D6.4b Plans for Alignment Between LAEP+, PRIDE, RESP and the Data Sharing Infrastructure (DSI)

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Contents

1. Context and Purpose **2**

1.1 PRIDE and the governance trial 2

1.2 The alignment challenge 2

1.3 The proposition of this report 2

2. The Data Sharing Infrastructure: Current State and Implications for PRIDE **3**

2.1 Overview of the DSI 3

2.2 The opportunity: leading a use case 4

3. Evolving the LAEP+ Project Data Model **4**

3.1 The problem this solves 4

3.2 What a 'project' is in LAEP+ 4

3.3 Components of the proposed data model, mapped to D6.4a developments 5

3.4 From data model to published standard: a common information model 6

4. Governance and Next Steps **6**

1. Context and Purpose

1.1 PRIDE and the governance trial

Planning Regional Infrastructure in a Digital Environment (PRIDE) is a Strategic Innovation Fund project led by NGED, trialling across the local authorities of the West Midlands Combined Authority (WMCA) region and five local authorities in South Wales. The project team comprises NGED, WMCA, Advanced Infrastructure (providers of LAEP+), NESO and Regen. The Beta phase runs to late 2027, with tool development concluding in Janurary 2027 alongside of the full governance trial.

The trial's purpose is to test how governance structures and the information flows within them can support regional energy planning, and specifically how LAEP+ can strengthen and formalise the data flows between local authority energy planning and network planning.

1.2 The alignment challenge

Local authorities are increasingly expected to feed structured, spatial, evidenced plans into a growing set of parallel processes - the DFES, the RESP, and emerging frameworks like the Spatial Development Strategies. Each has its own data requirements, spatial needs, terminology and submission mechanisms. Alongside this, local authorities have no statutory function for energy planning. This means that it’s often on the onus of the individuals within local authority organisations to engage with these different mechanisms which results in inconsistent processes, data and decision making. For authorities with limited capacity, the risk of duplication and disengagement is real, and the tRESP RFI in 2025 demonstrated that many authorities struggled to supply data of a high enough quality and granularity through a spreadsheet-based process that was then difficult to aggregate regionally.

At the network end, the picture is equally fragmented. DFES technology building blocks differ across distribution operators, and there is no consistent way to describe local authority planning activity spatially. For example, the same real-world project can frequently be described in different ways across different systems, by different consultants, authorities and internal teams. The ability to track one project coherently across local authority planning tools, network systems, the planning system and NESO's databases is the core interoperability problem this report is concerned with.

1.3 The proposition of this report

There is a rich landscape of digital planning tools used by local authorities to support different planning functions - however the data schemas and structures of the data outputs from these tools are often incompatible due to differing back-end processes. As part of the PRIDE project,

the West Midlands Combined Authority has identified that there would be significant value in developing the functionality to ingest project data from many sources into LAEP+.

LAEP+ sits at a strategically useful point. It already provides a data-sharing interface between local authorities and electricity networks across five of the six GB DNO licence areas, it is used by more than 280 local authorities and has approximately 1,400 active monthly users. Similar digital tools also provide equivalent data-sharing interfaces.

Ingestion of project data from differing sources into LAEP+ would enable the tool to hold project data in a consistent, spatially resolved structure, and make it available to downstream processes including the DFES, RESP and Spatial Development Strategies.

Facilitating this is the central LAEP+ project data model. If PRIDE documents and publishes that model as best practice for describing projects, it can:

1. Determine a shared convention for cataloguing and exchanging spatial data.
2. Present a repeatable, low-friction way to receive local authority data.
3. Provide the DSI a strategic-planning use case to govern.

2. The Data Sharing Infrastructure: Current State and Implications for PRIDE

2.1 Overview of the DSI

The Data Sharing Infrastructure (DSI) is a NESO-led programme of work, intended to create a connective layer that lets data flow between systems without requiring all actors to adopt a single platform or a single imposed standard. Architecturally it is a federated data-sharing infrastructure: each participating organisation runs a Data Preparation Node within its own boundary, handling ingestion, integration and schema validation, while a Data Sharing Mechanism acts as the control plane between nodes - providing a public data catalogue, trust, directory and data-request services. The mechanism holds metadata, access permissions and trust relationships, not data itself; participants discover data products in the catalogue and consume them directly from the originating node through secure peer-to-peer transfer.

Two features of the DSI's stated approach matter most for PRIDE:

1. The DSI is focused on the interface between organisations, not on their internal analytical tools or workflows; it does not seek to reach inside a tool like LAEP+.

2. The DSI does not intend to mandate a specific data standard. Standards are treated as metadata attached to each data product, validated into the catalogue so that consumers can judge whether a product meets their needs.

Rather than prescribing, the DSI aims to accelerate convergence towards standards through templates, tooling, reporting and filtering, deliberately balancing adoptability against standardisation so that improving standards does not become a blocker to use.

2.2 The opportunity: leading a use case

The DSI has indicated that it is willing to wrap its governance around use cases, but that setting up and leading a use case in a given space is for the sector to do, not the DSI team. We are unaware of existing use cases for sharing local authority strategic planning data, and aim to present PRIDE as a use case for this scenario. The PRIDE governance trial will be a live test bed, generating real evidence about what data local authorities can and cannot provide and - via the LAEP+ data model - it is producing a structure that could help determine shared conventions for cataloguing and exchanging that data.

3. Evolving the LAEP+ Project Data Model

3.1 The problem this solves

The absence of a consistent way to describe projects spatially is the root of several of the interoperability failures described in Section 1.2. DFES building blocks vary between operators; project identifiers proliferate across systems; and the same initiative appears under different references in LAEP+, network systems, the planning system and NESO's databases, at different levels of granularity.

