EVs2Scale 2030™

GridFAST, CIISR and GridFAST Express: A Presentation to the NY DPS EVII Working Group

October 23, 2024

Watson Collins, EPRI

Jen Robinson, EPRI

Katherine Stainken, EPRI

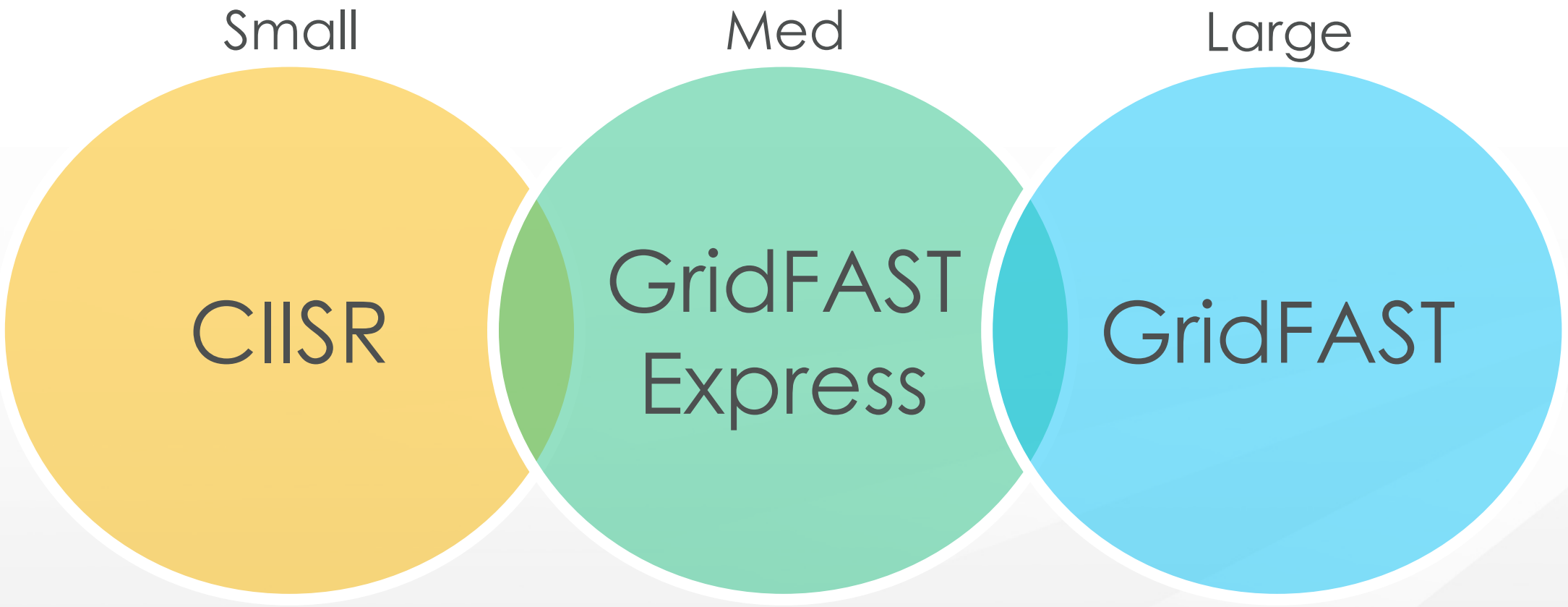
The Utility Challenge – Why EVs2Scale 2030

- Government, Industry, and Fleets are **increasingly aligning on aggressive 2030 vehicle electrification goals**
- The **pace of needed year-over-year action and investment to prepare charging sites and the grid is not clear**
- To be ready for EV load at scale, we need:
    1. Proactive outreach and planning,
    2. Policies and processes that prepare for EV loads, and
    3. Prioritized and prudent investments in grid build.

THIS TRANSITION IS UNPRECEDENTED AND COMPLEX. IT REQUIRES:

- **Extraordinary collaboration and partnering** across all the major EV stakeholder groups
- **Stakeholders must "meet in the middle" with transparent electrification plans** so early planning can occur and long-leadtime investments can be prioritized

