Self-Determination of Points of Connections

26 March 2019

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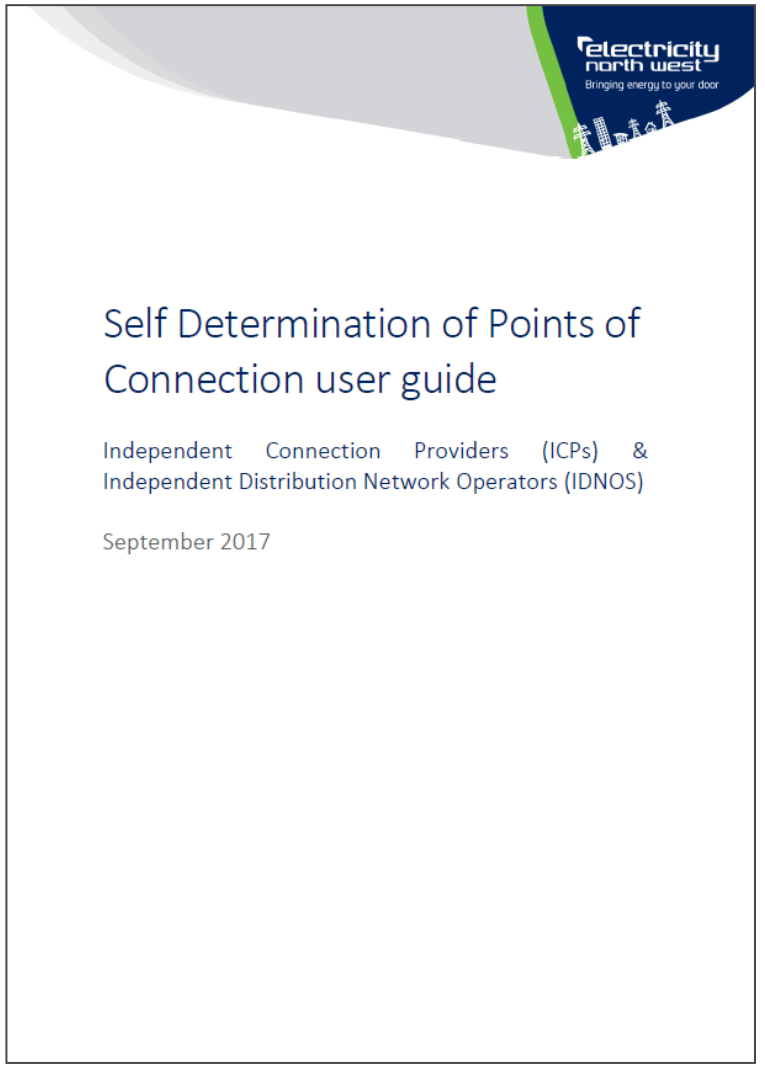
Agenda

- Introductions & house keeping
- Upfront charging of A&D Fees update
- Process for SDPoC
- Prerequisites
- First Pass Check
- Network Information
- Network Integrity Checks
- Standard Design Matrix
- Network Policies
- Resources
- Challenges

What we've done

- Up front charging of A&D fees
- Processes
- Information sharing
- User Guides
- www.enwl.co.uk
- Home > Get Connected > Competition in Connections > Information for ICPs / IDNOs > Contestable Processes > Self Determination of PoC



Process & Prerequisites

https://www.enwl.co.uk/globalassets/get-connected/cic/icpsidnos/contestable-activities/sdpoc/sdpoc-user-guide-v2-1.pdf

