

How can I load the TenneT Assets into my ArcGIS account?

If you do not already have a company ArcGIS account, you can register your free account at www.arcgis.com.

The ArcGIS Online website - option 1:

1. Go to www.arcgis.com
2. Click on the button 'sign in'
3. **Make a new account:**
Click on the button 'No account? Register here'.
4. Click on 'Create a free, public account'
5. Follow further instructions.

1. When you are logged into your ArcGIS online account, click on the search button (magnifying glass), and enter 'TenneT hoogspanning'.

The screenshot shows the ArcGIS Online interface. At the top, there's a navigation bar with links for Home, Galerij, Kaart, Scene, Groepen, Content, and Organisatie. On the far right, there's a user profile for 'TenneT Nederland' and a magnifying glass icon. Below the navigation is a large image of two workers in safety gear near a wind turbine. To the right of the image is a red arrow pointing towards the magnifying glass icon. Below the image is a section titled 'Basiskaarten TenneT' containing four basemap options: 'Assets_base', 'Donkergrijze canvas', 'Landsat Shaded Basemap', and 'Lichtgrijze Canvas RD'. At the bottom of the page, there are links for Trust Center, Contact opnemen met Esri, Misbruik melden, and Contact.

2. When you click on the dataset (Feature Layer) of TenneT, you will see an overview with metadata. Use the button on the right, 'Exporting data'. You can export data as a shapefile, CSV, KML, Excel, FGDB or GeoJSON file. In the export screen you need to fill in all fields, the field 'Labels' as well (you can enter a label of your choosing), otherwise the 'Export' button will remain grey.

The screenshot shows the details page for the 'TenneT Assets (hoogspanning)' dataset. At the top, there's a header with tabs for Overzicht, Gegevens, and Visualisatie. The 'Overzicht' tab is active. On the left, there's a thumbnail image of a landscape with power lines, a title 'Hoogspanningsnet Nederland - Asset gegevens TenneT TSO B.V.', and a note 'Feature Layer van TenneT_Nederland'. Below that are details: 'Gemaakt: 16 mei 2019', 'Bijgewerkt: 16 mei 2019', and 'Aantal keer bekeken: 76'. A red arrow points from the 'Gegevens' tab in the header down to the 'Gegevens exporteren' button in the sidebar. The sidebar also includes options like 'Openen in Map Viewer', 'Openen in Scene Viewer', 'Openen in ArcGIS Desktop', 'Delen', and 'Metadata'. On the right, there's a 'Details' section with information about the dataset's source, last update, size, and rating (5 stars). There are also social sharing icons for Facebook, Twitter, and LinkedIn. At the bottom, there's a 'Eigenaar' section with the name 'TenneT_Nederland'.

3. After renaming your dataset it will be saved to your online account. Go to the tab Content (at the top of your screen) to view your export. Click on the three dots on the right side of your export, and choose 'Download'.

The screenshot shows the ArcGIS Online interface. At the top, there are tabs: ArcGIS, Overzicht, Prijzen, Kaart, Scene, Groepen, and Content. The Content tab is selected. Below the tabs is a search bar with the placeholder 'Icstekkinger doorzoeken'. To the right of the search bar are buttons for 'Tabel', 'Gewijzigd op', and 'Filter'. The main area is titled 'Content' and shows a folder named 'Icstekkinger' containing one item: 'TenneT Assets (hoogspanning)'. The item is listed as 'Microsoft Excel' and was last updated on '20 mei 2019'. A red box highlights the 'Downloaden' button in the item details panel.

The ArcGIS Online website – option 2:

1. When you are logged into your ArcGIS online account, go to the tab Map

The screenshot shows the ArcGIS Online interface with the 'Map' tab selected. At the top, there are tabs: Home, Galerij, Kaart, Scene, Groepen, Content, and Organisatie. The 'Kaart' tab is highlighted with a red box and an arrow pointing to it. Below the tabs is a large map showing wind turbines and workers in a field. Underneath the map is a section titled 'Basiskaarten TenneT' with four base map options: 'Assets_base', 'Donkergrige canvas', 'Landsat Shaded Basemap', and 'Lichtgrige Canvas RD'. A red box highlights the 'Assets_base' option. At the bottom of the page, there are links for 'Trust Center', 'Contact opnemen met Esri', 'Misbruik melden', and 'Contact'.

