Letting the Customer Lead the Way

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MGE at a Glance

- Located in Madison, WI
- Subsidiary of MGE Energy (NASDAQ: MGEE)
  - Assets: $1.8 billion (2016)
  - Revenues: $545 million (2016)
- 149,000 electric customers in Dane County
- 154,000 natural gas customers in 7 counties
- Approximately 700 employees
Enterprise Forward is Essential for MGE

**Automation**
Eliminate manual work and drive consistent repeatable processes

**Optimized Costs**
Standardize and drive employees to high value efforts

**New Products & Services**
Anticipate customer needs and diversify revenue mix

**Employer of Choice**
Attract and retain the next generation of talent and leadership required to move MG&E forward

**360 View of Customer**
Deliver an enterprise view of all customer interactions and transactions

**Flexibility**
Quickly adapt and deliver to changing market needs
How we got to Enterprise Forward

December 2016: EY Partnership
Selected EY as our S.I. for our Blueprint phase for Oracle CC&B implementation

February 2017: Blueprint Begins
Began Blueprint phase with EY, starting with our CX workstream

May 2017: Pivot Occurs
Decision made to pivot to an enterprise-wide transformation

January 2018: Enterprise Forward Officially Starts
Mobilization began in November 2017 with projects officially beginning in January 2018

PwC evaluation of current CIS - CX identified as risk
Partnered with E-Source for journey mapping

*CX Workstream

Enterprise Forward to continue through 2022
## Blueprint Project Phases

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Discovery</th>
<th>Design</th>
<th>Roadmap</th>
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</thead>
<tbody>
<tr>
<td><strong>1 week</strong></td>
<td><strong>9 weeks</strong></td>
<td><strong>6-8 weeks</strong></td>
<td><strong>3-4 weeks</strong></td>
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<tr>
<td>Onboard consultants</td>
<td>Develop as-is and to-be customer experience</td>
<td>Facilitate future-state technical and business workshops</td>
<td>Develop high-level business case for viable alternatives</td>
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<tr>
<td>Finalize work plan</td>
<td>Deploy customer surveys, VOC analysis, VOE survey</td>
<td>Identify business and technical gaps</td>
<td>Facilitate prioritization workshops</td>
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<tr>
<td>Schedule Discovery phase interviews and workshops</td>
<td>Facilitate current-state technical and business environment workshops</td>
<td>Develop alternatives for addressing gaps and map to in-flight initiatives</td>
<td>Develop and socialize roadmap</td>
</tr>
<tr>
<td>Inventory existing customer data, documentation, business processes, and architecture</td>
<td>Develop as-is process maps</td>
<td>Identify &quot;quick wins&quot;</td>
<td>Refine implementation plan</td>
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<tr>
<td>Conduct project kick-off meeting</td>
<td>Ongoing Project Management</td>
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**Blueprint Roadmap Project**

- **Orientation**
  - Onboard consultants
  - Finalize work plan
  - Schedule Discovery phase interviews and workshops
  - Inventory existing customer data, documentation, business processes, and architecture
  - Conduct project kick-off meeting

- **Discovery**
  - Develop as-is and to-be customer experience
  - Deploy customer surveys, VOC analysis, VOE survey
  - Facilitate current-state technical and business environment workshops
  - Develop as-is process maps

- **Design**
  - Facilitate future-state technical and business workshops
  - Identify business and technical gaps
  - Develop alternatives for addressing gaps and map to in-flight initiatives
  - Identify "quick wins"

- **Roadmap**
  - Develop high-level business case for viable alternatives
  - Facilitate prioritization workshops
  - Develop and socialize roadmap
  - Refine implementation plan

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**Ongoing Project Management**
Blueprint CX Activity Timeline

1. Objectives
2. Customer segmentation
3. Persona creation
4. Journey prioritization
5. Customer journey mapping
6. Customer intelligence gathering
7. CX requirement identification
"Identify opportunities to adapt CC&B and edge systems functionality in order to efficiently optimize the customer experience across all touchpoints to build customer and shareholder loyalty."
2. Customer Segmentation