- Prerequisite
  - NERS Accreditation
  - Risk
  - Minimum Cost Design

National Electricity Registration key

Cable Laying
LV | LV | 11kV

Civil Works
Civil Works

Jointing
LV Dead - PM | 11kV - PM

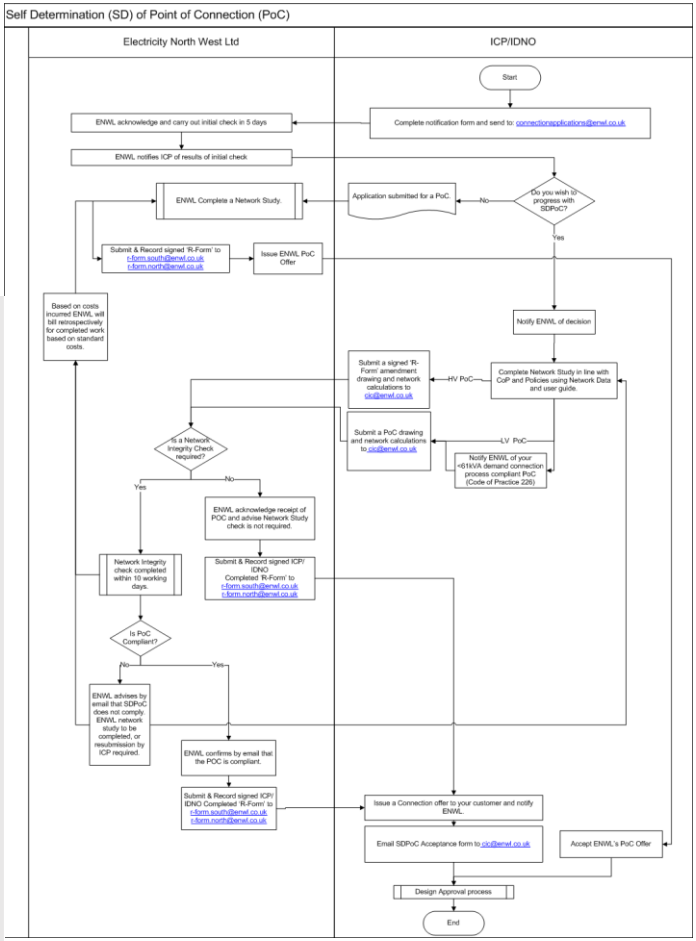
Substation Installation
11kV - PM

Unmetered
Unmetered

Network Connections - Jointing
Unmetered | LV Mains and Services - PM | LV Terminations | 11kV Mains | 11kV Terminations

Electrical Design of Distribution Networks Covering
HV Cable Networks 11kV | S/Station 11kV | LV Cable Networks to Industrial / Commercial Properties | LV Cable Networks to Domestic Properties | Self-Determination of Point of Connection (POC) - LV | Self-Determination of Point of Connection (POC) - 11kV

Areas of Work: East Anglia, Midlands, National, North East, North West, Scotland, South East, South West, Wales



First Pass Check

- Not a full or thorough network study.
- Do we already have a PoC for this site?
- Is there interactivity within this area?
- Is this site surrounded by heavily loaded network?
- Are there any other known issues in that area of the network?

Network Information

- Within our secure area of our website you can access:
  - Network Development proposals
  - Fault Level information
  - Load information
  - Transformer data
  - Circuit data
  - Schematic diagrams
  - Geographical plans
  - HV Network information
  - Distribution substation information

Network Integrity Check

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Voltage	Type	Conditions for Network Integrity check
Extra High Voltage (33kV & 132kV)	Demand, generation or mixed	All submissions will be subject to a network integrity check
High Voltage	Demand, generation or mixed	All submissions >500kVA will be subject to a network integrity check*
Low Voltage	Demand, generation or mixed	All submissions >100kVA **or** >25% feeder rating will be subject to a network integrity check
Low Voltage	Demand, generation or mixed	No check required for submissions <100kVA

Table 1: Network Integrity check matrix

Standard Design Matrix

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- Code of Practise 226 – Low Voltage Network Design

