Need for a Strategic Initiative

- Decarbonization
- Changing Customer Preferences
- Electrification of Transportation
- Technology Advancements and Innovation
- Aging Electric Infrastructure
## Objective and Goals

### 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.

### GOALS

<table>
<thead>
<tr>
<th>Objective</th>
<th>Goal</th>
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</thead>
<tbody>
<tr>
<td>Develop the vision for the modern OPPD electric system including advanced metering</td>
<td>Engage local entities and document case studies and lessons learned from leading U.S. utilities</td>
</tr>
<tr>
<td>Enable electrification and future products, services, and solutions</td>
<td>Identify the change management impacts to people, processes, training, and org structure</td>
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<tr>
<td>Identify, evaluate and create business cases for grid modernization, mobility and core office technologies</td>
<td>Create and submit a holistic plan and multi-year roadmap leveraging system integration</td>
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</tbody>
</table>

**SI MANAGER:**
- Aaron Smith

**PROJECT COORDINATOR:**
- Sharyl McGuire
Customer & Utility of the Future

“OPPD’s electric service is very reliable which is so important since I fuel my EV with it every day”

“I like that OPPD communicates with me in the way I prefer”

“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”

“I like that OPPD provides outage updates in real-time”

“When an OPPD crew is working in my neighborhood I can easily find out why”

“I love that sensors can help pinpoint outage or fault locations before ever rolling a truck”

“I like that OPPD lets me see my energy use as it happens and provides tips on how to reduce it”

“OPPD’s mobile app is so user friendly and convenient”

“Distribution automation saved us so many outage minutes last year”

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```
GRID & OPS TOOLS

Bulk Gen/ SPP Mkt

Communications

Monitoring & Control
Real-time Ops

Protection & Automation

Substation

Energy Control Center (ECC)
Grid Monitoring & Control (EMS)

Energy Control Center (ECC)
Grid Monitoring & Control (EMS)

Outage Management (OMS)
& Operational Switching Model

Substation Automation

Protection Relays

Outage Management (OMS)
& Operational Switching Model

Substation Distribution

Fiber (FNE)

Distribution

Cellular / Radio Mesh

Distribution

Cellular / Radio Mesh

Bulk Gen/ SPP Mkt

Enables Customer Touchpoints Products & Service

Contact Center

Cellular Line Sensors

DER/DG

Outage Updates

Customer DG/DER

Customer App & Messaging

EVs & EVSE

Thermostat Program

Customer Care & Billing
Billing Software

Project & Work Management Software

Contact Center

Enterprise Resource Planning Software

CoolSmart Program

Enterprise Resource Planning Software

Marketing & Core Office

Analysis & Modelling

System Planning & Analysis Software

Enterprise Resource Planning Software

Engineering / Design

Engineering Design Software

MOBILITY & CORE OFFICE

“Grid Ecosystem”

Records & Asset Mgmt

Geographic Info System

Project & Work Management Software

Work & Project Mgmt

Back Office & Customer Systems

Enterprise Resource Planning Software

Data & Analytics Tools

Enterprise Resource Planning Software

Enterprise Resource Planning Software

Enterprise Resource Planning Software

Enterprise Resource Planning Software

“Grid Ecosystem”

```

Workstream Project Teams

**Grid Modernization and Operational Tools:**
- Identify and evaluate technologies and their impact to system reliability, grid operations, customer experience, products, services, and electrification of transportation
- Develop OPPD’s short and long-term advanced metering strategy
- Evaluate tools and technology for enhanced situational awareness and operational flexibility such as an Advanced Distribution Management System (ADMS)
- Leverage the new fiber infrastructure to enable advanced technologies
- Engage an external consultant to assist with strategy development and integration

**Field Mobility and Core Office Technology:**
- Develop a roadmap for Outage Management and Mobility (including GPS)
- Geographic Information System (GIS) capability expansion to include enterprise-wide features
- Evaluate engineering design tools and associated process optimization for a “paperless” workflow
- Identify ways to fully utilize Enterprise Resource Planning (ERP) and other software
- Optimize information flow through the digitization of key customer touchpoints
- Engage an external consultant to assist with strategy development and integration
Long Term Benefits and Expected Outcomes

- Improved customer experience and satisfaction scores
- Enable new products and services
- Platform for Electrification and Decarbonization
- Safety for customers and employees
- Timely and accurate outage messaging to customers
- Data availability for advanced analytics
- Predictive & targeted maintenance activities
- Paperless workflows and schedule optimization
- Improved data for system planning and asset life cycle management
- Increased employee engagement
- Improved large outage event (storm) response
SI Touchpoints

- Integrated technology implementation roadmap
- Technology life-cycle management
- System architecture, data, and analytics

Technology Platform

- "Customer of the Future" expectations
- Future products, services and solutions
- Customer insights

- Energy Portfolio
- Distributed Energy Resources (DER)
- Grid Operations with reduced carbon

Customer Engagement

- Future skillsets for the modern grid
- Employee training and development
- Recruiting the grid tech stars of tomorrow

Electric System Evaluation & Modernization

- Workforce Transformation

Pathways to Decarbonization
Resources

**Project Coordinator: Sharyl McGuire**

**Advisors**

<table>
<thead>
<tr>
<th>Grid Modernization &amp; Operational Tools Team:</th>
<th>Field Mobility &amp; Core Office Team:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Bryant (CS)</td>
<td>Todd McLochlin (CS)</td>
</tr>
<tr>
<td>Jeremy Bowers (EPND)</td>
<td>John Buckley (ED)</td>
</tr>
<tr>
<td>Mike Herzog (ED)</td>
<td>Dannie Buelt (ED)</td>
</tr>
<tr>
<td>Matt Hardebeck (CSG)</td>
<td>Steve Brown (BT)</td>
</tr>
</tbody>
</table>

**Core**

- **Workstream Lead:** Eli Scheissler (ED)
- Core = 9

- **Workstream Lead:** Matt Peterson (ED)
- Core = 9

**SME**

An additional 20+ subject matter experts from all business units will be consulted throughout the project.

Total Advisors & Core Personnel = 29
Revised Initiative Milestone Timeline

Preliminary and subject to change

<table>
<thead>
<tr>
<th>3Q 2020</th>
<th>4Q 2020</th>
<th>1Q 2021</th>
<th>2Q 2021</th>
<th>3Q 2021</th>
<th>4Q 2021</th>
<th>1Q 2022</th>
<th>2Q 2022</th>
<th>3Q 2022</th>
<th>4Q 2022</th>
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Phase 1: Alignment & Vision

Phase 2: Current State Mapping & Analysis

Phase 3: Scan the Environment

Phase 4: Define the Future

Phase 5: Develop Roadmap

Implementation 2023+

Charter Overview to BOD