ELECTRICITY EDUCATION PORTAL

ELECTRICITY AUTHORITY
TE MANA HIKO

A HOW TO GUIDE

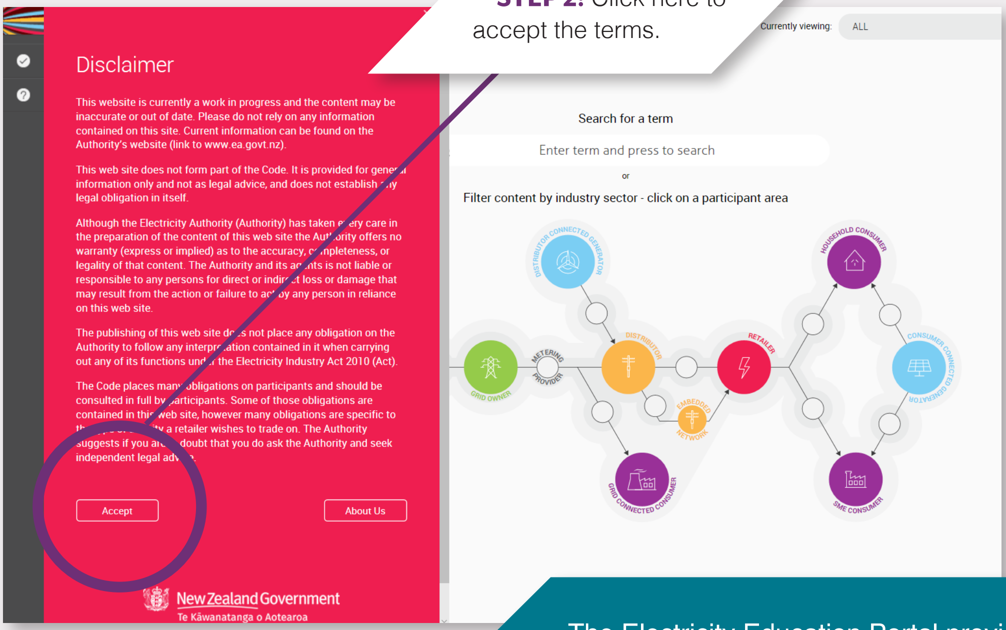
ACCESSING THE PORTAL

The Electricity Education Portal can be accessed at **education.ea.govt.nz**.

USING THE PORTAL FOR THE FIRST TIME

STEP 1: The first thing you need to do is read the disclaimer, the text in the red box, and agree to the terms by clicking on the accept button. Unfortunately, if you are not willing to agree with the disclaimer, you will not be able to use the portal.

STEP 2: Click here to accept the terms.



Disclaimer

This website is currently a work in progress and the content may be inaccurate or out of date. Please do not rely on any information contained on this site. Current information can be found on the Authority's website (link to www.ea.govt.nz).

This web site does not form part of the Code. It is provided for general information only and not as legal advice, and does not establish any legal obligation in itself.

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The publishing of this web site does not place any obligation on the Authority to follow any interpretation contained in it when carrying out any of its functions under the Electricity Industry Act 2010 (Act).

The Code places many obligations on participants and should be consulted in full by participants. Some of those obligations are contained in this web site, however many obligations are specific to th[illegible]ity a retailer wishes to trade on. The Authority suggests if you are in doubt that you do ask the Authority and seek independent legal advice.

Currently viewing: ALL

Search for a term

Enter term and press to search

or

Filter content by industry sector - click on a participant area

The Electricity Education Portal provides information about the electricity market.

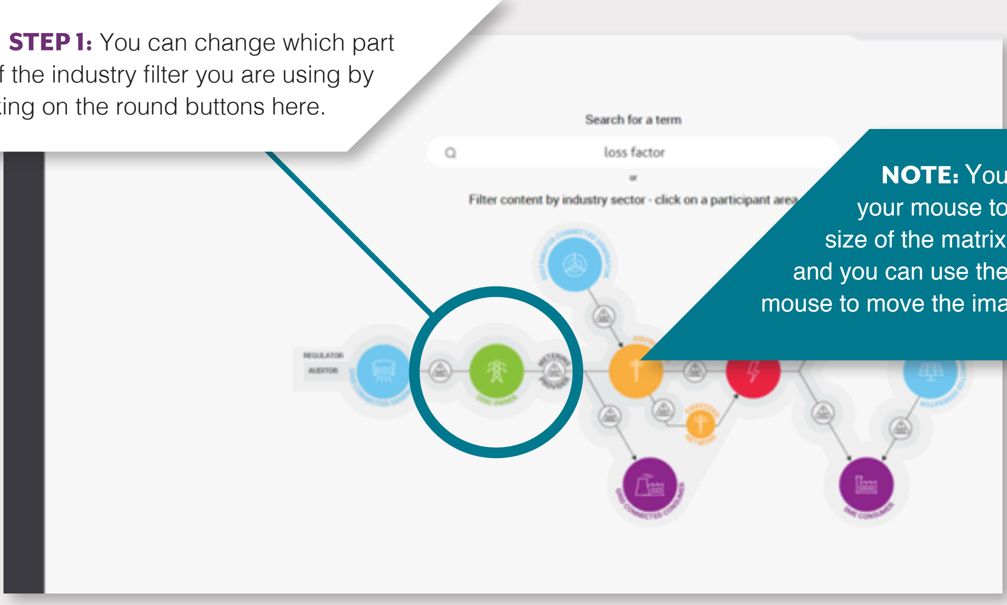
The Portal will help new entrants and participants in the electricity sector easily access key information.

When determining your obligations and requirements reference should be made to the Electricity Industry Participation Code 2010 (Code). The latest version of the Code is available on the Authority's website at **www.ea.govt.nz/code-and-compliance/the-code/**.

INDUSTRY SECTOR SCREEN

The Industry Sector Screen is the main navigation function on the portal. This is the first screen you will see once you have accepted the disclaimer.

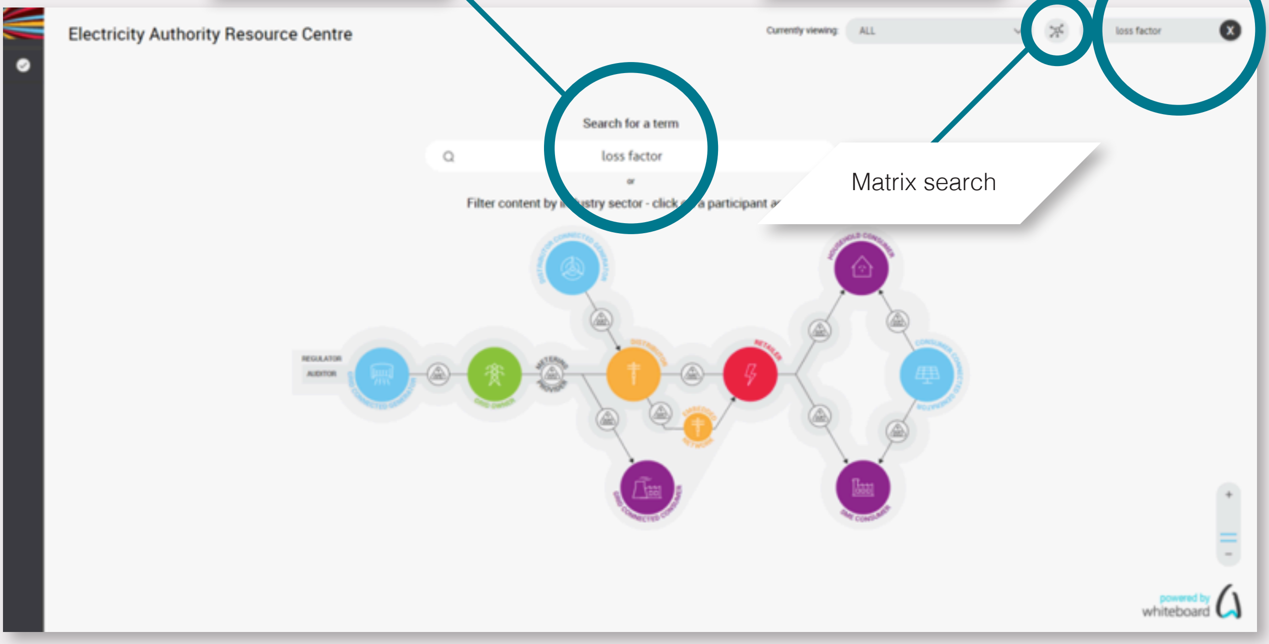
What you are seeing here are electricity sector groups represented with a number of different coloured icons or buttons. These buttons help narrow the content shown to you to ensure that the content is relevant to you and your role.