2. If needed, make a 'new map'

The screenshot shows the ArcGIS Online interface with the 'Map' tab selected. At the top, there are tabs: Home, Test, Details, Toevoegen, Basiskaart, Analyse, Over, Content, and Legenda. The 'Content' tab is selected. Below the tabs is a map of the Netherlands with various locations labeled. At the top right, there is a button labeled 'Nieuwe kaart' with a red box and an arrow pointing to it. The map also features a scale bar from 0 to 20km and a legend.

3. Go to 'Add data', then click on 'Searching map layers'

The screenshot shows the ArcGIS Online interface. At the top, there's a navigation bar with 'Home' and 'Mijn kaart'. Below it is a toolbar with various icons like 'Opslaan', 'Delen', 'Afdrukken', 'Routebeschrijving', 'Meten', 'Bladvijvers', and 'Adres van plaats zoeken'. A red arrow points from the text 'Klaarlagen zoeken' in the 'Toevoegen' dropdown menu to the 'Klaarlagen zoeken' button on the toolbar.

Toevoegen

- Over
- Klaarlagen zoeken
- Bladvijvers in levende atlas-lagen
- Uw eigen kaart
- Laag toevoegen vanaf web
- U kunt heel goed een laag toevoegen vanaf bestand
- 1. Kies een kaart
- Pannen en inzoomen op een gebied van de kaart of zoeken op naam en adres.
- 2. Beeld wat moet worden weergegeven.
- Kies een basiskaart en voeg vervolgens lagen toe bovenop de kaart.
- 3. Voeg meer aan uw kaart.
- Voeg kaartnotities toe om objecten op de kaart te markeren.
- Geef beschrijvende tekst, afbeeldingen en diagrammen weer voor kaartobjecten in een pop-up.
- 4. Sla uw kaart op en deel de kaart.
- Geef uw kaart een naam en beschrijving en deel deze vervolgens met andere mensen.

Trust Center | Contact opnemen met Esri | Meldt meiden | Contact

4. You select to search in 'ArcGIS Online'

The screenshot shows the ArcGIS Online interface with the 'Search for layers' dropdown menu open. A red arrow points from the text 'ArcGIS Online' in the dropdown menu to the 'ArcGIS Online' button on the toolbar.

ArcGIS Online

- Mijn Content
- Mijn Favorieten
- Mijn Groepen
- Terrain
- Mijn Organisatie
- USA NAIP Imagery
- Living Atlas
- Sentinel-2 View
- ArcGIS Online
- USA Forest Type
- Terrain: Multi-Directional Hillshade
- Ground Surface Elevation - 30m
- USA Road Density
- Terrain: Elevation Tinted Hillshade
- World Ecological Facets Landform Classes
- World Temperature Change 2050 Scenario 8.5
- USA Development Risk
- USA Soils Bedrock Depth
- TopoBathy

5. Use the search term 'TenneT' (step 1), then add the layer 'TenneT Assets (hoogspanning)' with the plus sign (step 2)

The screenshot shows the ArcGIS Online interface with the search term 'TenneT' entered in the search bar. A red box highlights the search bar. A red arrow points from the text 'TenneT Assets (hoogspanning)' in the search results to the '+' button next to it.