EVs2Scale Work to Streamline EV Service Connections

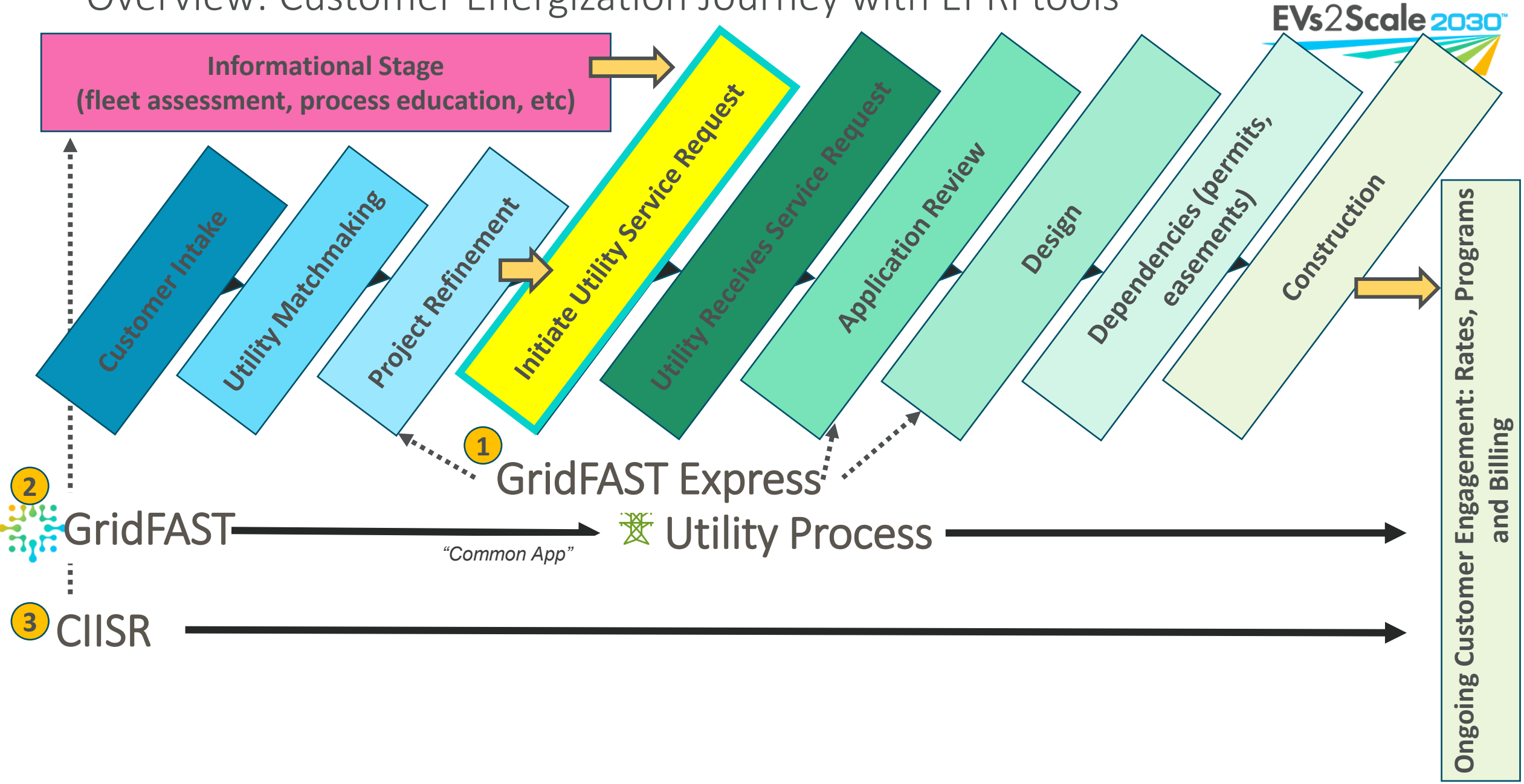


Model Procedures, Educational Resources focused on Small Customers' Needs

Technical Assistance Program for Front-line Utility Staff

Tool for Early & Standardized Information-sharing between Fleets and Utilities Across the US