Search for a term
loss factor
or
Filter content by industry sector - click on a participant area
REGULATOR
AUDITOR

STEP 1: You can change which part of the industry filter you are using by clicking on the round buttons here.

NOTE: You can use the scroll button on your mouse to increase or decrease the size of the matrix on your computer screen, and you can use the select button on your mouse to move the image around.

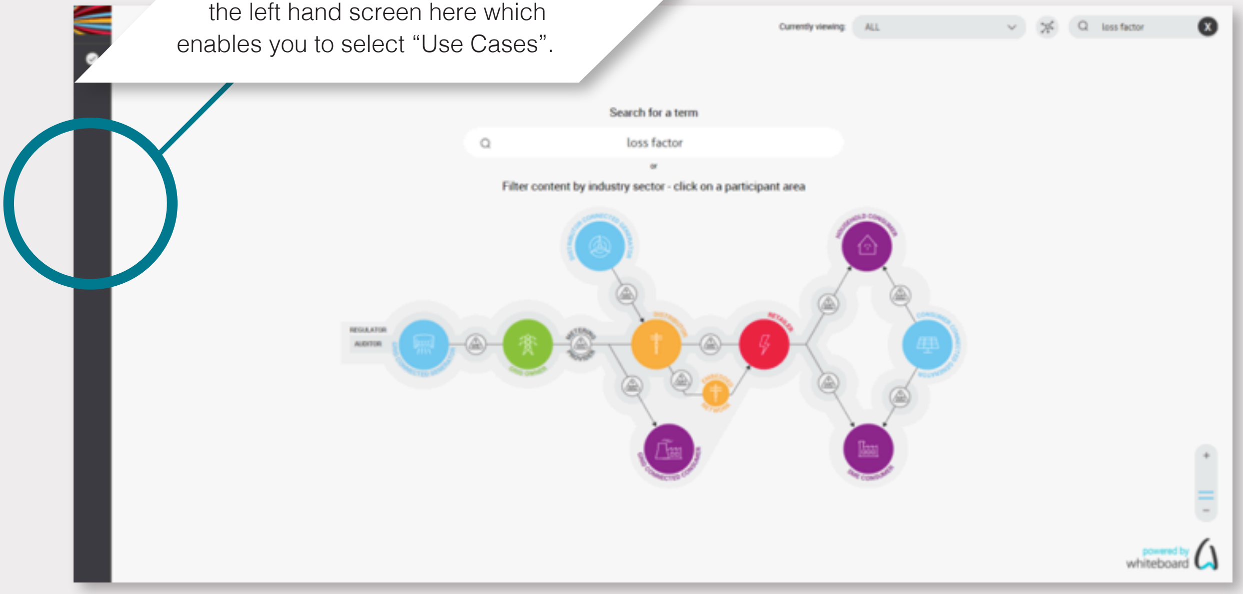
There are **three main ways** you can search through the information on the website.


Electricity Authority Resource Centre
Currently viewing:
ALL
loss factor
Search for a term
loss factor
or
Filter content by industry sector - click on a participant area
REGULATOR
AUDITOR
powered by
whiteboard

Search field

Search field

Matrix search

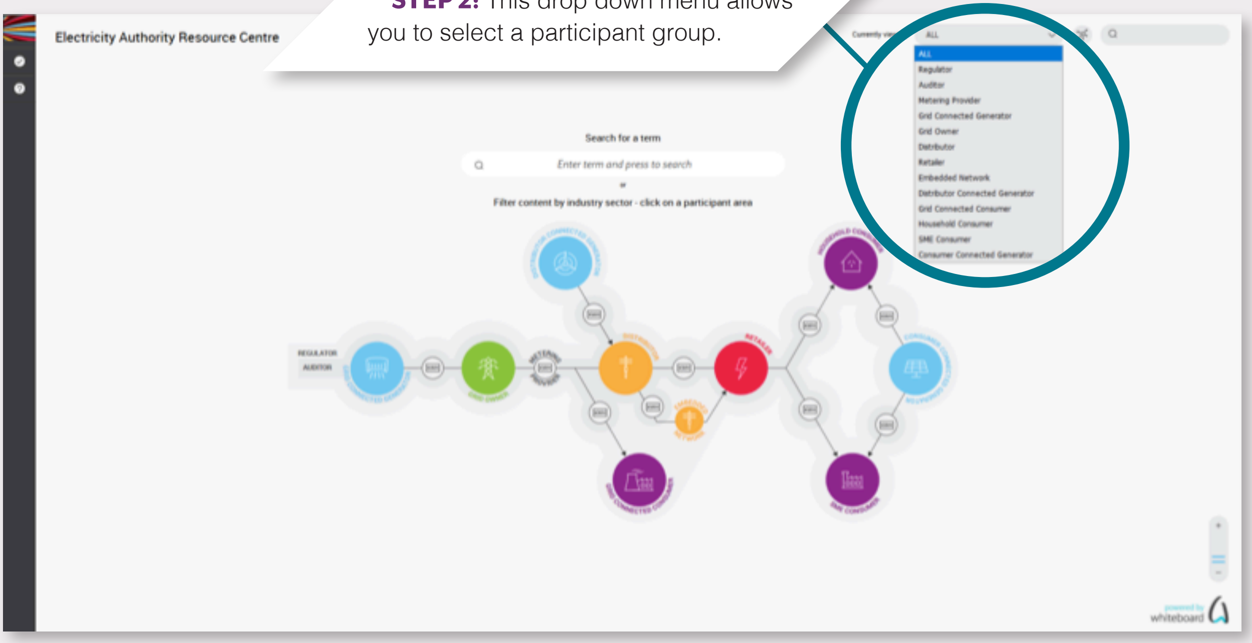


There is a "slide navigation bar" on the left hand screen here which enables you to select "Use Cases".

Currently viewing: ALL

Search for a term: loss factor

or
Filter content by industry sector - click on a participant area
REGULATOR
AUDITOR
RETAILER
powered by whiteboard



STEP 2: This drop down menu allows you to select a participant group.

Electricity Authority Resource Centre

Currently viewing: ALL

ALL
Regulator
Auditor
Metering Provider
Grid Connected Generator
Grid Owner
Distributor
Retailer
Embedded Network
Distributor Connected Generator
Grid Connected Consumer
Household Consumer
SME Consumer
Consumer Connected Generator
Search for a term
Enter term and press to search
or
Filter content by industry sector - click on a participant area
REGULATOR
AUDITOR
RETAILER
powered by whiteboard