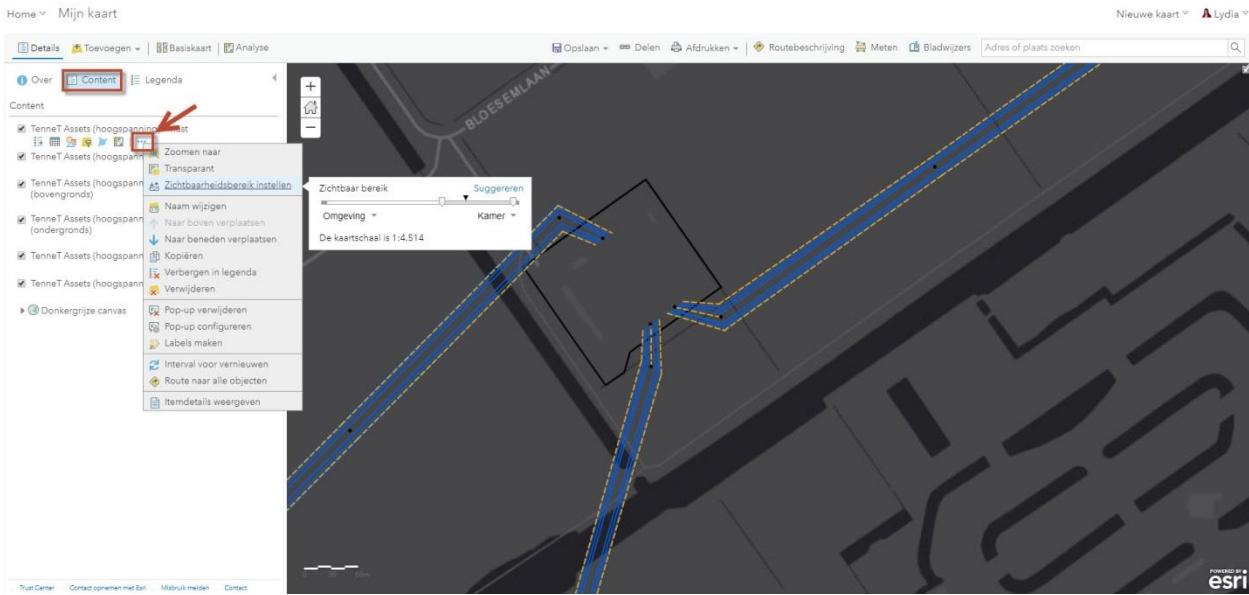
TenneT

1. **TenneT Assets (hoogspanning)** 2. **+**

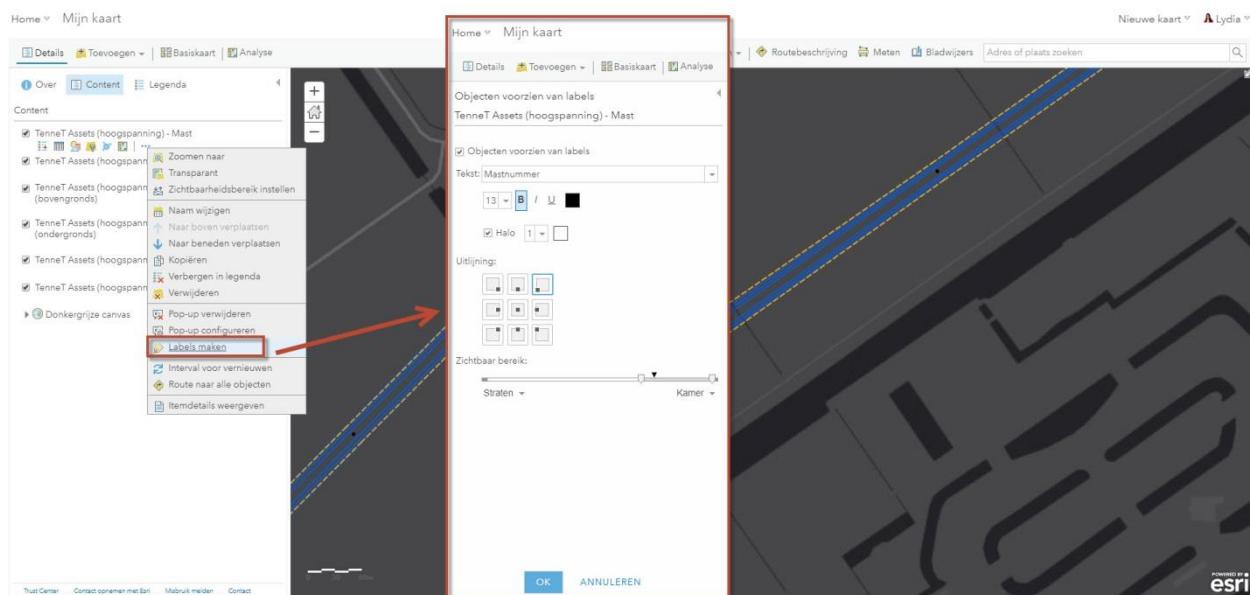
89 lagen

- Assets_online_C1_Plus
- Assets_base
- Noord_Controle snoeiplan door TenneT 2018_2019
- Zuid_Controle snoeiplan door TenneT 2018_2019
- Zakelijk_rechtsstrook
- hoogspanningsnet_stations_Benelux_052016_v5
- hoogspanningsnet_Benelux_052016_v5
- Tennet_Sonderingen_viewlayer
- West_Controle snoeiplan door TenneT 2018_2019
- Demo gegevens t.b.v. offerte Wout
- Zuid_snoeiplanken

6. In the Content tab you can now see the layers. If the layers are greyed out, you need to zoom in before the layers become visible in the viewer. As an alternative, you can also change the visibility range of each layer (click on the three dots to see the options).



