



Electric System Evaluation & Modernization SI

Board Update

August 16, 2022

Today's Update

PURPOSE

Update the OPPD Board of Directors on the Electric System Evaluation & Modernization (ESE&M) Strategic Initiative.

GOALS

To share:

- Progress since the last update
- AMI “soft launch” concepts
- AMI Ecosystem Evaluation and Roadmap
- Next steps

AMI = Advanced Metering Infrastructure

ESE&M Objective and Vision

OBJECTIVE

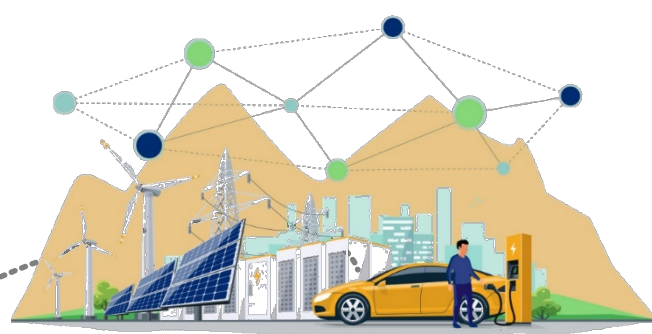
Develop a cross functional, integrated vision and roadmap for the modern OPPD electric system and supporting technologies that will deliver customer value, enable future products, services, and solutions, while increasing employee engagement and effectiveness by providing them the tools they will need.

VISION

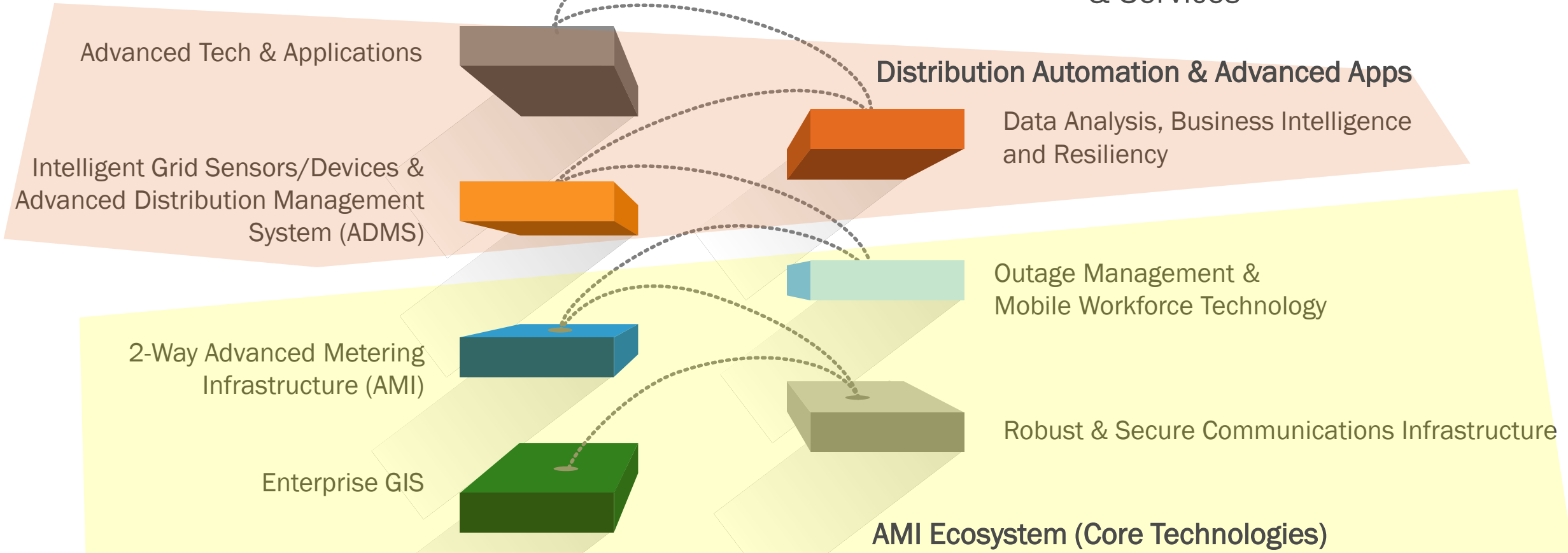
Resilient, Digital Grid & Integrated Service Platform



How We Get There



Resilient, Digital Grid & Integrated Service Platform enabling Enhanced Products & Services



ESE&M and AMI



WHAT IS AMI?

