



CER Compliance Strategy

2025-30 Regulatory Proposal

Supporting document: 5.7.2

January 2024

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Glossary

Acronym / term	Definition
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CEC	Clean Energy Council
CER	Customer Energy Resources
DER	Distributed Energy Resource(s)
DNSP	Distribution network service provider
LEG	Large Embedded Generation
MEG	Medium Embedded Generation
OEM	Original Equipment Manufacturer
OTR	Office of the Technical Regulator
PQ	Power Quality
PV	Photovoltaic
VPP	Virtual Power Plant

1. Introduction

1.1 Purpose

The purpose of this document is to define a strategy for addressing Customer Energy Resources (**CER**)¹ compliance to policy and connection obligations, as well as relevant technical standards in the CER lifecycle². It also sets out a framework for developing compliance initiatives. The scope of this strategy is CER of all sizes, including small, medium, and large inverter-based generation as well as rotational generation.

1.2 Context

Customers of all sizes are continuing to connect CER to SA Power Networks' distribution network at record rates. To date almost 300,000 residential customers have invested in rooftop solar. Since 2018 21,000 of these have been coupled with energy storage systems and about one-third are enrolled in Virtual Power Plants (**VPPs**). Large CER installations are following similar trends and are expected to double in both Photovoltaic (**PV**) and energy storage capacities from 2019 numbers by the end of 2021. South Australia is also leading the way in VPP uptake with 5 large, active VPPs operating today, with over 20MW market capacity in Australian Energy Market Operator's (**AEMO**) VPP demonstrations. Electric Vehicles are also forecast to significantly increase in the next 10 years.

This rapid uptake of CER has been a catalyst for SA Power Networks to develop future looking strategies to address the risks and challenges, as well as take advantage of the opportunities these resources provide. Specifically, the amount of uncontrolled, undiversified rooftop solar has eventuated in energy security concerns, resulting in new SA Government regulations, mandated solar control via Relevant Agents, and investment by SA Power Networks into more sophisticated network voltage control.

Two key changes place increased importance on SA Power Networks managing CER compliance.

1. SA Power Networks has new roles in maintaining system security at the direction of SA Government and AEMO due to the increased role CER is playing in the mix of system generation. To fulfill these new obligations, it is crucial CER which is mandated to be controlled is able to be. Evidence to date has demonstrated the underlying compliance rate of network applicants, installers, and equipment manufacturers is less than 50% (See Appendix A2).
2. Through Australian Energy Market Commission's (AEMC) Access and Pricing rule changes, from 2025 SA Power Networks will have the obligation to provide customers a default level of network access for CER exports. As well as the option to offer customers increased export access at a cost. To ensure there is equitable access and customers are receiving the appropriate service levels, the technical performance of CER is crucial.

¹ The AER generally refers to customers' energy resources as Distributed Energy Resources, or DER. For the purpose of this document, we refer to these as CER, and we take CER and DER to be synonymous.

² See section 2.2.2.

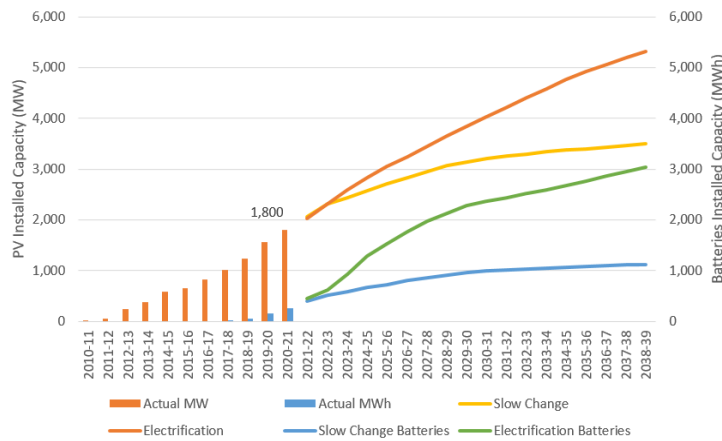


Figure 1: SA CER Forecasts

1.3 Industry responsibilities

With respect to CER connection and compliance, the table below outlines the different responsibilities of industry participants. Noted in orange are new and emerging responsibilities which at present, are poorly understood and implemented.

Participant	Existing Responsibilities	New and Emerging Responsibilities
SA Government, OTR	<ul style="list-style-type: none"> Regulatory changes. Audit installations for safety. Manage electronic Certificate of Compliance scheme. 	<ul style="list-style-type: none"> Manage membership of Relevant Agents. Maintain list of Relevant Agents. Audit installations for technical compliance to regulations.
SA Power Networks	<ul style="list-style-type: none"> Manage network connection process to ensure solution providers and solar retailers meet their obligations. Develop connection offers etc. Create and enforce standards to have specific CER performance requirements to the distribution network. Coordinate distribution network and CER actions during system security events. Clearly and widely communicating standards, requirements etc to the solar industry. 	<ul style="list-style-type: none"> Manage CER compliance initiatives.
Relevant Agents		<ul style="list-style-type: none"> Manage customer relationship, including obtaining consent. Provide commissioning instructions to installers. Perform remote disconnection/reconnection on behalf of customers. Meet reporting obligations to SAPN and OTR. Manage offline/non-compliant customers and systems on behalf of customers.
Industry bodies, CEC, SEC, CER	<ul style="list-style-type: none"> Manage certification list of products to technical standards (currently CEC). Provide certified listings to DNSPs and other necessary parties (currently CEC). 	<ul style="list-style-type: none"> CER: Review and establish new framework of accreditation for installers, inverters, and panels. Tender for new body(ies) to manage CER certification process. Ban installers, manufacturers, and retailers from receiving renewable credits based on behaviour.

OEM/Technology Provider	<ul style="list-style-type: none"> Maintain certification for products installed on distribution network. Provide ongoing support to products including maintaining control capability and firmware updates. Provide support to installers including training and commissioning guides. 	<ul style="list-style-type: none"> Maintain a platform of software to ensure equipment continues to be compliant.
Aggregators/VPPs	<ul style="list-style-type: none"> Largely non-existent direct responsibilities. 	<ul style="list-style-type: none"> Take-on customers obligations through contracts.
Solar Retailer/ Installer	<ul style="list-style-type: none"> Sales of compliant CER solutions. Be the first point of contact with the customer. Manage and close out installations for safety and regulatory compliance (eCoC, CEC, STCs etc). Install CER to Australian Standards, SAPN Standards and contracts, and CEC Guidelines. Purchase compliant equipment and obtain appropriate training and support from the CER manufacturer (i.e. Commissioning guides, support lines etc.) Provide support and maintenance services. 	<ul style="list-style-type: none"> Commission systems so they can be compliant (e.g. Smarter Homes and Flexible Exports). Manage and close-out connection process on behalf of customers (SmartInstall, OEM, eCoCs).
Owner/Operator	<ul style="list-style-type: none"> Comply with negotiated and model-standing connection contracts. 	<ul style="list-style-type: none"> New responsibilities around maintaining communications for Relevant Agent.