K-Means Cluster Analysis Results for Residential Customers

<table>
<thead>
<tr>
<th>Segment</th>
<th>Digital Proficiency</th>
<th>Avg. Annual Contacts</th>
<th>Avg. Annual revenue ($)</th>
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<tbody>
<tr>
<td>1</td>
<td>Low (0.04)</td>
<td>Low (1.92)</td>
<td>High ($1,990)</td>
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<tr>
<td>2</td>
<td>Medium (3.66)</td>
<td>Medium (2.65)</td>
<td>High ($1,861)</td>
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<tr>
<td>3</td>
<td>Low (0.47)</td>
<td>Medium (2.07)</td>
<td>Low ($724)</td>
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<tr>
<td>4</td>
<td>Medium (4.28)</td>
<td>High (34.81)</td>
<td>Medium ($932)</td>
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<td>5</td>
<td>High (6.74)</td>
<td>Medium (2.06)</td>
<td>High ($1,979)</td>
</tr>
<tr>
<td>6</td>
<td>Medium (2.92)</td>
<td>Low (1.79)</td>
<td>High ($4,226)</td>
</tr>
<tr>
<td>7</td>
<td>High (6.07)</td>
<td>High (4.75)</td>
<td>Medium ($714)</td>
</tr>
<tr>
<td><strong>Commercial</strong></td>
<td>Medium (2.68)</td>
<td>Medium (2.71)</td>
<td>High ($11,165)</td>
</tr>
<tr>
<td><strong>Industrial</strong></td>
<td>Medium (3.64)</td>
<td>High (4.08)</td>
<td>High ($334,678)</td>
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</tbody>
</table>
3. Customer Persona Creation (1 of 2)

Demographics were assessed as well as the following behavioral characteristics and preferences:

**Behavior and preferences**

- **PURCHASE DRIVER**
  - Cost
  - Value, Speed & Accuracy

- **COMMUNICATION FREQUENCY**
  - Less Frequent
  - More Frequent

- **COMMUNICATION CHANNEL**
  - Face-to-face
  - Phone
  - Digital

- **DIGITAL PROFICIENCY**
  - Slow Adopter
  - Early Adopter

- **RESPONSE SPEED REQUIREMENT**
  - Low
  - High
3. Customer Persona Creation (2 of 2)

Character: *Waitress Wendy*

**Description:** Wendy was born and raised in Madison where she graduated from Memorial High School. After high school, she landed a job at a local diner, Mickie's Dairy Bar, as a waitress. She immediately fell in love with the staff, her loyal customers, and the culture of the diner and decided she wanted to spend her career there. Wendy and her cat, Mittens, live in a small, 800-square-foot, one-bedroom house in Monona. Wendy is very passionate about in-person/non-digital interactions, which aligns with her love for her customers and diner staff. She is not tech savvy, as she prefers to pay her bill in-person and does not even own a computer. Wendy is an avid watcher of the television show, The Voice, and she has been trying to save money to go to L.A. and be in the studio audience for the finale.
4. Customer Journey Prioritization (1 of 2)

- I want to have my meter read
- Initial provider investigation
- I want to sign up as a customer for the first time

- I have a question about my account
- Manage my usage
- Receive information from MGE
- Community engagement
- I am interested in additional products, programs, and services
- MGE encourages safety
- Discuss involuntary disconnection

- Transfer service between properties
- I want to complain

- I want to disconnect/leave

- Infrastructure support (connection/conversion/upgrade)
- I have a maintenance issue/outage/leak with my infrastructure
- I want to help ensure infrastructure is in good condition