- An integrated system of advanced meters, communications networks, and data management systems that enables two-way communication between utilities and customers.

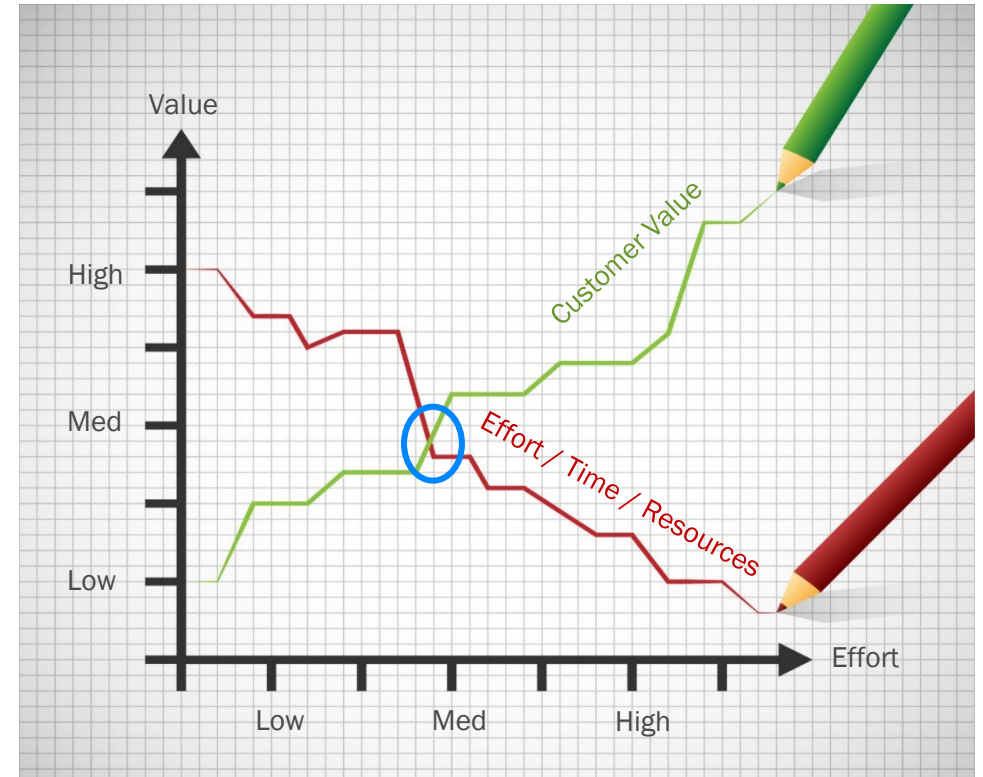
Since our last update....



- Created detailed use cases and business cases for AMI through workshops with our strategic partner
- AMI 'war game' to uncover the interdependencies of the AMI ecosystem
- Deep dive on existing technology systems to determine AMI readiness
- Developed principles and conceptual scope for an AMI soft launch of approximately 10k AMI meters
- Established an AMI Ecosystem Roadmap to achieve the desired functionality for soft launch.
- Cross-SI and enterprise alignment

Principles for Soft Launch Scope

- Balance customer value with executability
- Make it meaningful for customers
- 12 months deployment & integration period for “soft launch”
- Build it to be reliable and sustainable



What customers will experience with the AMI ecosystem



"I like that OPPD communicates with me in the way I prefer"



"I received a text right after my power went out letting me know OPPD was on it. I got a second text letting me know the outage was caused by a vehicle accident and it should be restored in 30 minutes "

"I love the new mobile app. It's very easy to view and pay my bill. When I moved last year it was so easy to handle everything on the app."

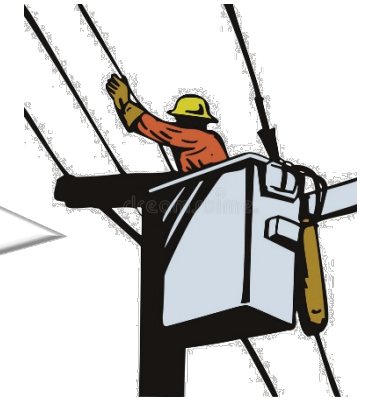
"I now know how much I'm using in near real-time so I can reduce my footprint and save money"



What employees will experience with the AMI ecosystem



“Having the right data at my fingertips has made a huge difference in our asset management program”



