ASSET OWNER ENGINEERING FORUM 2025

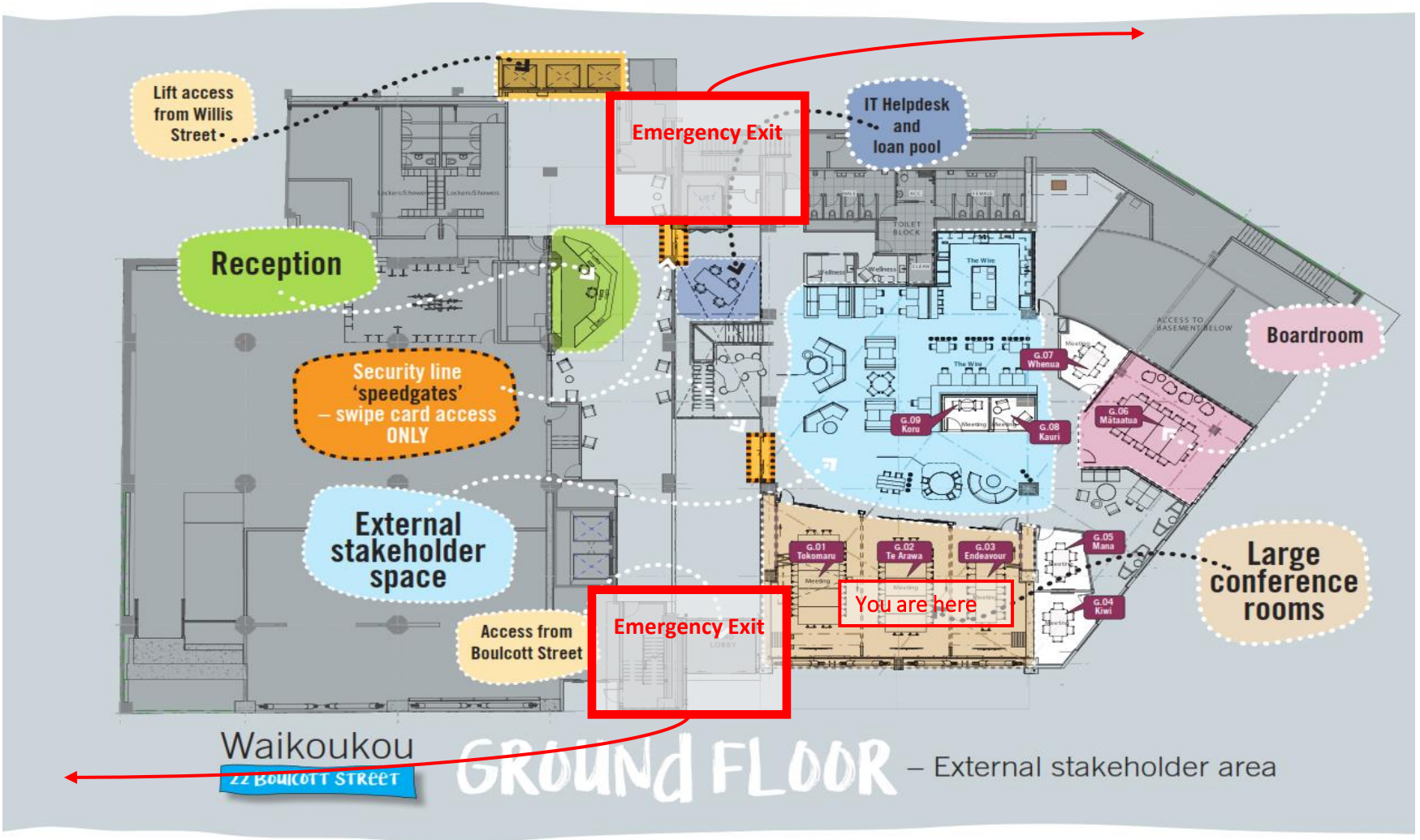
Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia mākinakina ki uta
Kia mātaratara ki tai
E hī ake ana te atakura
He tio, he huka, he hau hū
Tīhei mauri ora!

Cease the winds from the west
Cease the winds from the south
Let the breeze blow over the land
Let the breeze blow over the ocean
Let the red-tipped dawn come with a sharpened air.
A touch of frost, a promise of a glorious day.