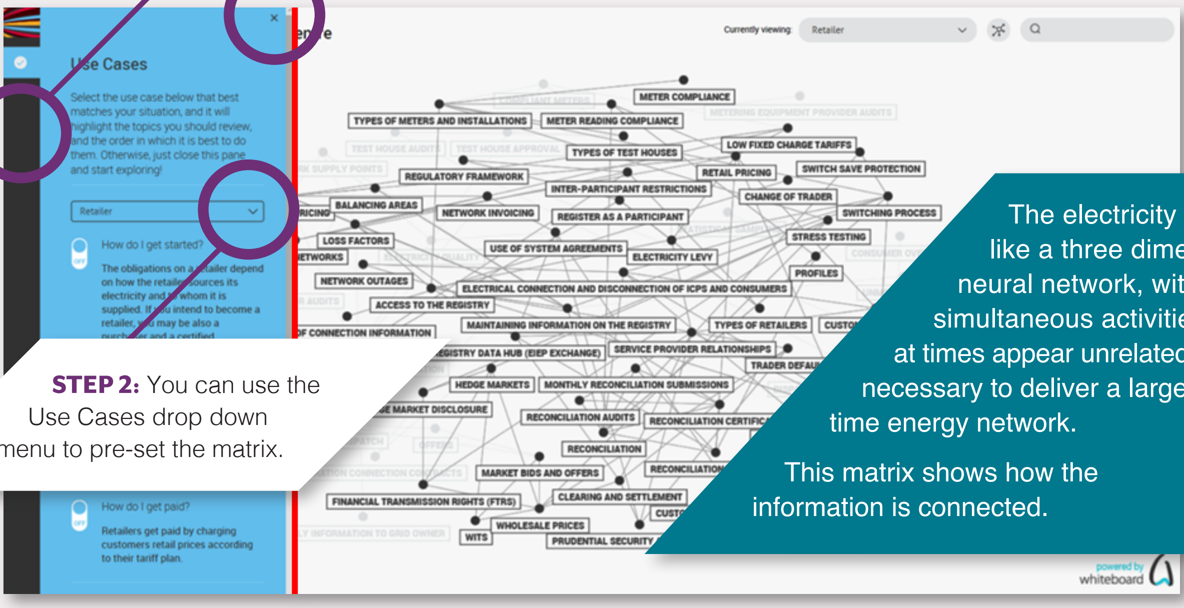
USE CASES SCREEN

One way to navigate the portal is via the Use Cases – this is a structured way through the data based on the information you choose.

Use Cases can provide an ordered learning structure. Select the Use Case that best suits you.

STEP 1: Click here and the Use Case menu expands.

STEP 3: To close the Use Case screen click on the “X” in the top right corner of the blue section of the screen.



Use Cases

Select the use case below that best matches your situation, and it will highlight the topics you should review, and the order in which it is best to do them. Otherwise, just close this pane and start exploring!

Retailer

How do I get started?

The obligations on a retailer depend on how the retailer sources its electricity and to whom it is supplied. If you intend to become a retailer, you may be also a purchaser and a certified

How do I get paid?

Retailers get paid by charging customers retail prices according to their tariff plan.

Currently viewing: Retailer
METER COMPLIANCE
TYPES OF METERS AND INSTALLATIONS
METER READING COMPLIANCE
TYPES OF TEST HOUSES
LOW FIXED CHARGE TARIFFS
RETAIL PRICING
SWITCH SAVE PROTECTION
REGULATORY FRAMEWORK
INTER-PARTICIPANT RESTRICTIONS
CHANGE OF TRADER
BALANCING AREAS
NETWORK INVOICING
REGISTER AS A PARTICIPANT
SWITCHING PROCESS
LOSS FACTORS
STRESS TESTING
USE OF SYSTEM AGREEMENTS
ELECTRICITY LEVY
PROFILES
NETWORK OUTAGES
ELECTRICAL CONNECTION AND DISCONNECTION OF ICPS AND CONSUMERS
ACCESS TO THE REGISTRY
MAINTAINING INFORMATION ON THE REGISTRY
TYPES OF RETAILERS
SERVICE PROVIDER RELATIONSHIPS
HEDGE MARKETS
MONTHLY RECONCILIATION SUBMISSIONS
RECONCILIATION AUDITS
RECONCILIATION
MARKET BIDS AND OFFERS
FINANCIAL TRANSMISSION RIGHTS (FTRS)
CLEARING AND SETTLEMENT
WHOLESALE PRICES
WITS
PRUDENTIAL SECURITY
powered by whiteboard

STEP 2: You can use the Use Cases drop down menu to pre-set the matrix.

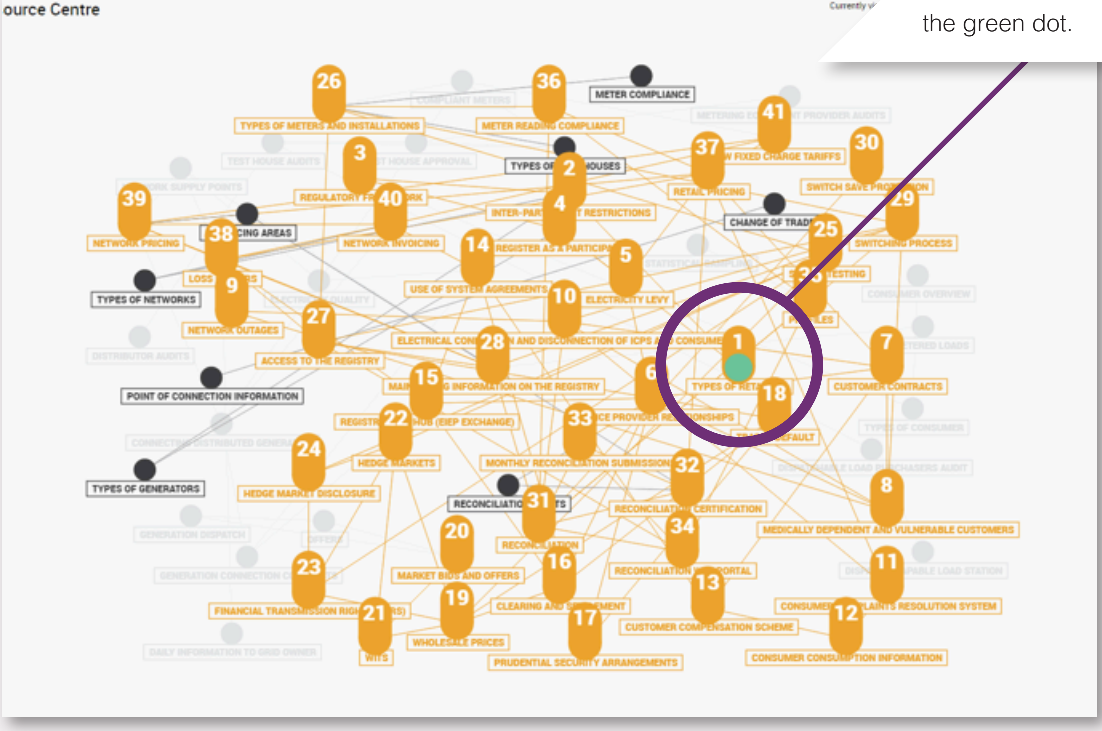
The electricity market is like a three dimensional neural network, with many simultaneous activities that at times appear unrelated, but are necessary to deliver a large real time energy network.

This matrix shows how the information is connected.

The blue section on the left represents “Use Cases” and the matrix is on the right.

You can use the Use Cases to pre-set the matrix for topics related to the Use Case you have selected.

