Lighting Retrofit Program
Main points

- Why are changes needed
- Overview of the Program
- Fees
- Timelines
Energy efficiency legislation and rebates from utilities and the government have increased the amount of lighting retrofits.

**Before**: conversions were simply from Fluorescent T12 to T8. ESA accepted these as a wiring installation (ballast replacements)

**Now**: more complex and majority include LED technology

Retrofits are altering the original luminaire and voiding of the approval.
Why are changes needed?
Safety hazards

Safety issues were identified (modification may have decreased the safety integrity of the luminaire).

Safety concerns with future use and maintenance of the retrofitted luminaires.
When a luminaire is retrofitted, a luminaire is no longer approved. A process is needed for re-approval.

- Electrical product is deemed to be approved where the Authority determines that an electrical product or device presents no undue hazards to person or property and the installation pass the inspection.
Overview of the Program

The Program will accept retrofitted luminaires as part of an ESA inspection if:

• An approved retrofit kit is used; and
• A pre-assessment process is completed.

If an approved retrofit kit is NOT utilized, the retrofitted luminaire is required to be re-approved by field evaluation or certification.
Overview of the Program

Pre-assessment process prior to inspection:

for Qty of \( \leq 50 \) retrofitted luminaires:
- Retrofitted Luminaires Application for Inspection

for Qty of \( > 50 \) retrofitted luminaires:
- Retrofitted Luminaires Application for Inspection; and
- Additional documents for the retrofit kit are required to be submitted.
Overview of the Program
Approved retrofit kit

Requires to be equipped with appropriate Warning labels:

“"This luminaire has been modified to operate LED lamps. Do not attempt to install or operate _____*____ lamps in this luminaire."

REPLACE ONLY WITH [Manufacturer][Catalogue Number] _____*____

WARNING: TO AVOID POTENTIAL FIRE OR SHOCK HAZARD, DO NOT USE THIS RETROFIT KIT IN LUMINAIRES EMPLOYING SHUNTED BI-PIN LAMPHOLDERS. NOTE: SHUNTED LAMPHOLDERS ARE FOUND ONLY IN FLUORESCENT LUMINAIRES WITH INSTANT-START BALLASTS. INSTANT-START BALLASTS MAY BE IDENTIFIED BY THE WORDS "INSTANT START" OR "I.S." MARKED ON THE BALLAST. THIS DESIGNATION MAY BE IN THE FORM OF A STATEMENT PERTAINING TO THE BALLAST ITSELF, OR MAY BE COMBINED WITH THE MARKING FOR THE LAMPS WITH WHICH THE BALLAST IS INTENDED TO BE USED, FOR EXAMPLE F40T12/I.S. FOR MORE INFORMATION, CONTACT THE LED LUMINAIRE RETROFIT KIT MANUFACTURER.
**Overview of the Program**

**Pre-assessment process**

### Retrofitted Luminaire Application for Inspection

Need to be completed and submitted by Contractor

### General Applicant Information

Luminaire retrofit project information

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<thead>
<tr>
<th>Existing Luminaire(s)</th>
<th>Retrofit Project Details</th>
<th>Retrofit Lamp Details</th>
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<tbody>
<tr>
<td><strong>Luminaire Type</strong></td>
<td><strong>Lamp Type</strong></td>
<td><strong>Qty</strong></td>
</tr>
<tr>
<td>Surface Mounted</td>
<td>Fluorescent FL</td>
<td>70</td>
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<td>HD</td>
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<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
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</tr>
</tbody>
</table>

**Manufacturer & Model #**

- KONKA KK-T3-4NW

**Certification Agency**

- UL

**Retrofit Lamp Type**

- FL/LED (Specify)

**Is retrofit lamp self-ballasted (with integral driver)**

- Yes
- No

**Lamp Manufacturer & Model #**

- Same as kit

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***No means of submitting online or by phone***
Overview of the Program

Pre-assessment process

Retrofitted Luminaire Application for Inspection

If the form is not completed, including the installation and declaration portions, the application will not be processed.
Overview of the Program

Pre-assessment process by Reviewers

For Qty of >50 Retrofits per site, please check that the information below has been included:

- Specification sheet for Retrofit kit/ Devices
- Installation Instructions
- Approval Confirmation or Certification File #

Documents need to be faxed or e-mailed to xxx@electricalsafety.on.ca
Overview of the Program

To summarize

If the retrofit kit is approved

• Proceed with the retrofit installation in accordance with the installation instruction, and
• The retrofitted installation is subject to Inspector’s approval.

If no approved retrofit kit is used

• Field evaluation or field certification of retrofitted luminaires is required, and
• For projects with more than 300 retrofitted luminaires, the contractor shall contact ESA to apply for a deviation.
Fees
Non ACP contractors

Retrofit projects with 50 or less luminaires per site:
• No additional cost
  ✓ Retrofitted Luminaires Application for Inspection is required to be submitted for each site.

Retrofit Projects with more than 50 luminaires per site:
• Standard inspection cost plus additional fee ($143) per site for pre-assessment process,
  ✓ Retrofitted Luminaires Application for Inspection is required to be submitted for each site.
  ✓ Additional documents are required for pre-assessment.
Fees
ACP contractors

To qualify for NEW audit ratios:

- 10 site installations at 100% (for 1 in 10 audit ratio)
- 5 sites at 100% (for 1 in 5 audit ratio)

<table>
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<tr>
<th>Scope</th>
<th>Audit ratio</th>
<th>Fee</th>
<th>Pre-assessment process</th>
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<tbody>
<tr>
<td>Quantity of luminaires ≤50, per site</td>
<td>1 in 10</td>
<td>$29</td>
<td>Retrofitted Luminaires Application for Inspection for each site</td>
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<tr>
<td>Quantity of luminaires &gt;50, per site</td>
<td>1 in 5</td>
<td>$84.6</td>
<td>Retrofitted Luminaires Application for Inspection and additional documents for ESA review for each site (56 +28.6)</td>
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</table>
Timelines

• The program enforcement will start on November 25th, 2014
  ✓ Use of Retrofitted Luminaire Application for Inspection
  ✓ Requirements for additional documents for Qty of >50 retrofitted luminaires

• Guideline “ESA Program for Acceptance of Retrofitted Luminaires” is posted on http://www.esasafe.com/business/lighting-retrofits