnection requests that are in the queue and where locations with spare capacity are already being considered by other customers.</p> <p>Example: Pacific Gas & Electric's hosting capacity map, referred to as the Grid Resource Integration Portal.</p>	4

Solution Ideas for a Streamlined EV Service Connection Process

Step 2: Review Application

1. Assign a single point of contact for the small fleet and MFH customer to guide the customer through the remainder of the energization journey.
2. Create a clear internal process for EVSE service connections with the ability to track internal inefficiencies.
3. Develop an online system for customers to track application status, receive updates and plan for any delays.

Solution Ideas	Rank
Step 3: Review Application	
Assign a single point of contact for the small fleet and MFH customer to guide the customer through the remainder of the energization journey. Consistent feedback from the small fleet and MFH customers was the desire for a single point of contact at the utility. Even as the project passes into other departments at a utility (e.g., the engineering team or construction team), the single point of contact should remain connected to the project and provide regular updates back to the customer. The benefit of this single point of contact on the utility side is that relationships can be formed between the customer and the utility advisor that can be leveraged in the future as additional programs may be offered; for example, as the utility offers additional managed charging programs, the single point of contacts can easily reach back out to customers and inform about these new utility offerings. However, it should also be noted that once the project gets into the construction phase, the single point of contact at the utility does not necessarily need to be a <u>middle-man</u> between the construction team and the customer, which could lead to some bottlenecks and delays. Example: At Salt River Project in Arizona, all customers are assigned a Strategic Account Manager after application submission, who connects them to appropriate departments and resources within Salt River Project and functions as their prime point of contact.	1
Create a clear internal process for EVSE service connections with the ability to track internal inefficiencies. Most utilities have the opportunity to get ahead of the EV adoption curve and develop streamlined internal processes for EVSE service connections. Utilities can take advantage of this and work across departments and develop a flow chart for the service connection process for EVSE in general, not just for small fleet and MFH customers. Utilities can also identify goals and metrics for each stage of the internal energization journey for a customer, set internal goals to achieve them, and communicate these timeframes to the customer. This can be a way to better understand where improvements may be needed as well as provide a baseline against which to measure and communicate progress with additional external stakeholders (e.g., with regulators and governing boards). One utility noted that sharing end-to-end process timelines may encourage greater efficiencies than timelines for each process step. They asserted that stage-specific targets can lead to a focus on compliance rather than on innovation and time-saving strategies that could reduce the overall energization process.	2
Develop an online system for customers to track application status, receive updates and plan for any delays. While a single point of contact is desired for small fleet and MFH customers, having a central portal or online system for customers to track their project status, receive updates, and plan accordingly for any delays can eliminate some of the unnecessary email traffic between the customer and the single point of contact.	3



Implementing the Roadmap

ROADMAP IMPLEMENTATION JOURNEY



Review emerging barriers in your utility territory.



Review Roadmap solutions and create prioritized list.



Consider higher impact solutions to prepare for growth.



Consider partnership opportunities for some solutions.



Adopt new strategies and reassess as needed.

NASUCA Member Takeaways



1. **GridFAST is your central portal for collaboration on EV projects that are 1+ years out.**
2. **GridFAST is a secure, online data exchange platform.**
3. **The EV Service Connection Roadmap contains solution ideas for each step of the EV service connection process to help streamline and be ready for EV service requests at scale.**
4. **The Roadmap is geared towards small fleets and MFH customers, but the solutions can benefit all customers (and utilities).**

Asks:

- ☐ **Encourage utilities and EV customers to use GridFAST.** The customer gets assistance before the service request, and the utility gets project information pre-service request to be able to plan more effectively and proactively. This can lower costs for everyone in the long run.
- ☐ **Encourage utilities to review the Roadmap solutions ideas** for streamlining EV service requests. This can save customers and utilities time and money.

EVs2Scale 2030™



Thank You

GridFAST: Three utility user levels







Features		GridFAST Lite	GridFAST*	GridFAST+**	Comments
Available after v1 rollout	Project Matchmaking	Yes	Yes	Yes	Advances the many-to-many requirements
	Number of users	One (1)	Unlimited	Unlimited	Features for non-subscribers limited beyond core functionality
	Utility Contact Listing	Email & Phone Number	Configurable	Configurable	"
	Utility Welcome Package (showcase utility EV program information for all GridFAST customers)		Configurable	Configurable	"
	Project Package (curated information specific to an EV customer's project)		Configurable	Configurable	"
	User Group Community		Advisory Seat, Quarterly Cadence	Advisory Seat, Monthly Cadence	Details of User Group community are expected to evolve; combined quarterly GridFAST and GridFAST+ subscriber meetings
Available after v2 rollout	API Access			API Key Provided	
	Self-Configurable Questions (additional questions to Common App)			Configurable	

* Regular GridFAST will continue to be available after GridFAST PLUS rollout

** EVs2Scale members receive GridFAST PLUS subscription through 2030 (5 years of value)

GridFAST Pricing Structure

Large Utility Pricing Structure				
GridFAST Access	Base Price	Set-up Fee**	Per OpCo Adder	Term
 GridFAST	\$ 15,000	-	\$ 1,500	12 months*
 GridFAST+	\$ 50,000	\$ 10,000	\$ 3,000	12 months

Medium & Small Utility Pricing Structure				
GridFAST Access	Base Price	Set-up Fee**	Per OpCo Adder	Term
 GridFAST	\$ 2,500	-	\$ 500	12 months*
 GridFAST+	\$ 15,000	\$ 7,500	\$ 1,000	12 months

Company Size Indicator:

- Large: $T > 10,000$ or $D > 44,000$, where T is annual peak transmission (MW), and G is annual distribution output (GWh)
- If a company's T and D metrics span two tiers, their price is the higher of the two

* The minimum GridFAST subscription is two years (\$15,000/year for Large Utilities and \$2,500/year for Small & Medium Utilities)

** Set-up fee will be quoted based upon costs for utilities with parent/operating company relationship.

Self-Directed Fund (SDF)-eligible