Table 1: Industry participants and responsibilities

1.4 SA Power Networks compliance process today

This section identifies compliance functions which influence the CER lifecycle.

The connection of CER generally follows 2 processes,

1. Non-negotiated connection contracts, which are based on standard contractual terms and assessment, known as a Model Standing Offer.
2. Negotiated connection contracts, where the application is individually assessed, and a bespoke offer is negotiated.

In general, small embedded generation (<30kVA) follow process 1, and those larger than 30kVA (medium and large embedded generation) follow process 2. The two processes have stages which can be summarised in table 2 below. Items identified in orange indicate opportunities to improve compliance.

Stage	Small Embedded Generation (Process 1)	Medium Embedded Generation (Process 2)	Large Embedded Generation (Process 2)
Design & manufacture	Australian Standards		
Defining Network Connection Standards	Network Standards, in consultation, published online. (Service and Installation Rules, TS129, 130, 131, 132, 133, NICC)		
Pre-application information	SA Power Networks website, General Enquiries, New Energy Services	SA Power Networks website, General Enquiries, Customer Solutions	
Application	SmartApply web application	MEG iApply web form	PDF form via website
Application Assessment	SmartApply business rules	Customer Solutions, Network Planning,	
Contract	Model Standing Offer, Developed and submitted to AER by SAPN Regulation	Negotiated customer contract, Customer Solutions	

Installation	SmartInstall, completed by installers to capture device specific information. eCoC provided by OTR.	Field Service witnessing based on commissioning plans developed by Network Planning.	
Operation	New Energy Services, Smarter Homes Relevant Agent compliance follow-ups.	SCADA (however no proactive monitoring) 3-year compliance audit ³	
Decommissioning	SmartInstall, electrical contractors can indicate removal of equipment.	-	-

Table 2: SA Power Networks compliance process

1.5 Compliance of technical CER functions today

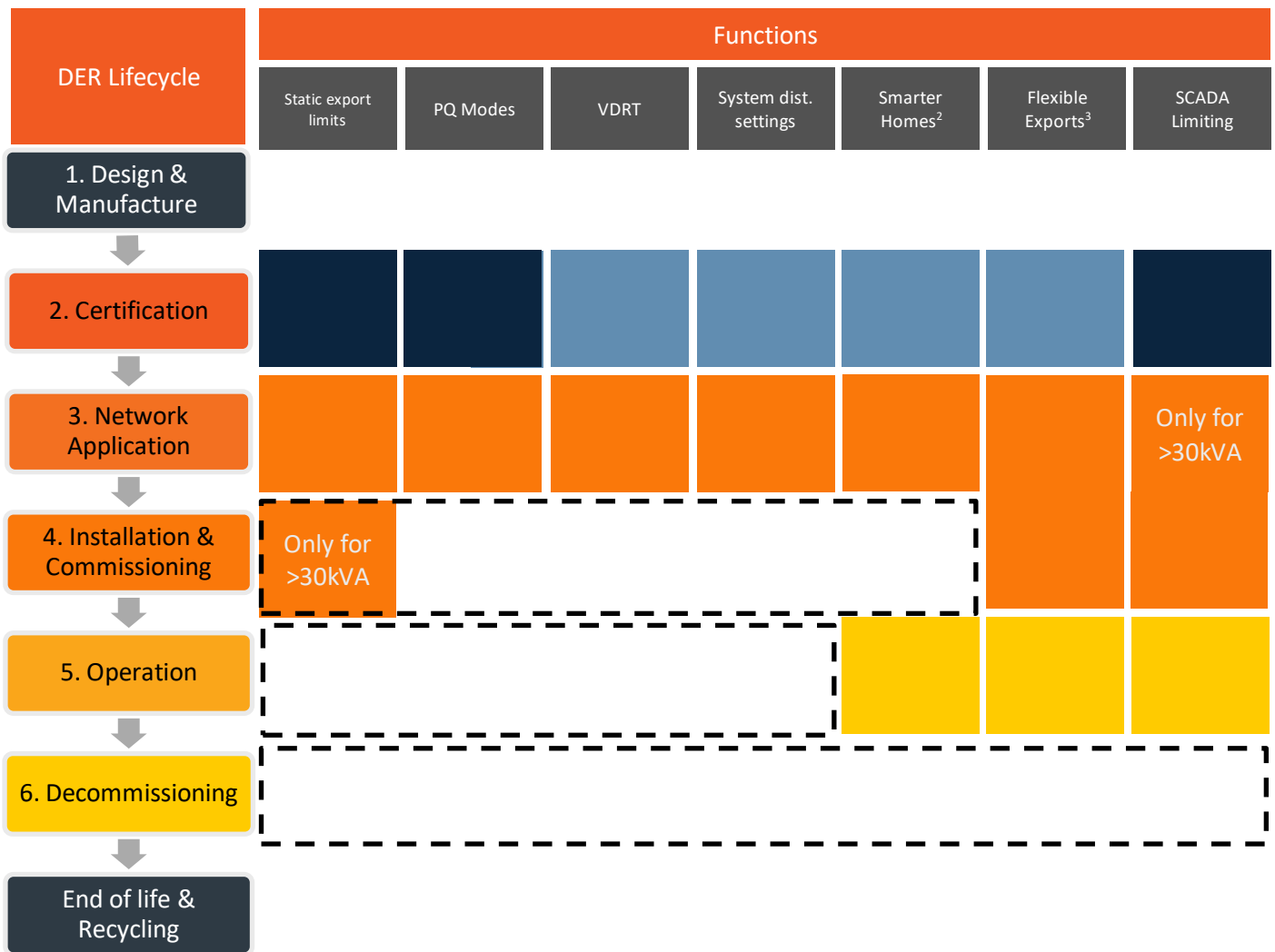
The National Electricity Rules, which classifies CER as embedded, scheduled, or semi-scheduled generation, places obligations on Distribution network service provider's (**DNBP**) to permit the connection of CER. SA Power Networks and other compliance bodies place technical requirements on CER to ensure their operation does not compromise the safety of people, equipment, as well as the reliable and secure operation of the power system. There are different standards and control mechanisms to enforce these requirements at different stages in the CER lifecycle.

Figure 2, below, shows critical functions in the CER lifecycle, as well as the bodies responsible for their governance. This figure demonstrates most of SAPN's current controls lie in the stages of Certification and Network Application, which results in limited visibility once CER are installed, and practically no visibility of compliant operation.

³ Part of all negotiated generation contracts, however never carried out.

