



SWITCHPOINT HV

FROM I.C.M

CAPABILITY OVERVIEW & INDICATIVE PRICE GUIDE

Build it on the drawing. Check it against **your site**. Issue it under control.

Switchpoint HV lets your team prepare HV switching programs on your own single-line drawing, check every step against a model of your site, and issue signed, sealed switching instructions and HV access permits.

REAL SCREEN · FICTIONAL DEMO SITE

SS-003 · Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable (edited copy)

DRAFT **FAIL**

KP-HVSI-001 | Rev 2 · DEMO — Demo site — Kestrel Park 11SB-01 · 87 steps

Workflow — not yet submitted → **Prepared now**

Details Steps Build on drawing **Checker** Sign-off & documents HV permit Execution History

Starting line-up (the plant as it will be found when switching starts)

Line-up A · Normal running — network supply, one bus

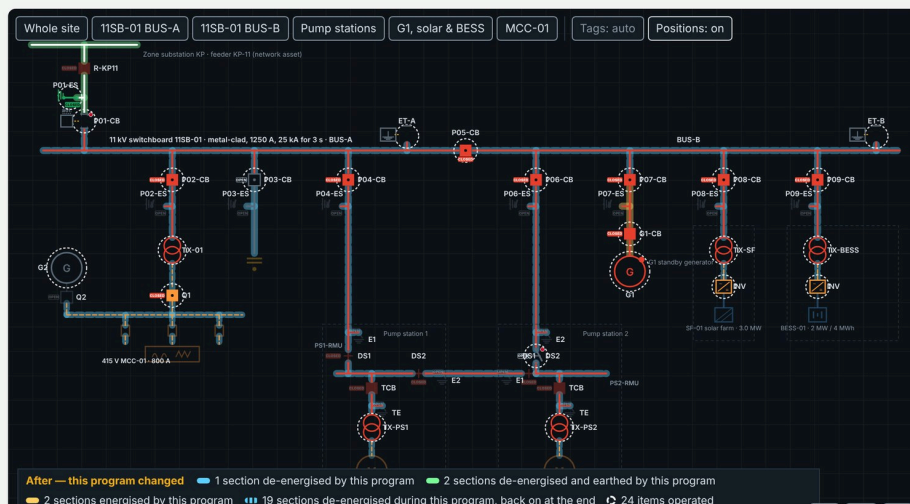
Run checker

Full screen

Line-up details

FAIL 2 fatal · 0 major · 0 minor · 1 advisory · 51 steps as written, 1 queried, 1 unsafe, 34 not simulated checked 04/10/2026, 06:57 am against Line-up A · Normal running — network supply, one bus

Bound to program 2ccce981 · line-up normal · site pack demo rev 2026-09-29-A (2f35f759) · rules 62e0d95b · engine 0.5.1.



Findings

INFO · Voltage found at P01 incomer cable, R-KP11 to 11SB-01

The test did its job. Something upstream is still closed, or a source has not been accounted for. Go back to the isolation before touching anything.

Step 52 · P01 incomer cable — click to show on the drawing

FATAL · Closed 11SB-01 P01-ES onto a live conductor

P01 incomer cable, R-KP11 to 11SB-01 was still energised. The earth switch made a three-phase fault directly at the operator's position. Prove the circuit dead at the point of earthing before any earth is applied.

Step 53 · 11SB-01 P01-ES — click to show on the drawing

FATAL · Energised onto an applied earth — Network 11 kV feeder KP-11 (zone substation KP), P01 incomer cable, R-KP11 to 11SB-01

The section is live and earthed at the same time, which is a bolted three-phase fault at full prospective fault current. Earth applied at 11SB-01 P01-ES. Every earth inside the isolation comes off, and is confirmed off, before anything that can energise it is closed or started — KP-PRC-HV-001 §7.2.

Step 53 · 11SB-01 P01-ES — click to show on the drawing

The checker stopping an edited demo program: "Closed 11SB-01 P01-ES onto a live conductor."

Drawing-led planning

Programs are built and checked on your site's single-line drawing.

