

**PUBLIC WORKS AND  
GOVERNMENT SERVICES CANADA**

**ASSET AND FACILITIES MANAGEMENT SERVICES**

**ELECTRICAL  
STANDING OFFER**

**Description:**

Standing Offer - Electrical

**Location:**

Joseph A. Ghiz Building  
275 Pope Rd.  
Summerside PEI  
C1N 5Z7

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**INDEX**

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.1 Work site for this Contract includes the following:

**1. location**

**Joseph A. Ghiz Building  
275 Pope Rd.  
Summerside PEI  
C1N 5Z7**

**2. General**

- .1 Scope of work under this Contract includes but shall not be limited to the provisions of all labour, material, tools and equipment necessary to perform maintenance service work, minor repairs, emergency repairs and other related work as requested by Public Works and Government Services Canada and provide the services listed in Items 3 and 4 of this section.

**3. Contact and Reporting**

- .1 The Contractor shall maintain and provide to the Departmental Representative, current telephone, FAX and pager numbers to ensure the provision of acceptable response to requests for service of all priorities from the local Departmental Representative and/or the National Service Call Centre (NSCC). This involves ensuring that cellular phones and pagers are of a type that can be contacted from the National Service Call Centre in Toronto. The Departmental Representative will provide the Contractor's response numbers to the NSCC. Service is to be provided on a twenty-four (24) hour, seven (7) days per week basis.
- .2 The Contractor shall maintain a staffed office at all times during normal working hours. The Contractor's office shall be equipped to receive and respond to requests for service during the hours that fall outside the designated normal working hours.
- .3 When a request for emergency service is originated from the Departmental Representative and/or the NSCC, the Contractor shall immediately proceed to the site, and repair or protect the system or equipment from further damage. When the system or equipment has been made safe, the Contractor shall provide within one (1) working day, a detailed quotation to the requesting authority for the complete repairs required to put the system or equipment into proper working order.
- .4 When responding to any priority level work that is requested by the NSCC, the Contractor shall advise the Departmental Representative at the earliest possible opportunity of the request, and shall inform both the Departmental Representative and the NSCC of the action taken to correct the problem

- .5 The Contractor shall contact the Departmental Representative, on the first working day following an "after normal working hours" emergency or urgent request for service to obtain a requisition number.
- .6 Where required, the Contractor shall register with the on-site Representative or his/her designated official upon entering and leaving the premises.

**4. Priorities and Response Times**

- .1 The Contractor shall comply to the following Work Priorities and Response Times:

**.1 Emergency Priority**

A priority of "Emergency" is defined as a deficiency or breakdown that requires immediate attention to reduce the potential for damage and/or danger to the occupants, the general public, the environment and/or the facility. Work identified to be of an emergency priority shall be responded to and reported on, without delay to the appropriate authority.

**Emergency Response Times**

Urban	Immediate
Rural	ASAP (travel-time considered)

**.2 Urgent Priority**

A priority of "Urgent" is defined as a deficiency or breakdown that requires same day attention to reduce the potential for damage and/or danger to the occupants, the general public, the environment and/or the facility.

**Urgent Response Times**

Urban	Within 4 hours
Rural	Within 12 hours

**.3 Routine Priority**

A priority of "Routine" is defined as essential maintenance requirements which shall be rectified at the earliest possible opportunity, within the standard response times noted. A routine priority is considered to be a deficiency or breakdown that will not impair current operations or pose any potential for damage and/or danger to the occupants, the general public, the environment and/or the facility.

**Routine Response Times**

Urban	Within 24 hours
Rural	Within 48 hours

**.4 Low Priority**

A priority of "Low" is defined as routine maintenance requirements with less importance, which shall be rectified within the standard response times noted. A low priority is considered to be a deficiency or breakdown that will not impair current operations or