Overview: Customer Energization Journey with EPRI tools



CIISR

CIISR* Approach

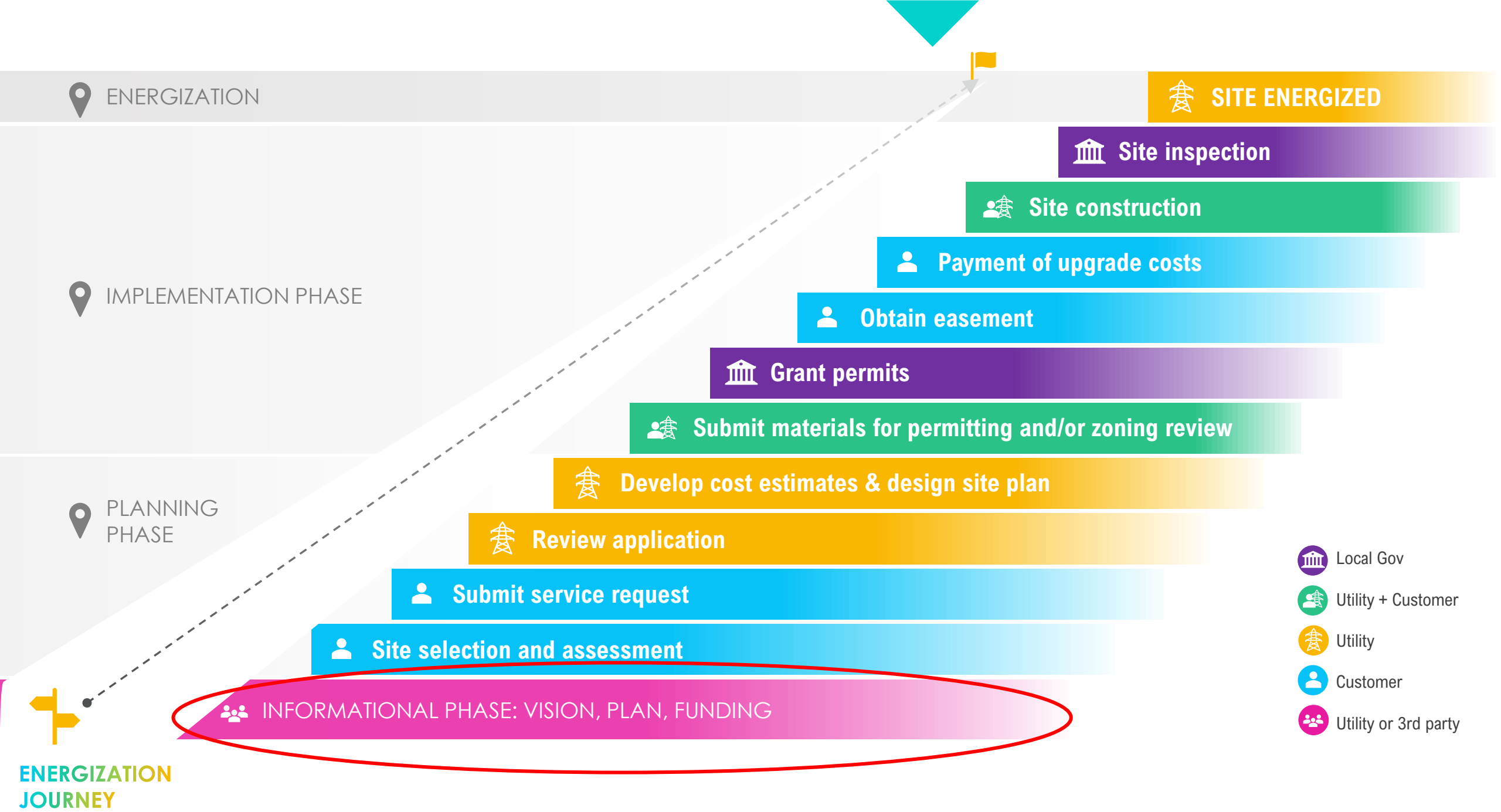
- Modeled as a sort of 'SGIP for EV service connections'
  - SGIP: small generator interconnection procedures (FERC procedure)
  - Divides into three paths as triage (small, medium, and large interconnection) with recommended processes for each.

- Why target 'small customers'?
  - Different challenges for customers
    - TE represents a new relationship with their utility
    - Limited resources
    - Much of the grid connection conversation is in relation to medium and large customers
  - Different challenges for utilities
    - Less about capacity availability, more about supporting the volume and variation of customers
    - A need to support customer learning process, need to reach underserved customers

Key Deliverables

- EV service connection roadmap for small fleets and multifamily, including model service connection procedures
- Support resource (website) for small customers
- Framework for adapting GridFAST for small customers

* Funded by DOE


ENERGIZATION
SITE ENERGIZED
IMPLEMENTATION PHASE
Site inspection
Site construction
Payment of upgrade costs
Obtain easement
Grant permits
Submit materials for permitting and/or zoning review
PLANNING PHASE
Develop cost estimates & design site plan
Review application
Submit service request
Site selection and assessment
INFORMATIONAL PHASE: VISION, PLAN, FUNDING
ENERGIZATION JOURNEY
Local Gov
Utility + Customer
Utility
Customer
Utility or 3rd party

CIISR* Approach

- Modeled as a sort of 'SGIP for EV service connections'
  - SGIP: small generator interconnection procedures (FERC procedure)
  - Divides into three paths as triage (small, medium, and large interconnection) with recommended processes for each.

- Why target 'small customers'?
  - Different challenges for customers
    - TE represents a new relationship with their utility
    - Limited resources
    - Much of the grid connection conversation is in relation to medium and large customers
  - Different challenges for utilities
    - Less about capacity availability, more about supporting the volume and variation of customers
    - A need to support customer learning process, need to reach underserved customers

Key Deliverables

- EV service connection roadmap for small fleets and multifamily, including model service connection procedures
- Support resource (website) for small customers
- Framework for adapting GridFAST for small customers

* Funded by DOE

GridFAST Express

GridFAST Express*

Project Partners, in addition to DOE support

EPRI
Pacific Northwest National Laboratory (PNNL)
Burns & McDonnell
Black & Veatch
Edison Electric Institute (EEI)

Key Deliverables:

GridFAST Express - providing technical assistance to front-line utility staff through a vetted catalog of system topologies and characteristics streamlining their information gathering and validation.

EV Infrastructure Learning Lab – providing technical assistance to project managers, fleet managers, facility managers who need assistance getting started on their charging infrastructure projects (lessons learned from advisory services and 30% designs at 25 sites)

Recommendations, priorities, and model processes to address the national supply chain challenges. The effort will be driven in collaboration with the DOE.

