Planning location and information:

<https://mapshare.vic.gov.au/planningwebmaps/RenewablesSummary.html>

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| --- | --- | --- |
| 1 | Data name | Description |
| 2 | renewable\_project\_nem.csv | All the renewable project in vic |
| 3 | Trans\_line.csv | Transmission line |
| 4 | Transmission\_substation.csv | Transmission substation |
| 5 | vic\_aemo\_substation.csv |  |
| 6 | Vic\_fire\_bushfie\_prone\_area.csv |  |
| 7 | Vic\_fire\_history\_lastes.csv |  |
| 8 | Vic\_fire\_manage\_zone.csv |  |
| 9 | Vic\_land\_value.csv |  |
| 10 | Vic\_plan\_zone.csv | Victoria planning zone: such industry zone |
| 11 | Vic\_powerline | Electricity powerline |
| 12 | Vic\_property\_view.csv |  |
| 13 | Vic\_renewable\_energy\_zone.csv | Government defined renewable energy zone |
| 14 | Vic\_road\_all.csv |  |
| 15 | Rural\_Country\_Fire\_Service\_Facilities.csv | Fire station |

Datasets inputs summary for ML:

* Renewable Projects Data (renewable\_project\_nem.csv):

Use this dataset to train ML models on the characteristics of existing renewable project locations that may correlate with fire risks, such as proximity to bushfire zones, infrastructure, or transmission assets.

* Transmission Infrastructure (Trans\_line.csv, Transmission\_substation.csv, vic\_aemo\_substation.csv):

Calculate and input distances to these transmission assets, as transformer fires or transmission line faults can indirectly increase the fire risk to the battery storage locations.

* Vegetation and Historical Fire Data (Vic\_fire\_bushfie\_prone\_area.csv, Vic\_fire\_history\_lastes.csv, Vic\_fire\_manage\_zone.csv, Vic\_native\_vegetation.csv):

Utilize these datasets as primary indicators to predict areas with elevated risk due to historical fires and prone areas.

* Land Use and Planning Data (Vic\_land\_value.csv, Vic\_plan\_zone.csv):

Include land value as an indicator for potential economic loss, and planning zones to assess risk based on zoning (e.g., industrial zones have different risk profiles compared to residential zones).

* Electricity Powerlines (Vic\_powerline.csv):

Powerline-related fires are common ignition points; proximity to powerlines should be analyzed by ML models to predict possible ignition risks.

* Property and Road Infrastructure Data (Vic\_property\_view.csv, vic\_road\_all.csv):

Property proximity and accessibility through roads can influence firefighting capabilities and evacuation scenarios

* Renewable Energy Zones (Vic\_renewable\_energy\_zone.csv):

Government-defined renewable energy zones may reflect designated safe zones or areas better prepared to handle energy storage systems, which can inform the fire safety benchmark.