2019 marked the first full year implementation for AMI and other initiatives approved in the 2018 Utility 2.0 Plan

Implementation began earlier this year for initiatives approved in the 2019 Utility 2.0 Plan

The 2020 Utility 2.0 Plan, which includes funding request for initiatives starting in 2021, was filed on June 30th, 2020

Annual EEDR Plan update filed as part of the 2020 Utility 2.0 Plan
PSEG LONG ISLAND IS DELIVERING ON THE UTILITY 2.0 VISION ACROSS THREE STRATEGIC PATHWAYS

1. EMPOWER CUSTOMERS THROUGH AMI AND DATA ANALYTICS
   Empower customers with safe, reliable, and increasingly digital and automated investments that enable the evolution to the DSP and offer customers choice and solutions.

2. EXPLORE NEW INNOVATIVE OFFERINGS
   Explore new EE/DER projects to demonstrate value to both the customers and the utility, inform future rate design and business models, and aid customer adoption of advanced technologies in support of its mission and state policies.

3. EVOLVE INTO A CUSTOMER-CENTRIC DSP
   Evolve the utility to become the DSP through the customer engagement and grid planning and operations functions of the utility, and by enabling foundational capabilities and technology platforms.

PSEG Long Island’s customers want to be a part of the energy industry transformation and desire improved reliability, resiliency, and cost-effectiveness of the energy system and customer programs.
IN 2018 THROUGH 2020, PSEG LONG ISLAND HAS PROPOSED AND BEGAN IMPLEMENTING INITIATIVES ACROSS THEIR ORGANIZATION

<table>
<thead>
<tr>
<th>Empower Customers</th>
<th>Explore New Offerings</th>
<th>Evolve into the DSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solutions that empower customers by improving the way they interact with their energy provider and offer tools and choice for DER solutions and payment options</td>
<td>Pilots that test how new system capabilities and customer resources can monitor and interact between them to improve system efficiency and reduce greenhouse gas emissions</td>
<td>Studies, pilots, and foundational capabilities to enable the DSP, with efficient management of grid assets and quicker and more cost-effective DER interconnection</td>
</tr>
<tr>
<td>AMI Technology and Systems</td>
<td>EV Program</td>
<td>Utility of the Future Team / CVR / JU</td>
</tr>
<tr>
<td>AMI-Enabled Capabilities</td>
<td>Behind-the-Meter (BTM) Storage with Solar</td>
<td>Locational Value Study</td>
</tr>
<tr>
<td>Data Analytics</td>
<td>Super Savers: NWS with Targeted Energy Efficiency</td>
<td>Non-Wires Solution Planning Tool</td>
</tr>
<tr>
<td>Customer Engagement</td>
<td>Electric School Bus Vehicle-to-Grid Pilot</td>
<td>Utility-Scale Storage Program – Miller PI</td>
</tr>
<tr>
<td>Rate Modernization</td>
<td>Heat Pump Controls Pilot</td>
<td>Interconnection Online Application Portal</td>
</tr>
<tr>
<td>Program Implementation Support</td>
<td>Enhanced Marketplace</td>
<td>Hosting Capacity Maps</td>
</tr>
<tr>
<td>Next Generation Insights Pilot</td>
<td>EV Make-Ready Program</td>
<td>Hosting Capacity Maps, Stage 3</td>
</tr>
<tr>
<td>Energy Concierge Pilot</td>
<td>NWS Process Development</td>
<td>DER Visibility Platform</td>
</tr>
<tr>
<td>C&amp;I Demand Alert Pilot</td>
<td></td>
<td>CVR Program</td>
</tr>
<tr>
<td>2020 Proposed FlexPay Pilot</td>
<td></td>
<td></td>
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<tr>
<td>On-Bill Financing Pilot</td>
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</table>
2019 MARKED THE FIRST FULL YEAR OF IMPLEMENTATION WITH MEANINGFUL SUCCESS AND IMPACT

EVOLVE INTO A CUSTOMER-CENTRIC DSP
- Locational Value Study complete
- Power quality improvements from VVO study
- 2.5 MW of planned utility-scale battery energy storage
- Commenced Implementation of Interconnection Online Application Portal

EXPLORE NEW INNOVATIVE OFFERINGS
- 903 Residential EV Smart Charger Rebates participants
- 45 DCFC port incentives applications received
- 250 interconnection applications for BTM storage or solar+storage
- $1.65 MW of peak load reduction in North Bellmore achieved

EMPOWER CUSTOMERS THROUGH AMI AND DATA ANALYTICS
- 496,000 total smart meters installed (42%) of total meter installations
- Nearly 30,000 truck rolls saved, and associated CO2 emissions reduced, due to the remote connect switch AMI-enabled capability
- More than 8,000 visitors to My Smart Energy Lab
- Over 1.3 million individual pieces of educational material sent to customers
- Over 4 terabytes and growing of meter data to inform analytics, including initial use cases for theft protection, restoration times, and COVID-19-related initiatives

AS OF END OF Q1 2020
SUCCESS SNAPSHOT: PSEG LONG ISLAND ACHIEVED 128% OF ITS 2019 AMI METER INSTALLATION GOAL

Through Q2 2020, PSEG Long Island has installed 597,500 AMI smart meters
- 54% of planned deployment of 1.1 million meters
- 51% of PSEG Long Island customers
- 62% of the total load
- The dark red areas represent ZIP codes that have completed or nearly completed meter installations

In 2019, PSEG Long Island over-performed against meter deployment targets
- 128% of projected benefits in the BCA
- 0.57% opt-out rate (below 0.59% target)
- Residential installation costs ~15% below target
- 188% and 138% of target FTE and vehicle reduction, respectively

Overall, PSEG Long Island achieved ~90% of the benefits that were forecasted for 2019 in the 2018 BCA for AMI and AMI-enabled capabilities
- Efforts continue to operationalize AMI-enabled outage management, which will help to more fully realize future benefits.