⁴ Remote disconnect/reconnect

⁵ Including Dynamic Exports



Control	Responsible
SAPN Technical Standards	<ul style="list-style-type: none"> • Network Standards
Embedded Generation Process	<ul style="list-style-type: none"> • New Energy Services • LV Planning • FS Electrical Services • Customer Solutions • Network Optimisation
Device accreditation	<ul style="list-style-type: none"> • External (Aus Standards, CEC, OTR)
Real-time control/visibility	<ul style="list-style-type: none"> • Network Strategy • Network Optimisation • New Energy Services (Compliance)
-----	<ul style="list-style-type: none"> • Currently no regular activities

Figure 2 Functions and Responsibilities in the CER Lifecycle

1.6 Compliance Challenges

Changing rules and regulations as well as quantities of CER reaching critical mass places additional importance on compliance. Despite many controls to manage CER compliance outcomes there exists gaps in industry responsibilities, SAPN processes, and management of technical functions. Shown in Figure 2, most

SA Power Networks' controls are prior to installation and commissioning. Compliance issues can occur for several reasons, but a picture needs to be built across the whole CER lifecycle to understand the potential reasons for non-compliance.

Gaps identified in industry responsibilities (section 1.3), SAPN processes (section 1.4), and technical compliance obligations (section 1.5) are summarised below in Table 3.

	Area	Description
Industry responsibilities	SA Gov OTR	- Audit installations for technical compliance to regulations
	Relevant Agents	- Manage offline/non-compliant customers and systems on behalf of customers
	Clean Energy Regulator	- Review and establish new framework of accreditation for installers, inverters, and panels. - Tender for new bodies to manage CER certification process - Ban installers, manufacturers, and retailers from receiving renewable credits based on behaviour.
	OEMs	- Maintain a platform of software to ensure equipment continues to be compliant.
	Aggregators/VPPs	- Take on customers obligations through contracts
	Solar Retailers/Installers	- Commission systems so they can be compliant - Manage and close-out connection process on behalf of customers
	Owner/Operator	- New responsibilities around maintaining communications for Relevant Agent
SAPN processes	Application	- MEG & LEG application process
	Application Assessment	- Automated application assessments based on
	Installation	- Increase quality of close-out data
	Operation	- Compliance of Relevant Agent, Flexible Exports,
	Decommissioning	- SmartInstall, electrical contractors can indicate removal of equipment.
Technical functions	Static Export Limits	- No control method is currently in place to verify export limits are maintained.
	Power Quality Modes	- No method of verifying that Power Quality modes are active and correct once small CER are installed.
	System Disturbance Settings (VDRT, RoCoF, Phase-angle, UFLS)	- No method of verifying that settings are active and correct after CER is installed.
	Smarter Homes (Remote Disconnect/Reconnect)	- Systems not installed/commissioned correctly - Faulty internet connection at sites, changing Wi-Fi passwords etc. - Lack of live reporting capability and data quality issues
	Flexible Exports (Risks)	- Systems not installed/commissioned correctly - Faulty internet connection at sites, changing Wi-Fi passwords etc.

Table 3 Compliance opportunities

To address the shortfalls in compliance, CER needs an appropriate eco-system of certification, static settings, modes, and configurations, as well as real-time integration with systems to validate settings and compliant operation.

2. Distributed Energy Resources (DER) Compliance Strategy

The aim of this strategy is to establish a framework, guiding principles and the key focus areas for SA Power Networks to ensure compliance is met for CER throughout the network.

This strategy includes an Implementation Plan as Appendix A which is a live section of the document which captures active and planned compliance programs.

2.1 Objectives

The objectives for the CER Compliance Strategy outlines what SAPN aims to achieve through successful implementation. It is expected that some objectives shall be refined as implementation progresses and certain challenges with CER compliance are better understood over time. These objectives are written to reflect SAPN’s priorities for CER Compliance in relation to the current CER landscape.