Site-model checking

Every step is replayed against your accepted model of the plant.

Sealed, issued records

Signed by the right people and issued as approved.

From single line to signed program

One record follows the program from the first step on the drawing to the completed sheet coming back from site.

- 01 Build on your drawing**

Operate the apparatus on your single-line drawing and each operation is written into the program as a step, in the switching-sheet format. Steps can also be typed or pasted in.
- 02 Check every step**

The checker replays the program from the starting line-up you choose and works out what is live, dead and earthed after each step.
- 03 Signed by the right people**

The HVO submits, the HVC verifies and the HVA authorises. Once a program is submitted, it can't be edited. Any change sends it back for rework or to a new revision, checked and signed again.
- 04 Issued as approved**

The switching instruction and HV access permit are issued as sealed PDFs with a protected Word copy. Every page carries the Issue ID.
- 05 The record comes back**

The issued program travels on a phone, and everything recorded on site comes back to the same record.

SS-001 · Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable
CHECKED PASS

KP-HVSI-001 | Rev 1 · DEMO — Demo site — Kestrel Park 11SB-01 · 93 steps
 Workflow — not yet submitted → **Prepared now**

Details Steps **Build on drawing** Checker Sign-off & documents HV permit Execution History

Starting line-up: Line-up A · Normal running — network supply, o
 Recording into section: 6. Final state — hand back in Line-up A — 7 step ☐ Remote
 Undo last + Other step **Save** Line-up details Steps beside Full screen

The P06 cable is live to the open point at PS2-RMU DS2. The BESS is grid-forming: if the network drops out it holds the board up.

Build on drawing. Each operation on the drawing becomes a step in the chosen section, and the whole program is replayed so every step shows the checker's status straight away.

Built around your site

Each site starts with a model built from your controlled drawings and procedures: apparatus, connectivity, interlocks, line-ups and your site's standing rules. Your HV authority reviews and accepts it before anyone relies on it. The model comes from your documents and belongs to you, and you nominate a custodian who tells us when a drawing or procedure changes.

Not assessed is never passed

The checker is a decision aid for your authorised people. It shows what the program does to the plant, step by step, and says plainly when it can't tell.

SS-003 · Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable (edited copy)

KP-HVSI-001 | Rev 2 · DEMO — Demo site — Kestrel Park 11SB-01 · 87 steps

Workflow — not yet submitted → Prepared now

DetailsStepsBuild on drawingCheckerSign-off & documentsHV permitExecutionHistory

Starting line-up (the plant as it will be found when switching starts)

Line-up A · Normal running — network supply, one bus

Run checkerFull screen

Line-up details

FAIL

2 fatal · 0 major · 0 minor · 1 advisory · 51 steps as written, 1 queried, 1 unsafe, 34 not simulated

checked 04/10/2026, 06:57 am against Line-up A · Normal running — network supply, one bus

Bound to program 2ccce981 · line-up normal · site pack demo rev 2026-09-29-A (2f35f759) · rules 62e0d95b · engine 0.5.1.

Whole site11SB-01 BUS-A11SB-01 BUS-BPump stationsG1, solar & BESSMCC-01Tags: autoPositions: on

Findings

INFO · Voltage found at P01 incomer cable, R-KP11 to 11SB-01

The test did its job. Something upstream is still closed, or a source has not been accounted for. Go back to the isolation before touching anything.

Step 52 · P01 incomer cable — click to show on the drawing

FATAL · Closed 11SB-01 P01-ES onto a live conductor

P01 incomer cable, R-KP11 to 11SB-01 was still energised. The earth switch made a three-phase fault directly at the operator's position. Prove the circuit dead at the point of earthing before any earth is applied.

Step 53 · 11SB-01 P01-ES — click to show on the drawing

FATAL · Energised onto an applied earth — Network 11 kV feeder KP-11 (zone substation KP), P01 incomer cable, R-KP11 to 11SB-01

The section is live and earthed at the same time, which is a bolted three-phase fault at full prospective fault current. Earth applied at 11SB-01 P01-ES. Every earth inside the isolation comes off, and is confirmed off, before anything that can energise it is closed or started — KP-PRC-HV-001 §7.2.