*Annual and quarterly totals also include core meters—funded outside of Utility 2.0.
2021 ENERGY EFFICIENCY AND DEMAND RESPONSE PLAN
OVERVIEW

• Budget remains flat with a 5% higher energy efficiency savings

• Primary program metrics:
  o MMBtus from net savings of beneficial electrification (fuel switching)
  o Heat Pumps
  o Secondary metric: kWh savings (gross at site)

• Increased emphasis on air source heat pumps
  o $7.6M budget in 2021 (increase of $1M from 2020)
  o 4,300 heat pumps (1,600 whole-house)
  o Incremental (50%) incentives for Income Qualified Customers

• Rebates for A19 LED bulbs to align with New York IOUs

• 21% of residential rebate/incentive budget for Income Qualified Customers

• Residential Performance Pilot with NYSERDA

• Introduction of new measures from potential study refresh

• Greater amount of uncertainty than normal due to COVID-19 impacts
# Utility 2.0 and EEDR Initiatives Contribute to Achieving New York State’s 2025 Clean Energy Targets

<table>
<thead>
<tr>
<th>Category</th>
<th>Energy Efficiency</th>
<th>Heat Pumps</th>
<th>Energy Storage</th>
<th>Electric Vehicles</th>
<th>Solar PV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statewide Goal for 2025</strong></td>
<td>185 TBtu</td>
<td>5 TBtu</td>
<td>1,500 MW</td>
<td>850,000</td>
<td>6,000 MW</td>
</tr>
<tr>
<td><strong>Long Island Portion for 2025</strong></td>
<td>7.85 TBtu (~30,000 installations)</td>
<td>1.15 TBtu</td>
<td>188 MW</td>
<td>178,500</td>
<td>750 MW</td>
</tr>
<tr>
<td><strong>Current Level on Long Island</strong></td>
<td>~1 TBtu</td>
<td>~950 installations</td>
<td>~12 MW</td>
<td>~14,000</td>
<td>~625 MW</td>
</tr>
</tbody>
</table>

**Ongoing Initiatives**
- Energy Efficiency Programs (EEDR Plan)
- Super Savers NWS
- Heat Pump Controls Pilot
- BTM Storage with Solar
- Utility Storage – Miller Place
- Energy Storage RFI
- EVs Program
- Electric School Bus V2G Pilot
- Hosting Capacity Maps Stages 1-2
- IOAP Phase I

**Proposed Initiatives (2021 Start)**
- Energy Efficiency Programs (EEDR Plan)
- On-Bill Financing Pilot
- Enhanced Marketplace
- Enhanced Marketplace
- Enhanced Marketplace
- Enhanced Marketplace
- Enhanced Marketplace
- Enhanced Marketplace
- EV Make-Ready Program
- Hosting Capacity Maps Stage 3
- DER Visibility Platform
IN THE 2020 UTILITY 2.0 PLAN, PSEG LONG ISLAND IS REQUESTING FUNDING FOR THE IMPLEMENTATION OF NINE NEW INITIATIVES TO START IN 2021

<table>
<thead>
<tr>
<th>PATHWAY</th>
<th>INITIATIVE</th>
<th>DESCRIPTION</th>
<th>2021-2025 CAPITAL [M$]</th>
<th>2021-2025 O&amp;M [M$]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empower Customers through AMI and Data Analytics</td>
<td>C&amp;I Demand Alert Pilot</td>
<td>Real-time alert-based solution that helps C&amp;I customers avoid demand charges, or manage demand within a certain threshold.</td>
<td>1.97</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>FlexPay Pilot</td>
<td>Billing program that would allow participating customers to pay in advance for electric service.</td>
<td>8.13</td>
<td>6.10</td>
</tr>
<tr>
<td></td>
<td>On-Bill Financing Pilot</td>
<td>Provides residential customers the option of paying for clean energy investments in EE and DER through on-bill charge.</td>
<td>1.12</td>
<td>1.82</td>
</tr>
<tr>
<td>Explore New Innovative Offerings</td>
<td>Enhanced Marketplace</td>
<td>Includes products (e.g., EV chargers), services (e.g., home auditing services), point-of-sale instant rebates, product advisor.</td>
<td>4.65</td>
<td>4.51</td>
</tr>
<tr>
<td></td>
<td>EV Make-Ready Program</td>
<td>The study supports the program design for a new EV Make-Ready program, which is envisioned to kick off at scale in 2021.</td>
<td>3.20</td>
<td>1.83</td>
</tr>
<tr>
<td></td>
<td>NWS Process Development</td>
<td>Piloting a new market solicitation process based on approaches from other NY utilities, including the development of a mechanism to address funding shift from CAPEX to OPEX.</td>
<td>-</td>
<td>0.50</td>
</tr>
<tr>
<td>Evolve into the Customer-Centric DSP</td>
<td>Hosting Capacity Maps Stage 3</td>
<td>Develop Stage 3 hosting capacity maps to provide visibility to the developers and to further support the integration of DER.</td>
<td>1.70</td>
<td>1.84</td>
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<tr>
<td></td>
<td>DER Visibility Platform</td>
<td>Measurement of DER output through sensors, meters, or customer Wi-Fi connections. Deployment of a DERMS pilot.</td>
<td>7.92</td>
<td>0.29</td>
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<tr>
<td></td>
<td>CVR Program</td>
<td>Extension of CVR to more substations with voltage optimization.</td>
<td>0.94</td>
<td>0.09</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>29.61</td>
<td>17.17</td>
</tr>
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</table>