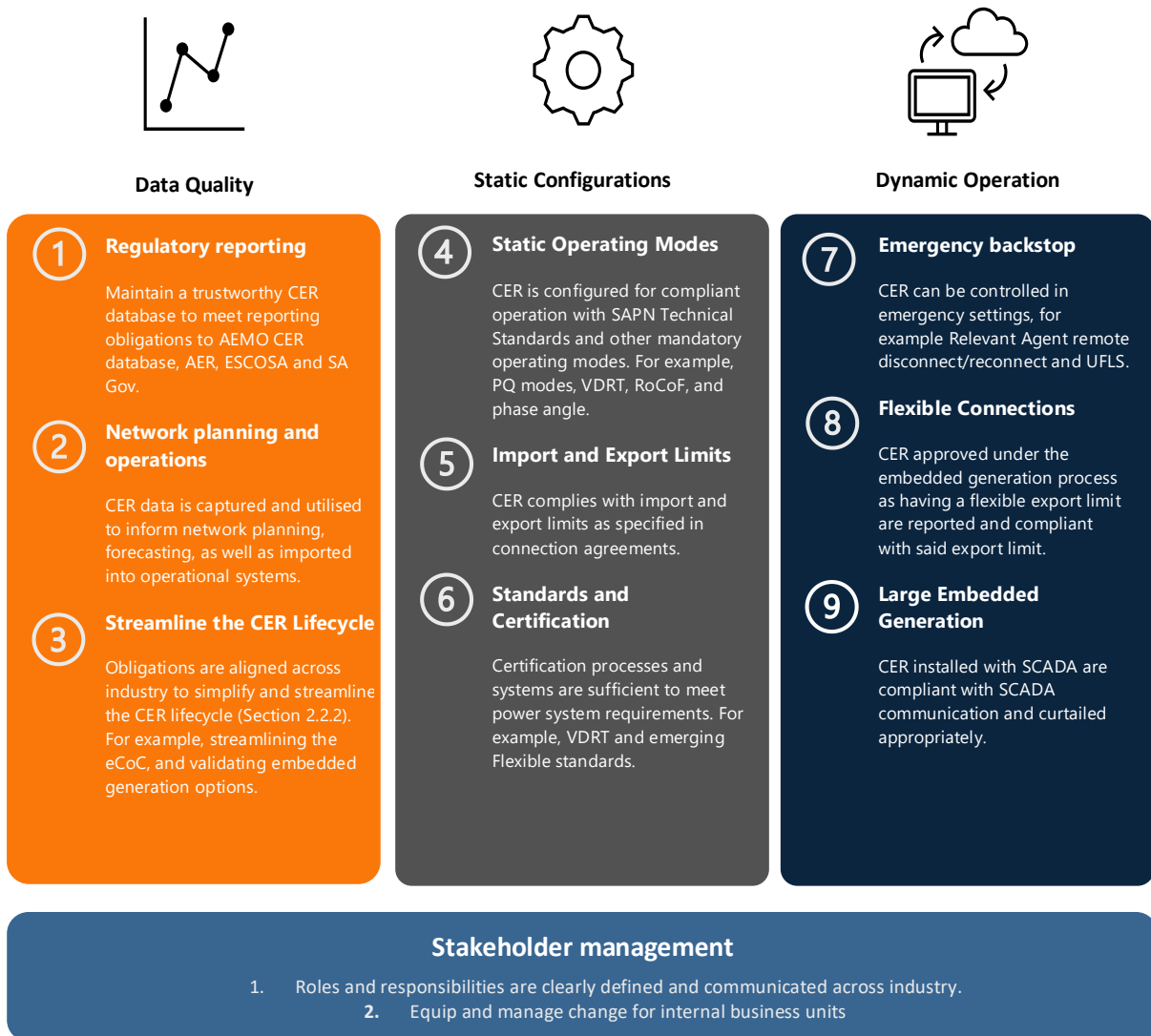


Figure 3: CER Compliance Strategy Objectives

Future consideration will need to be made for VPP’s and aggregators as rule changes emerge (e.g., after AEMO MASS review), as well as electric vehicles and they gain adoption.

2.2 Guiding Principles

Guiding principles guide the development of compliance initiatives to ensure they are efficient and effective. These principles also assist in prioritising deployment when there are conflicts to resources.

The guiding principles:

- Prevention before intervention (2.2.1)
- Remediate the root cause (2.2.2)
- Define clear responsibilities and obligations (2.2.3)
- Align incentives on the right parties (2.2.4)
- Simplify rules and processes where possible (2.2.5)

2.2.1 Prevention before intervention

Identify, prioritise, and measure initiatives which systematically improve CER compliance. The most sustainable way for CER Compliance to be achieved is to have the appropriate processes and systems in place to make it easier for industry to deliver correctly. Therefore, this strategy preferences initiatives which improve compliance by prevention before employing initiatives which require intervention.

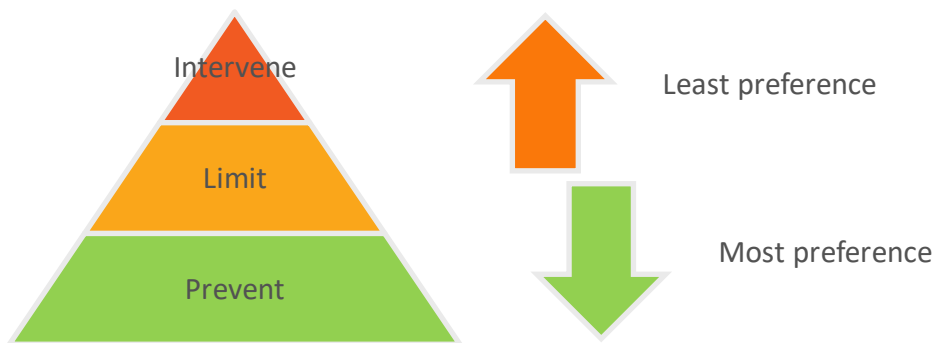


Figure 4: Prevention before intervention

2.2.2 Remediate the root cause

The figure below shows stages of the CER Lifecycle, with the intent of showing the various stages at which SAPN can implement compliance initiatives. When an issue is identified, SAPN shall identify the earliest stage at which an initiative can be implemented. Consistent with the approach in section 2.2.1, prevention will be sought at the earliest possible stage in the CER lifecycle. If prevention is not possible or initiatives are unsuccessful, intervention may be required closer to the source of the compliance issue. An example is shown below of a compliance issue that is identified in the operation stage, and a most-economical compliance initiative is identified at the network application stage.

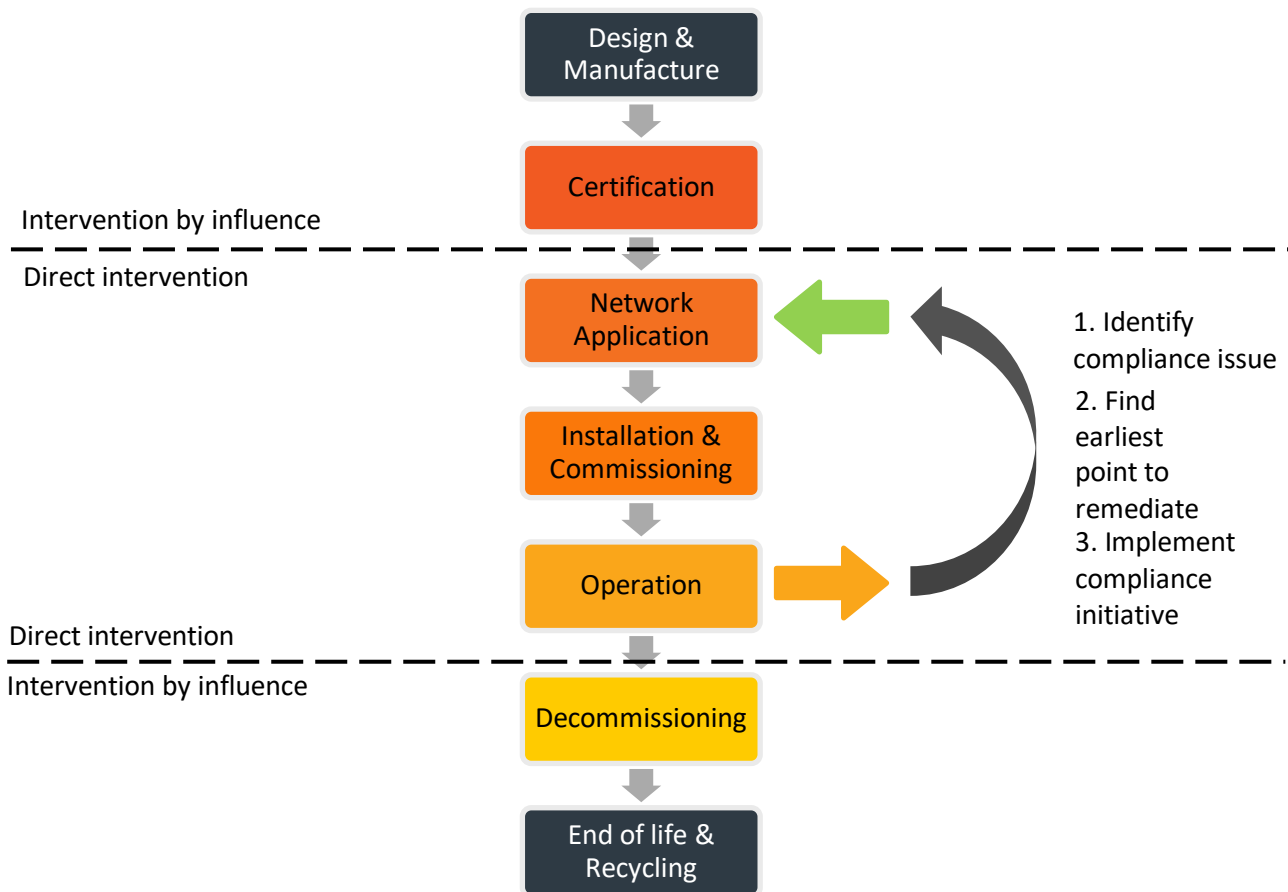


Figure 5: CER Lifecycle

2.2.3 Define clear responsibilities and obligations

Critical to the success of compliance initiatives is ensuring stakeholders are aware of, and understand, their responsibilities and obligations. To ensure this occurs a stakeholder engagement plan should be implemented. The following steps should be completed to ensure the communication is targeted.