**Low Response Times**

Urban                **Within 48 hours**

Rural                **Within 96 hours**

- 5. Contractor Responsibilities**
- .1 The Contractor must have a staffed office at all times during normal business hours and a demonstrated ability to receive and respond to calls for service during other than normal business hours. This involves ensuring that cellular phones and pagers are of a type that can be contacted from the National Service Call Centre in Toronto.
  - .2 On award of Contract, the Contractor must provide names of personnel performing work on this contract complete with proof of their qualifications.
  - .3 The Contractor must report to the site with a service vehicle which is stocked with replacement parts to carry out repairs on electrical equipment in use in these facilities.
- 6. Site Visits**
- .1 The Departmental Representative may, without prior notification, visit the site.
- 7. Log Books**
- .1 The Contractor shall complete all applicable log books outlining all work performed. Payment shall not be made if log book is incomplete.
- 8. Invoicing**
- .1 The Contractor shall submit Job Slip(s) signed by the Departmental Representative with an invoice. No invoice will be considered for payment unless accompanied by signed Job Slip(s), as detailed in Appendix "A".
  - .2 Invoice must show:
    - .1 Contract number
    - .2 Work location
    - .3 Date
    - .4 Requisition number
    - .5 Name of person who authorized call
    - .6 Hours broken down as per Unit Price Table
    - .7 Material net cost and % mark-up
    - .8 Trades person(s) name and licence number(s)
  - .3 In the event of a dispute, the Contractor is to make any and all records available to the Department to substantiate time and/or materials spent on any one job.

- .4 The Contractor must submit a completed "Request For Isolation" form, when applicable, before any invoice can be processed. See Index.
- .5 All invoices for the fiscal year must be submitted for payment before 31 March of each year.

**9. Service  
Definitions**

- .1 The following definitions apply to the work to be directed by the Departmental Representative.
  - .1 Add  
Make an addition to.
  - .2 Adjust  
Bring components to a more effective relative position.
  - .3 Assemble  
To take apart and put together again.
  - .4 Balance Load  
To balance the three (3) phase and single phase circuits which enter (or leave) the main switchboards, transformers and distribution panel boards, by calculating new and existing loads accordingly.
  - .5 Breakdown Maintenance  
To perform repairs to damaged equipment due to failures.
  - .6 Clean  
Scrape, brush, flush and vacuum as required to remove dust, dirt and foreign matter.
  - .7 Check/Inspect  
View closely for dirt, foreign substance, lack of lubricant, wear, damage, tightness, tension, alignment, leaks, cracks, spalling, deformation, overloading and settings. Make a critical appraisal of equipment, component and parts' ability to fulfil their function to a high degree of efficiency.
  - .8 Energy Source  
Any electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other source of energy of potential harm to workers.
  - .9 Instruct  
Inform Departmental Representative of any new operating procedures. Demonstrate and explain purpose, benefit and method of implementing new

- .10 Isolate  
To physically prevent the transmission or release of an energy source to machinery or equipment.
- .11 Lubricate  
Apply oil or grease to joints between moving parts and joints between fixed and moving parts.
- .12 Measure  
To determine capacity or amount in standard units using an appropriate instrument. Measure condenser and evaporator pressure drop with differential pressure meter or "U" tube manometer. Measure motor overload with instrument approved by overload manufacturer.
- .13 Normal Working Hours  
Monday to Friday, between the hours of 0800 hrs and 1700 hrs inclusive, weekends and statutory holidays excluded.
- .14 Paint  
Clean, prepare and paint surfaces to paint manufacturer's recommendations with paint and primer recommended by paint manufacturer for applicable surface and use.
- .15 Predictive Maintenance  
To perform required repairs that have been declared in advance, on the basis of observation, experience and/or scientific reasons.
- .16 Preventative Maintenance  
To inspect, test and re-condition a system, in order to prevent failures, at regularly scheduled intervals in accordance with specific instructions.
- .17 Prove  
Operate and determine if operation produces intended response.
- .18 Remove  
Take off or away from.
- .19 Repack  
Fill with packing again.
- .20 Repair  
Restore to a sound state.

- .21 Replace  
Restore by removing old components and replacing with new components.
- .22 Report  
To Departmental Representative on-site and include in work report, results of inspection and proving, note problems encountered, services required, services performed and readings taken.
- .23 Shut Down  
Take out of service.
- .24 Start Up  
Return to service.
- .25 Tighten  
Securely fix in place.
- .26 Torque  
A predetermined amount of force (work measured in Newton metres) determined by a manufacturer and executed with the use of a torque wrench to turn a nut on a bolt, relating to specific equipment or system.
- .27 Treat  
Act upon with agent.