STEP 1: Click on the green dot.



ource Centre
26
36
METER COMPLIANCE
TYPES OF METERS AND INSTALLATIONS
METER READING COMPLIANCE
41
3
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2
39
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4
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CHANGE OF TRADER
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TYPES OF NETWORKS
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POINT OF CONNECTION INFORMATION
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TYPES OF GENERATORS
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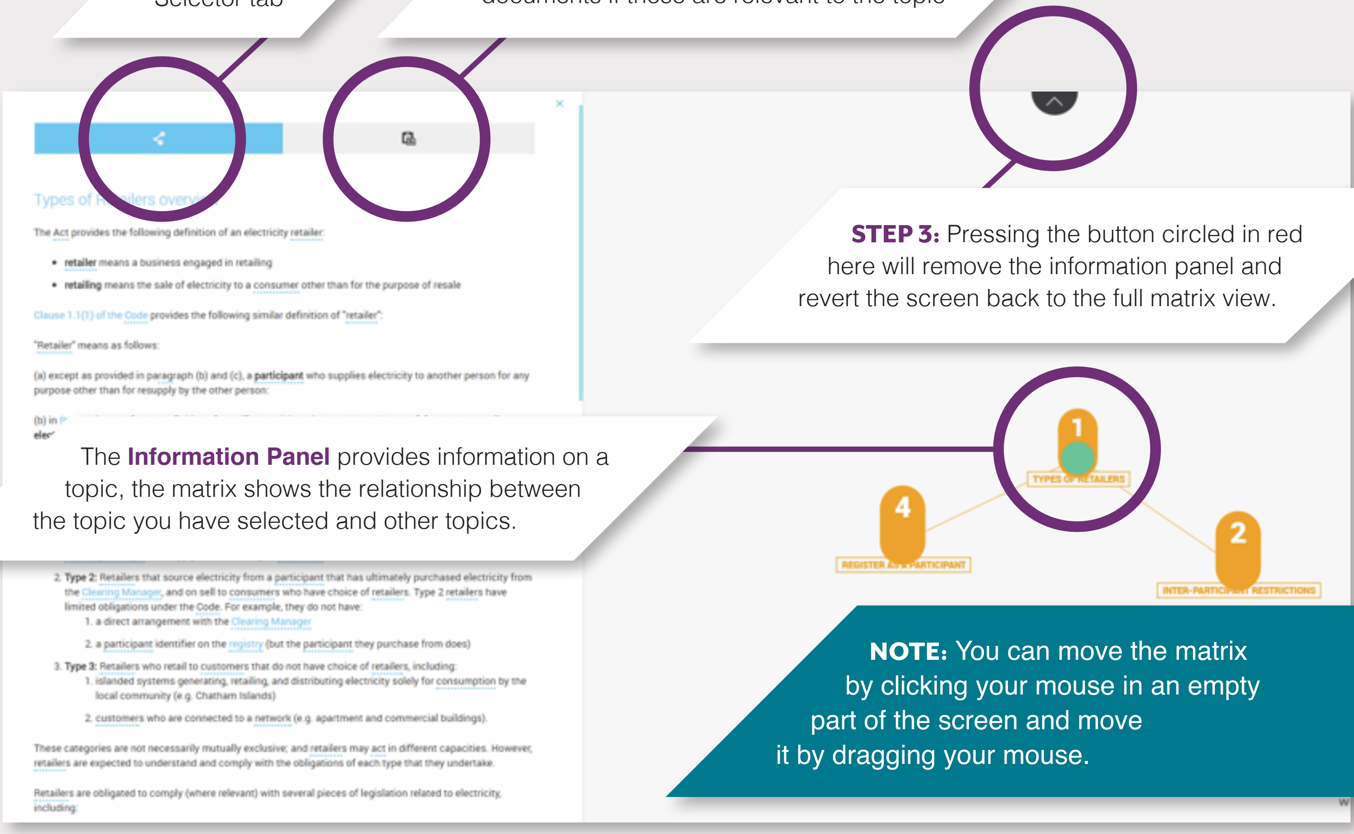
19
17
12
MEDICAL DEPENDENT AND VULNERABLE CUSTOMERS
CUSTOMER CONTRACTS
CONSUMER CONSUMPTION INFORMATION
PRUDENTIAL SECURITY ARRANGEMENTS

STEP 2: The numbers represent the order you should read the documents. You can see here a number of the nodes are now numbered.

Once you’ve opened the node you will have an information panel on the left side of the screen, and a cut down version of the matrix.

Information Selector tab

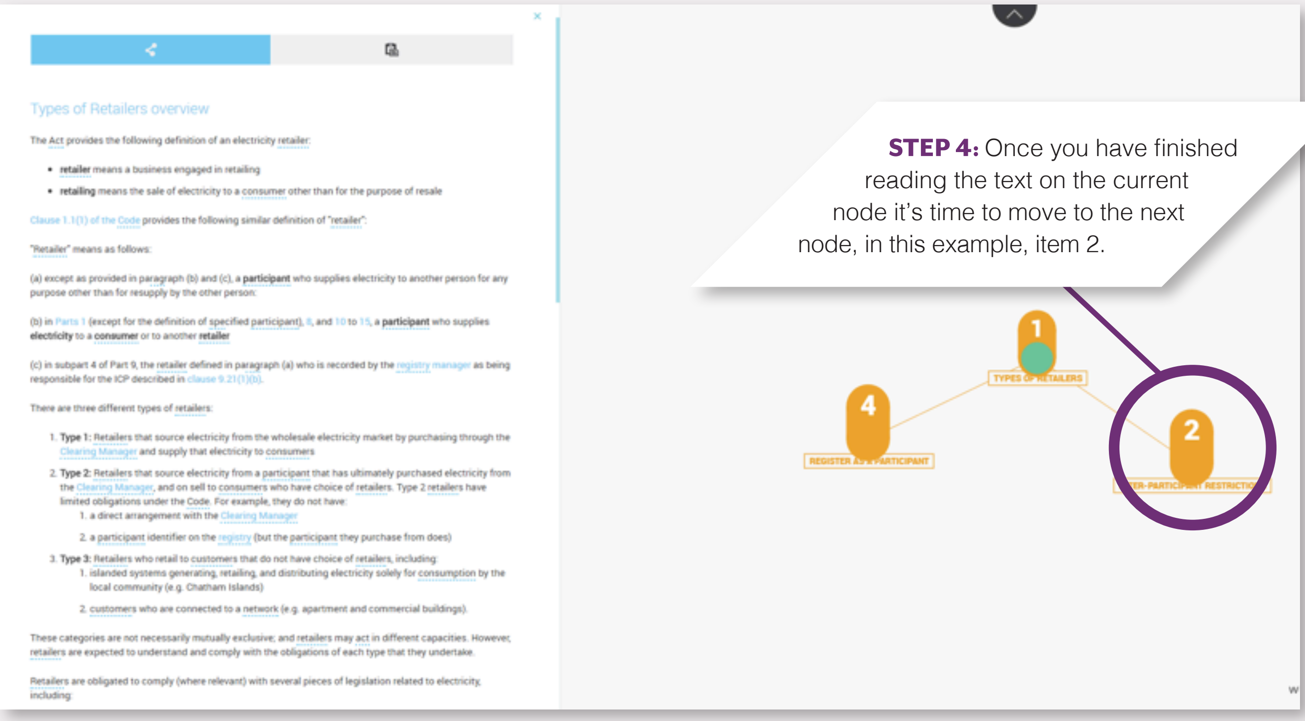
Pressing this button will provide additional information such as videos or supporting documents if these are relevant to the topic



STEP 3: Pressing the button circled in red here will remove the information panel and revert the screen back to the full matrix view.

The **Information Panel** provides information on a topic, the matrix shows the relationship between the topic you have selected and other topics.

NOTE: You can move the matrix by clicking your mouse in an empty part of the screen and move it by dragging your mouse.



Types of Retailers overview

The Act provides the following definition of an electricity retailer:

- **retailer** means a business engaged in retailing
- **retailing** means the sale of electricity to a consumer other than for the purpose of resale

Clause 1.1(1) of the Code provides the following similar definition of "retailer":

"Retailer" means as follows:

(a) except as provided in paragraph (b) and (c), a **participant** who supplies electricity to another person for any purpose other than for resupply by the other person:

(b) in Parts 1 (except for the definition of specified participant), 8, and 10 to 15, a **participant** who supplies **electricity** to a **consumer** or to another **retailer**

(c) in subpart 4 of Part 9, the retailer defined in paragraph (a) who is recorded by the registry manager as being responsible for the ICP described in clause 9.21(1)(b).

There are three different types of retailers:

1. **Type 1:** Retailers that source electricity from the wholesale electricity market by purchasing through the Clearing Manager and supply that electricity to consumers
2. **Type 2:** Retailers that source electricity from a participant that has ultimately purchased electricity from the Clearing Manager, and on sell to consumers who have choice of retailers. Type 2 retailers have limited obligations under the Code. For example, they do not have:
    1. a direct arrangement with the Clearing Manager
    2. a participant identifier on the registry (but the participant they purchase from does)
3. **Type 3:** Retailers who retail to customers that do not have choice of retailers, including:
    1. islanded systems generating, retailing, and distributing electricity solely for consumption by the local community (e.g. Chatham Islands)
    2. customers who are connected to a network (e.g. apartment and commercial buildings).