1. Who are the stakeholders?
2. What is their interest and claims?
3. What are the opportunities and threats?
4. What type of concern is represented – e.g., economic, legal, ethical.
5. What should be done to address their concerns?

The future networks stakeholder engagement framework can be utilised to identify and target communications with key stakeholder groups.

Future networks stakeholder engagement framework

Technical working groups	Customer/Policy/Strategy focus groups	National engagement programs / groups
<p>Distributed Energy Resources (DER) API Working Group</p> <p>Purpose: to share information and collaborate on DER projects eg ARENA funded VPP/PV programs</p>	<p>SA Energy Transition Steering Group</p> <p>Purpose: ensure the reliability and security of the SA electricity system is effectively managed through the distributed energy transition</p>	<p>Distribution Network Service Providers</p> <ul style="list-style-type: none"> › Future Networks Distributor's Forum › Flexible Exports Network Distributor Reference Group
<p>Pilots & Trials (Reference Groups, Working Groups and Steering Committees)</p> <p>Purpose: to share information, advise and collaborate on DER pilots and trials with industry partners</p> <ul style="list-style-type: none"> › Flexible Exports for Solar PV Reference Group › Advanced VPP Grid integration integration Reference Group 	<p>DER Integration Working Group</p> <p>Purpose: collaborate on the advancement of technology standards to integrate renewable resources more effectively with the grid</p>	<p>Reliable Affordable Clean Energy for 2030 Cooperative Research Centre (RACE for 2030 CRC)</p> <p>Purpose: an industry-led research effort to drive energy innovation across the supply chain to deliver better value for energy customers</p>
<p>Standards Working Groups</p> <p>Purpose: to participate in discussions that influence consistency across national standards (eg AS4777 and AS4555 updates and IEEE 2030.5 review)</p>	<p>SA Power Networks Reference Groups</p> <ul style="list-style-type: none"> › Customer Consultative Panel › Connections Working Group › Solar Industry Reference Group › Others as required 	<p>AEMO consultation</p> <p>ARENA Distributed Energy Industry Program</p> <p>Energy Security Board</p> <p>National industry bodies (eg Clean Energy Council directorates, Smart Energy Council, Electric Vehicle Council)</p>

Figure 6: Future networks stakeholder framework

2.2.4 Align incentives on the right parties

To maximise the efficacy of compliance initiatives, incentives need to be targeted on the parties who are ultimately responsible. This can be achieved by mapping industry responsibilities to relevant parties, see 1.3 Industry responsibilities.

2.2.5 Simplify rules and processes where possible

This principle involves distilling processes and rules to minimise the impact on stakeholders to ensure they are easy and simple for stakeholders to be compliant.

2.3 Focus Areas

Four key focus areas have been developed to guide, categorise, and ensure the compliance initiatives cover all aspects of the CER ecosystem. These will be mapped against initiatives in the Implementation Plan.

1. Solar Retailers & Installer Engagement

- a. Upskill stakeholders to reflect their evolving roles and responsibilities
- b. Assist retailers and installers in their compliance responsibilities by facilitating information, training, and system improvements.
- c. Engage and listen to feedback to develop, implement, and improve systems and processes.
- d. Action critical non-compliances.

2. Develop SAPN systems

- a. Using a variety of data sources, develop visibility and traceability so that non-compliance can be identified.
- b. Develop and deploy capabilities to limit the impact of non-compliant installations and operations.
- c. Provide autonomy to prevent non-compliance approvals
- d. Simplify processes for ourselves and external stakeholders.

3. Government and Industry Engagement

- a. Influence to embed roles and responsibilities
- b. Align and communicate key responsibilities to industry
- c. Reduce touchpoints for installers between entities
- d. Engage to ensure industry can support new requirements

4. OEM & Tech Provider Capability Improvements

- a. Support Technology Providers across current initiatives
- b. Develop alignment with local, national, or international industry approaches to align capabilities with industry.
- c. Communicate and accelerate the importance of smart DER

Figure 7: Focus Areas

3. Implementation of the Strategy

This section describes a process of creating compliance initiatives.

3.1 Resourcing

The creation and implementation of compliance initiatives should be aligned to business group responsibilities, i.e., subject matter experts and team members of business groups are empowered to develop and implement compliance initiatives. Strategy & Transformation advice, facilitation and consultation are available to develop strategic alignment between streams of work.

In considering the resource requirements there should be a balance of workload, impact, and outcomes. If non-trivial investment is required, a business case should be developed and include key factors:

- A cost-benefit analysis of the risks and value derived from addressing the compliance.
- A resourcing proposal including the personal structure (see figure 8).
- OPEX uplift for future inclusion in regulatory submissions (as appropriate).