- Pay my past-due bill
- I want to understand and pay my bill

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- I want to complain

- I want to disconnect/leave

- Transfer service between properties
### 4. Customer Journey Prioritization (2 of 2)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Customer Journey</th>
<th>Occurrence Frequency</th>
<th>Financial Impact</th>
<th>Customer Importance</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I want to sign up as a customer for the 1st time</td>
<td>2.00</td>
<td>2.00</td>
<td>2.58</td>
<td>6.58</td>
</tr>
<tr>
<td>2</td>
<td>I have a maintenance issue/outage/leak</td>
<td>1.97</td>
<td>1.89</td>
<td>2.68</td>
<td>6.55</td>
</tr>
<tr>
<td>3</td>
<td>I want to understand and pay my bill</td>
<td>2.45</td>
<td>1.45</td>
<td>2.45</td>
<td>6.36</td>
</tr>
<tr>
<td>4</td>
<td>Pay my past-due bill</td>
<td>1.71</td>
<td>1.86</td>
<td>2.71</td>
<td>6.29</td>
</tr>
<tr>
<td>5</td>
<td>Discuss involuntary disconnection</td>
<td>1.14</td>
<td>1.86</td>
<td>3.00</td>
<td>6.00</td>
</tr>
<tr>
<td>6</td>
<td>I want to complain</td>
<td>1.22</td>
<td>1.89</td>
<td>2.78</td>
<td>5.89</td>
</tr>
<tr>
<td>7</td>
<td>I want to disconnect/leave</td>
<td>1.83</td>
<td>2.00</td>
<td>2.00</td>
<td>5.83</td>
</tr>
<tr>
<td>8</td>
<td>Have my meter read</td>
<td>1.40</td>
<td>1.80</td>
<td>2.40</td>
<td>5.60</td>
</tr>
<tr>
<td>9</td>
<td>I have a question about my account</td>
<td>2.00</td>
<td>1.25</td>
<td>2.25</td>
<td>5.50</td>
</tr>
<tr>
<td>10</td>
<td>Transfer service between properties</td>
<td>1.90</td>
<td>1.30</td>
<td>2.20</td>
<td>5.40</td>
</tr>
</tbody>
</table>
5. Customer Journey Mapping (1 of 3)

Journeys Mapped

- Outage
- Start Service
- Pay my Bill

- Routine Gas Meter Exchange
- High Bill

- Understand my Bill
- Pay my Past-Due Bill
- Involuntary Disconnection
- I Want to Complain
5. Customer Journey Mapping (2 of 3)

**Approach**

- **Journey Map**
  What do we already know about our customers?
  Gather Voice of Customer (VOC) data related to journey.

- **Discovery**
  What do customers experience now?
  **Pain Points:** What are the points that cause dissatisfaction?
  **Delights:** What do we want to keep doing?

- **Current State**
  What solutions would improve customer experience (CX)?

- **Ideation**
  What do our customers want their future-state experience to look like?

- **Future State**
  What do we need to do differently?
  Identify **people, process, and technology** requirements.
  Deliver requirements for Blueprint.
5. Customer Journey Mapping (3 of 3)

*Outcome*

- 4 customer journey workshops
- 100+ workshop participants
- 2 weeks of workshop sessions
- 314 future state requirements identified
- 12 current state maps produced
- 12 future state maps produced
- 3 personas per journey
- 20+ departments involved
6. Customer Intelligence Gathering (1 of 4)

**Social Media Monitoring**

- **94%** of conversations about MGE take place on Twitter, while only **6%** take place on Facebook.
- Posts expressing anger/frustration were mainly about the occurrence/length of **power outages**.
- Popular topics included **sustainability** and sponsored **community events**.
- Posts expressing joy were mainly about community engagement, workshops, and **renewable energy projects**.
- “Thank” was the most popular word, mentioned **119 times**.
I want to pay and understand my bill
I have a question about my account
I want to pay my past due bill
I am interested in additional products, programs, and services
I want to transfer service between properties

Contact Frequency by Topic

- Email
- Phone
- In-person

- I want to pay and understand my bill: 15 (39%)
- I have a question about my account: 5 (24%)
- I want to pay my past due bill: 4 (16%)
- I am interested in additional products, programs, and services: 1 (6%)
- I want to transfer service between properties: 2 (4%)
6. Customer Intelligence Gathering (3 of 4)

**CX Survey**

- Surveyed 5,097 customers
- Statistical significance by **digital and non-digital** customer segments
- Varied response rate by age group skewed results
- Overall response rate of **22.3%**
## CX Survey Key Findings

