



City of Lethbridge

Electric Utility

Electric Distribution Capital Investment Policy

2017

Document Purpose

The purpose of this document is:

- To describe the policy of the City of Lethbridge Electric Utility (LEU) for investing in distribution service connection plant assets.
- To capture and clarify rules and guidelines for administering the Investment Policy.
- To provide a mapping of the investment policy process as it relates to Utility work flow processes.
- Provide a record of policy changes.

Policy Definitions and Concepts

Accumulated Depreciation of an Asset: The total annual depreciation of an asset during its in service life to date.

Connected Load: power required when all connected systems, circuits, components, devices and equipment are operating simultaneously.

Customer Contribution (initial): the total cost of the customer requested new or expanded distribution facilities that are deemed to be customer related.

Customer Contribution (final): net cost to customer for requested new or expanded distribution facilities less the calculated City of Lethbridge investment.

Customer Related: facilities dedicated to serve one or a small number of customers. This usually means all cables, transformers, enclosures, metering, and joint-use on private property, but may also mean any costs incurred off of the private property that cannot be considered system related.

Forecast load: anticipated Operating demand over a 12 month period.

In-service Date: The date in which all or substantially all of the installation work required from LEU has been completed, as determined by LEU.

Investment: refers to the City of Lethbridge capital investment in new or expanded distribution facilities entitling the City of Lethbridge to an equity return. LEU invests in all system related costs plus customer related costs based on expected revenue generated from the site. LEU may invest in customer related costs after construction based upon the typical operating demand and consumption that is established over an 18 month period.

Metered connection/or serviced connection: a service connection with a unique site ID and a City of Lethbridge meter provided for billing purposes.

Net Book Value (NBV) of an Asset: The original cost of an asset less total accumulated depreciation as recorded by the City of Lethbridge Fixed Asset Management System.

Net Utility cost (NUC): NUC is equal to the total estimated costs subject to LEU investment. NUC includes sharable system related costs net of any amounts recovered from joint construction.

Non-Standard Service: An electric service installation for which costs and equity return cannot reasonably be recovered by LEU through rates.

Off-Site Costs: system related facilities that cannot be used to provide for other service connections, or in the view of LEU, will not be required or available for other service connections within the next 5 years. This does not include facilities on the customer's property. It applies to upgrades or additions to the system that will benefit only the specific customer.

On-Site Costs: all on-site costs net of joint construction recovery and excluding any secondary costs.

Operating Demand Load: the power used by connected systems and equipment on a typical day. e.g. Furnaces and air conditioning units are not typically used at the same time so operating demand load would consider one at a time, not both. In a machine shop, the operating load is measured by what equipment would typically be used at the same time.

Original Cost of an Asset: The average cost (labour, material, overhead, etc.) of all assets in a particular class capitalized in a year.

Peak load: the highest demand in any 12 month period.

Primary Service: Electric service provided at 13.8 kV where the customer is responsible for transformation and all secondary equipment.

Secondary Costs: All costs downstream of transformation are the responsibility of the customer. Costs to LEU to install these facilities may, in special circumstances, be included in estimates as a customer contribution requirement and are not subject to refund.

System Related: facilities required to provide service to many end-users. It generally includes primary distribution, system secondary distribution, and switching equipment. System related may also include assigned transmission or substation facilities. LEU invests in shared system related costs. System related facilities are deemed to be dedicated (excluded from NUC) if the system related facilities cannot be used to provide for other service connections, or in the view of LEU will not be required or available for other service connections within the next 5 years.

Policy Summary

- LEU will not unfairly burden its ratepayers due to excess costs of non-standard services required by one customer or a small group of customers.
- LEU invests in the cost to provide system related distribution facilities forming the basis for its entitlement to an equity return.
- LEU Investment is estimated before build.
- LEU Investment is on a one-time refund basis and is based on an established operating load (kVA demand) and consumption (kWh).
- GST: All costs are subject to applicable GST.

ELECTRIC DISTRIBUTION POLICY

This policy establishes the basis on which LEU refunds capital funding to extend or expand facilities to service connected electric distribution customers.