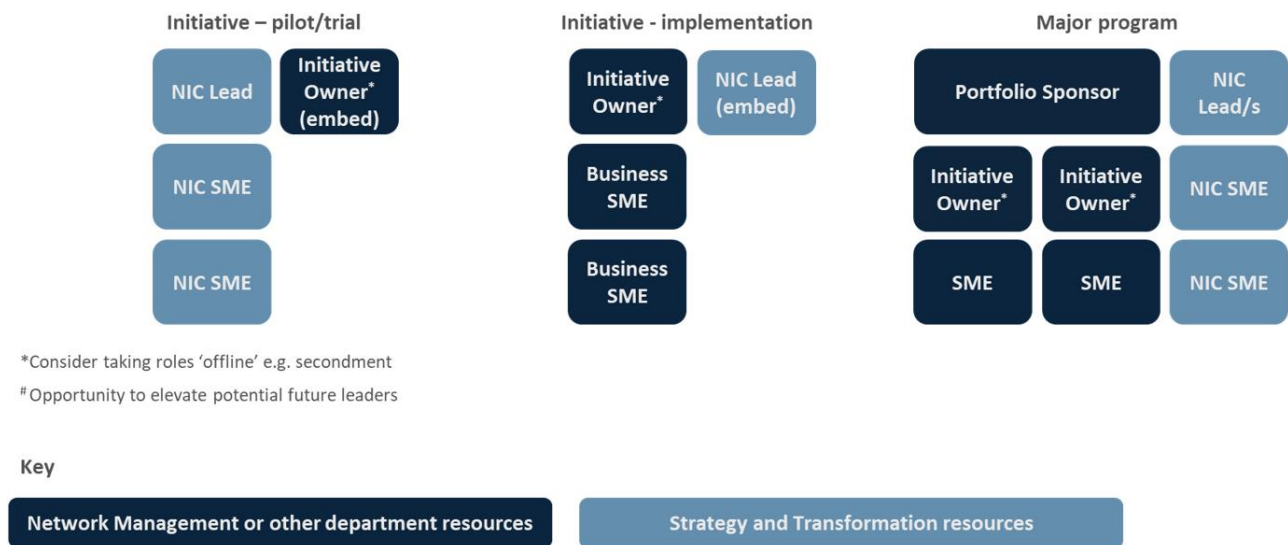


Figure 8 – Strategic Delivery Plan Delivery Models

3.2 Governance

A template governance structure for this strategy and compliances is shown below.

Strategy Ownership	Strategy & Transformation
Escalation	DET Steering Committee
Reporting	Relevant business groups and Smart CER Work Program compliance area.
Approval of initiatives (incl. business cases if necessary)	Business Reference Group, comprised of level 3 leadership from: <ul style="list-style-type: none"> • Customer Services • Customer Solutions • Network Planning • Network Operations • Network Model • Network Strategy • Field Services (where needed)
Analysis and development of compliance initiatives	Relevant business units – e.g., New Energy Services, Network Planning, Customer Solutions etc.

Table 4: Governance

3.3 Process

The following steps provide a guide to develop CER compliance initiatives:

1. Scope the non-compliance by seeking answers to the following questions:
Where are the biggest gaps in non-compliance?
What is the urgency and priority?
2. Systematically measure of compliance
Use available data and forecasting to understand the impact of non-compliance (see Table 5 below)
Develop a measure of 'cost of the non-compliance'.
Compare this against the counter-factual case (the do-nothing scenario).
3. Develop a plan
Plan using this strategy's objectives, guiding principles, and focus areas.
Build a business case to justify resourcing.
4. Seek sign-off from appropriate governance.
5. Implement the initiative.
6. Review & repeat process.

Function	State of Compliance	Future Risk
Relevant Agent	50% overall	In 12 months, 100MW uncontrolled, see Appendix A2.
Volt-Var	2017-2021 roughly 10% compliant; equivalent to 150k systems not operating with appropriate power quality modes.	Impact on hosting capacity? What hosting capacity would otherwise be unlocked? Consider running analysis on a prototypical LV area, e.g. LV area: 50 customers, 15 with solar; 10 with wrong PQ modes.

Table 5: Example non-compliance measure

Appendix A.1 – CER Compliance Implementation Plan

This appendix lists active, proposed, and planned compliance initiatives. This section of the document is intended to be ‘live’ and updated as needed.

Focus area 1. Solar Retailers and Installer Engagement

Initiative	Description, Scope & Outcomes	Objectives (see section 2.1)	Owner
1.1	Relevant Agent compliance resolution - uses compliance plan (Appendix A.3) to resolve installations which have not been brought online. - completes CER database records to complete records for AEMO CER database	1, 7	New Energy Services (Rebecca Reed)
1.2	SmartInstall close-out: - uses compliance plan (Appendix A.3) to resolve installations which have not been closed out. - completes CER database records to complete records for AEMO CER database - provides serial numbers which are required for relevant agent control	1, 7	New Energy Services (Rebecca Reed)
1.3	Flexible Exports commissioning - uses compliance plan (Appendix A.3) to resolve installations which have opted for Flexible Exports but have not complied with installation requirements.	8	Future Networks while in trial. New Energy Services post-trial (Rebecca Reed)
TBA	Export limits using meter data - utilise interval data (smart meter, Future Grid, API etc) to validate systems are complying with export limits	5	TBA
TBA	MEG & LEG 3-year audits - undertake audits of embedded generators with negotiated connection agreements.	9	TBA
TBA	Static settings AS4777.2:2020 - use available data sources to determine compliance to inverter settings and configurations.	4	

Focus area 2. Develop SAPN systems

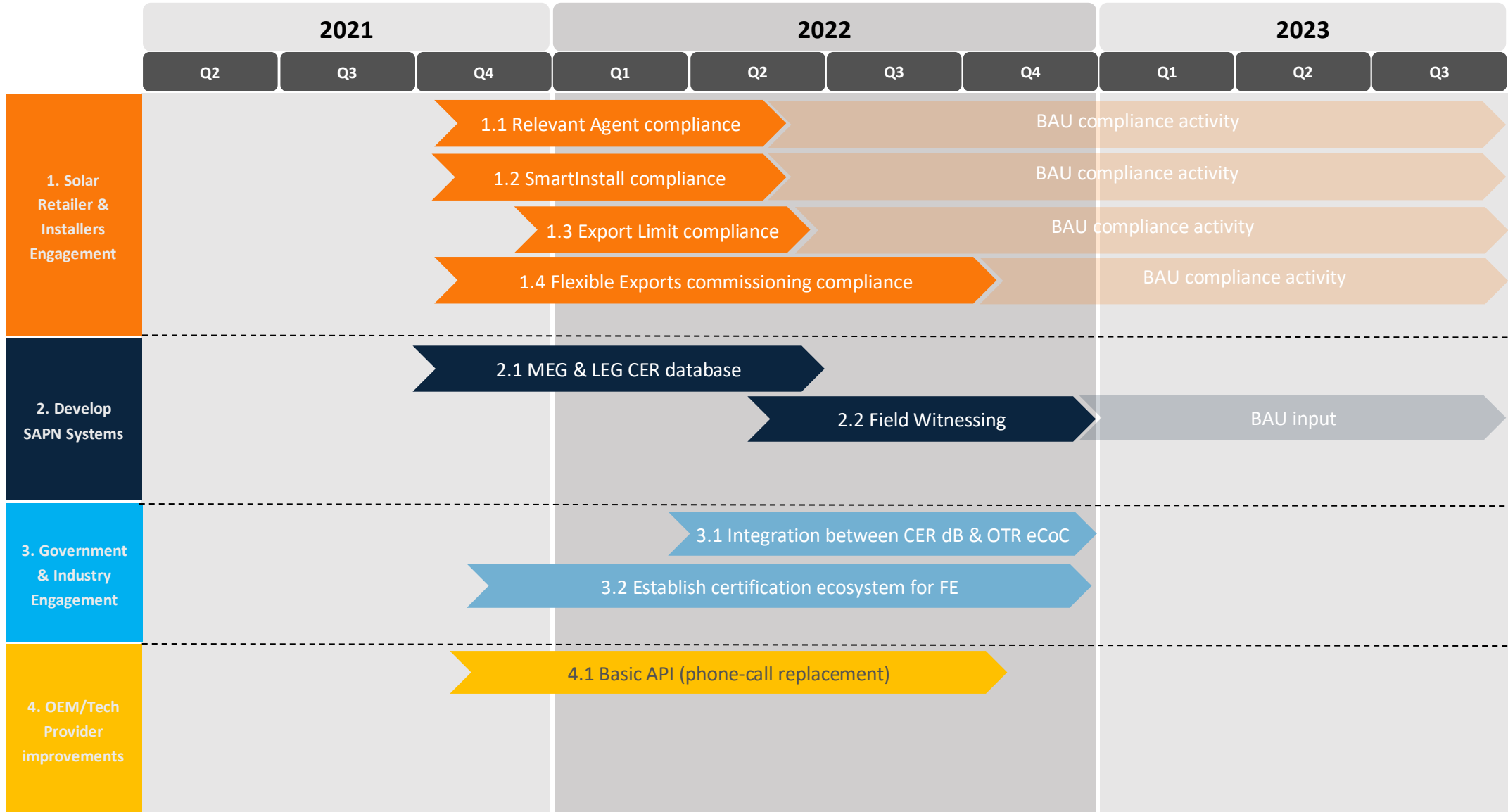
Initiative	Description, scope & outcomes	Objectives (see section 2.1)	Owner
2.1	Expand CER database to properly capture MEG & LEG	1	Customer Solutions (Desinta)
TBA	Field CER witnessing - Embedded generation witnessing data input directly into CER database	1	TBA