Greetings & Welcome

ERGO CONSULTING
POWERCO
Helios
HARMONY ENERGY
Meridian.
Horizon Networks
Amplitude CONSULTANTS
genesis
Mercury
contact
NIKO ELECTRICAL ENGINEERING CONSULTANTS
NewPower energy
ELECTRICITY AUTHORITY TE MANA HIKO
nova energy
Clarus
elecnor australia
TRANSPOWER
MANAWA ENERGY
IEGA INDEPENDENT ELECTRICITY GENERATORS ASSOCIATION
Orion
LODESTONE ENERGY
AECOM
Metlen Energy & Metals

Wellington Waikoukou Ground Floor Plan



Objectives

“Embracing Inverter Based Resources”

1. Build a common awareness of the what and why of the Connected Asset Commissioning and Testing Information Standard (CACTIS).
2. Discuss perspectives, responses, and expertise related to aspects of the CACTIS.

2025 System Operator Asset Owner Engineering Forum Schedule

	SESSION	PRESENTER(S)	ORGANISATION
9:00-9:30	Arrival and Morning Tea		
9:30-9:40	Mihi Whakatau: Greetings and Introductions	Cris Cucerzan (Facilitator)	Transpower
9:40-10:00	Opening Address	Katherine Moore Tim Sparks	Transpower Electricity Authority
10:00-11:00	Part 8 Review and Code Amendment	Phillip Beardmore and Otis Boyle	Electricity Authority
11:00-11:15	CACTIS: Applicability, Thresholds, General Feedback	Kevin Wronski	Transpower
11.15-12:00	CACTIS: Modelling Requirements	Snehalkumar Joshi and Nyuk-Min Vong	Transpower
12:00-13:00	Lunch		
13:00-13:45	CACTIS: Connection Study Requirements	Snehalkumar Joshi and Nyuk-Min Vong	Transpower
13:45-14:30	CACTIS: Time Frames, Commissioning Plan, ACS, Test Plan and Testing Requirements	Varun Nand and Kevin Wronski	Transpower
14:30-15:15	CACTIS: Operational Communications and High-Speed Data Requirements	Connor McCarthy and Nyuk-Min Vong	Transpower
15:15-15:30	Afternoon Tea		
15:30-16:15	General Discussion and Q&A	CACTIS Team	Transpower
16:15-16:30	Closing Address	Katherine Moore	Transpower