A demo program with its network isolation steps deleted. The checker marks it FAIL and stops at step 53, where the earth switch would close onto a cable that is still live.

PASS

0 fatal · 0 major · 0 minor · 0 advisory · 90 steps as written, 0 queried, 0 unsafe, 3 not simulated

checked 04/10/2026, 06:57 am against Line-up A · Normal running — network supply, one bus

Bound to program 2f28b33c · line-up normal · site pack demo rev 2026-09-29-A (2f35f759) · rules 62e0d95b · engine 0.5.1.

The original program: no findings, three steps not simulated. A pass is a decision aid, not an approval.

FAIL

2 fatal · 0 major · 0 minor · 1 advisory · 51 steps as written, 1 queried, 1 unsafe, 34 not simulated

checked 04/10/2026, 06:57 am against Line-up A · Normal running — network supply, one bus

Bound to program 2ccce981 · line-up normal · site pack demo rev 2026-09-29-A (2f35f759) · rules 62e0d95b · engine 0.5.1.

The edited copy: two fatal findings. Each result is tied to the exact program, line-up, site model and rules, and goes stale if any of them changes.

What it checks, from your site model

- The live, dead and earthed state of every modelled section after every step, from every modelled source.
- **Fatal:** closing onto applied earths, earthing live plant, a section live and earthed at once, or paralleling live systems without a synchronising step.
- Earthing without proving dead at that point, or earthing charged capacitors.
- Operating locked and tagged apparatus without a step to remove the lock.
- Interlocks and key schemes in your model, such as earth switch and disconnector pairs, racking and trapped keys.
- Isolators or links switched on load, and “confirm” steps that don't match the simulated plant.
- Transformer energisation and battery state-of-charge confirmations, plus the standing rules written for your site.
- **NOT ASSESSED** for any step on apparatus outside the model. By default the program can't be submitted until that is resolved.

Signed by the right people. Issued as approved.

SS-002 · Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable

KP-HVSI-002 | Rev 1 · DEMO — Demo site — Kestrel Park 11SB-01 · 93 steps · HV Access Permit HVAP-0001

SWITCHING IN PROGRESS

PASS

Keep on this phone

PREPARED Alex Demo 04/10/2026, 06:57 am	VERIFIED (HVC) Sam Rivers 04/10/2026, 06:57 am	AUTHORISED / ISSUED (HVA) Jo Hartley 04/10/2026, 06:57 am	EXECUTED started 04/10/2026, 06:57 am	COMPLETE —
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Details

Steps

Build on drawing

Checker

Sign-off & documents

HV permit

Execution

History

Workflow

Issued with HV Access Permit **HVAP-0001**. Record the switching on the **Execution** tab; record the permit's receipt, surrender and cancellation on the **HV permit** tab as they happen; then close the record.

Cancel program

New revision (copy)

Signatures

Prepared by (HVO)

electronic

Alex Demo

alex.demo@example.com



SIGNED

04/10/2026, 06:57 am · signed-in account

Verified by (HVC)

electronic

Sam Rivers

sam.rivers@example.com



SIGNED

04/10/2026, 06:57 am · signed-in account

Authorised / Issued by (HVA)

electronic

Jo Hartley

jo.hartley@example.com



SIGNED

04/10/2026, 06:57 am · signed-in account

A sign-off link is a signing credential for the person it was issued to: it works only when that person is signed in as that address, or enters the code emailed to that address. Forwarding it does not let anyone else sign.

Sign-off. Prepared, verified and authorised, each by a named person. A sign-off link works only for the person it was issued to.

An authority matrix for each site

Your site decides who issues, who may cancel, whether permits are issued on site, and how paper signatures are recorded (transcribed, with the scan kept).

Permit lists worked out from the model

At the permit-issue step, Switchpoint lists the points of isolation and earths from the model, and the HVO must confirm them. An unlocked boundary, a connected source, a missing earth, a closed join to live plant or an unbounded area stops confirmation. An override needs a written reason, printed in red on the permit.

