Retro-Commissioning (RCx)

Tom Wroblewski
Retro-Commissioning

✓ Engineering study of building systems
  ▪ Fully-funded by the ComEd Energy Efficiency Program
  ▪ Identify low-cost improvements to building operations
  ▪ 1.5 year or less simple payback on verified savings
  ▪ Customer-funded implementation of measures
  ▪ Control of building systems such as HVAC and lighting
  ▪ Opportunities may include natural gas (therm) savings
  ▪ Identify retrofit opportunities and available incentives

✓ What makes a good project?
  ▪ Customer buy-in and ability to commit necessary resources
  ▪ BAS/EMS (not required for RCx Building Tune-Up)
  ▪ No near-term major retrofits planned
  ▪ Great next step after equipment or BAS upgrades
Applicable RCx Market Segments

✓ Public
- Colleges and universities
- K-12 schools
- Federal, state, local government building
- Municipal corporation buildings
- Distressed communities
- Public housing authorities
- Park district and recreational
- Non-profit
- Healthcare
- Community colleges

✓ Private
- Office buildings
- Commercial real estate
- Multi-family
- Retail
- Colleges and universities
- K-12 schools
- Healthcare
- Places of worship
- Non-profit
- Non-process space in industrial facilities
- Grocery stores
## RCx Options (100kW to 10 MW peak demand)

<table>
<thead>
<tr>
<th>Offering Name</th>
<th>Target Building Size</th>
<th>Incentive</th>
<th>Average Duration</th>
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</thead>
<tbody>
<tr>
<td>Retro-Commissioning (RCx)</td>
<td>Greater than 500,000 ft²</td>
<td>Study worth up to $100,000</td>
<td>12 months</td>
</tr>
<tr>
<td>Monitoring-Based Commissioning (MBCx)</td>
<td>Greater than 150,000 ft²</td>
<td>Fully funded MBCx study covering the costs of monitoring software and engineering services, with no cap</td>
<td>15+ months</td>
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<tr>
<td>Retro-Commissioning Express (RCxpress)</td>
<td>150,000 to 500,000 ft²</td>
<td>Study worth up to $60,000</td>
<td>9 months</td>
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<tr>
<td>RCx Building Tune-Up</td>
<td>Less than 150,000 ft²</td>
<td>Study worth up to $35,000, also $0.04 per verified kWh</td>
<td>3-6 months</td>
</tr>
<tr>
<td>Virtual Commissioning</td>
<td>Smaller buildings</td>
<td>Free identification of energy-saving measures and technical assistance for implementation</td>
<td>1 month</td>
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</table>
RCx Service Providers

✓ Closed network

- Qualified contractors / engineering firms
  - "Boots on the ground" - bring in RCx projects
  - 27 Service Providers presently, 30% are DBE
  - Not all Service Providers qualify for all four (4) RCx tracks
  - On-going, off-cycle RFP for prospective Service Providers

- Service Provider expectations
  - Attend program launch event every year
  - Complete initial program- and technical- onboarding
  - Attend periodic Service Provider training
  - Maintain status through active RCx projects
RCx Project Lead Sources

✓ Past RCx participant customers
  ▪ Can repeat RCx periodically
  ▪ Immediate segue from RCx/RCxpress into MBCx

✓ ComEd Facility Assessments (FA)
  ▪ Recommended by FA Engineer
  ▪ Interest expressed by customer at the FA
  ▪ Customer timeline is respected

✓ Outreach efforts
  ▪ RCx Service Providers
  ▪ Outreach Service Providers (segmented)
  ▪ Implementation Contractor for RCx
  ▪ Customer-initiation or referral
Virtual Commissioning (VCx)

✓ Remote analysis of interval electric usage identifies customers with high potential for operational energy efficiency savings
  1. VCx energy advisor reviews smart meter data
  2. Advisor presents custom savings recommendations
  3. Customer implements low-cost and no-cost changes to building operations
  4. Energy advisor calculates savings using smart meter data

✓ Good fit for smaller C&I customers and customers with many locations

✓ No site visit required and no cost to customer
For More Information on the RCx offering

✓ RCx Webpage
  www.comed.com/RCx

✓ Service Provider List
  https://www.comed.com/WaysToSave/ForYourBusiness/Pages/RCXServiceProviders.aspx

✓ Contact
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