**10. Departmental  
Representative(s)  
Authorized  
Personnel**

.1

The Contractor will be notified of, on award of the Contract, the name and phone number of the PWGSC Departmental Representative.



**1. Codes and  
Legislated  
Requirements**

.1 The following codes and standards in effect at the time of award are subject to change / revision. The latest editions of each shall be enforced during the term of the contract.

- .1 National Building Code of Canada.
- .2 National Fire Code.
- .3 Part II of the Canada Labour Code.
- .4 Canada Occupational Safety and Health Section of Part II of the Canada Labour Code.
- .5 Canadian Environmental Protection Act.
- .6 Fire Commission of Canada #301 Standard for Building Construction Operations.
- .7 Canadian Construction and Canada Labour Safety Codes; Provincial Government, Workers' Compensation Board; and Municipal Statutes and Authorities.
- .8 Canadian Electrical Code, Part I, CSA C22.1.
- .9 CAN/CSA - C282-00, Emergency Electrical Power Supply for Buildings
- .10 Public Works and Government Services Canada "Electrical Safety Requirements". (Includes Lockout Procedures). \*

\* Please Note: The Electrical Safety Requirements (the Procedures) are only a tool which the Contractor may use to assist him or her in interpreting the Codes and Standards set out in the Maintenance Services Standing Offer-Electrical, General Requirements, Codes and Legislative Requirements, Items 1.1.1, 1.1.2, 1.1.3, 1.1.4 and 1.1.5 (the cited Codes and Standards). Public Works and Government Services Canada does not warrant the adequacy of these Procedures and advise that the Procedures do not replace the cited Codes and Standards.

The Contractor is responsible to be familiar with the cited Codes and Standards and to ensure that all work undertaken on behalf of Public Works and Government Services Canada is completed in a safe manner and, at a minimum, in compliance with the cited Codes

**Electrical**

and Standards. In the event there is a conflict between these Procedures and the cited Codes and Standards, the cited Codes and Standards are to prevail.22

.11 Materials and workmanship must conform to or exceed applicable standards of Canadian Government Specifications Board (CGSB), Canadian Standards Association (CSA), American Society for Testing Materials (ASTM) and referenced organizations.

.12 The Contractor can obtain addresses for codes and standards from Departmental Representative upon request.

.13 In the event of a conflict between any of the above codes or standards the most stringent shall apply.

.14 These standards shall be considered an integral part of the specifications and shall be read in conjunction with the drawings and specifications. The Contractor shall be fully familiar with their contents and requirements as related to the work and materials specified.

- |                            |  |
|----------------------------|--|
| <b>2. Permits and Fees</b> | <p>.1 Submit necessary number of drawings and specifications to Electrical Inspection Department Supply Authority and any other required authority for examination and approval prior to commencement of work.</p> <p>.2 Obtain and pay for permit from Inspection Authority before commitment of work.</p> <p>.3 Obtain and pay for Inspection Certificate for any electrical work or electrical repair.</p> <p>.4 Furnish these certificates and permits when requested by the Department Representative.</p> <p>.5 Permits and certificates are not required for repair or/maintenance of existing 15 ampere, 120 volt circuits or replacement of single-pole switches, duplex receptacles or existing light fixtures..</p> |
| <b>3. Taxes</b>            | <p>.1 Pay applicable Federal, Provincial and Municipal taxes.</p>  |
| <b>4. Environmental</b>    | <p>.1 All work is to be performed in accordance with the Federal Environmental Protection Act and the Provincial Environmental Acts and Regulations.</p>   |

