

RESOURCES

Writing a smart street lighting tender.

A checklist for the specification itself, written to be used against any vendor, this one included. It is the document we wish arrived with every request for proposal we answer.

What should a smart street lighting tender specify?

A smart street lighting tender should specify interfaces rather than brands: the socket standard, the voltage range, the dimming protocol, the metering accuracy, what the network has to do, and what the software has to open up.

A specification written around interfaces produces bids you can compare and a network you can still change in ten years. A specification written around one vendor's data sheet produces one compliant bid. The sections below follow the order the work actually happens in: inventory first, then

hardware, network, software, security, commercial terms, and finally the evaluation traps that decide more tenders than price does.

01

Start with the inventory, not the specification

A tender written before the inventory is a tender that gets amended. Most of the arguments during a deployment trace back to a count that was never done.

- Fixture count by type, wattage and mounting height, and how many already have a photocontrol socket.
- Every supply voltage present on the network, and which circuits are shared with signs, shelters or traffic devices.
- Which fixtures are already LED, and the age of the ones that are not.
- Who owns the poles and who owns the meter: a utility-owned network changes what can be metered and billed.
- The asset or work-order system already in use, because that is where the new data has to arrive.

02

Specify the controller by its interfaces

Every line below is a property of the fixture and the socket, not of a supplier. Written this way, the same paragraph can be

answered by several manufacturers, which is the point.

- Socket standard: ANSI C136.41 seven-pin, Zhaga Book 18, or both. Say which, and say what happens to fixtures that have neither.
- One part number across the whole voltage range, so a mixed 120 to 480 volt network does not become a stocking problem.
- Dimming interface: 0–10 V, DALI, or both, and whether the driver sources or sinks the signal.
- Metering accuracy as a percentage against a named standard, not as the words “revenue grade”.
- Surge protection, ingress and impact ratings, and the certification file numbers behind them.
- Warranty in years, what it covers, and the price of an extension.

Compare the three node types

03

Say what the network must do, not which radio to use

Naming a radio technology in a tender narrows the field before the requirement is understood. Name the behaviour instead, and let the bids propose the radio.

- Whether an open standard is required. Wi-SUN FAN 1.1 is one; a proprietary mesh may still be acceptable if the

software is open.

- Node capacity per gateway, and what the lights do when the link to the platform drops.
 - Backhaul: Ethernet, cellular or either, and who supplies the SIM card and the data plan.
 - Expected coverage, and the survey that has to prove it before award rather than after.
 - Whether the same network must carry other sensors later, and which ones.
-

04

The software is where fifteen years of cost sits

The controller is bought once. The management platform is used every week for the life of the asset, and it is where a network becomes locked to one supplier.

- Whether it manages nodes from other manufacturers, and which deployment proves it.
- The API: bidirectional, documented, and available without a per-call fee.
- The integrations you already need by name: mapping, asset management, reporting.
- Roles, permissions and audit trails, since public networks are operated by more than one team.
- How firmware reaches the field, and who approves a change before it does.

- What happens to the data and to the licence when the contract ends.

Technical FAQ on the platform and the API

05

Security, data residency and privacy

These questions arrive from the information-technology department after the award if they are not in the tender before it.

- Encryption on the radio link and authentication on the platform, each stated as a named standard.
- Where the data resides, and whether an on-premise deployment is offered. In Quebec, Law 25 makes this a question you will be asked.
- Independent audit evidence, such as a SOC 2 Type II report, and at which entity level it was issued.
- Certification claims: ask for the certificate and its number, not the logo.

Data sovereignty and Law 25

06

Commercial terms that decide the real cost

Price per node is the number everyone compares. These are the terms that move the fifteen-year total far more than it does.

- Spare parts availability and pricing held for the life of the contract.
- Training in three tracks: operations, field crews, and information technology.
- Support response times in writing, with the escalation path named.
- A pilot before the full award: three months, one hundred to five hundred luminaires, production hardware and a live platform.
- Whether a cooperative contract already covers this scope, which can remove the tender step entirely.

Funding a project, and the cooperative contracts

07

The traps worth writing into the evaluation grid

Each of these has decided a real tender, and none of them is visible in a price table.

- A separate part number per voltage looks cheaper per unit and costs more per network, in stock and in errors.

- The word “open” with no standard named beside it means nothing. Name the standard.
- A node count in the millions is not a reference. Ask which city, which year, and who to call.
- A specification sheet behind a form: if your evaluator cannot read it before the deadline, it cannot be scored.
- A warranty that covers the node but not the labour to reach it, at eight metres, in February.
- A demonstration on the vendor’s data. Ask for one on a sample of yours.

This checklist is deliberately vendor-neutral: nothing in it requires a Dimonoff product, and a tender written from it should attract several compliant bids. Where a figure or a standard appears, it is one we publish on our own product pages and datasheets, so you can check it against ours as easily as against anyone else’s.

Questions about the process

Should the controls be tendered with the LED conversion or separately?

Together, in almost every case. The controller is installed while the crew is already at the pole with the fixture open,

which is the cheapest moment in the asset's life to add anything. Tendering controls separately pays for a second visit to every pole, and that second project is usually the one that never gets funded.

How long does a tender take, from draft to award?

Can a municipality avoid running its own tender?