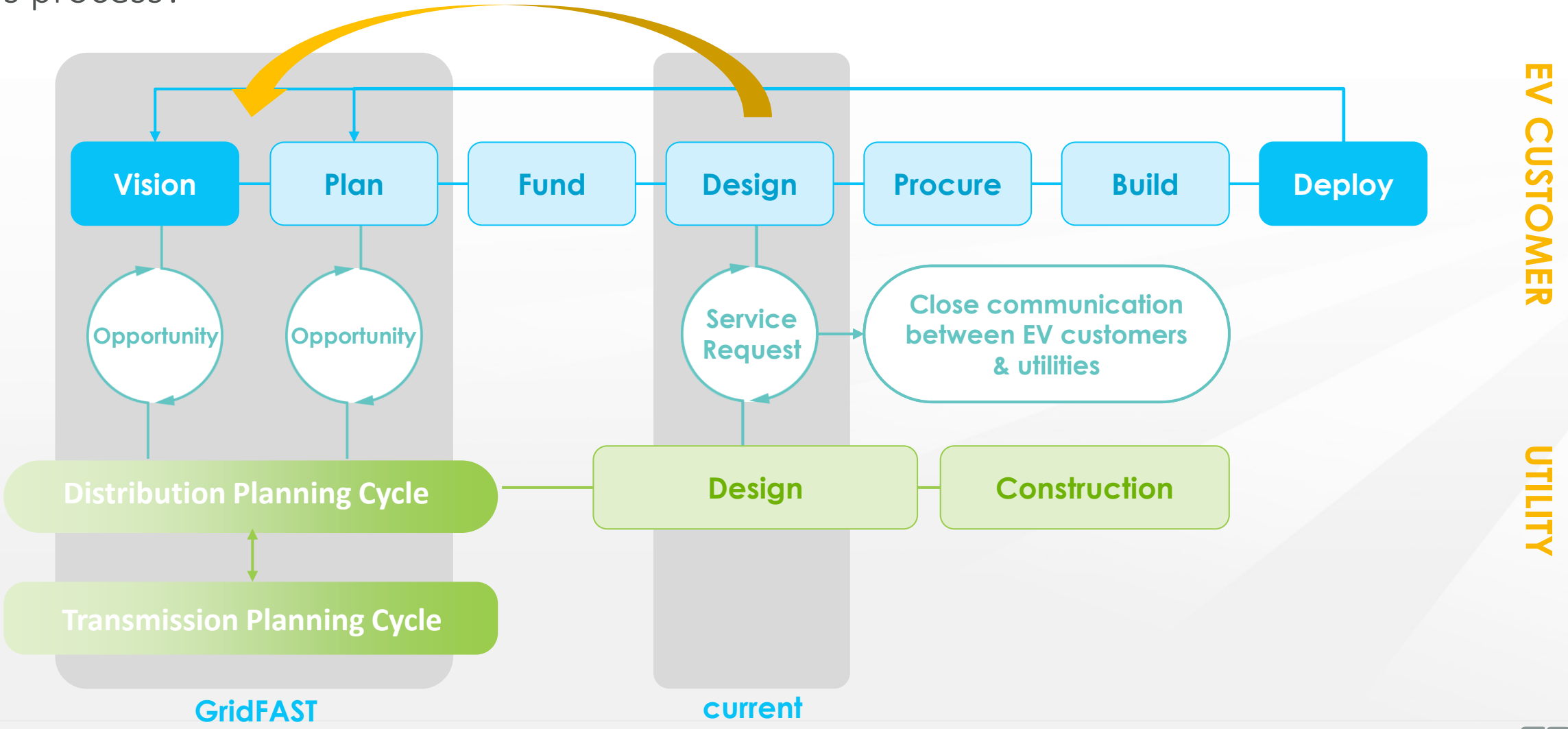
Documented stakeholder processes integrated with i2X and EVGrid Assist.

* Funded by DOE

GridFAST

Problem to Address

How might we help EV customers and utilities get ***actionable*** information, ***earlier*** in this process?



Addressing 15 Customer & Utility Pain Points

EVs2Scale 2030

Vision & Strategy

Provide tools to educate fleets and make the case for electrification

Help fleets forecast where/when to electrify (beyond 2 years) to drive more certainty in fleet plans

Create a standard practice (across utilities) to gather fleet plans early so utilities can incorporate into D&T planning

Validate fleet plans so utilities can confidently invest in costly grid upgrades

Help smaller utilities establish EV processes so they can better support EV projects

Plan & Forecast

Kickstart fleet communications with the right utility/POC to eliminate nonvalue-added fleet efforts

Educate fleets on electricity and utility processes and programs to eliminate nonvalue-added utility efforts

Help fleets gain more accurate insights into grid capacity, upgrade timelines and costs, so they can select more viable locations

Help utilities provide real-time, updated feeder capacity data so fleets can select more viable sites before submitting a formal request

Help fleets model and calculate charging and power scenarios to minimize costly and potentially unnecessary grid upgrades

Provide fleets with smart, interactive tools to alleviate utility bottlenecks (e.g., staff shortages) without having to wait for a utility engineer

Funding

Help fleets understand how to qualify/apply for grant and incentive programs so they have full transparency into the process ahead of time

Design & Engineering

Create a standardized process for service requests across the utility industry to minimize time-consuming and repetitive workload

Help utilities provide more timeline transparency to fleets (e.g. supply chain delays, resourcing, permits, easements) so fleets can account for it in their project planning

Approvals & Procurement

Set a standard for fleet x utility best practices to minimize back and forth and timeline delays

See pain point and customer journey details here:

Defining the Large EV Customer Electrification Journey: Using Design Thinking to Inform the GridFAST Data Exchange Platform (EPRI 3002026782)

What is GridFAST?