- |                                |    |   |
|--------------------------------|----|---|
| <b>5. Examination</b>          | .1 | Examine the existing conditions and determine those conditions affecting the work.  |
| <br>                           |    |   |
| <b>6. Existing Services</b>    | .1 | Protect and maintain existing active services.  |
|                                | .2 | Connect to existing services with minimum disturbance to occupants and building operation.  |
|                                | .3 | Use existing services at no cost.   |
|                                | .4 | Use designated sanitary facilities.   |
|                                | .5 | Any shutdown to execute service or repair must first be approved by Departmental Representative or his designate. Normal working hours shall be construed as 0800 hours to 1700 hours, Monday through Friday, inclusive excluding holidays. |
|                                | .6 | Ensure that capacity of services is adequate prior to imposing additional loads. Connecting to and disconnecting is Contractor's expense and responsibility.  |
|                                | .7 | Inform the Departmental Representative immediately of any code violations or required repairs which could pose a hazard to employees or building occupants.   |
|                                | .8 | When connecting to or disconnecting from an existing electrical system, ensure of a balanced load upon completion of work.  |
| <br>                           |    |   |
| <b>7. Cleaning</b>             | .1 | Maintain work area free of accumulated waste and rubbish.   |
|                                | .2 | Remove and dispose of debris, used and obsolete material on a daily basis or as directed by the Departmental Representative.  |
|                                | 3  | Remove grease, dust, dirt, stains, fingerprints and other foreign materials from sight-exposed interior and exterior finished surfaces affected by Contract work.   |
|                                | .4 | All materials, components, used equipment, etc., replaced or removed from a facility remains the property of the Crown until such time as permission is given by the Departmental Representative to dispose of such. <sup>33</sup>          |
| <br>                           |    |   |
| <b>8. Cutting, Fitting and</b> | .1 | Cut, fit and patch where required for work under this   |

**Patching**

contract. Make good all disturbed surfaces to original condition.

- .2 All firewall penetrations shall be properly sealed using approved fire rated patching material.

**9. Co-ordination and Protection**

- .1 Execute work with minimum disturbance to occupants, public and normal use of building. Make arrangements with Department to facilitate execution of work. Maintain access and exits as work area could be occupied during execution of work.
- .2 Movement of office furniture is the Contractor's responsibility.
- .3 Furniture including desks, file cabinets, shelving units, chairs, and cabinets which are moved because of the work requirements will be moved back at the end of each work day.
- .4 Protect existing work from damage.
- .5 Where necessary, cover all building contents, materials and fittings in work areas prior to commencing work, remove covers on completion of work.
- .6 Obtain Departmental Representative's approval before cutting, boring or sleeving load bearing members.
- .7 All possible safety precautions are to be taken to ensure the protection of employees or occupants during the course of the work.
- .8 Asbestos assessment drawings, where available, are to be referenced before any interior finished surfaces are disturbed.
- .9 Obtain Departmental Representative's approval before isolating any security, monitoring or audible alerting devices.
- .10 In the event the Fire Alarm System is deemed inoperable due to ongoing work by the Contractor, a trained sentry/rounds man will carry out the functions of fire watch.

**10. Product Approvals**

- .1 The Contractor shall ensure that all controlled products used in the performance of the work are classified and labelled according to the Workplace Hazardous Materials Information System (WHMIS).
- .2 The Contractor shall submit for approval the Material Safety Data Sheets (MSDS) for all controlled products that will be used in the performance of this work.

- .3 No controlled products are to be brought on-site without prior approved Material Safety Data Sheets (MSDS).
- .4 Material Safety Data Sheets (MSDS) to remain on-site at all times.

## **11. Materials and Equipment**

- .1 Equipment and materials to be new, CSA certified and manufactured to standard quoted.
- .2 Use products of one manufacturer or same type as existing, including classification, unless otherwise specified.
- .3 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .4 Deliver, store and maintain materials with manufacturer's seals and labels intact.
- .5 Store materials in accordance with manufacturer's and supplier's instructions.
- .6 Do not store materials on-site without Departmental Representative's approval.
- .7 Public Works and Government Services Canada accepts no responsibility for materials or equipment stored on-site.
- .8 When an equipment inventory numbering system exists, identify to the appropriate Departmental contact all pertinent data relative to the new piece of equipment upon installation.
- .9 The Contractor to supply shop drawings and manufacturer's instructions and specifications on all new installation for inclusion in the building inventory file.
- .10 Where the Contractor supplies equipment purchased from a supplier or manufacturer, the Contractor shall obtain from the manufacturer or supplier; a warranty for the manufacturer's normal warranty period and such warranty shall be made out to Her Majesty the Queen in right of Canada.