7. You can add a label to each object with a value from the attribute table.



8. You can view the object attributes with the table function

Hastnummer	Status	Objectomschrijving	Spanningsniveau (kV)	Aanlegjaar
007	In bedrijf	mast 7 verbinding Rotterdam-Waalhaven-Krimpen a/d IJssel 150kV	150,00	1/1/1964 1:00 A.M.
052	In bedrijf	mast 52 verbindung Maasbracht-Graethelde 150kV	150,00	1/1/1973 1:00 A.M.
075	In bedrijf	mast 75 verbindung Krimpen a/d IJssel-Geertruidenberg 380kV	380,00	1/1/1968 1:00 A.M.

9. You can export data through choosing the tab Analysis, 'Managing data', and then clicking on 'Exporting data'. Fill in the desired options (for example, making a selection in the data), and a copy of the dataset is saved in your ArcGIS account (this could take a few minutes, depending on the file size). The data can be exported as a CSV, File Geodatabase, KML-file or Shapefile.

Note: this export tool does not work with a free account.

The 'Gegevens exporteren' dialog box contains the following settings:

- Lagen die moeten worden geëxporteert:** Shows the selected layers: 'TenneT Assets (hoogspanning) - Mast', 'TenneT Assets (hoogspanning) - Bliksemdraad', 'TenneT Assets (hoogspanning) - Hoogspanning leiding (bovengronds)', 'TenneT Assets (hoogspanning) - Hoogspanning kabel (ondergronds)', and 'TenneT Assets (hoogspanning) - Oostpunt'.
- Onderzoeksgebied:** Set to 'Zelfde als weergave' (Same as display).
- Bestandsformaat:** Set to 'CSV (.csv of .zip)'.
- Resultaat opslaan in:** Set to 'Test'.
- Credits tonen:** Checked.
- ANALYSE UITVOEREN:** Button at the bottom.

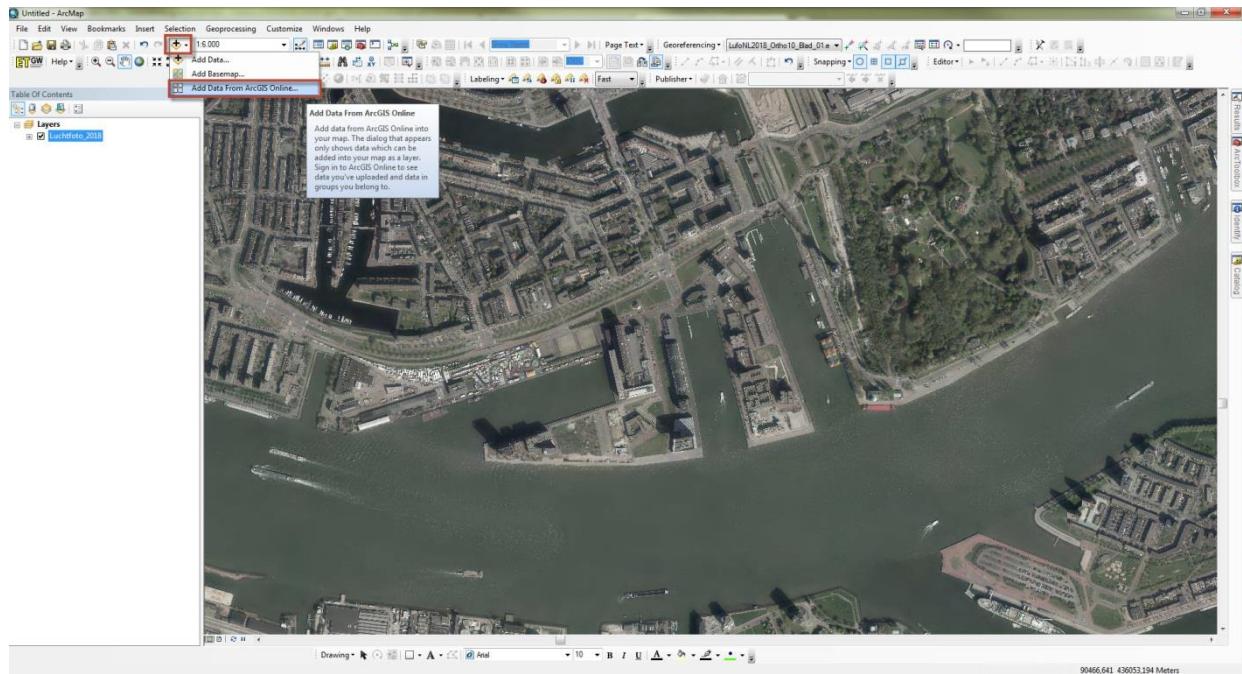
10. The dataset is saved in your online account. Go to the Content tab (at the top of your screen) to view your export. Click on the three dots on the right side of your export, and click on 'Download'.