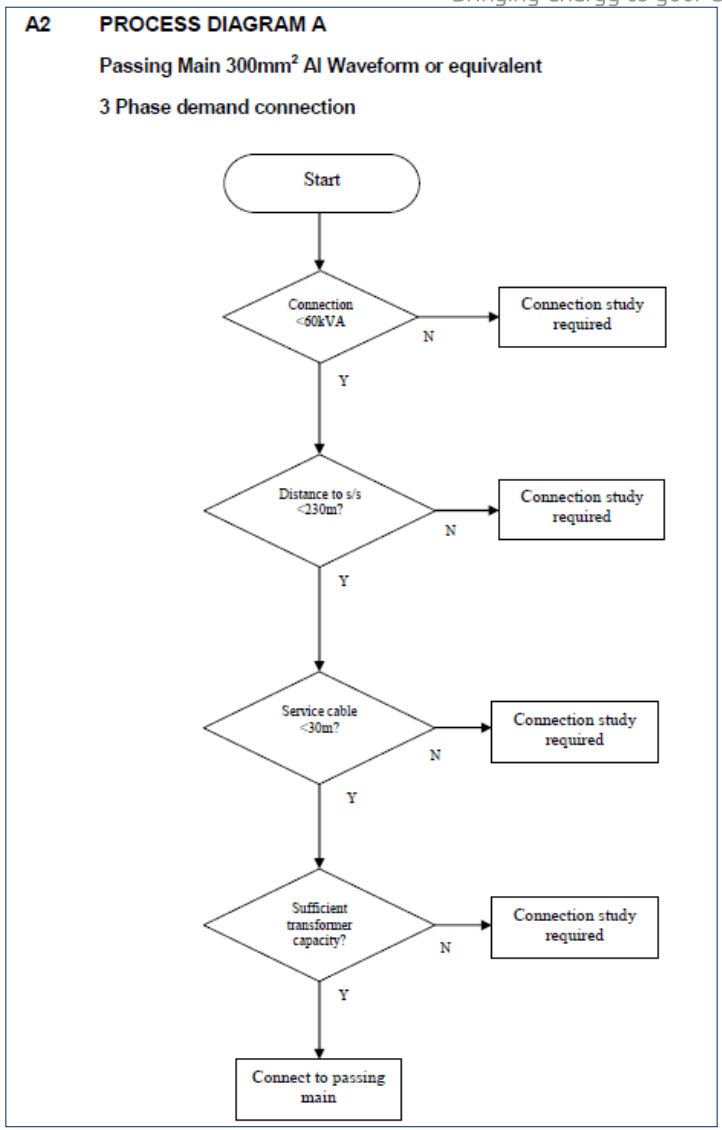
Suitable for:
- For 3 phase loads up to 60kVA

- For single phase loads up to 20kVA

- For new loads only

- Motor loads included but not welding equipment, disturbing loads, or loads typically known to contribute harmonic currents

- Applies to urban networks only (all cable)



Final Checks

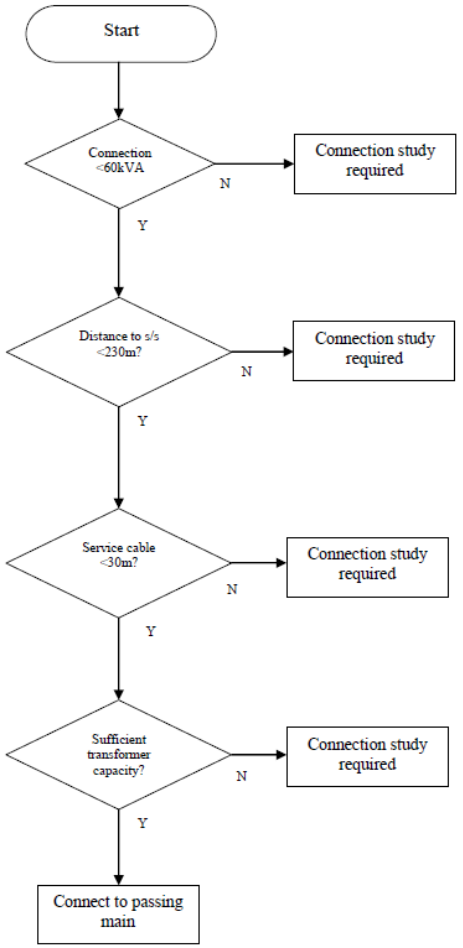
- Connection less then 60kVA? YES
- LV massing main 3c300WF all the way back to substation.
- Distance from Substation less then 230m? YES
- Service cable less then 30m? YES
- Sufficient spare capacity on transformer? YES

- **All CP226 checks satisfied therefore connection can be taken from the passing main without full network study.**