EVs2Scale 2030

An information exchange platform that helps EV customers engage early and efficiently with utilities to accelerate infrastructure energization.

For EV Customers

- Match with utilities across the US
- Access to curated information from utilities
- Access to information on hosting capacity (where available)
- Single source for utility information in standardized formats

For Utilities

- Vetted information from customers
- Lead generation for fleet advisory services
- Project specific information from customers for grid planning activities
- Ability to integrate with internal utility systems

GridFAST helps move EV projects forward.

Unlocks the Value of Early Collaboration

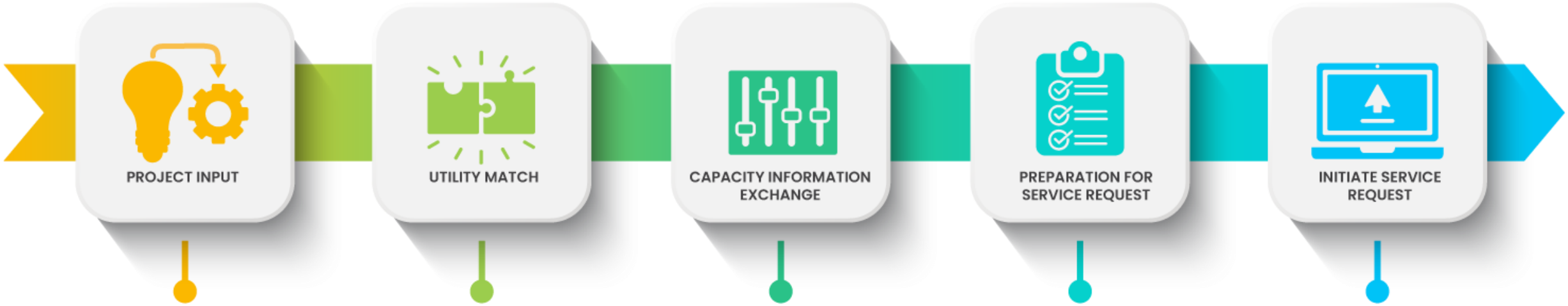
Partnering early in an EV infrastructure energization project drives multiple benefits for both the utility and its customer, including:

- On-time and on-budget projects
- Avoided or eliminated grid upgrades
- Optimal siting decisions
- Utility customer satisfaction and retention
- Achievement of decarbonization and electrification goals

GridFAST tackles key challenges faced by customers, improving communications prior to the service request.

How GridFAST Works

EVs2Scale 2030



Customers will gather essential project information to prepare for early communication with utilities about EV Charging Projects.

GridFAST will vet customer information and match them to the appropriate utility. Customers will later receive tailored advice from a Utility Advisor.

GridFAST will provide a secure channel for communication between customers and utility representatives to address the next steps and refine projects as needed.

Customers will finalize project information with the utility for a service request submission.

Customers will submit a service request to the utility. At this point, the utility will work with the customer to energize their project.

The platform is a channel for customers to find and collaborate with you.

EPRI

Staged Rollout

EVs2Scale 2030™

1 EVs2Scale Member Early Access **(Q4 2024)**

Onboarding Members: EVs2Scale members will receive personalized onboarding with access to EPRI's GridFAST team.

Goal: Set up all members by the end of Q4 2024.

2 Focused EV Customer Early Access **(Q1 2025)**

Engage EV Customers: Focus on onboarding EV customers with projects. Customers that EVs2Scale members are already engaged with.

Goal: Create a strong customer pull to drive project submissions.

3 Expanded Utility Onboarding **(Q2 2025)**

Expand Utility Engagement: Broaden outreach to utilities to ensure that all customers are served

Goal: Establish a robust utility presence on the platform, aligning all parties for success.

4 Expanded Customer Onboarding **(Q3 2025)**

Broaden Customer Base: Launch a comprehensive campaign targeting a larger group of EV customers beyond the initial cohort.

