

Recommended Set Back and Utility Corridor Requirements

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DISCLAIMER

This handbook is intended to provide a selective summary of some of the applicable considerations with respect to TransGas Limited (“TransGas”) or SaskEnergy Incorporated (“SaskEnergy”) natural gas pipeline set backs and corridors. It is not a complete summary of all applicable considerations, and it is not a substitute for the full text of the applicable acts and regulations. Requirements change over time. It is the reader's responsibility to ensure that all requirements have been met before initiating any project. All recommendations include an assessment of risk and projected outcomes, which may not be acceptable to all users, in all circumstances. The reader is invited to contact SaskEnergy or TransGas, or to seek independent evaluations, as required.

TransGas Limited Transmission Pipeline

TransGas transmission pipelines operate at high pressures of 251 to 3000 psig.

Set backs designed to achieve an absolute safety standard would be very large, and several multiples of the distances outlined below. The following setbacks are derived from a probability based risk assessment and are the **minimum offsets** that TransGas would generally recommend. They should be measured from the edge of TransGas pipeline right of ways to any development or from the edge of a parcel containing a storage cavern to any development. TransGas recommends that third parties and municipalities obtain and evaluate an independent engineering assessment prior to infringing on these recommended set back distances in any instance.

National Energy Board (federally) regulated pipelines effectively require consent of the operator prior to excavation within 30 metres of the pipeline.¹ Ministry of Economy (provincially) regulated pipelines require notification to the operator prior to ground disturbance within 30 metres of the pipeline, and consent of the operator within 10 metres of the right of way, or within 15 metres of the pipeline if there is no right of way.²

Pipe diameter is stated in nominal pipe sizes (NPS). All measurements are from the edge of the right of way or parcel to the nearest building or structure. Pipe diameter information for any pipelines affected by your development can be obtained by contacting TransGas Crossing Coordination @ 306-777-9666.

¹ See the *National Energy Board Act* Section 112, *The Pipelines Act, 1998* Section 20, and the *National Energy Board Damage Prevention Regulations, Authorizations, Section 7*.

² See The SaskEnergy Regulations, Section 7.2.

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Recommended Set Back to development reference (m) from edge of Right of Way

| Land Use | Residential | Residential | Commercial* | Commercial* | Industrial* |
|----------------|-------------------------|-----------------------------|--------------|------------------------|----------------------|
| Diameter (NPS) | High/ Medium Density | Low/ Very Low Density | High Density | Medium /Low Density | High/ Low Density |
| 20 | 145 | 140 | 125 | 70 | 80 |
| 16 | 110 | 95 | 95 | 10 | 15 |
| 14 | 100 | 80 | 85 | 10 | 10 |
| 12 | 85 | 60 | 70 | 10 | 10 |
| 10 | 70 | 40 | 60 | 10 | 10 |
| 8 | 50 | 10 | 35 | 10 | 10 |
| 6 | 40 | 10 | 25 | 10 | 10 |
| 4 | 30 | 10 | 20 | 10 | 10 |
| 3 | 25 | 10 | 20 | 10 | 10 |
| 2 | 20 | 10 | 15 | 10 | 10 |
| Storage Cavern | 250 | 200 | 175 | 125 | 150 |

| Land Use | | Corresponding Activity Zone |
|-------------|------------------|--|
| Industrial | High Density | Industrial areas with effective occupancy levels of 25 people per hectare or greater. |
| Industrial | Low Density | Industrial areas with effective occupancy levels of 0 to 25 people per hectare. |
| Commercial | High Density | Commercial areas with effective occupancy levels of 100 people per hectare or greater. |
| Commercial | Medium Density | Commercial areas with effective occupancy levels of 25 to 100 people per hectare. |
| Commercial | Low Density | Commercial areas with effective occupancy levels of 0 to 25 people per hectare. |
| Residential | High Density | Multi-story urban residential areas with population densities of 100 people per hectare (4000 dwelling units per square kilometer) or greater. |
| Residential | Medium Density | Suburban residential areas with population densities of 25 to 100 people per hectare (1000 dwelling units per square kilometer). |
| Residential | Low Density | Rural or suburban fringe residential areas with population densities of 1.0 to 25 people per hectare (25 dwelling units per square kilometer). |
| Residential | Very Low Density | Rural areas with population densities of 0 to 1.0 people per hectare (4 dwelling units per square kilometer). |

- Use of the largest setback for the associated pipe diameter is recommended for industrial installation or hazardous material storage where the release of gas from the pipeline can cause the industrial installation to produce a dangerous or environmentally hazardous condition. Use of the largest setback for the associated pipe diameter is recommended for buildings with human occupancy where rapid evacuation may be difficult (e.g. nursing homes, hospitals, etc.).
- Green cells indicate that TransGas' minimum set back recommendation of 10 meters is applicable. ***Unless otherwise specified a recommended minimum set back of 10 meters applies to the nearest building or structure regardless of density.***