A2 PROCESS DIAGRAM A

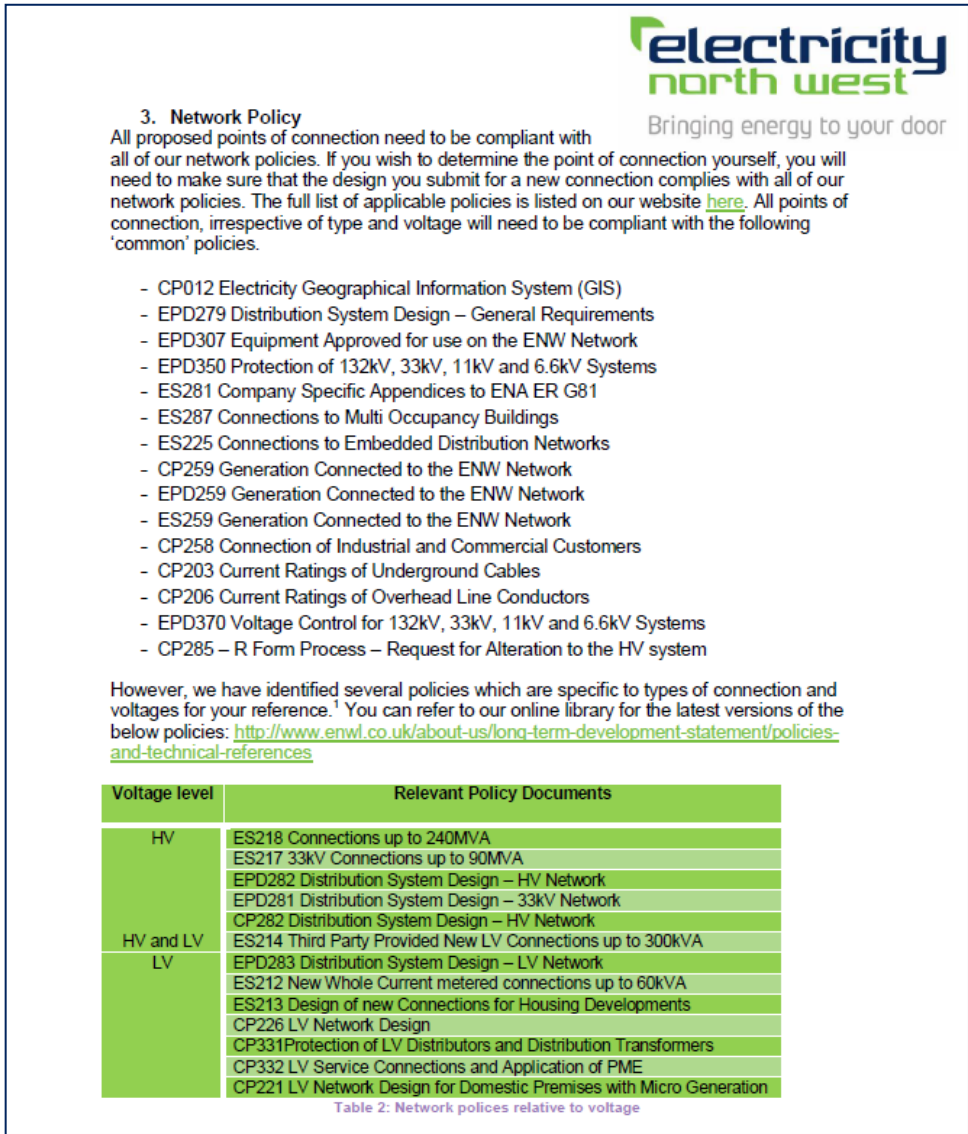
Passing Main 300mm² Al Waveform or equivalent

3 Phase demand connection



Network Policies

- G81 web page / Policy Library https://www.enwl.co.uk/get-connected/competition-in-connections/information-for-icpsidnos/g81-policies/



3. **Network Policy**

All proposed points of connection need to be compliant with all of our network policies. If you wish to determine the point of connection yourself, you will need to make sure that the design you submit for a new connection complies with all of our network policies. The full list of applicable policies is listed on our website here. All points of connection, irrespective of type and voltage will need to be compliant with the following 'common' policies.

- CP012 Electricity Geographical Information System (GIS)
- EPD279 Distribution System Design – General Requirements
- EPD307 Equipment Approved for use on the ENW Network
- EPD350 Protection of 132kV, 33kV, 11kV and 6.6kV Systems
- ES281 Company Specific Appendices to ENA ER G81
- ES287 Connections to Multi Occupancy Buildings
- ES225 Connections to Embedded Distribution Networks
- CP259 Generation Connected to the ENW Network
- EPD259 Generation Connected to the ENW Network
- ES259 Generation Connected to the ENW Network
- CP258 Connection of Industrial and Commercial Customers
- CP203 Current Ratings of Underground Cables
- CP206 Current Ratings of Overhead Line Conductors
- EPD370 Voltage Control for 132kV, 33kV, 11kV and 6.6kV Systems
- CP285 – R Form Process – Request for Alteration to the HV system