Sealed when issued

The issued PDFs are sealed and every issued file is registered. “Check a copy” confirms whether a PDF or Word file is an issued copy and still current. For a printed copy, check its Issue ID against the program in Switchpoint.

Revisions, amendments and history

A new revision supersedes the old program when it is issued. A permit amendment creates a new version that the issuer and recipient accept. Every signature, email, export and change of state is in the program's history.

Demo Client

High Voltage Switching Instruction

Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable

Switching Sheet No. — SS-002

11SB-01 switchroom P01 feeder		11SB-01 P01-CB	Open, racked out, locked and tagged	11SB-01 switchroom P01 feeder	11SB-01 P01-ES	Earth switch closed, locked and tagged
Zone substation KP (network)		B-KP11	Open, locked and tagged			

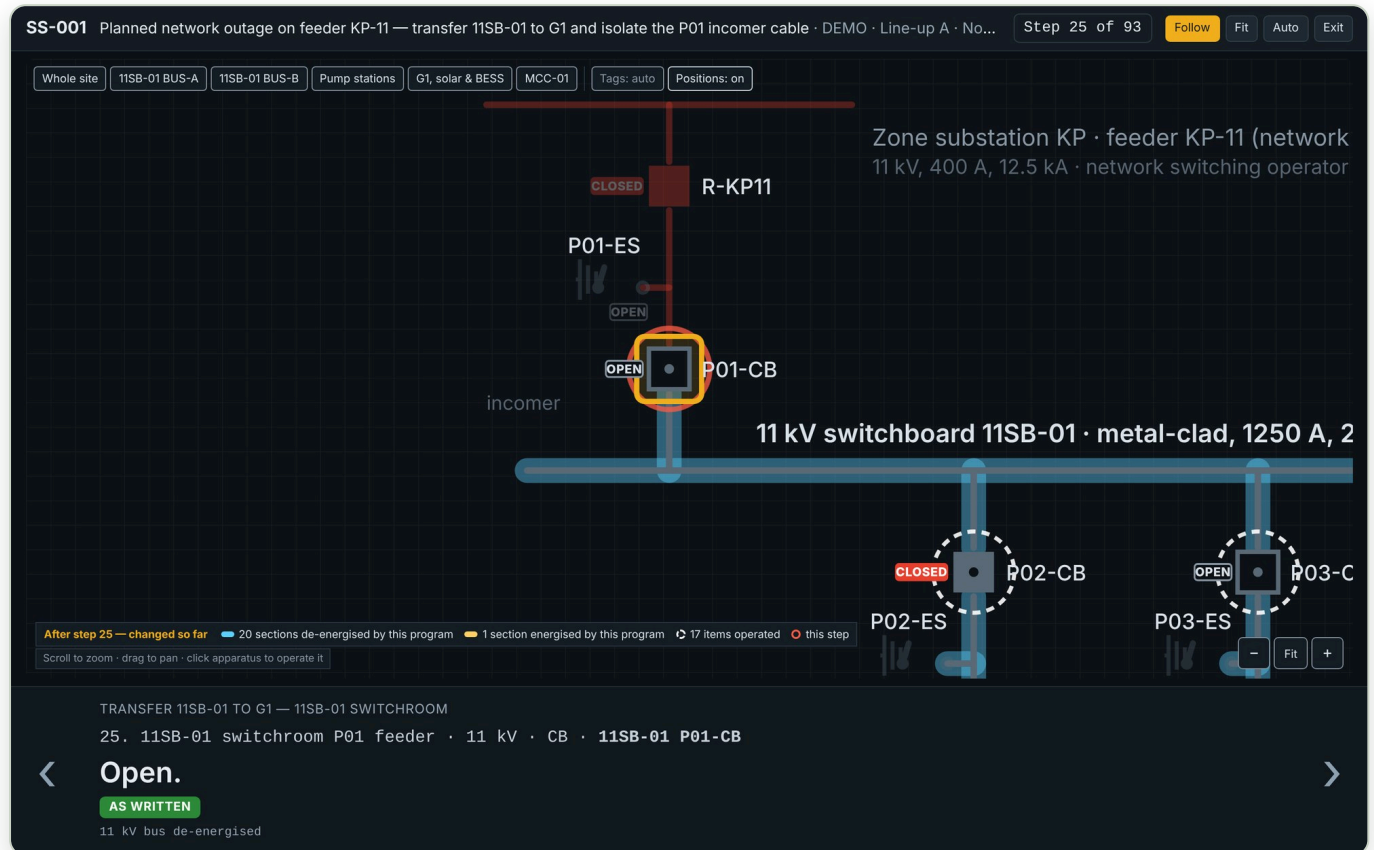
An issued switching instruction (first of four A3 pages), with the Issue ID and “ISSUED — controlled copy” on every page.