The screenshot shows the ArcGIS Online interface. At the top, there are tabs for ArcGIS, Overzicht, Prijzen, Kaart, Scene, Groepen, and Content. The Content tab is selected. On the right, there's a user profile for 'Lydia Stolkinger' and navigation links for Mijn Content, Mijn Favorieten, Mijn groepen, and Living Atlas. Below the tabs, there are buttons for 'Item toevoegen' and 'Maken'. A search bar contains the text 'lcstekkinger doorzoeken'. To the right of the search bar are buttons for 'Tabel', 'Gewijzigd op', and 'Filter'. The main area is titled 'Content' and shows a folder structure. Under 'Folders', there's a section for '1 - 1, totaal: 1 in lcstekkinger' with a 'Mappen filteren' button. A single item is listed: 'Titel' with a thumbnail icon, followed by 'TenneT Assets (hoogspanning)'. To the right of the item are columns for 'Microsoft Excel', 'Gewijzigd' (with a dropdown arrow), and a timestamp '20 mei 2019'. A context menu is open over the item, showing options like 'Itemdetails weergeven' and 'Downloaden'. The 'Downloaden' button is highlighted with a red box. Other options in the menu include a lock icon, a star icon, and three dots (...).

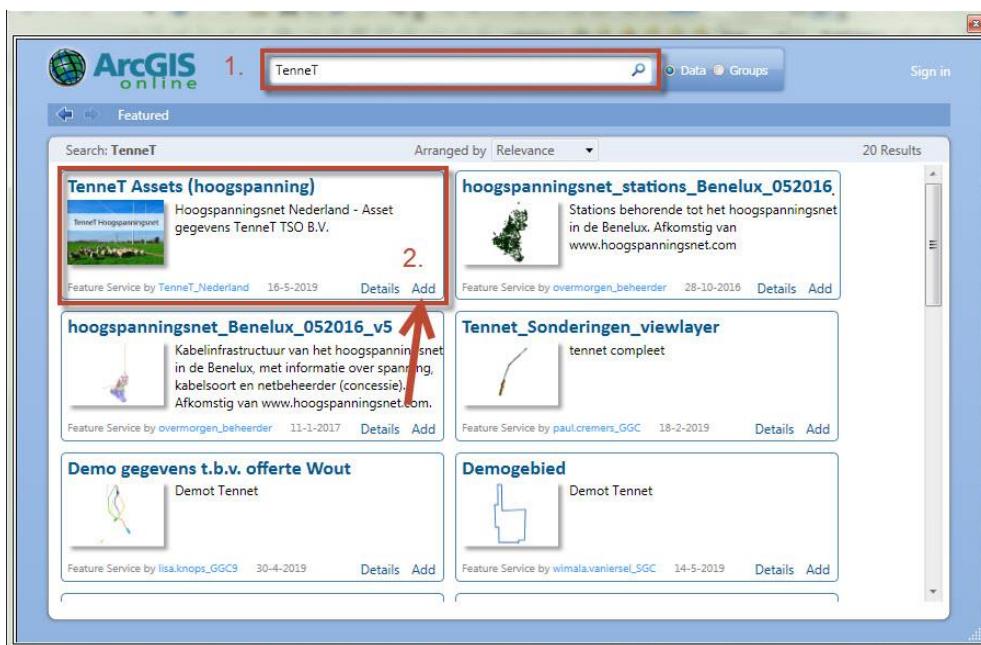
For more information on the ArcGIS functionality you can use the Help-button of ArcGIS online (Help is located under your profile picture).

Using ArcMap 10:

1. Go to the drop-down arrow of the function 'Add data'. Click on 'Add Data From ArcGIS Online...'



2. Use the search term 'TenneT (step 1), then add the data layer 'TenneT Assets (hoogspanning)' with 'Add' (step 2)



If you have questions about the TenneT Assetdata you can send an e-mail to: TenneTCCC@tennet.eu