These categories are not necessarily mutually exclusive; and retailers may act in different capacities. However, retailers are expected to understand and comply with the obligations of each type that they undertake.

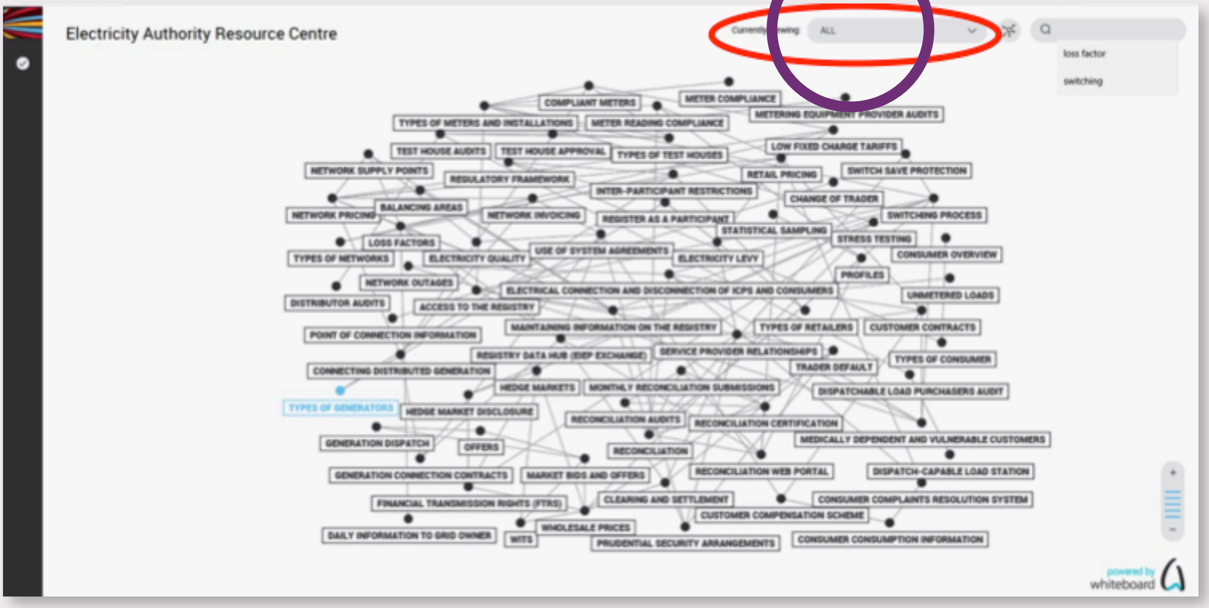
Retailers are obligated to comply (where relevant) with several pieces of legislation related to electricity, including:

STEP 4: Once you have finished reading the text on the current node it’s time to move to the next node, in this example, item 2.

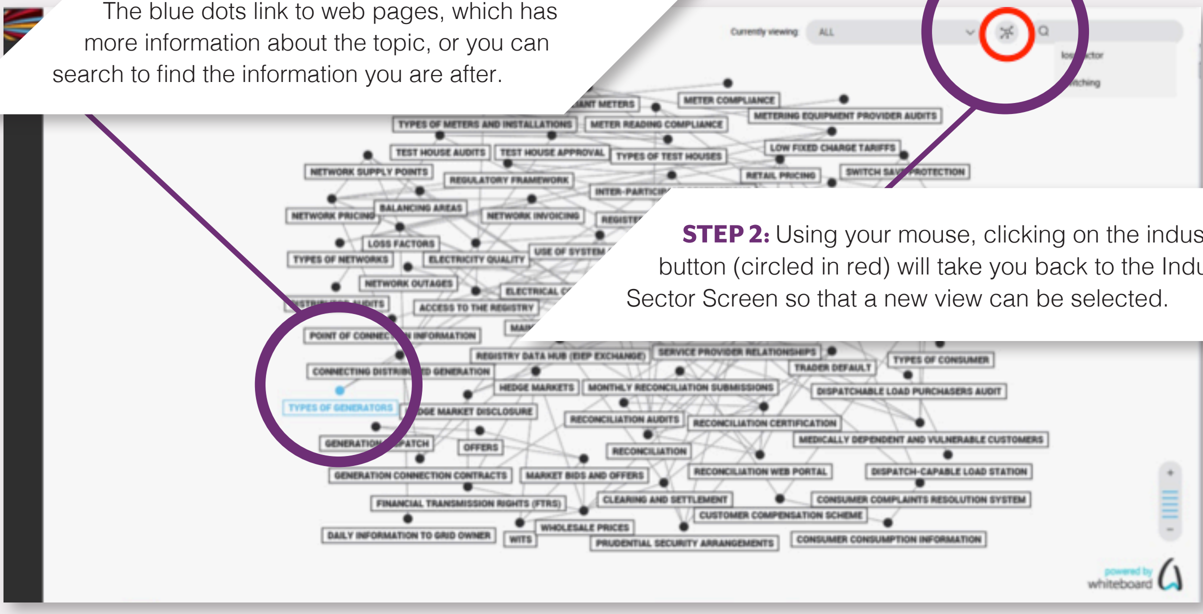
CHANGING THE CURRENT VIEW

You can navigate the portal directly from the matrix by selecting nodes of interest to you.

STEP 1: Select the drop down menu. It contains a number of user types that are pre-configured for topics that the Authority considered were applicable to that type of user. Selecting “ALL” on this menu will show all topics in the matrix.


Electricity Authority Resource Centre
Currently viewing
ALL
loss factor
switching
COMPLIANT METERS
METER COMPLIANCE
TYPES OF METERS AND INSTALLATIONS
METER READING COMPLIANCE
METERING EQUIPMENT PROVIDER AUDITS
TEST HOUSE AUDITS
TEST HOUSE APPROVAL
TYPES OF TEST HOUSES
LOW FIXED CHARGE TARIFFS
NETWORK SUPPLY POINTS
REGULATORY FRAMEWORK
RETAIL PRICING
SWITCH SAVE PROTECTION
INTER-PARTICIPANT RESTRICTIONS
CHANGE OF TRADER
NETWORK PRICING
BALANCING AREAS
NETWORK INVOICING
REGISTER AS A PARTICIPANT
SWITCHING PROCESS
STATISTICAL SAMPLING
STRESS TESTING
LOSS FACTORS
TYPES OF NETWORKS
ELECTRICITY QUALITY
USE OF SYSTEM AGREEMENTS
ELECTRICITY LEVY
CONSUMER OVERVIEW
PROFILES
NETWORK OUTAGES
ELECTRICAL CONNECTION AND DISCONNECTION OF ICPS AND CONSUMERS
UNMETERED LOADS
DISTRIBUTOR AUDITS
ACCESS TO THE REGISTRY
POINT OF CONNECTION INFORMATION
MAINTAINING INFORMATION ON THE REGISTRY
TYPES OF RETAILERS
CUSTOMER CONTRACTS
REGISTRY DATA HUB (EIEP EXCHANGE)
SERVICE PROVIDER RELATIONSHIPS
CONNECTING DISTRIBUTED GENERATION
TRADER DEFAULT
TYPES OF CONSUMER
HEDGE MARKETS
MONTHLY RECONCILIATION SUBMISSIONS
DISPATCHABLE LOAD PURCHASERS AUDIT
TYPES OF GENERATORS
HEDGE MARKET DISCLOSURE
RECONCILIATION AUDITS
RECONCILIATION CERTIFICATION
GENERATION DISPATCH
OFFERS
RECONCILIATION
MEDICALLY DEPENDENT AND VULNERABLE CUSTOMERS
GENERATION CONNECTION CONTRACTS
MARKET BIDS AND OFFERS
RECONCILIATION WEB PORTAL
DISPATCH-CAPABLE LOAD STATION
FINANCIAL TRANSMISSION RIGHTS (FTRS)
CLEARING AND SETTLEMENT
CONSUMER COMPLAINTS RESOLUTION SYSTEM
CUSTOMER COMPENSATION SCHEME
DAILY INFORMATION TO GRID OWNER
WITS
WHOLESALE PRICES
PRUDENTIAL SECURITY ARRANGEMENTS
CONSUMER CONSUMPTION INFORMATION
powered by whiteboard

The blue dots link to web pages, which has more information about the topic, or you can search to find the information you are after.