<table>
<thead>
<tr>
<th></th>
<th>Findings</th>
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</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Over 80% of respondents… Agree or Strongly Agree they are satisfied with the amount of communication received from MGE</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>MGE’s Net Promoter Score… Is the highest in the Non-Digital 50+ age group and lowest in the Digital 35-49 year old age group</td>
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<tr>
<td><strong>3</strong></td>
<td>Younger customers… Have a larger preference of interacting with MGE outside of standard business hours</td>
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<tr>
<td><strong>4</strong></td>
<td>~25% of Digital customers… Use live web chat, mobile app, and text message when communicating with other businesses</td>
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<tr>
<td><strong>5</strong></td>
<td>~75% of Digital customers… Strongly Agree graphs and visuals on their bill would aid in understanding energy use and cost</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>85% of Digital customers &lt;35… Strongly Agree graphs and visuals on their bill would aid in understanding energy use and cost</td>
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</tbody>
</table>
### 7. CX Requirements Identification (1 of 2)

**Analysis**

<table>
<thead>
<tr>
<th>Interaction System Type</th>
<th>Avg. Cost vs. Value Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSS</td>
<td>1.63</td>
</tr>
<tr>
<td>MWM</td>
<td>2.40</td>
</tr>
<tr>
<td>SGG</td>
<td>3.00</td>
</tr>
<tr>
<td>IVR</td>
<td>3.33</td>
</tr>
<tr>
<td>CRM</td>
<td>3.49</td>
</tr>
<tr>
<td>CIS</td>
<td>3.54</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>2.90</strong></td>
</tr>
</tbody>
</table>

#### Cost vs. Value Score by Interaction system type

- **DSS** = Digital Self Service
- **MWM** = Mobile Workforce Management
- **SGG** = Smart Grid Gateway
- **IVR** = Interactive Voice Response
- **CRM** = Customer Relationship Management
- **CIS** = Customer Information System
### Findings

<table>
<thead>
<tr>
<th>#</th>
<th>Findings</th>
</tr>
</thead>
</table>
| 1 | **Technology Can't Stand Alone**  
About half of the requirements identified were people and process related indicating we can close the technology gap, but people and process efforts will be critical. |
| 2 | **Cross-Functional Requirements**  
After the requirements were identified, it was apparent not all requirements could be met by the new CIS alone, which contributed to the pivot to Enterprise Forward. |
| 3 | **CX = Priority**  
Due to the amount of requirements coming out of journey mapping sessions, "quick wins" were identified, putting CX at the front of the Enterprise Forward timeline. |
Challenges and Success Factors

**Challenges:**
- Compressed timeline
- Appropriate resource allocation and skillset
- Deliverable sign-off

**Success Factors:**
- One vision and TEAM
- High degree of cross functional engagement
- Journey mapping participants → CX champions
- Prior work on CX
- Socialization and celebration of CX
- Work to integrate CX strategy and roadmap outside Enterprise Forward
Benefits Realized Through Enterprise Forward

**Year 1:**
- Project cost accounting and establish chart of accounts
- Centralized procure to pay
- High value services for employees
- Enable core foundation for program

**Year 2:**
- Establish view of customer
- Targeted products and services
- Multi-channel communications

**Year 3:**
- Consolidated ecosystem
- Automated services
- Simplified billing
- Enabled choice of payment methods

**Year 4:**
- Defined asset information
- Centralized scheduling and dispatch
- Optimized maintenance and work
- Reduced and improved planning time

**Year 5:**
- Improved health of long-term assets
- Proactive management
- Improved quality of cost data
- Managed parts and materials
Benefits Realized through Enterprise Forward

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
<td><strong>Ongoing PMO and CMO Support</strong></td>
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<td><strong>ERP Financials</strong></td>
<td>Budgeting/ Planning</td>
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<td><strong>ERP - HCM</strong></td>
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<td><strong>Payroll</strong></td>
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<td><strong>Time &amp; Labor</strong></td>
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<td>WAM SC &amp; Inventory</td>
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<td>Grid Communication</td>
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<td><strong>CX</strong></td>
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<td>Pre-C2M</td>
<td>Unified Communications</td>
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<td><strong>C2M</strong></td>
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<td><strong>Enterprise Reporting</strong></td>
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<td><strong>IT Modernization (ITIL, Data Center, Enterprise Batch, DevOps)</strong></td>
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<td><strong>Forecasting</strong></td>
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<td>Mobile Work (Short Cycle)</td>
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<td>EAM + Mobile Work (Long Cycle)</td>
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<td>Web Self-Service</td>
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<td>Analytics Solution</td>
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Questions and Wrap-Up