Focus area 3. Government and Industry Engagement

Initiative	Description, scope & outcomes	Objectives (see section 2.1)	Owner
3.1	Develop integration between SAPN CER database & OTR eCoC. - data quality benefits for SAPN and AEMO CER database - installations processes are simpler for are easier for solar industry	2, 3	Customer portal IT delivery team (Dan Stobbe & Veli)
3.2	Certification & listing ecosystem for flexible devices	3, 6	Strategy & Transformation (James Brown)

Focus area 4. OEM & Tech Provider Capability Improvements

Initiative	Description, scope & outcomes	Objectives (see section 2.1)	Owner
4.1	Smarter Homes Basic API - data quality benefits for SAPN and AEMO CER database - installations processes are simpler for are easier for solar industry - activation of Relevant Agents have greater security and reliability	2	Strategy & Transformation (Travis)



Appendix A.2 Smarter Homes Relevant Agent Status and Forecast

The chart below shows the compliance of Technology Providers partnered with SA Power Networks to deliver a Relevant Agent functionality for customers. Notable below is the 49% gap between the expected online systems vs. the actual number of controllable systems.

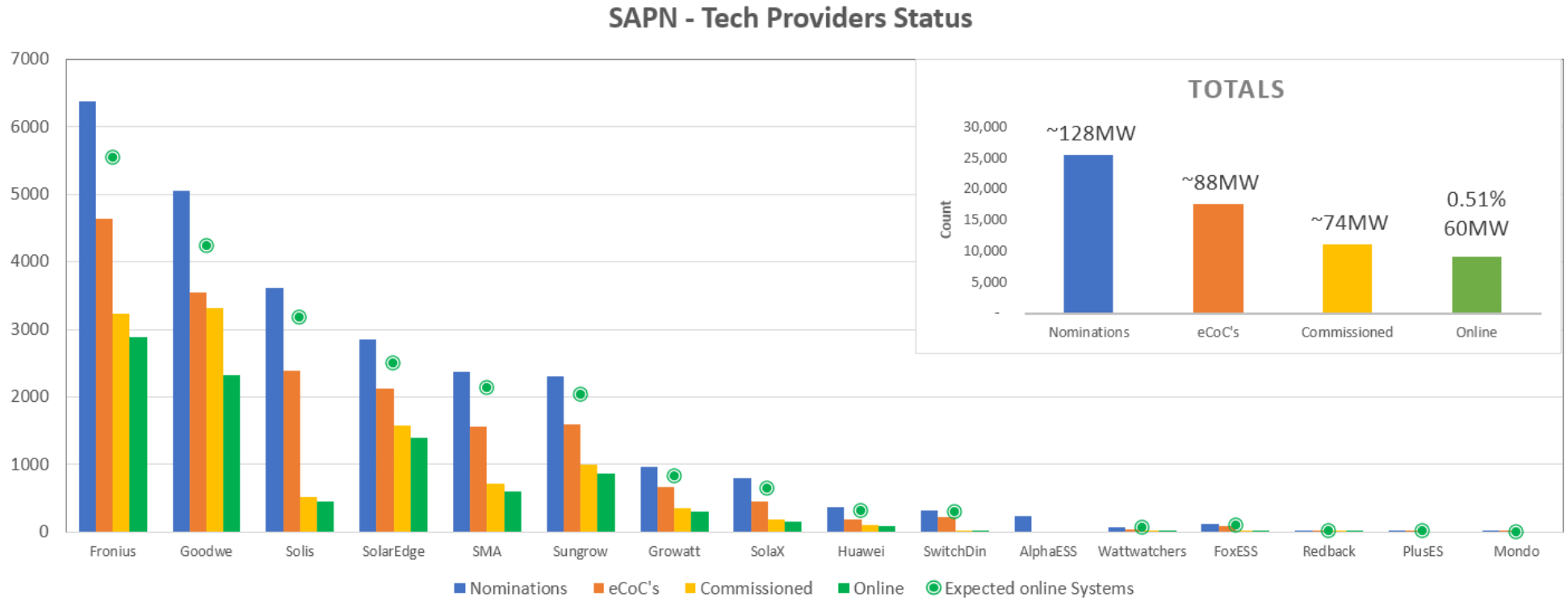


Figure 9: Smarter Homes Tech Provider Reporting as of mid-August 2021

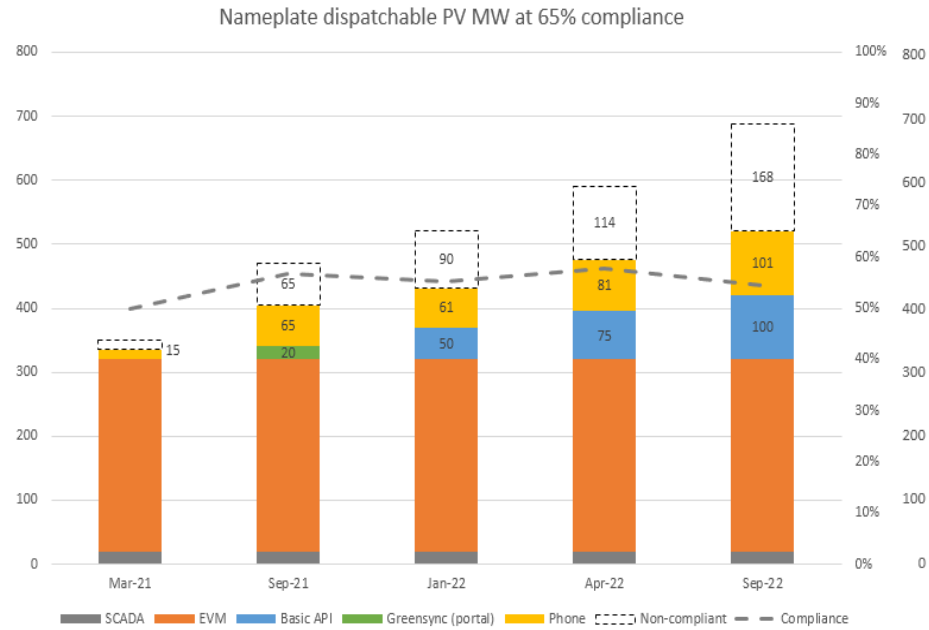


Figure 10: Nameplate dispatchable PV MW at 80% compliance

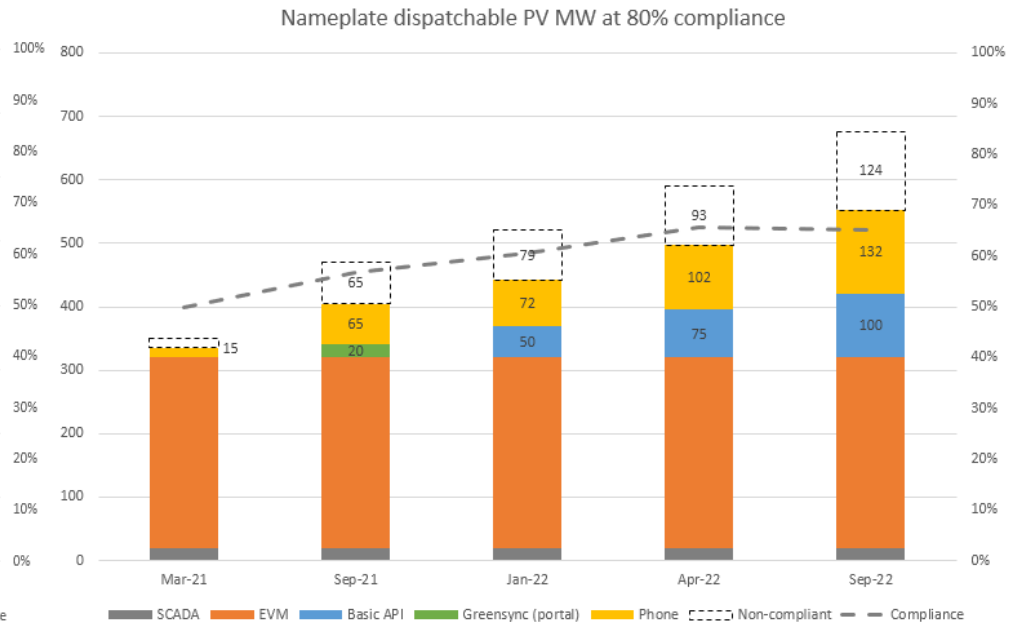


Figure 11: Nameplate dispatchable PW MW at 65% compliance

Notes & Assumptions:

- Compliance forecasts apply from Jan 22, prior they're based on actuals.
- Compliance rate is over all time.
- MW are nameplate PV and are not derated.
Expected deration factor is 0.8x for expected comms offline as well as 0.73x based on outcomes from previous activations.
- SCADA MW are large-scale PV expected to remain exporting during minimum demand/negative pool price events.
- 300MW EVM pool expected to remain the same through the period.

Appendix A.3 Initiative: DER Compliance Plan for Solar Retailers and installers

Our Goal: Double the amount of Solar on our network by 2025

To achieve this, we need DER compliance so...

- ✓ We can reduce the risk of state-wide blackouts
By balancing the network to keep the lights on.
- ✓ Customers get fair network access.
Existing customers investments are protected,
and new customers can keep connecting PV.

We need your help by
completing these steps:



Sales

Check customer options before sales and get instant approval using [SmartApply](#).



Pre-install

Follow the instructional email you receive from [SmartApply](#). Utilise guides and instructions available on our website.



Install