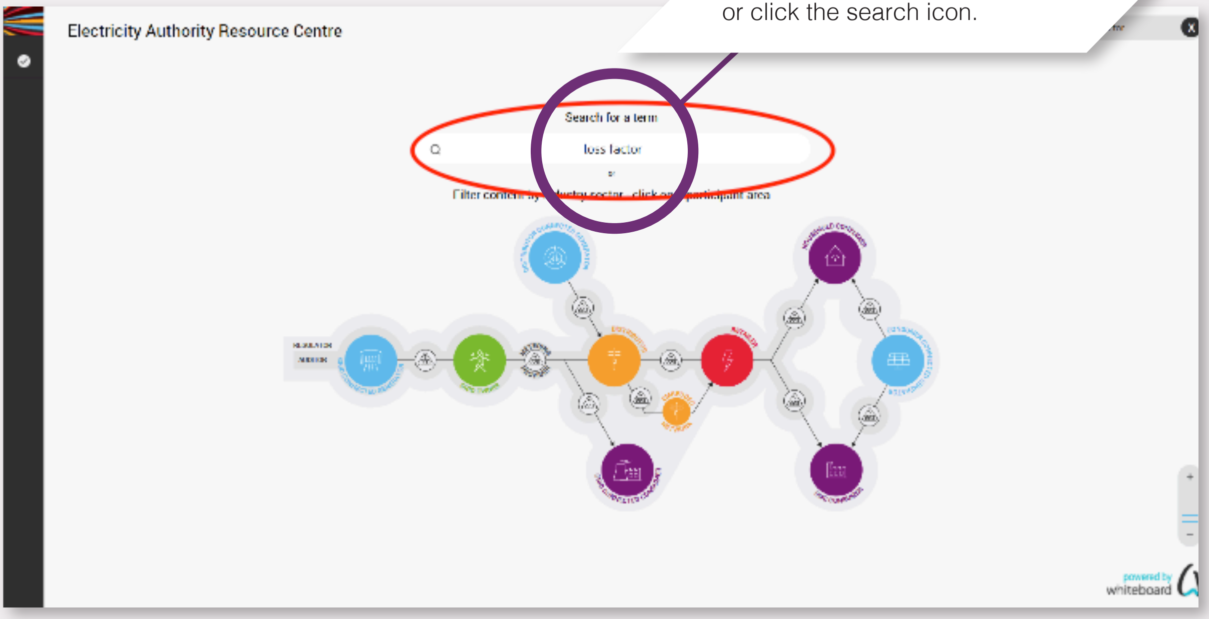

Currently viewing
ALL
TYPES OF GENERATORS
powered by whiteboard

STEP 2: Using your mouse, clicking on the industry sector button (circled in red) will take you back to the Industry Sector Screen so that a new view can be selected.

SEARCH FUNCTION

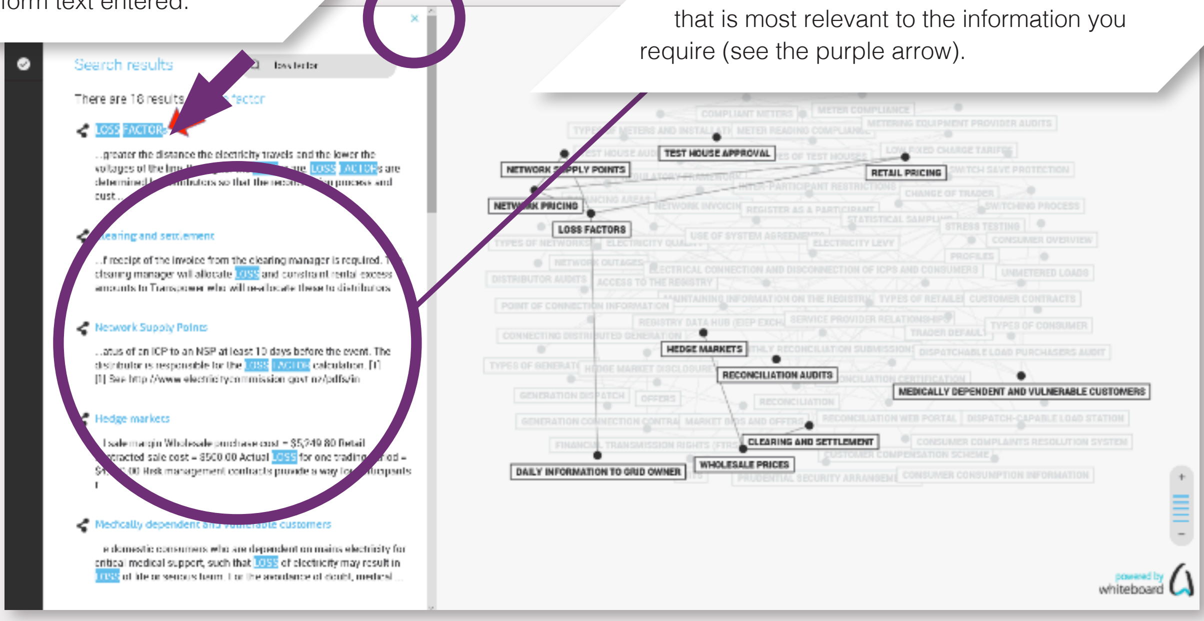
STEP 1: There are two main ways to search. Using your mouse click in the search field (circled in purple).

STEP 2: You can enter free form text in this panel and then press either “enter” on your keyboard or click the search icon.


Electricity Authority Resource Centre
Search for a term
loss factor
Filter content by industry sector - click on participant area
powered by whiteboard

STEP 4: Clicking on the X at the right of the search panel will delete the free form text entered.

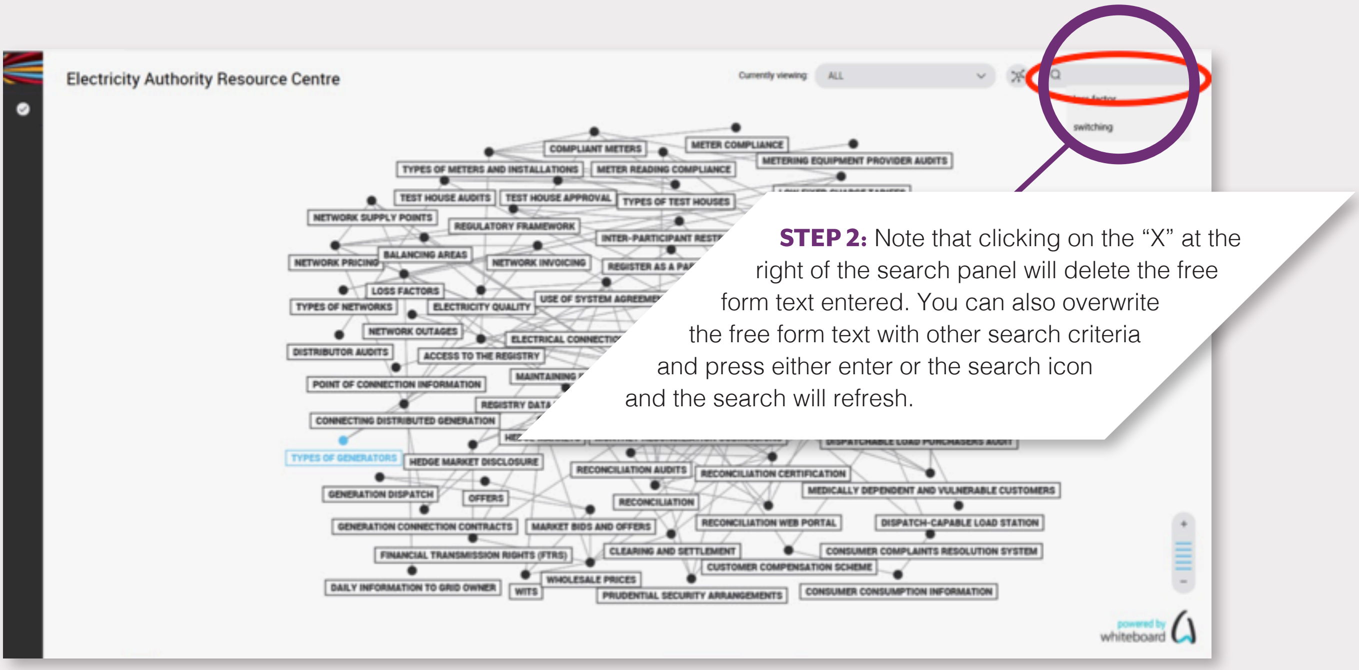
STEP 3: The information screen on the left will return the results of the search. Select the one that is most relevant to the information you require (see the purple arrow).