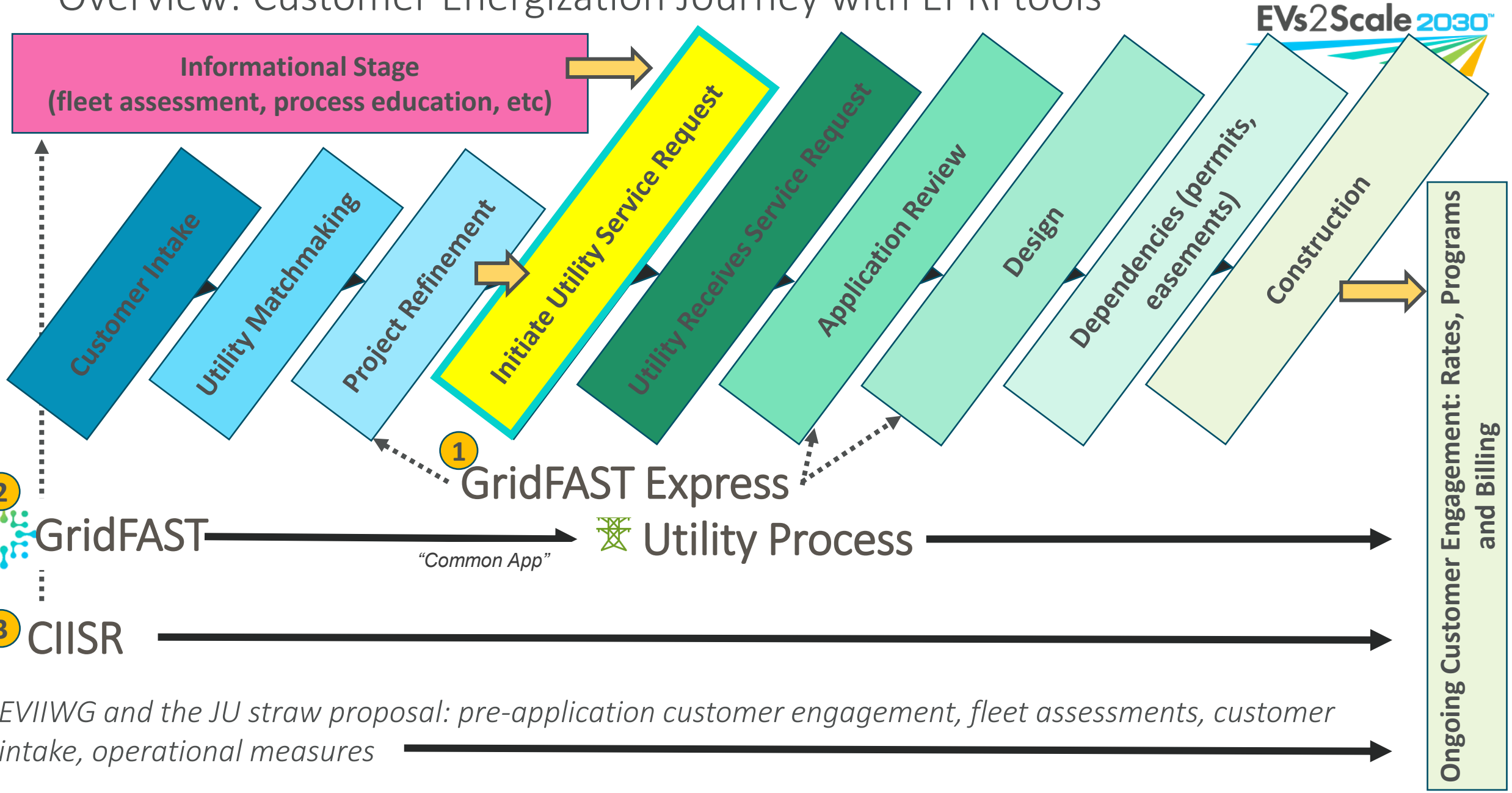
Goal: Increase customer enrollment and project submissions.

EPRI GridFAST™

This seesaw strategy ensures balanced and sustainable growth, with utilities and customers continually drawing each other in, creating an interconnected ecosystem on the GridFAST platform.