## **12. Personnel**

- .1 The Contractor will provide only journeymen personnel with a valid Provincial Department of Labour Licence for applicable trades required for this Contract. PWGSC may at any time during this Contract request to inspect

- .2 The Contractor will provide the Departmental Representative with a list of all qualified trades people working on or in Federal facilities, complete with copies of their journey person license(s). Copies of WHMIS, First Aid, CPR and any other required safety or work related training certificates are to be forwarded to the Departmental Representative. The Contractor is to ensure this list is updated immediately upon change in personnel, and personnel qualifications are to be kept current.
- .3 The Contractor and his/her personnel must adhere to the Federal Government "NO SMOKING" policy while in Federal facilities.
- .4 All Contractor's employees working with controlled products on Federal property and/or in Federal facilities will require WHMIS certification.
- .5 The PWGSC Departmental Representative shall coordinate arrangements for the Contractor to be briefed on site safety within 14 days of award of contract.

**13. Work Done by  
Other Means**

- .1 This Contract does not create an exclusive right of the Contractor to perform all electrical work which might be required. The Department reserves the right to have any work done by other means.

**14. Workmanship**

- .1 All equipment panels and control covers must be replaced and properly fitted utilizing all fastening screws and/or bolts according to equipment design. All workmanship is subject to inspection and approval.
- .2 All work shall be performed by skilled trades people and supervised by a competent supervisor at all times.
- .3 Replace all work unsatisfactory to the Departmental Representative without extra cost.

**15. Site Security**

- .1 Site security is the responsibility of the Contractor who shall erect temporary site enclosures, barricades and fencing to prevent unauthorized entry, pilferage and vandalism.
- .2 Any work that may disrupt the operations of the occupying clients will be carried out after normal building operational hours. For all work carried out after normal building operational hours, the Departmental

Representative will determine acceptable building security.

- .3 After normal business hours, security at some or all Facilities may require the presence of an officer from the Canadian Corps of Commissionaires.

## **16. Security Clearance**

- .1 The security clearance level for this Contract is reliable.
- .2 The Contractor shall submit his/her name and the names of all employees, including new employees engaged during the Contract who will be working under this Contract to the Departmental Representative immediately following notification of Contract award.
- .3 The Contractor and his/her employees will be required to provide personal information, such as address and date of birth; and complete Government forms in order to receive the required clearance level.
- .4 Only those employees who receive the required clearance level will be allowed on-site.

## **17. Meetings**

- .1 Attend meetings at site when notified by Public Works and Government Services Canada.

## **18. Drawings and Maintenance Manuals**

- .1 Where available, Maintenance Manuals and drawings for new work are to be accessible for viewing by the Departmental Representative when required. Maintenance Manuals and drawings for existing work are available for viewing from the Departmental Representative<sup>77</sup>, when required.
- .2 Additions, relocation or removal of electrical equipment are to be recorded, dated and initialled by the Contractor or the Departmental Representative on the "as-built" prints where applicable.
- .3 "As-built" drawings are to be revised accordingly to indicate any deviations to the originals.
- .4 The Contractor shall ensure that all new electrical work is recorded in the log "Record of Electrical Work".

## **19. Fastening Devices Explosive Actuated**

- .1 Power activated devices using explosives shall not be used.

**20. Fall Arrest**

- .1 All work carried out above the mandatory height restrictions, as stated in Canada Labour Code Part II, Section 12.10 (1) from an unsafe/unguarded structure and/or from ladders, staging and/or scaffolding will be done in compliance with the Canadian Occupational Safety and Health Regulations, Part XII, Section 12.10
- .2 The components of a fall arrest system shall meet the standard as outlined in the Canadian Occupational Safety and Health Regulations, Part XII, Section 12.10 (2).
- .3 The Contractor is to ensure fall arrest equipment is maintained, inspected and tested by a qualified person as required by Canadian Occupational Safety and Health Regulations, Part XII, Section 12.3.