Points of isolation			Earths		
LOCATION	IDENTIFICATION	STATE	LOCATION	IDENTIFICATION	STATE
11SB-01 switchroom P01 feeder	11SB-01 P01-CB	Open, racked out, locked and tagged	11SB-01 switchroom P01 feeder	11SB-01 P01-ES	Earth switch closed, locked and tagged
Zone substation KP (network)	B-KP11	Open, locked and tagged			

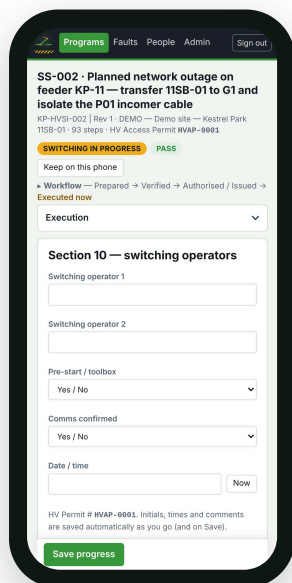
Points of isolation and earths derived from the site model at the permit-issue step. The HVO must confirm them before the program can be submitted.

The program goes to site. The record comes back.

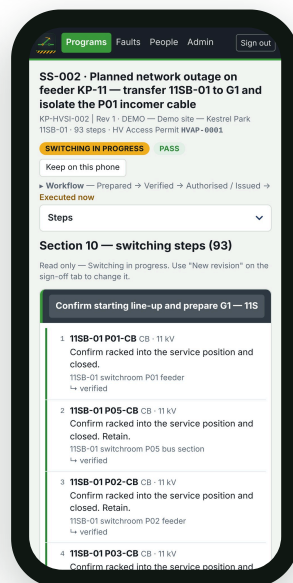
The same program, on the screen in the briefing and on a phone on site. On site, the issued PDF, printed or saved, remains the controlling copy, and the phone records the switching against it. Use without mobile coverage is still in testing.



Present mode for a pre-job brief: the drawing follows each step in large type. Step 25 of 93 shown.



Recording the switching



The issued steps

01 Pre-job briefings

Walk the crew through the program on the drawing, one step at a time.

02 One-tap times

Record the date and time with a single tap of the Now button.

03 Faults and observations

Report a fault with photos and short video against the program step where it was found.

04 People and site documents

Keep licences, authorisations, site inductions and signed site forms with their evidence, and see what is expiring.

Evidence stays with the site. Photos and videos are shown only to people who can see that site. Certificates are shown only to administrators and the person they belong to.

Your site, your people, your records

Your server or Switchpoint Cloud. Run Switchpoint on your own server, or ask about hosting on Switchpoint Cloud. Either way, your site can be restricted to the people you approve.

Access and records

- Each company has its own Switchpoint instance, with its own data, administrator and address.
- Site membership can limit who can view, edit, export and manage each site. A restricted site is visible only to its members.
- A restricted site also asks for an emailed sign-in code at every sign-in and never attaches its documents to email.
- Support access inside the app is granted by you and is time-limited. On Switchpoint Cloud our host administrators can also reach the server; your service schedule covers this.
- The Switchpoint software makes no AI calls and doesn't send your drawings or records to outside services for analysis.
- Hosting, backups, retention, recovery and support hours are set out in your service schedule.