Relationship between EPRI tools, research and ConEd straw proposal

Overview: Customer Energization Journey with EPRI tools

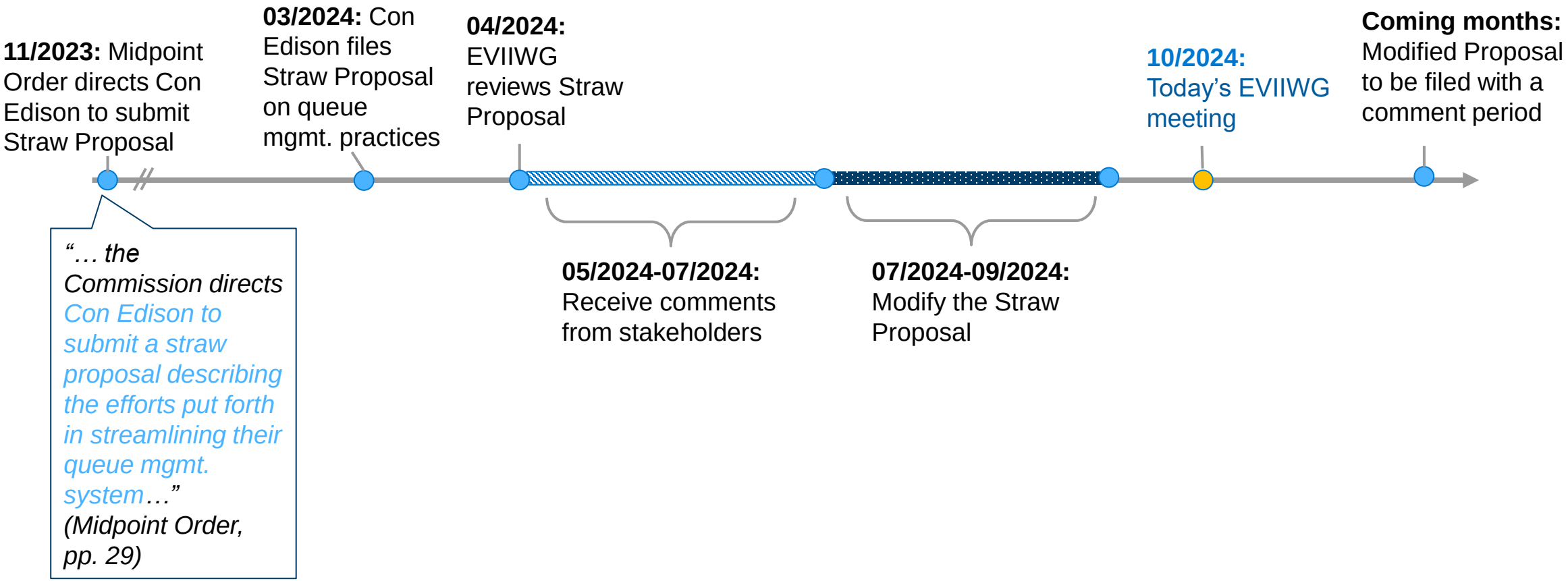


Thank You!

Summary of initial modifications to Con Edison's Queue Management Straw Proposal

conEdison

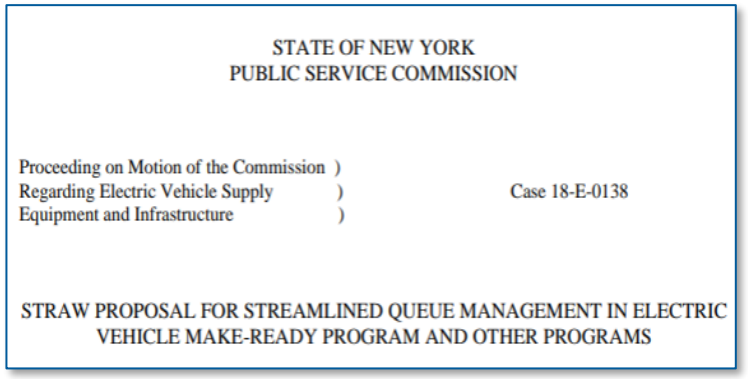
The Straw Proposal was originally filed by Con Edison in March 2024.



The Straw Proposal was modified to reflect the Joint Utilities' attributes and processes (and not just Con Edison's).

Straw Proposal Modification Process:

Original Con Edison Straw Proposal on Queue Management

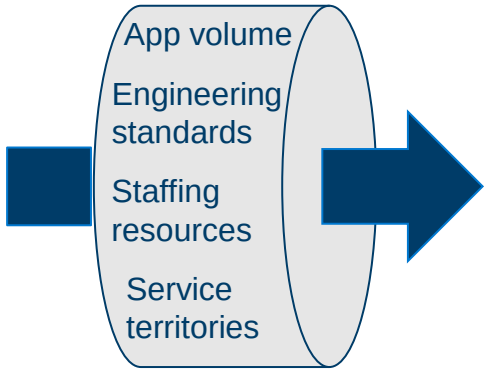


STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission)
Regarding Electric Vehicle Supply)
Equipment and Infrastructure) Case 18-E-0138

STRAW PROPOSAL FOR STREAMLINED QUEUE MANAGEMENT IN ELECTRIC VEHICLE MAKE-READY PROGRAM AND OTHER PROGRAMS

Modified to consider differences across Joint Utilities



Modified Proposal on Queue Management

Types of changes made:

Structural:
E.g., Revised operational measures section to include sub-sections: (1) General app mgmt.; (2) High-volume app mgmt.; (3) Innovations.

Content:
E.g., Removed internal forecasting measure as Upstate Utilities complete incentive eligibility review and service determination review in parallel and, therefore, program team cannot forecast during eligibility review.

Other modifications incorporate stakeholder feedback and provide clarity to Make-Ready Program Participants.

Example modifications (not exhaustive)