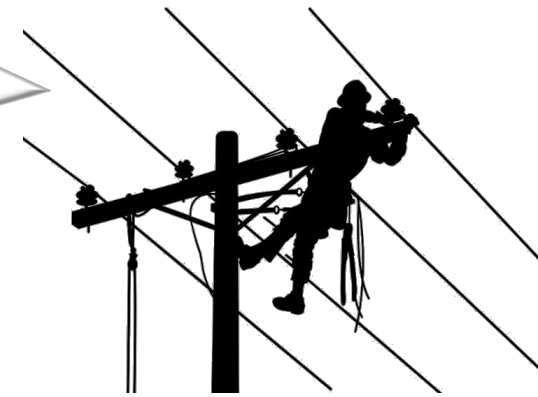
“The user interface on my mobile device is so easy. Outage information can quickly get to customers so we are approached in the field less often”



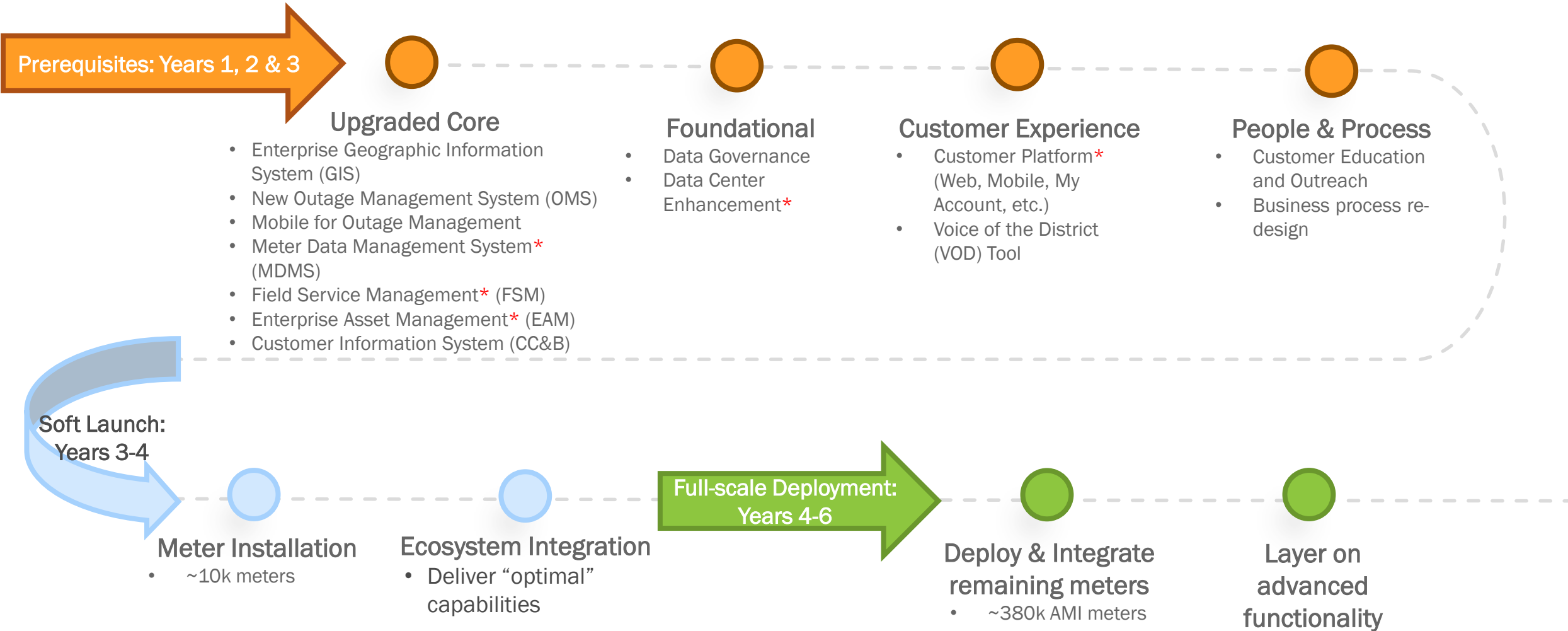
“This will require lots of change management”



“AMI can warn us of safety hazards such as an improperly connected customer generator”