Inverters and devices need to comply with connection standards and be connected to the internet. Flexible export options are reduced to 1.5kW if not connected.



Commission

Use the manufacturer's App or portal to commission the system. Your customer may not export if this isn't completed.



Close out

Close out all equipment using the [SmartInstall](#) web app. Your installation isn't compliant until this step is completed.

We are here for you, providing:

Engagement & Awareness

Training & Support

Monitoring & Reporting

DER Compliance Program

THE GOAL: Sustainably improve DER compliance in an iterative approach

Iteration	Focus & capability
1) SmartInstall	Network Application Close-out Aims to ensure all SEG applications are closed-out so we meet regulatory obligations and can enact emergency solar backstop.
2) Flexible Exports	DOE Device Registration & Capability Test Aims to ensure all Flexible Exports enrolled devices have electronically registered and performed automated tests with our server.
3) Export limits	Export Limits Automates detection of sites which breach export limits using time-series data.
4) Volt-Var	Inverter Region Settings Automatic detection of non-compliant inverter operation through time-series data.
5) Plug & Play	Remote Inverter Configuration Over DOE Interface Update to CSIP-AUS to include reading and writing of inverter settings.
6) TBD	Future

User motivation



Guiding principles

- Establish **clearly defined roles & responsibilities** through education and communication
- Encourage users to **self-manage compliance** through visibility of issues
- **Enforce fair and equitable consequences** across all small embedded generation applications

Iteration 1 go-live criteria

- Every SEG application via SmartApply (July '21) approved and installed must be closed out via SmartInstall
- Baseball method to manage non-compliance (next slide):
- 90% compliance threshold, fall below and you've got 3 strikes before consequences.
- Self-serve compliance (live Feb)
- Mandatory user training (live Feb)
- Blocking functionality (manual & automated available March)

Dec '22	Ramping up: Compliance focus in 2023 - SmartInstall closing-out
Jan '23	Get ready: Fix your backlog with our support
Feb '23	Self-serve: View your compliance on the dashboard
Mar '23	3 month warning
April '23	industry check-in & pulse-check on 'blocking' impact
May '23	blocking for users < compliance threshold (manual blocking only)

- Monthly SteerCo & impact review in April
- Initially, manual blocking of users to manage impact
- Override function if necessary
- Data cleansing to close-out of old applications
- Hypercare for large solar retailers



Rules



Deployment Plan



Key Messages



Risk mitigation

The Baseball Method