- Principally the owner of the electric utility invests in all or a part of the cost of all new and upgraded facilities that will generate revenue via the Distribution Access portion of the Distribution Tariff.
- Investment in capital and the cost of that capital form part of the utilities cost of service to its customers. These costs are allocated to customer groups based upon rate class, which when combined with operating costs form the basis of the Distribution Access portion of the Distribution Tariff.
- To manage service connection investment risk, the utility limits its liability by establishing a maximum investment based on the ability to recover these costs through rates (Distribution Tariff). Costs incurred by non-standard requirements beyond the ability to recover through rates are the responsibility of the serviced customer (customer contribution).
- Contributions and obligations of customers are outlined within an agreement between the utility and the customer: the Investment Proposal.
- Investment policy provides the basis on which investment and contributions may be altered as a result of subsequent changes in the servicing needs of customers.
- Investments and contributions required under this policy are on a go-forward basis and apply only to new or upgraded distribution servicing which occurs on and after the date this policy is approved; they do not apply retroactively.
- With the exception of subdivision service connections, capital investment policy applies to individual service connections as defined and described in this policy. Investments and Customer Contributions cannot be combined with other service connection requests.
- Service Connection Investment Proposals requiring a customer contribution shall be in writing
- Labour costs basis: Costs attributed to new or upgraded facilities are based on labour performed during regular working hours. Customers requesting work performed during non-regular hours will be charged a differential based on the difference of wages and benefits between regular and non-regular hours.
- The customer or applicant is required to deposit with LEU all or a portion of that cost before servicing work begins.
- The final estimated service connection cost (Service Connection Investment Proposal) forms the basis for customer contributions and potential LEU investments, however, LEU reserves the right to withhold all or a portion of its investment where the actual demand load and consumption does not meet expectation.
- Customer Contributions assessed by the Independent System Operator (ISO) may be re-assigned to a customer or customers requiring transmission facility extension or expansion.
- Where a customer provides a contribution toward dedicated off-site facilities which, within the next 5 years, subsequently are used to provide for other service connections, all or a portion of the contribution may be refunded to the developer. This will be reviewed on a case by case basis.

Unmetered Service Investment Policy

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in unmetered secondary distribution connections.

This policy only applies to the installation of servicing where no meter is applied.

- For services with small, consistent and predictable energy load where no meter is installed.
- LEU does not invest in the installation of distribution facilities for unmetered services.
- LEU does invest in the cost to provide system related facilities where those facilities will be used to provide for other distribution within 5 years of the in-service date of the service connection.
- Where the customer provides a contribution toward system related facilities which are subsequently (within 5 years of original investment) used to provide for other connections, all or a part of the contribution may become refundable to the customer.

Commercial Services (single service)

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in new distribution service connections. Typically this policy applies to all metered service connections with loads that receive distribution services. Primary services are outlined in a separate section below.

- For service connection installations provided through LEU distribution.
- Anticipated average demand and consumption is determined by LEU based on comparisons to similar services and/or customer provided load calculations.
- An estimate of LEU Investment and customer contribution is completed before the work order is issued.
- LEU investment and refund is based on the estimated cost of the work order, and established peak demand and consumption.
- LEU Investment is by way of a refund to the original developer, and is all or a portion of the amount originally funded by the developer.
- LEU Investment is only applicable where the customer related facilities, in the judgment of LEU, will remain installed for a period of 5 or more years.
- LEU calculates the refund based upon demand and consumption experience for no more than 18 months after the in-service date.
- LEU investment does not apply to the cost of providing secondary facilities.
- Only a single rebate is calculated and paid to the developer of a single service site. i.e. The developer cannot request multiple rebates during the 18 month time frame.

Commercial Services (multi-service)

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in new distribution service connections required for multi-service commercial development in a new area. Typically this policy applies to all metered service connections with loads that receive distribution services. Primary services are outlined in a separate section below.

- For service connection installations provided through LEU distribution.
- LEU Investment is based on the total multi-service requirement as determined through a Service Connection Investment Proposal.
- Anticipated average demand is determined by LEU based on comparisons to similar services and/or customer provided load calculations.
- Estimate of LEU Investment and final customer contribution is completed before the work order is issued. Actual LEU investment and refund is based on the estimated cost of the work order, and established peak demand and consumption.
- LEU Investment is by way of a refund to the original developer, and is all or a portion of the amount originally funded by the developer. Investment refunded to the developer will not exceed the original funded amount paid by the developer.
- LEU Investment is only applicable where the customer related facilities, in the judgment of LEU, will remain installed for a period of 5 or more years.
- LEU calculates the refund based upon demand and consumption experience for no more than 36 months after the in-service date.
- LEU investments apply to the specific development identified in the original service installation and cannot be combined with other service connections not included in the original agreement.
- LEU investment does not apply to the cost of providing secondary facilities
- Developers of a multi-service site will be eligible for one interim rebate, along with a final rebate to be calculated using demand and consumption experience no more than 36 months after the in-service date.

Upgraded Commercial Services

Upgraded commercial services are treated the same, regardless of whether they are single site or multi-site services.

- LEU facilities are considered fully depreciated thirty (30 years) after installation.
- Customer requested upgrades on fully depreciated assets are treated as new services.