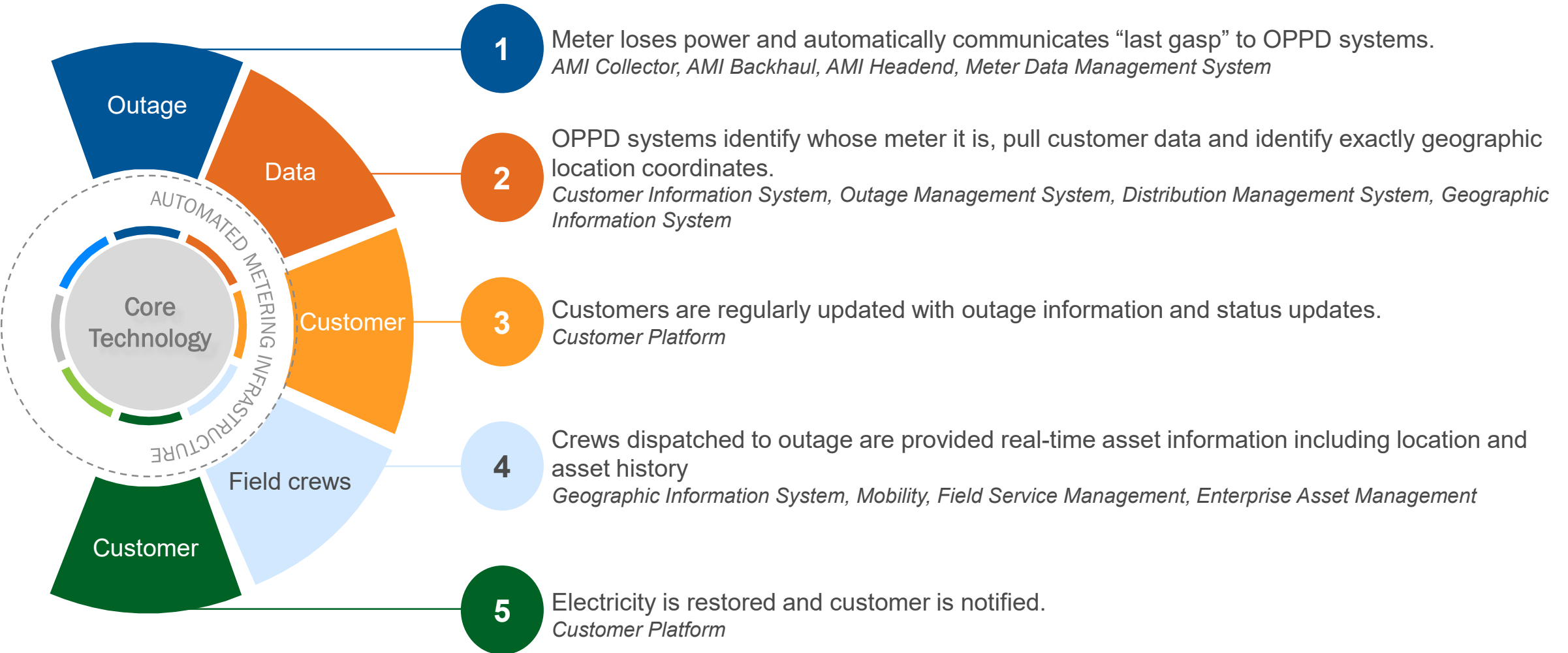


AMI Ecosystem Roadmap



* - additional detailed scoping required

AMI Ecosystem – Outage Use Case Example



AMI Ecosystem Benefits

Soft launch (near term)

Post full deployment (future)

Customers can use portal to view & understand energy usage

Customers won't need to call to report outages

Multichannel outage updates

Estimated Time of Restoration (ETR) notifications

Expedited outage restoration

Remote start/stop service

Increased situational awareness for utility grid operators

Enhanced safety for crews with AMI voltage sensing

Expanded Field Service Management (FSM) capabilities

Expedited major event analysis

Grid edge sensing & computing

Future rate options, products and services

More customer control over energy use/spending through usage and bill alerts

Reduced truck rolls and operating costs

Load and DER Forecasting & Profiling

Load Disaggregation

Advanced Data Analytics and Asset Management

Network Connectivity Analysis

Optimized spending on system improvements with improved data

Next Steps

- Transition the AMI Roadmap into project plans
 - Deep dive on project scopes with minimum viable product (MVP) approach
 - Budget and resource requirements for the Corporate Operating Plan (COP)
- Develop the Distribution Automation philosophy (Target Q4 2022)
 - Outage impact minimization and grid self healing
 - Grid sensors for enhanced situational awareness
 - Operational tools for advanced grid management
- Evaluation of Engineering Design tools to support paperless workflow
 - End to end electronic information flow between engineering and the field
 - Automatic updates and one source of truth