SHEET	TITLE	DOCUMENT	SITE	STATUS	CHECKER	STEPS	UPDATED
SS-001	Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable	KP-HVSI-001 Rev 1	DEMO	CHECKED	PASS	93	04/10/2026, 06:57 am
SS-003	Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable (edited copy)	KP-HVSI-001 Rev 2	DEMO	DRAFT	FAIL	87	04/10/2026, 06:57 am
SS-002	Planned network outage on feeder KP-11 — transfer 11SB-01 to G1 and isolate the P01 incomer cable	KP-HVSI-002 Rev 1	DEMO	SWITCHING IN PROGRESS	PASS	93	04/10/2026, 06:57 am

Programs at a glance. Status and checker result for every program on the sites you can see.

What Switchpoint doesn't do

- It doesn't calculate power flow, fault levels, protection settings, arc flash or equipment ratings. It checks the modelled switching state and sequence.
- The checker alone doesn't prove an isolation is complete. The HVO's confirmation of the permit's isolation points and earths is a separate, required step.
- It checks only this program's own permit. Lifting its locks or earths before cancellation fails the check.
- It doesn't yet track isolations or earths shared between separate permits. Each program carries one HV access permit.
- It knows only what is in your accepted site model. Plant changes and temporary supplies must be added before they are relied on.
- It doesn't operate switchgear, and it doesn't replace physical identification, proving dead, earthing, locks and tags, or your authorised people.
- It records and checks switching programs; it doesn't authorise switching. The signatories are responsible for what they sign.
- The document seal uses Switchpoint's own certificate, so PDF readers are expected to show the signer as unverified until that certificate is trusted on your computers.
- The current release supports one nominated HVC and one HVA for each site.

Three ways to use Switchpoint

All prices are in Australian dollars and exclude GST. Your formal quote follows a short scoping call and a look at your drawings.

OPERATING SITE

Ongoing site licence

A 12-month term, paid monthly or annually in advance. Paying annually in advance takes 5% off the site and user charges.

A\$1,250 first site, per month

PROJECT

Commissioning software only

Your team uses Switchpoint for 1 to 12 whole months, with no annual commitment. Extra months are agreed in writing before the term ends.

A\$1,250 first site, per project month

PROJECT + PEOPLE

Managed commissioning support

We prepare and review your switching programs and coordinate approvals in Switchpoint. Project access is added if you don't already have a licence.

A\$175 per hour, remote work

SITE LICENCE	PER SITE / MONTH
First site	A\$1,250
Sites 2–3	A\$1,100 each
Sites 4–5	A\$1,000 each
Sites 6–10	A\$900 each
More than 10 sites	Quoted

A site is one network boundary with its own drawing: a switchroom, a substation group or a plant. Each lower rate applies only to the sites in that band, so adding a site never re-prices the earlier ones.

INCLUDED WITH EACH SITE
10 named users and 100 GB of live storage, pooled across your company
Hosting on Switchpoint Cloud, arranged when you engage (ask us about it), software updates and business-hours email support
The checker, sign-off, permits, issued documents, field recording and history, with no feature tiers

EXTRAS	PER MONTH
Extra users 1–15 above your pooled allowance	A\$50 each
Extra users 16–40	A\$40 each
Extra users 41–90	A\$30 each
Extra live storage, per started 100 GB block	A\$25
More than 100 users or 2,000 GB	Quoted

User bands work the same way as site bands. A person using a phone and a laptop is one named user. Backups are kept separately and don't count against your storage.

MANAGED COMMISSIONING SUPPORT	RATE
Remote program preparation, review and approval coordination	A\$175 / h
Site attendance, travel and standby	Quoted per job
Physical switching, electrical testing and engineering studies	Separate scope

Programs we prepare are still verified and authorised by your HVC and HVA, and our people on site work under your site's rules. This isn't plant commissioning.

