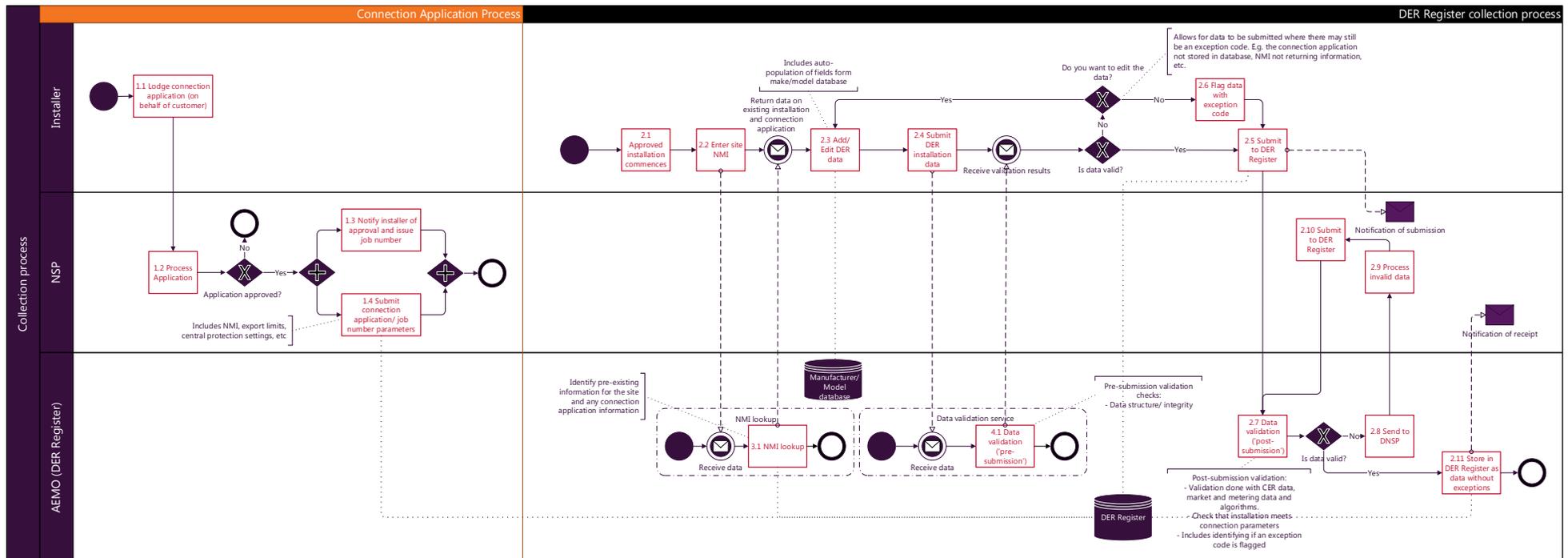# DER REGISTER – DATA COLLECTION

The purpose of this paper is to lay out a preliminary data collection framework which AEMO is considering for the DER Register and to facilitate further discussion and feedback from stakeholders. Initial thoughts on the collection framework were discussed in stakeholder meetings on 18 December 2018 (see minutes here) and 2 February 2019 (see minutes here) and have been extended in this document.

The process presented is indicative only, and remains subject to consideration by AEMO, including consideration of stakeholder feedback, costs of development and operation, and legal, regulatory and data governance risks (including security and authorisation frameworks needed to facilitate this model).