- The total cost to the customer of an upgraded service is based on the total of the following:
 - The net book value (NBV) of any asset(s) removed from service [A]
 - The estimated cost to install new asset(s) of same size and capacity as the old asset(s) removed (identified as A above) [B]
 - The final actual cost to install the new asset requested by the customer [C]

$$[A] - [B] + [C] = \text{Total cost to the customer}$$

- For service connection installations provided through LEU distribution.
- LEU Investment is on a site basis as determined through a Service Connection Investment Proposal.
- Anticipated average demand is determined by LEU based on comparisons to similar services and/or customer provided load calculations.
- An estimate of LEU Investment and customer contribution is completed before the work order is issued. Actual LEU investment and refund is based on the estimated cost of the work order, and established peak demand and consumption.
- LEU Investment is by way of a refund to the original developer, and is all or a portion of the amount originally funded by the developer.
- LEU Investment is only applicable where the customer related facilities, in the judgment of LEU, will remain installed for a period of 5 or more years.
- LEU calculates the refund based upon demand and consumption experience for no more than 18 months after the in-service date.
- LEU investment does not apply to the cost of providing secondary facilities
- Only a single rebate is calculated and paid to the developer of an upgraded site. i.e. The developer cannot request multiple rebates during the 18 month time frame.

Primary Service Investment Policy

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in primary distribution service connections.

- For service connection installations provided through LEU distribution.
- For primary service connection installations with customer provided transformation.
- LEU investment is on a per-service connection basis as determined through a Service Connection Investment Proposal
- LEU Investment is only applicable where the customer related facilities, in the judgment of LEU, will remain installed for a period of 5 or more years.

- LEU investment does not apply to the cost of providing service or equipment downstream of the primary connection point. Typically this point is a primary metering unit placed at edge of customer property.
- Each scenario relating to primary service installations will be evaluated on a case by case basis, to be consistent with the overall intent of this document to prevent passing additional burden to other ratepayers.

Residential Subdivisions Investment Policy

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in system related facilities for residential subdivisions.

Typically this policy provides for refunding customer contributions initially applied to system related facilities in a residential subdivision.

- For service connection installations provided through LEU distribution.
- LEU investment in subdivision development is by way of a refund to the original developer, and is all or a portion of the amount originally funded by the developer.
- LEU does not refund if more than 5 years have elapsed since the original in-service date of the subdivision phase.
- Investment is on a go-forward basis and applies only to system related facilities serviced by LEU. The policy does not apply retroactively.
- LEU investments apply to the specific development identified in the original service installation and cannot be combined with other service connections or subdivisions.
- LEU Investment is only applicable where the customer related facilities, in the judgment of LEU, will remain installed for a period of 5 or more years.
- LEU refund cannot be greater than the total amount of the original customer contribution applicable to the specific system related facilities.
- Maximum LEU investment is defined in the current Subdivision Rebate Program.

Residential lots – In-fills and Upgrades

- The maximum investment by LEU will be \$1,000, provided the service is \geq 25 yrs old. If the service is less than 25 years old, LEU will pay (\$1,000 – Net book value of existing service).
- The customer is required to pay the service connection fee of \$400 plus any additional costs over and above LEU's investment, provided it is a new Site ID.

- If the customer opts to increase service size above 100A they will also be required to cover the service upgrade fee of \$600. If the site resides in an area currently designed to support greater than 100A servicing, the \$600 fee does not apply.
- LEU will not provide for or be liable for any excavation on private property.
- Multiplex units with split metered servicing (e.g. a bulk conductor like 300MCM to a single service point with a disconnect and a rack of meters) are a \$400 service connection fee for the first service and \$50 for each additional connection.
- If the customer is only relocating a service they will bear the full cost of relocation. LEU will not provide trenching or excavation on private property.

For example:

1. Existing service is 15 years old, NBV is \$300. Full cost of the job is \$2,000. LEU will invest \$700 (\$1,000 - \$300 = \$700). Customer will pay all other costs = \$1300 plus \$400 service connection fee.
2. Existing service is 3 years old, NBV is \$1200. Full cost of the job is \$2,000. Customer will pay all other costs PLUS REIMBURSE LEU for \$200 (\$1,000 - \$1,200 = -\$200). Therefore, cost to customer is \$2200 plus \$400 service connection fee.
3. Existing service is 25 years old. Full cost of the job is \$2,000. Customer will pay \$1400. (\$2,000 less \$1,000 LEU contribution plus \$400 service connection fee)

Community Lighting Investment Policy

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in community lighting secondary distribution connections.

- For community lighting secondary service connection where the lighting fixtures are provided for roadway illumination only.
- LEU does invest in the cost to provide system related facilities.
- LEU does not invest in any lighting other than the service wire to the facility or meter base.
- LEU does not invest in customer related community lighting servicing costs.

Temporary Servicing Investment Policy

This describes the policy of the City of Lethbridge Electric Distribution Utility for investing in temporary customer and system related facilities.

Typically this policy applies to the installation of distribution facilities for a period of less than 5 years.

- This policy applies to investment in customer related and system related facilities installed temporarily.

- LEU does not invest in customer related infrastructure if less than 5 years will elapse from the original in-service date to the out-service date.
- LEU may (on a case by case basis) invest in system related infrastructure installed for a period under 5 years.
- Any investment by LEU in temporary system related facilities is made directly through the Electric Reserve (not as a refund to a pre-payment customer).