A shared, well-documented model for describing a project - what it is, where it is, what technology it deploys, at what scale, at what lifecycle stage, and how it maps onto network and political geographies - is a foundational fix.

3.2 What a 'project' is in LAEP+

LAEP+ already distinguishes two complementary inputs to network planning, and the distinction is central to the proposed standard.

1. *Projects* represent real-world plans and activities - housing developments, renewable installations, EV charging programmes, retrofit and heat decarbonisation schemes - grounded in specific locations, timescales and delivery pipelines. Their value to the DFES

- and RESP - is as evidence of activity that is actually happening or credibly planned: they give local authority ambition its credibility and provide networks with information that determines what infrastructure is needed, where and when.
2. *Scenarios*, by contrast, are modelling exercises projecting technology uptake across an area. Scenarios carry limited weight without an evidenced project pipeline behind them; together, a scenario plus a robust project pipeline gives the strongest basis for reflecting local ambition in network planning.

The proposed standard concerns the project record specifically; the atomic, evidenced unit that every downstream process needs to be able to receive, locate and trust.

1. Projects are created either at the building level (e.g. rooftop PV installation) or at the land parcel level (e.g. new homes), but can be aggregated to Postcode, LSOA, MSOA and network geographies (e.g. substation supply areas), enabling like-for-like comparison with forecasts.
2. Existing DFES consumption requires flat, technology-specific records - one record per technology per location - which disciplines the data model in a way that is compatible with machine reading - an assumption will be made that NESO will need the ability to machine read local authority plans and projects as it will be gathering information from 350+ local authorities and manually reconciling those projects would be an impossible task.

3.3 Components of the proposed data model, mapped to D6.4a developments

The D6.4a development programme, read as a whole, specifies the components of a demand-side project data standard. Restating them through that lens:

1. **A standardised project taxonomy** including project types, sector tags, technology categories and lifecycle status labels provides the controlled vocabulary any shared standard requires, designed from the outset to map to DFES building blocks, RESP categories and any other industry conventions.
2. **Technology-specific, time-bound targets in DFES-compatible units** ensure that project and pipeline data can be expressed in the same terms the networks and RESP use.
3. **Resolution to BSP and GSP with identifier mapping tables** links each project across the full spatial hierarchy - connection point, ESA, BSP, GSP, licence area - and, critically, maintains linkage tables between UPRN, ESA names and numbers, LSOA/MSOA codes, BSP/GSP identifiers, planning references and others, so that a single project can be tracked across systems without any party being forced onto one universal identifier.

4. **External project import and transformation** makes the model an open target that can absorb projects built in other tools, which is what a reference standard must do if others are to adopt it. To these, the standard adds metadata and provenance, data vintage, completeness indicators and methodology notes, so that a consuming process can assess quality without separate documentation.

Together, these features become a specification for how a project could be described, located, categorised and quality-assured.

3.4 From data model to published standard: a common information model

The step this report proposes is to document the LAEP+ project data model explicitly as a project data specification - in effect a common information model for projects - and to publish it as guidance others can follow. Concretely it means:

1. Writing the data model up as a versioned schema with a controlled vocabulary and defined spatial and identifier conventions.
2. Aligning it, where they exist, with CIM-derived conventions already emerging in the network data space so that language is compatible.
3. Agreeing the structure with other GB DNOs to agree sector-consensus.
4. Offering it into the DSI catalogue as a registered standard against which data products can be described.

Publishing the model also sequences the network-standardisation. Rather than attempting to agree on a full cross-network digital vision, PRIDE can deliver the narrower, achievable output of a shared convention for cataloguing and exchanging spatial project data.

4. Governance and Next Steps

The developments and positioning above cannot be delivered by AITL alone; they require coordination across the full PRIDE consortium as well as coordination with GB DNOs to ensure coherence across the sector. Several outcomes depend on decisions by organisations AITL does not control. The governance trial is the vehicle for testing and advancing these arrangements in practice. The following actions are recommended, in approximate priority order.

Explore a strategic planning use case for DSI with NESO. Lean on existing relationships with NESO to discuss our proposed approach and understand NESO’s view on the PRIDE project exploring this piece of work.

Establish a standards workstream with NGED and use existing forums like DNO LAEP+ working group to socialise our thinking with other GB DNOs. Work with NGED to document the shared convention for cataloguing and exchanging spatial project data - proceeding on agreed practical standards rather than waiting for DSI guidance, and documenting them so they can be registered with the DSI and shared with the other networks as the infrastructure matures. Engage NGED's strategic engagement function, not only network planners, so the standard reflects how local authority data is actually used.

Publish the project data model. Turn the LAEP+ project data model into a documented, versioned specification, validated through the trial and publicly released in step with the PRIDE delivery timeline - an initial version aligned to the October 2026 taxonomy and import MVP, extended to full spatial and identifier coverage by October 2027.

Engage the RESP methodology team. As the consultation progresses, contribute trial evidence and the draft data standard, and seek early steer on how they align with emerging RESP data requirements - using the standard as a practical demonstration of what structured local authority submissions could look like.

Confirm data governance and sharing agreements. Establish clear arrangements between LAEP+, NGED and NESO covering what data is shared, how it is used and what protections apply, aligned with Ofgem data best practice, and test them explicitly in the trial.

Explore DSI stakeholder participation. Ask the DSI team whether PRIDE can join the DSI MVP stakeholder engagement process, representing a stakeholder category.