Search results
loss factor
There are 18 results
LOSS FACTORS
Clearing and settlement
Network Supply Points
Hedge markets
Medically dependent and vulnerable customers
NETWORK SUPPLY POINTS
TEST HOUSE APPROVAL
RETAIL PRICING
NETWORK PRICING
LOSS FACTORS
HEDGE MARKETS
RECONCILIATION AUDITS
MEDICALLY DEPENDENT AND VULNERABLE CUSTOMERS
CLEARING AND SETTLEMENT
WHOLESALE PRICES
DAILY INFORMATION TO GRID OWNER
powered by whiteboard

STEP 5: You can also overwrite the free from text with other search criteria and press either enter or the search icon.

USING THE MATRIX PAGE SEARCH FEATURE

STEP 1: Using your mouse, click on the search panel (circled in red). You can enter free form text in this panel and then press either “enter” on your keyboard or click the search icon.


Electricity Authority Resource Centre
Currently viewing
ALL
switching
COMPLIANT METERS
METER COMPLIANCE
TYPES OF METERS AND INSTALLATIONS
METER READING COMPLIANCE
METERING EQUIPMENT PROVIDER AUDITS
TEST HOUSE AUDITS
TEST HOUSE APPROVAL
TYPES OF TEST HOUSES
NETWORK SUPPLY POINTS
REGULATORY FRAMEWORK
NETWORK PRICING
BALANCING AREAS
NETWORK INVOICING
LOSS FACTORS
TYPES OF NETWORKS
ELECTRICITY QUALITY
NETWORK OUTAGES
DISTRIBUTOR AUDITS
ACCESS TO THE REGISTRY
POINT OF CONNECTION INFORMATION
CONNECTING DISTRIBUTED GENERATION
TYPES OF GENERATORS
HEDGE MARKET DISCLOSURE
RECONCILIATION AUDITS
RECONCILIATION CERTIFICATION
MEDICALLY DEPENDENT AND VULNERABLE CUSTOMERS
GENERATION DISPATCH
OFFERS
RECONCILIATION
GENERATION CONNECTION CONTRACTS
MARKET BIDS AND OFFERS
RECONCILIATION WEB PORTAL
DISPATCH-CAPABLE LOAD STATION
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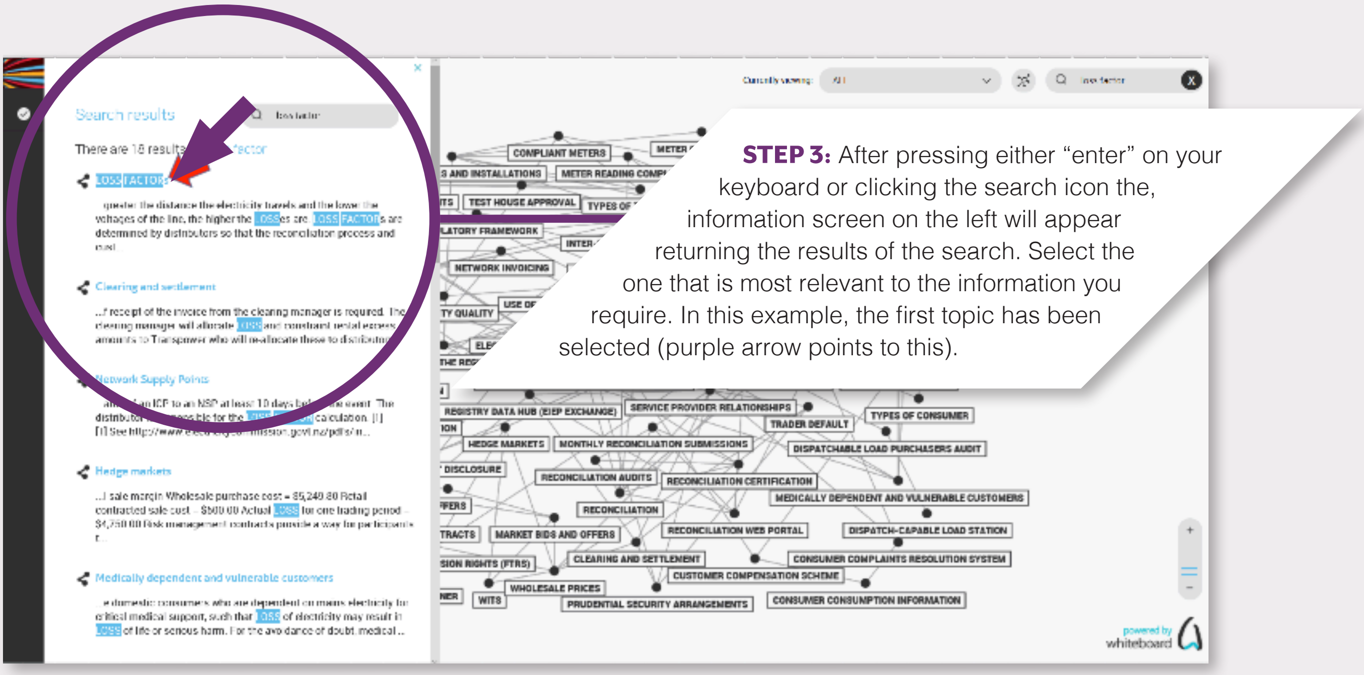
CLEARING AND SETTLEMENT
CONSUMER COMPLAINTS RESOLUTION SYSTEM
CUSTOMER COMPENSATION SCHEME
DAILY INFORMATION TO GRID OWNER
WITS
WHOLESALE PRICES
PRUDENTIAL SECURITY ARRANGEMENTS
CONSUMER CONSUMPTION INFORMATION
powered by whiteboard

STEP 2: Note that clicking on the “X” at the right of the search panel will delete the free form text entered. You can also overwrite the free form text with other search criteria and press either enter or the search icon and the search will refresh.