**21. Confined Spaces**

- .1 All work in confined spaces will be carried out in compliance with the Canada Occupational, Safety and Health Regulations Part XI.
- .2 The Contractor to provide and maintain all equipment as required by any person to enter and/or perform work in a safe manner, in compliance with the Canada Occupational, Safety and Health Regulations, Part XI.
- .3 The Contractor to provide and maintain training, as required by the Canada Occupational, Safety and Health Regulations Part XI.
- .1 The Contractor and/or his employees shall provide proof of training and qualifications when requested by the Departmental Representative.
- .4 The Contractor to provide the Departmental Representative with a copy of an "Entry Permit" for each and every entry into the confined space to ensure compliance with the Canada Occupational, Safety and Health Regulations, Part XI.
- .5 The Contractor to have a hazard assessment of the confined space performed.
- .1 The Contractor to provide the Departmental Representative with a copy of the hazard assessment.

**22. Safety**

- .1 The Contractor shall provide a copy of their company's Occupational Health and Safety Policy and Program .It shall meet the most stringent of the Federal and Provincial Occupational Health and Safety Acts.



- .2 The Contractor shall perform site hazard assessments to establish site specific safe work practice procedures for the safety and well being of his / her employees. Copies shall be made available to Public Works and Government Services Canada upon request.
- .3 All copies of the formal Hazard Assessments conducted by the Contractor throughout the duration of the work shall be retained and made available to the Departmental Representative immediately upon request.
- .4 It is the Contractor's responsibility to be familiar with all applicable Safety Acts, Regulations, Codes and contract requirements. These must be identified and addressed in the Safety Plan, by identifying Standard Operating Procedures (SOP) and safe work practices (SWP) which incorporate clear and specific control measures, applicable rules, procedures and practices, all of which shall become mandatory.
- .5 Post the Safety Plan at a common location on the site visible to all workers and persons accessing the site. Ensure that all employees, including sub-contractors' personnel, are advised of such Safety Plan and of the posted location.
- .6 The Contractor shall ensure all workers and authorized persons entering the work site are notified of and abide by the posted Safety Plan, safety rules, procedures, safe work practices and applicable Safety Acts, Regulations, and codes. Any person not complying with these shall not be permitted on the site.
- .7 Shall ensure that all applicable personal protective equipment (PPE) is used.

### **.23 Bidders/Tenderers**

.1 Bidders/Tenderers, within fourteen calendar days after closing and prior to award, the lowest responsive bidder will be required to provide the following;

.1 Documentation indicating that the bidder/tenderer meets the Occupational Health and Safety Act and Regulations of Prince Edward Island. This shall include a copy of Company's Safety Manual, which includes Company Safety Policy & Assignment of Responsibilities, Hazard Assessment, Safe Work Practices/Job Procedures, Rules, Personal Protective Equipment, Maintenance Program, Training and Safety Meetings, inspections, Investigations, Environmental, Emergency Preparedness, Records and Statistics, & Harassment.

.2 Certification letter of good standing from Workers Compensation Board

.3 Signed statement from Owner of company that they will maintain Worker's Compensation Board coverage for the duration of the Contract, including sub-contractors.

.4 The Contractor will provide certified technicians.



**.1 Journeyman  
Electrician**

.1 The journeyman electrician shall:

.1 Carry out and assist in various types of building electrical maintenance as requested by Public Works and Government Services Canada. Maintenance types defined in Section 1, Paragraph 8, Service Definitions.

.2 Relocate, install or repair electrical equipment; such as, but not limited to, lighting fixtures, receptacles, relays, pac poles, wiring runs, panels, breakers, portable equipment, or any other electrical requirements requested by Public Works and Government Services Canada; such as, testing, calibrating, programming or electrical measurements.

.3 Inform the Departmental Representative of any "phase unbalance" (voltage or current) produced by new or additional equipment in a new or existing system. Carry out adjustments and record results.

.4 Produce all certificates and permits upon request of the Departmental Representative.

.5 Instruct the Departmental Representative on-site of any new operating procedures when installing or modifying new or existing equipment.

.6 Shall immediately inform the Departmental Representative of any unsafe situations or conditions related to the work site.