However, we have identified several policies which are specific to types of connection and voltages for your reference.[1] You can refer to our online library for the latest versions of the below policies: http://www.enwl.co.uk/about-us/long-term-development-statement/policies-and-technical-references

Voltage level	Relevant Policy Documents
HV	ES218 Connections up to 240MVA
	ES217 33kV Connections up to 90MVA
	EPD282 Distribution System Design – HV Network
	EPD281 Distribution System Design – 33kV Network
	CP282 Distribution System Design – HV Network
HV and LV	ES214 Third Party Provided New LV Connections up to 300kVA
LV	EPD283 Distribution System Design – LV Network
	ES212 New Whole Current metered connections up to 60kVA
	ES213 Design of new Connections for Housing Developments
	CP226 LV Network Design
	CP331Protection of LV Distributors and Distribution Transformers
	CP332 LV Service Connections and Application of PME
	CP221 LV Network Design for Domestic Premises with Micro Generation

Table 2: Network polices relative to voltage

Notification for Self-Determination of Point of Connection

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If you need any help filling in the application form below please contact our office on 0800 048 1820 or email connectionapplications@enwl.co.uk
You can also visit www.enwl.co.uk for further information.

Preferred methods of communication: ☐ Phone ☐ SMS ☐ Email ☐ Post

Section 1 - Notification of ICP/IDNO self-determination of Point of Connection (PoC)

ICP/IDNO details

Company Name / Contact Name

Address

Post Code

Landline Number Mobile Number

Email Address

Section 2 - Site Details

Site Name

Address

Post Code

Grid reference or X co-ordinates Y co-ordinates

You can convert a post code to a grid reference and / or put a pin on a map indicating your supply position and realise your X & Y coordinates using websites such as http://www.gridreferencefinder.com or http://www.streetmap.co.uk/ Please include a polygon showing the location / size of the development or a full site plan.

Section 3 - Type of Supply

ICP Point of Connection - new asset to be owned by DNO ☐

IDNO Point of connection - new asset to be owned by IDNO ☐

Section 4 - Import and Export Load Details

	Number of connections	Import Load (kVA)	Export Load (kVA)	Comments
Commercial				
Domestic				
Total				

Section 5 - Confirmation of Compliance

This is to confirm that I will undertake all necessary network studies using information provided and will submit a network PoC which is compliant to all relevant policies. I will provide all required information to allow Electricity North West Ltd. to undertake a Network Integrity check.

Name

Signature Date

On completion, the application form and plans should be sent to:
Energy Solutions, Electricity North West, Frederick Road, Salford, M6 6QH
or email to connectionapplications@enwl.co.uk