Project terms. A fixed number of whole months, billed monthly or in advance, with no annual discount and no automatic renewal. Before access ends we agree how your records are exported and kept, and who closes out open programs or permits. A commercial expiry never cancels a permit or deletes a safety record.

Setting up your site

Every site needs a model of its plant before Switchpoint can check anything. Setup is a one-off price per site, fixed in your quote once we have seen your drawings.

SITE SIZE	TYPICAL SITE	INDICATIVE SETUP, PER SITE	YOUR TEAM'S TIME
Small	One board or RMU group, about 30 devices or fewer, one supply	A\$5,800 – A\$8,700	6–10 h
Medium	A two-section board with an RMU ring, generator, solar and battery, about 50 devices	A\$9,000 – A\$14,800	10–16 h
Large	Several boards or substations, 100+ devices, key schemes	A\$20,200 – A\$33,300	20–40 h

Setup covers scoping, building and testing your site model from your drawings, a review with your team, acceptance tests, user set-up, training and handover. It assumes current drawings, one review round and remote delivery. Travel, extra review rounds, plant arrangements that need product changes, running on your own server, 24/7 support, integrations and later changes to your site model are quoted separately.

WORKED EXAMPLES

What it might cost

One operating site, 10 users, paid monthly

A\$1,250 a month for 12 months is A\$15,000, plus setup of A\$9,000 – A\$14,800.

A\$24,000 – A\$29,800
first year

The same site, paid annually in advance

5% off the site charge: A\$14,250 for the year (A\$1,187.50 a month equivalent), plus setup.

A\$23,250 – A\$29,050
first year

Two operating sites, 25 users, 200 GB, paid monthly

A\$1,250 + A\$1,100 for the sites, plus 5 extra users at A\$50, is A\$2,600 a month (A\$31,200 a year), plus setup for two medium sites (A\$18,000 – A\$29,600).

A\$49,200 – A\$60,800
first year

Commissioning software only: one site, three months

3 × A\$1,250 is A\$3,750 of access, plus setup. Each extra month agreed in writing adds A\$1,250.

A\$12,750 – A\$18,550
project total

Managed commissioning support on the same project

Adds 40 hours of remote program preparation and review at A\$175 an hour (A\$7,000). Site attendance would be quoted separately.

A\$19,750 – A\$25,550
project total

Illustrations only, excluding GST. Medium sites unless stated; no extra storage, travel or discretionary discounts. Work out your own at estimate.switchpointgroup.app.

GETTING STARTED

From first call to go-live

Setup follows the same method for every site, and your HV authority accepts the result before anyone relies on it.

01	Scope and quote	We confirm your sites, people, plant, hosting and engagement, and fix the price.
02	Drawings and documents	You supply current single-line drawings, interlock schedules, switching procedures and equipment labels. We record every document the model is built from.
03	Build and test the model	We build your site model, drawing layout, line-ups and site rules, and test it against your known programs.
04	Review with your team	We walk the drawing, line-ups and rules with your HV people and make the agreed corrections.
05	Acceptance	Acceptance tests, including programs that must fail, are run and signed off by your appointed reviewer.
06	People, settings and training	Users, site access and your authority matrix are set up, and each role is trained: administrators, HVOs, HVCs and HVAs.
07	Handover	Handover record, support contacts and records retention agreed. You nominate a model custodian for future drawing changes.

NEXT STEPS

1

See it working

We demonstrate on a fictional demo site, so no client information is shown.

2

Scope your site

A short call about your sites, people, plant and hosting, and a look at your drawings.

3

Get a fixed quote

Licence, setup price, delivery dates and the service schedule, in writing.



Talk to Ian Matthews

0407 705 917 · ian@icmelectric.com

Price it and send an enquiry: estimate.switchpointgroup.app
icmelectric.com/switchpoint

Prices are indicative, in Australian dollars and exclude GST. This guide is not an offer: a formal quotation sets the scope, price and terms. The ongoing licence paid monthly is a 12-month commitment. Screens shown are from Switchpoint HV release 0.5.4 running a fictional demonstration site (Kestrel Park); all names and email addresses in them are fictional.