**PART 1 - GENERAL** .1 Materials to new, CSA certified, and manufactured to standard quoted, where applicable.

## **PART 2 - PRODUCTS**

- 2.1 Conduit**
- .1 Flexible metal conduits: to CSA C22.2 No. 56-1977.
  - .2 Electrical metallic tubing: to CSA C22.2 No. 83-1985.
- 2.2 Conduit Fittings**
- .1 Fittings for raceways: to CSA C22.2 No. 18-1992.

## **PART 3 - EXECUTION**

- 3.1 Installation Guidelines**
- .1 Minimum size conductors for branch circuit wiring shall be #12 RW 90, X-link.
  - .2 E.M.T. and RW 90 conductors to be installed for branch circuit wiring. **No BX cable allowed.**
  - .3 All E.M.T. and flexible conduit to have #14 insulated green ground wire minimum.
  - .4 All E.M.T. to have steel set screw couplings and connectors. (No cast).
  - .5 Flexible conduit and #12 RW 90 conductors to be installed as fixture drops from junction boxes. **No BX cable allowed.** Over 1.5 metres, use 1/2" flex.
  - .6 All new circuits to be colour-coded and numbered at breakers, junction boxes and wiring devices. Include **panel number and circuit number** on each conductor.
  - .7 No splices allowed inside panel boards (distribution, power and lighting).
  - .8 Panel Directories are to be brought up to date with each new circuit change or installation.
  - .9 Receptacles to be nylon faced, specification grade: Type: Hubbell 5252. Other manufacturer's #5262.
  - .10 Switches to be nylon faced, specification grade: Type: Hubbell 1201 - 15 ampere or equal  
Hubbell 1221 - 20 ampere or equal

- .11 Any replacement or new installation of fluorescent fixtures is to contain energy saving ballasts and lamps:

**Type:** Surface-mounted - CFI = Director-2 series with Halophane lens or equal.

Recessed - CFI - Prismalyte lens or equal.

Electronic Ballast Type - Advance Rapid Start or EBT Instant Start, or equal.

Lamp Type - 32 Watt, 3500 K, T-8, G.E. or equal.

### 3.2 Installation

- .1 Note: BX and PVC not acceptable.
- .2 Flexible metal conduit runs shall not exceed 1.5 meters.
- .3 Install separate ground wire in E.M.T.
- .4 Lugs, terminals, screws used for termination of wiring to be suitable for copper conductors.
- .5 Minimum acceptable size wire to be used is #12 AWG copper conductors.



**JOB SLIP  
ELECTRICAL**

Requisition #: \_\_\_\_\_ Location: \_\_\_\_\_

Date: \_\_\_\_\_

Description of Work: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**WORK TIME**

Start Time: \_\_\_\_\_

Completion Time: \_\_\_\_\_

No. of Persons: \_\_\_\_\_

Provincial License #: \_\_\_\_\_

Total Hours Worked: \_\_\_\_\_

Material Cost: \_\_\_\_\_

Grand Total: \_\_\_\_\_

Signed By:

\_\_\_\_\_  
Departmental Representative  
(or his/her Designate)