Search results
loss factor
There are 18 results
LOSS FACTORS
Clearing and settlement
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Medically dependent and vulnerable customers
Currently viewing
ALL
COMPLIANT METERS
METER READING COMPLIANCE
TEST HOUSE APPROVAL
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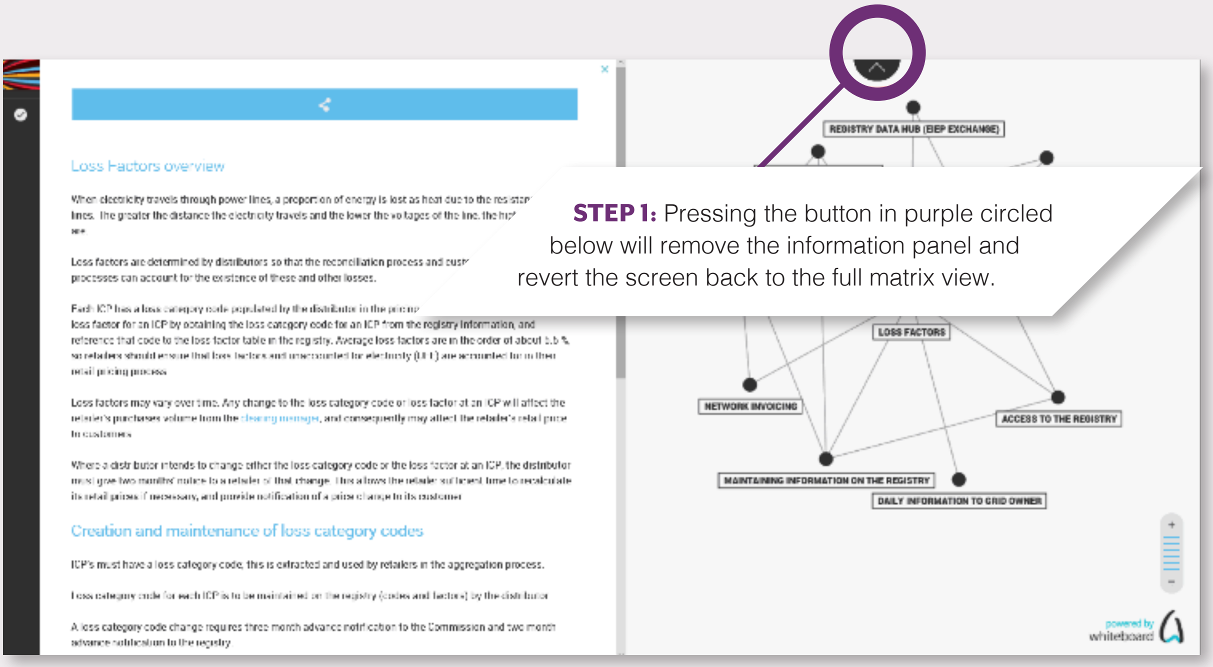
STEP 3: After pressing either “enter” on your keyboard or clicking the search icon the, information screen on the left will appear returning the results of the search. Select the one that is most relevant to the information you require. In this example, the first topic has been selected (purple arrow points to this).

The matrix will remap. The information screen will show information on the topic selected, and the matrix will remap to show the topic selected as a centric view, connected to relevant topics, as shown below. You can then select from the list the most relevant topic.

NAVIGATION


REGISTRY DATA HUB (EIEP EXCHANGE)
LOSS FACTORS
NETWORK INVOICING
ACCESS TO THE REGISTRY
MAINTAINING INFORMATION ON THE REGISTRY
DAILY INFORMATION TO GRID OWNER
powered by whiteboard

Loss Factors overview

When electricity travels through power lines, a proportion of energy is lost as heat due to the resistan
lines. The greater the distance the electricity travels and the lower the voltages of the line, the hig
are.

Loss factors are determined by distributors so that the reconciliation process and cust
processes can account for the existence of these and other losses.

Each ICP has a loss category code populated by the distributor in the pricing
loss factor for an ICP by obtaining the loss category code for an ICP from the registry information, and reference that code to the loss factor table in the registry. Average loss factors are in the order of about [illegible] %, so retailers should ensure that loss factors and unaccounted for electricity (UFE) are accounted for in their retail pricing process.

Loss factors may vary over time. Any change to the loss category code or loss factor at an ICP will affect the retailer's purchases volume from the clearing manager, and consequently may affect the retailer's retail price to customers.

Where a distributor intends to change either the loss category code or the loss factor at an ICP, the distributor must give two months' notice to a retailer of that change. This allows the retailer sufficient time to recalculate its retail prices if necessary, and provide notification of a price change to its customer.

Creation and maintenance of loss category codes

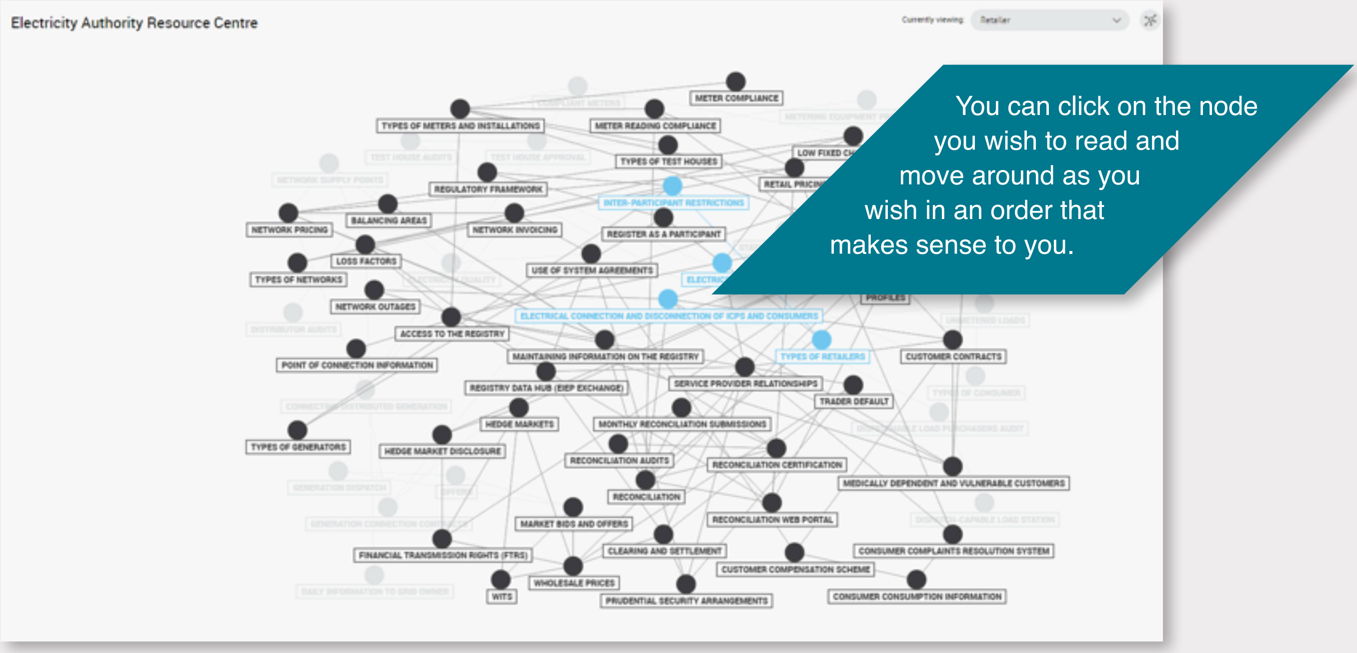
ICP's must have a loss category code, this is extracted and used by retailers in the aggregation process.

Loss category code for each ICP is to be maintained on the registry (codes and factors) by the distributor

A loss category code change requires three month advance notification to the Commission and two month advance notification to the registry.

STEP 1: Pressing the button in purple circled below will remove the information panel and revert the screen back to the full matrix view.

Another way to explore the portal is directly from the matrix.


Electricity Authority Resource Centre
Currently viewing
Retailer
METER COMPLIANCE
COMPLIANT METERS
TYPES OF METERS AND INSTALLATIONS
METER READING COMPLIANCE
TEST HOUSE AUDITS
TEST HOUSE APPROVAL
TYPES OF TEST HOUSES
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NETWORK SUPPLY POINTS
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RETAIL PRICIN
INTER-PARTICIPANT RESTRICTIONS
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CONSUMER CONSUMPTION INFORMATION

You can click on the node you wish to read and move around as you wish in an order that makes sense to you.

SHARING INFORMATION FROM THE PORTAL

Sharing information in the portal is easy, each page has its own url – you can use these in training materials

PROVIDING FEEDBACK ON THE PORTAL

If you have user feedback on the Electricity Education Portal, we'd love to hear from you email: **marketoperations@ea.govt.nz**.