



RIVER DISTRICT ENERGY

District Energy Utility (DEU)

Information Package for Developers

How to Read this Document

The purpose of this document is to provide a clear process for developers with projects required to connect to River District Energy (RDE) for thermal energy supply.

Furthermore, this information package is intended to assist developers as they liaise with consultants and end-customers throughout the lifespan of the project. The package is comprised of the following:

Section I. Process for connecting to the RDE system

Section II. Technical Guidelines for Building Designers

Section III. Information for Strata Councils & Strata Managers (handover stage)

NOTE: Developers are responsible for fulfilling the outlined requirements to ensure successful connection to the district energy system. RDE staff are available to guide and assist this process.

Section I. Process for Connecting to the RDE System



Process for Building Connection

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Table 1

Building Development Phase	Developer's Responsibility	Purpose / RDE's Responsibility	Timing
1.1) Preliminary Design / Planning	Submission to service@rdenergy.ca : <ul style="list-style-type: none"> <input type="checkbox"/> Site plan and preliminary architectural plans showing location of proposed RDE equipment 	General review of preliminary building program as well as proposed location and size of DEU equipment space Deliverables: <ul style="list-style-type: none"> <input type="checkbox"/> Advice on building-specific design considerations 	<u>Allow 2 weeks</u> for review
1.2) Development Permit (DP)	Submission of: <ul style="list-style-type: none"> <input type="checkbox"/> DP application submission drawings <input type="checkbox"/> "Prior-to" issued drawings 	General review – formal confirmation of final DEU location and size Deliverables: <ul style="list-style-type: none"> <input type="checkbox"/> RDE Letter confirming size and location of DEU space (City requires as a condition of DP issuance) 	<u>Allow 2 weeks</u> for each review
1.3) Working Drawings / Building Permit (BP)	Submission of: <ul style="list-style-type: none"> <input type="checkbox"/> 50% A, M, E drawings <input type="checkbox"/> Mechanical specifications: Attachment A 	Technical review – Final coordination Deliverables: <ul style="list-style-type: none"> <input type="checkbox"/> Peer review memo, stating comments and conditions of building design and details 	<u>Allow 3 weeks</u> for each iteration of review (# of iterations dependent on response sufficiency)
1.4) BP (leading up to)	<ul style="list-style-type: none"> <input type="checkbox"/> New Service Application (NSA – Form 1) 	<ul style="list-style-type: none"> <input type="checkbox"/> RDE Letter confirming BP drawings meet RDE requirements (City requires as a condition of BP issuance) 	<u>Allow 2 weeks</u> to process BP Letter (technical review process must complete prior to requesting BP letter)
1.5) Construction	Submission of: <ul style="list-style-type: none"> <input type="checkbox"/> Commissioning (approx.) date <input type="checkbox"/> Equipment Change Request: Attachment B (if applicable) <input type="checkbox"/> Energization Request: Attachment C 	Deliverables: <ul style="list-style-type: none"> <input type="checkbox"/> Confirmation of approx. commissioning date <input type="checkbox"/> Approval of equipment changes (if applicable) <input type="checkbox"/> Confirmation of Energization date 	Submit approx. commissioning date at least <u>9 months in advance</u> Submit Energization Request at <u>least 3 weeks</u> before desired energization date Allow 3 weeks for equipment changes reviews
1.6) Occupancy (leading up to)	Submission of: <ul style="list-style-type: none"> <input type="checkbox"/> Draft SRW plans for DEU equipment access <input type="checkbox"/> Latest set of Arch & Mech drawings <input checked="" type="checkbox"/> Professional Attestation Form Attachment D <input type="checkbox"/> Transfer Service Form (TSA – Form 2) 	Deliverables: <ul style="list-style-type: none"> <input type="checkbox"/> RDE Letter confirming SRW registered and building built and as per RDE requirements (City requires as a condition of OP issuance) 	<u>Allow 3 weeks</u> for each iteration of review (# of iterations dependent on response sufficiency)

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- 1.1) **Preliminary Design / Planning.** Building Designer teams must be familiar with Section 2 of this document, which contains all technical requirements for projects that will be designed to connect to the RDE system. It is important to discuss DEU room location early in the design stage as it will expedite RDE's turnaround leading to DP Application Letter.

Contact RDE with tentative DEU Locations as soon as Pre-Design discussions begin

- 1.2) **Development Permit (DP).** City of Vancouver (CoV) requires a letter from RDE confirming size and location of DEU space are acceptable to the utility. Ensure RDE is included in early discussions regarding location of this room to minimize delays to DP.
- 1.3) **Working Drawings / Building Permit (BP).** RDE will require all items in the Technical review process are addressed in writing by the designing team prior to issuing CoV's required acknowledgement letter. The best way to avoid delays is to ensure a conversation between designers and RDE is flowing as the design progresses.
- 1.4) **BP (leading up to).** At this stage technical review with designers is approaching completion, all concerns must be resolved. Development Managers must also submit a Service Application Form. RDE uses the building's technical review to design the Energy Transfer Station (ETS).
- 1.5) **Construction.** RDE must be notified of any changes in relevant mechanical equipment. It is critical that replacement equipment is compatible with our system to ensure all residents have access to thermal energy as designed. Once the project site is ready for ETS installation, submit Attachment C to request energization.
- 1.6) **Occupancy (Leading Up to).** RDE will review the project's volumetric survey related to RDE's Statutory Right of Way. At this stage, Mechanical designers must submit a professional attestation stating the building mechanical design complies with RDE's requirements. Also submit latest set of architectural and mechanical drawings alongside a Transfer Service Form.

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General Requirements and Restrictions:

1. Systems are to be designed such that the RDE provides 100% of domestic hot water (DHW) and space heating thermal energy. Provision of cooling is the responsibility of the building.
2. Boilers and any electrical or gas-fired heat sources are not allowed.
3. The building heating systems must be designed for temperatures compatible with the RDE system.
4. RDE will be responsible for the installation, maintenance and reliable operation of the DE equipment up to the contract boundary as defined in the figure below.
5. The developer is responsible for the design and installation of the building hydronic heating and DHW systems up to the agreed service boundary demarcation point (refer to Figure 1) on the building side of the heat exchangers.
6. An ETS room is to be provided meeting the specifications outlined below in Section 1.1. The ETS room has minimum accessibility requirements including double door entry.

An ETS requires an area of 7' x 9' x 9'. Double doors access should be at least 6' in width.

7. The ETS should be located in the basement or ground floor at an exterior wall near the DE piping branch in the street.
8. The developer will provide a floor drain and electrical service in the ETS room. The developer will provide a housekeeping pad for the ETS as necessary.
9. The developer is responsible for the RDE service line building penetration. The location is to be coordinated with RDE.
10. RDE requires uninterrupted access to the ETS and service line within a customer's building for installation, regular maintenance and repairs. This will be defined by an easement.
11. Material changes to design after technical review process are to be reviewed and approved by RDE prior to implementation.

Figure 1 – Service Contract Boundary Identification