## 1. END-TO-END COLLECTION PROCESS – HIGH LEVEL DATA FLOW

1.1. Diagram

1.2. Task description

Task/ Sub-process	Description
Collection of installation information (Task 1.1 – 1.4)	• A customer or Installer (on behalf of customer) submits a connection application to the relevant DNSP, which kicks off the connection application process. • Once a connection offer is made and accepted, the DNSP will input any parameters established in the connection agreement to the DER Register (e.g. NMI, identifying information, export limits, protection settings, etc). • The system design would aim to ensure the Installer's DER submission process (task 2.1 – 2.5) are not dependent on the connection application process (task 1.1 – 1.4).
Extract existing site information (Task 2.1, 2.2, 3.1)	• When an installer has a job to complete, the installer enters the installation location (e.g. site NMI) into an application. They may do this when they are on site or beforehand. The application should return key information regarding the site, including information on existing DER equipment and connection agreement parameters (if available).
Updating site installation data (Task 2.3)	• The installer should be able to add new installation equipment (e.g. inverters, solar panels, etc) and edit existing equipment in the application. • Information should be automated where possible. For example, manufacturer/ model information should be auto-populated based on an up to date pick list or serial number scan.
Data validation (pre-submission) and submission (Task 2.4 – 2.6, 4.1)	• Before they submit the data to the DER Register the installer will receive notices for data that may need review. These validation checks could include: data structure and integrity, a check that the equipment installed falls within the parameters defined in the connection agreement (if available), etc. • Once the data is confirmed by the installer, it will need to be submitted to the DER Register. The NSP will get a notification that the information has been submitted. The data will go into the DER Register irrespective of whether it fails the pre-submission data validation (see task 4.1).
Data validation (post-submission) (Task 2.7)	• Once the installer and the NSP have submitted the data, AEMO will run post-submission validation checks. This should include, checking for an exception flag (from the pre-submission checks), and additional validation done with CER data (if available), market and metering data and algorithms (where necessary). • Submissions that are flagged in these validation checks should be submitted to the relevant DNSP for exception handling.
Exception handling (Task 2.8 – 2.10)	• If a submission is flagged in either the pre- or post-submission validation checks it will be submitted to the DNSP for exception handling. • DNSPs will have the ability to process and edit entries for re-submission to the DER Register.
DER Register storage (Task 2.11)	• Once the submission has either passed all the validation checks or been approved by the DNSP exception handling process, it will be stored as approved data in the DER Register. • AEMO will notify the NSP that the data has been stored without exceptions.

2. PROPOSED INTERACTION WITH EXISTING PROCESSES

2.1. Diagram
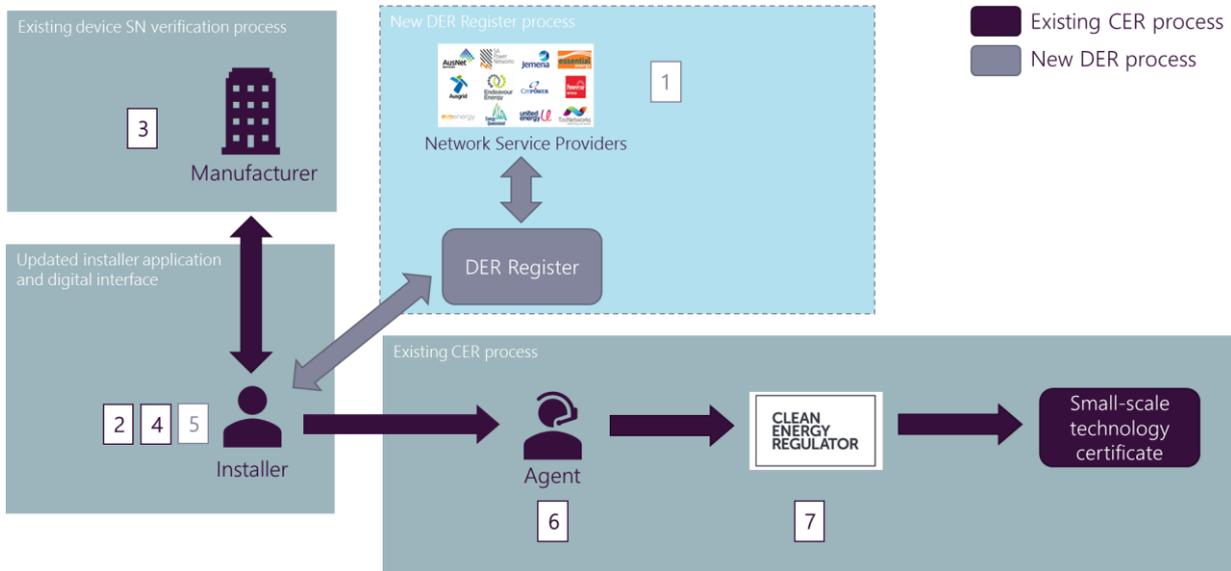
2.2. Description

ID	Task	Existing CER process OR New DER process
1	NSP inserts installation information (from connection agreement) into the DER Register	New
2	When on site, the Installer scans the serial numbers and sends the data via the app.	Existing
3	Installers send serial numbers to manufacturers/ third party database for validation and receives data package.	Existing
4	Installer receives signed data package form the manufacturer confirming that the solar panels are genuine and finalises installation.	Existing
5	Data package sent to REC Agent (Existing) and DER Register (New).	Existing/ new
6	Agent receives signed data package and sends to the CER.	Existing
7	Clean Energy Regulator validates small-scale technology certificates.	Existing