\_\_\_\_\_  
Contractor

**NOTE: Use separate job slip for each day.**



# Request For ISOLATION



Public Works and Government  
Services Canada

Travaux publics et Services  
gouvernementaux Canada

**REQUEST FOR ELECTRICAL ISOLATION AND RE-ENERGIZATION  
DEMANDE DE COUPURE À LA SOURCE ET RÉ-ALIMENTATION**

<b>A. Building Name and Address - Nom et adresse de l'immeuble</b>		Isolation/Re-Energization Request No. N° de la demande de coupure à la source et ré-alimentation	
Specific Location of Installation or Equipment to be Isolated/Re-Energization (Indicate floor, wing, room no., cabinet no., etc.) Endroit précis de l'installation ou de l'appareillage devant être coupé à la source et ré-alimenté. (Indiquer l'étage, l'aile, le n° de la pièce, le n° du panneau, etc.)		Date and Time of Request - Date et heure de la demande	
		Date <span style="float: right;">Hour</span> Y-A M D-J H-H-M-M	
		Isolation to Start On Coupeure à la source devant débuter le	
		Date <span style="float: right;">Hour</span> Y-A M D-J H-H-M-M	
Description of Installation or Equipment to be Isolated/Re-Energization Description de l'installation ou de l'appareillage devant être coupé à la source et ré-alimenté.		Isolation to End On Coupeure à la source se termine le	
		Date <span style="float: right;">Hour</span> Y-A M D-J H-H-M-M	
		Date <span style="float: right;">Hour</span> Y-A M D-J H-H-M-M	
		Date <span style="float: right;">Hour</span> Y-A M D-J H-H-M-M	
Procedures for Isolation/Re-Energization - Procédures de coupure à la source et de ré-alimentation (NOTE: When procedures involve more than one operation a Procedures for Isolation and Re-Energizing form must be completed and attached.) (NOTA: Lorsqu'un procédé comporte plus d'une opération, vous devez remplir les formulaires « Procédures de coupure à la source » (PWGSC-TPSGC 12) et « Procédures de ré-alimentation » (PWGSC-TPSGC 12-1) et les annexer au présent formulaire.)			
Voltage <input type="checkbox"/> When high voltage equipment is to be isolated a Procedures for Isolation/Re-Energizing form must be completed and attached. Tension Pour la coupure à la source d'appareillages haute tension, les formulaires « Procédures de coupure à la source » (PWGSC-TPSGC 12) et « Procédures de ré-alimentation » (PWGSC-TPSGC 12-1) doivent être remplis et joints.			
Update of Line Drawings Required Upon Completion <input type="checkbox"/> Yes <input type="checkbox"/> No Nécessité de mettre à jour les schémas électriques une fois les travaux terminés <input type="checkbox"/> Oui <input type="checkbox"/> Non			
Requested by - Demandé par Name of Person in Charge - Nom de la personne responsable		Signature	Date <span style="float: right;">Hour - Heure</span> Y-A M D-J H-H-M-M
<b>B. Request Approved - Demande autorisée</b>			
Name of Guarantor - Nom du garant		Signature	Date <span style="float: right;">Hour - Heure</span> Y-A M D-J H-H-M-M
<b>C. Isolation Confirmed - TO BE COMPLETED PRIOR TO COMMENCEMENT OF WORK Coupeure à la source confirmée - À REMPLIR AVANT DE COMMENCER LES TRAVAUX</b>			
Isolation has been tested for potential and its determined safe for workers to perform the work. Le procédé de coupure à la source a été vérifié pour potentiel et les travaux peuvent être exécutés en sécurité.			
Name of Person in Charge - Nom de la personne responsable		Signature	Date <span style="float: right;">Hour - Heure</span> Y-A M D-J H-H-M-M
<b>D. Completion of Requested Isolation Time and Completion of Work Confirmed Achèvement de la période demandée pour la coupure à la source et confirmation de l'exécution des travaux</b>			
Line Drawings Updated as Required <input type="checkbox"/> Yes <input type="checkbox"/> No Les schémas électriques ont été mis à jour tel que demandé <input type="checkbox"/> Oui <input type="checkbox"/> Non			
Name of Person in Charge - Nom de la personne responsable		Signature	Date <span style="float: right;">Hour - Heure</span> Y-A M D-J H-H-M-M
<b>E. Approval of Completion of Work and Confirmation that Equipment or Installation has been Re-energized Approbation d'achèvement des travaux et confirmation de la remise sous tension de l'appareil ou de l'installation</b>			
Name of Manager in Charge of Worksite or Supervisor Nom du gestionnaire responsable du lieu de travail ou du superviseur		Signature	Date <span style="float: right;">Hour - Heure</span> Y-A M D-J H-H-M-M

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**THIS RECORD MUST BE KEPT FOR ONE YEAR FOLLOWING COMPLETION OF WORK  
À CONSERVER PENDANT UN AN APRÈS LA FIN DES TRAVAUX**

Copy 1 ☐ Manager in Charge of Worksite or Supervisor  
Copie 1 ☐ Gestionnaire responsable du lieu de travail ou superviseur

Copy 2 ☐ To be submitted to, and retained by the Guarantor  
Copie 2 ☐ À remettre au garant à la fin des travaux. Le garant doit garder cette copie.