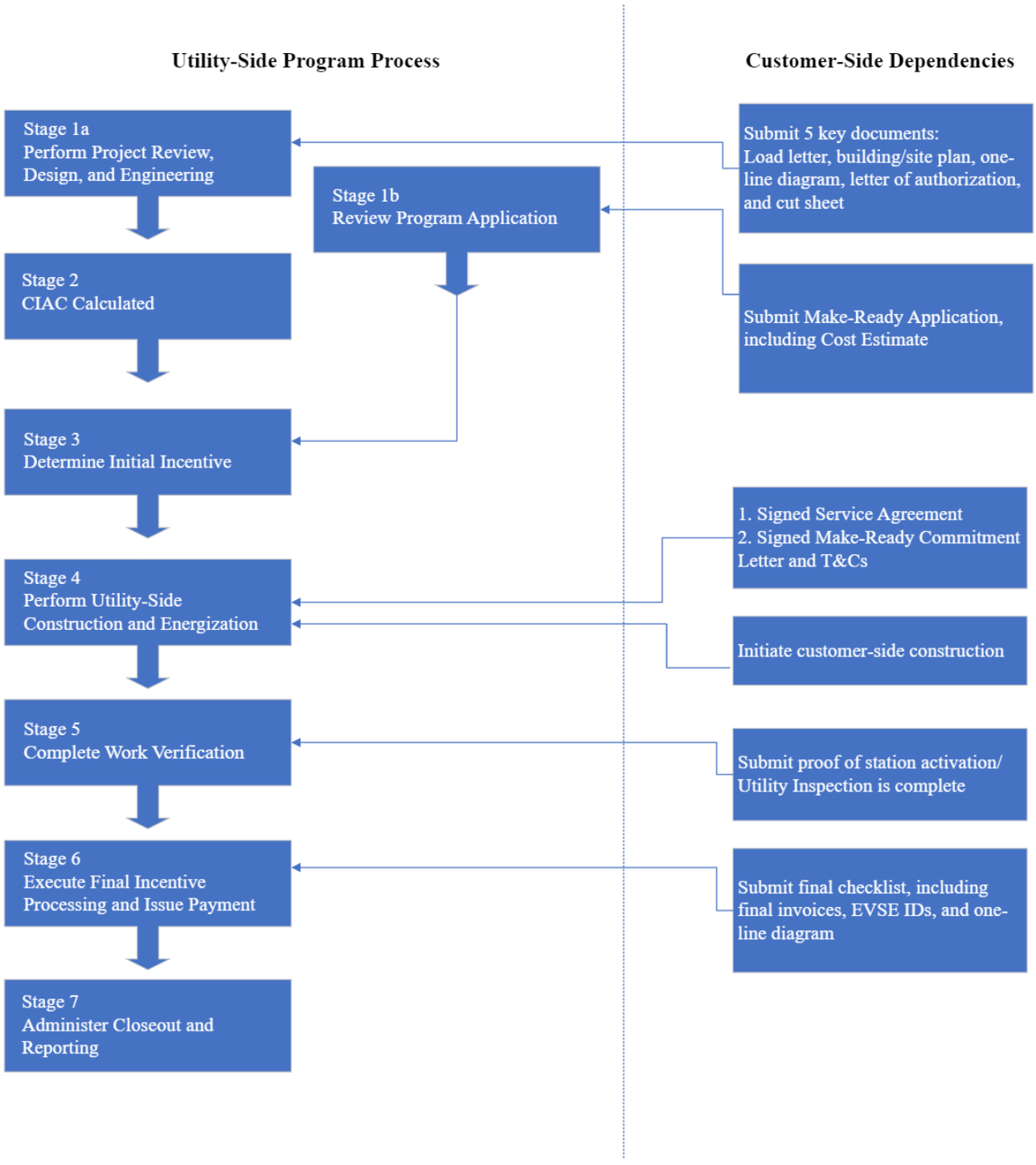
Original Straw Proposal	Modified Proposal	Rationale
Queue management for **EV charging station projects**	Queue management for **V1G EV charging station projects**	Aligns with scope of EVIIWG
n/a	The operations innovations section was added to support Participants looking to **implement load mgmt. and V1G phased deployment of chargers**	Clear stakeholder interest (e.g., IREC) in strategies to support grid-constrained areas
Downstate Make-Ready Program flow chart only	**Downstate and Upstate** Make-Ready Program flow charts included	Provides Participants with high-level resource for the entire JU
n/a	Appendix added to **summarize comments** from stakeholders	Creates record of key comments made by stakeholders during modification process

*Interstate Renewable Energy Council

Downstate Make-Ready Program Flow

*Note that a 2-80 letter documents the utility's service ruling and *DOB* refers to New York City's Department of Building inspection. The 5 key documents referenced the flow diagram are available on the PowerReady website.

Upstate Make-Ready Program Flow



NEW YORK STATE | Department of Public Service

Electric Vehicle Infrastructure & Interconnection Working Group Meeting

Next Steps

October 23, 2024

Agenda

1. Presentations: Charging Infrastructure Connection Resources
   - EPRI
2. Straw Proposal Modifications – Summary of modification to Draft Proposal
   - Joint Utilities
3. Next Steps
4. Next meeting: December 11, 2024

- This session is being recorded
- All attendees will remain muted
- Use chat or raise hand function to ask a question
- Presentation materials and recording link will be posted on DMM and on EVIIWG webpage
- Please email EVSE@dps.ny.gov for further questions

Upcoming meetings

Date	Presenter(s)	Topic
October 23	EPRI	Charging Infrastructure Connection Simplification Resource, GridFAST Express
	Joint Utilities	Straw Proposal Modifications - Section Discussions and Amendment Procedures
December 11, 2024	DPS Staff, Joint Utilities	Reviewing Final Draft of Straw Proposal
TBD		TBD

- Additional meetings may be convened if required

Flexible Interconnection

- Flexible Interconnection that requires the SIR process is being addressed in the Interconnection Technical Working Group (ITWG).
- Flexible Interconnection is outside of the scope assigned to EVIIWG by the Commission in the midpoint order.
- Addressing flexible interconnection and other technologies **related to load** should be discussed in comments to the draft Straw Proposal for Commission consideration.

Next Steps

The project scope of the EVIIWG page 29: “the Commission directs Con Edison to submit a straw proposal describing the efforts put forth in streamlining their queue management system for consideration and further development by the EVIIWG”, is near completion:

1. Once the EVIIWG determines the draft proposal is final it will be posted on DMM.
2. Draft proposal to be subject to notice and comment.
3. Comments will be accepted for 60 days.

Questions?