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For safety and access reasons, TransGas strongly recommends against a design which utilizes or allows for the enclosure of the pipeline right of way within residential yards, or smaller residential lots. Where a TransGas right of way is affected by the subdivision of land for *any* commercial, industrial or residential use, the resulting parcels should not be less than 3 acres per lot. Consideration should be given to converting the lands encompassing the right of way into a dedicated land status.³

Where recommended set backs are not adhered to, it may not be economically or practically feasible to subsequently achieve remedial pipeline alterations in many instances. **TransGas is not generally responsible for alteration of pipe if set back recommendations are not met, relative to existing pipe, and any resulting risk is, directly or indirectly, borne by the developer, future owners, and the community.**

No ground disturbance, pits, wells, foundations, pavement or buildings, or other structures are permitted on, over, under or through the right-of-way without the approval of TransGas. To reduce the risk of unintentional excavation contact or crushing damage, TransGas recommends that the developer install and maintain snow fence along the right of way boundaries when work is occurring within 30 meters of the right of way. As a condition of its consent to working within or crossing the easement, TransGas will require that the developer install and maintain snow fence along both sides of the TransGas right of way for the entire duration of the development, to protect against inadvertent vehicular or equipment access and pipeline damage.

No roads are to be constructed over the pipeline(s) without TransGas conducting an assessment and approving the work. If the assessment indicates modifications to the pipeline(s) are required, the costs for the modifications will generally be borne by the applicant. Please note that any upgrades or relocation of TransGas pipelines may require several months notice and planning, and costs are generally the responsibility of the applicant.

TransGas suggests that a proposed plan of development be submitted to TransGas for assessment. This will help identify potential concerns ranging from loading concerns (weight of equipment) to potential set back issues.

Requirements and setbacks may vary for individual circumstances and we welcome you to contact TransGas in that regard.

³ See *The Planning and Development Act, 2007*, Part IX.

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SaskEnergy Distribution Pipeline

SaskEnergy distribution pipelines operate at pressures of 2 to 250 psig.

The SaskEnergy Regulations require a set back of 1.5 metres. Set back recommendations herein are derived from a probability based risk assessment and reflect the **minimum offsets** that SaskEnergy would generally recommend. These minimum offsets utilize a probability analysis and are not intended to ensure absolute safety.

Within Urban Municipalities, the SaskEnergy pipeline will typically be in the form of a 3.0 meter or 5.0 meter registered easement. Within Rural Municipalities, the SaskEnergy pipeline corridor will typically be in the form of a 10.0 meter unregistered easement. Development within these easements is prohibited other than minor landscaping, with the written approval of SaskEnergy and any other Utility present. Please note that additional temporary working space may be required during installation of the facilities.

SaskEnergy may also utilize public right of ways such as road allowances to install pipelines when it is not practical to install these facilities on private property. For these types of installations, an easement is not taken. The SaskEnergy Regulations require a minimum offset or set back of 1.5 meters.

The preceding paragraph pertains to the corridor requirements for installation of SaskEnergy distribution mains. In addition to mains, there will be individual pipelines connected to the mains that will terminate at the SaskEnergy meter serving individual customers. These "service" lines are typically within private property but an easement is not obtained - the right to be on the property is granted as a condition of service pursuant to the SaskEnergy Terms and Conditions of Service Schedule. Please note that additional temporary working space may be required during installation of the facilities. **For these types of installations, SaskEnergy would require a minimum offset or set back of 1.5 meters from the pipeline to the building, structure, pavement, tree or shrubs.**

In addition to pipeline corridors, SaskEnergy may require property to install above ground facilities. Typically, these facilities are pressure regulator stations that are required to provide safe and efficient service. The amount of property required for these stations can vary depending on the design of the station. This property is typically purchased by SaskEnergy. In most circumstances, SaskEnergy will be able to identify at the development concept stage if a station site needs to be accounted for. Development within the station property will be prohibited but SaskEnergy will take into consideration such items as landscaping requirements around the perimeter of the property and will meet reasonable architectural requirements for building exterior design. There will be a requirement for pipeline easements in conjunction with a station facility outside of the station property.

Construction of buildings or structures over pipelines is prohibited pursuant to Section 36 of *The SaskEnergy Act*. Pursuant to most SaskEnergy easement agreements, no ground disturbance, pits, wells, foundations, pavement, trees, shrubs or buildings, or other structures are permitted on, over, under or through the easement without the approval of SaskEnergy.

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SaskEnergy is not generally responsible for alteration of pipe if set back recommendations are not met or if easement encroachments occur. SaskEnergy's Terms and Conditions of Service Schedule, Article 8, grants SaskEnergy final discretion as to the manner of installation of its pipelines and facilities, and the amount of space that must be left unobstructed for the installation and maintenance of those facilities. In the event adequate space is not provided, SaskEnergy may refuse service.⁴

Requirements may vary for individual circumstances and we welcome you to contact SaskEnergy in that regard.

⁴ See also, *The SaskEnergy Act*, Section 16.