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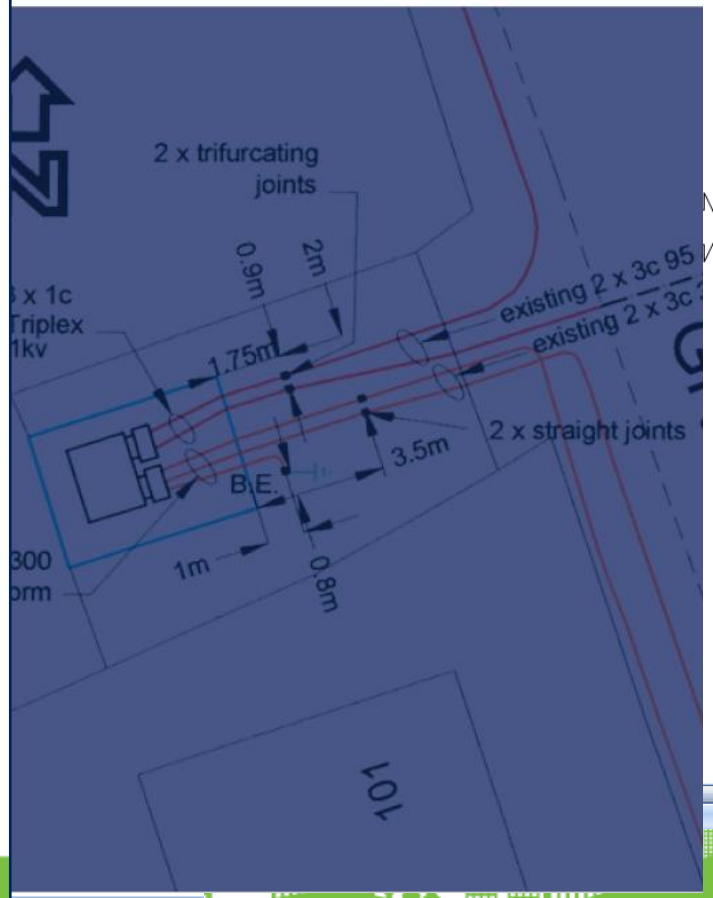
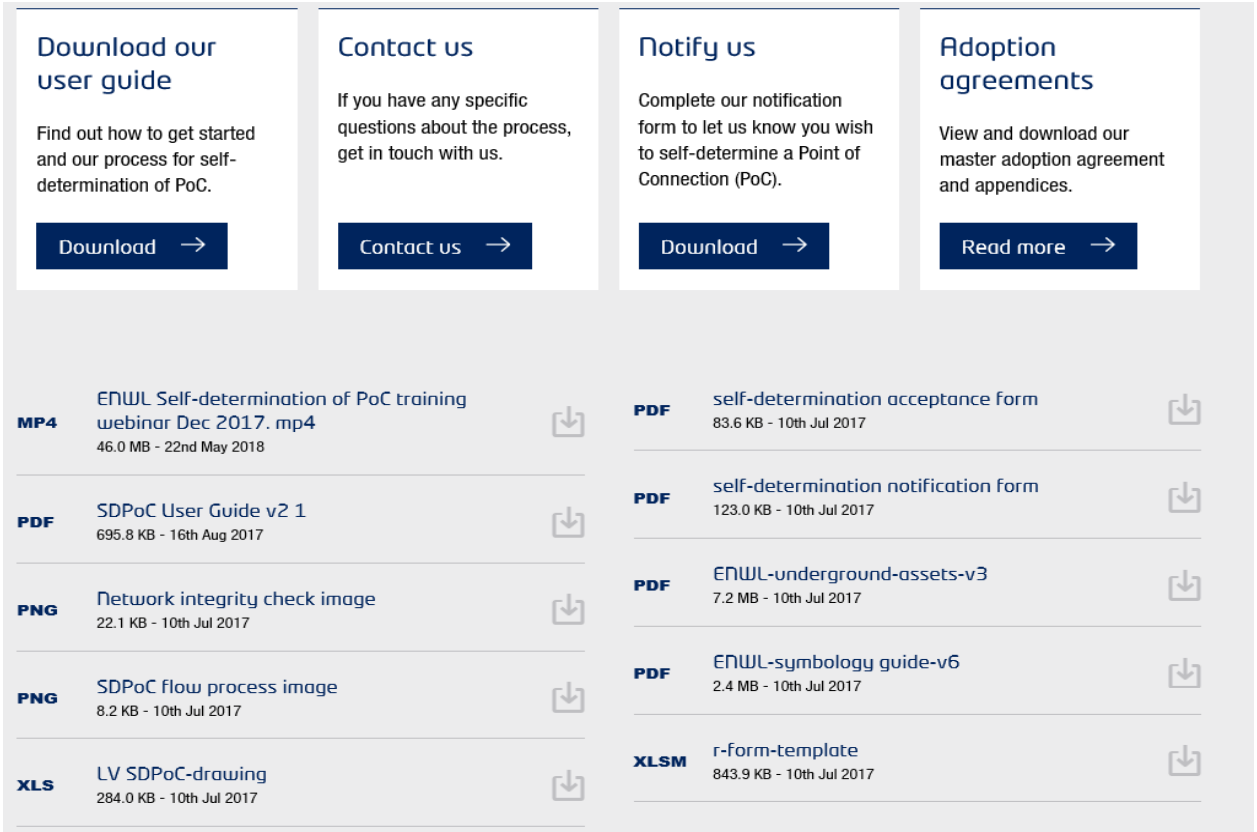
Data Management Symbology



Useful resources

- ENWL's Self Determination of Point of Connection web page https://www.enwl.co.uk/get-connected/competition-in-connections/information-for-icpsidnos/contestable-activities/self-determination-of-poc/



Questions?

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