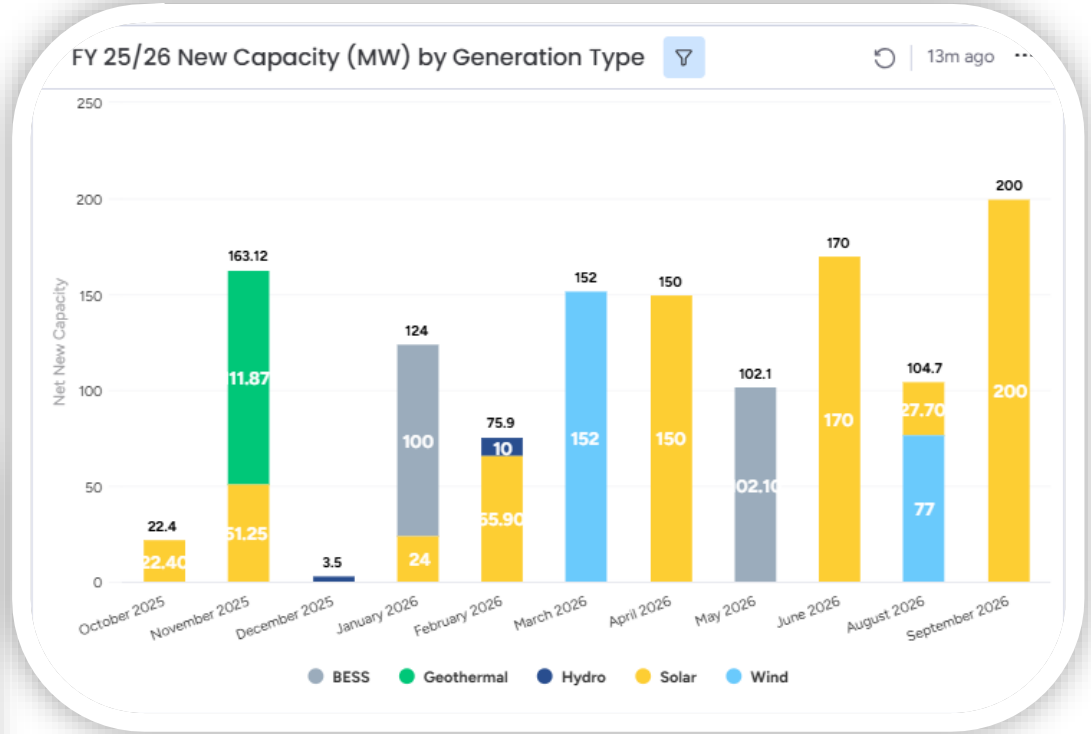

Nimble and
considered

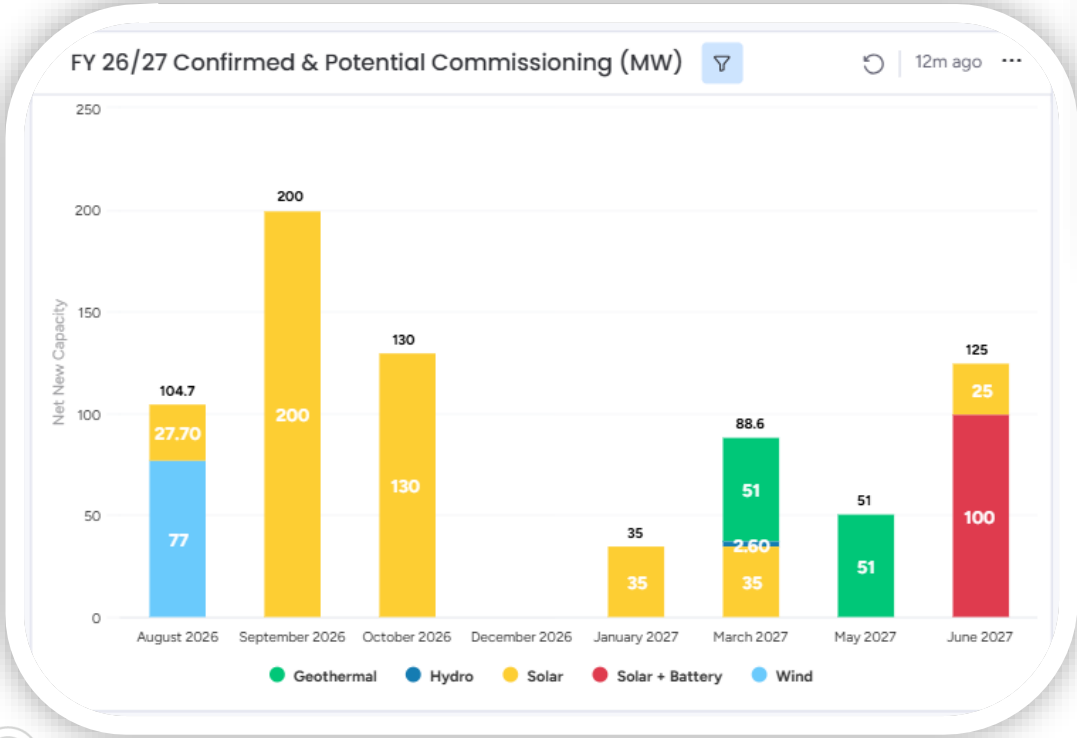

Inclusive
and decisive


Courageous
and caring

Embracing Inverter-based Resources

Moving from a system dominated by synchronous generation to..





...a highly variable and more decentralised renewable system with inverter-based technologies.

Future security and resilience indicators

The opportunity / challenge related to the rise of DER and inverter-based resources

Enabling DER services

73.38k

ICPs with distributed generation

Coordination of increased connections

83.5%

Intermittent generation pipeline

Enabling DER services

94.77k

Battery electric vehicles

The opportunity / challenge related to the changing generation portfolio

Accommodating future changes

12.3%

Non-synchronous generation

Managing system inertia

24.28k

System inertia MW/s

Balancing renewable generation

38.3%

FIR to largest contingent risk

Foundational opportunities and challenges

Maintaining cybersecurity

343

Cybersecurity incidents

Growing the workforce

-18.0

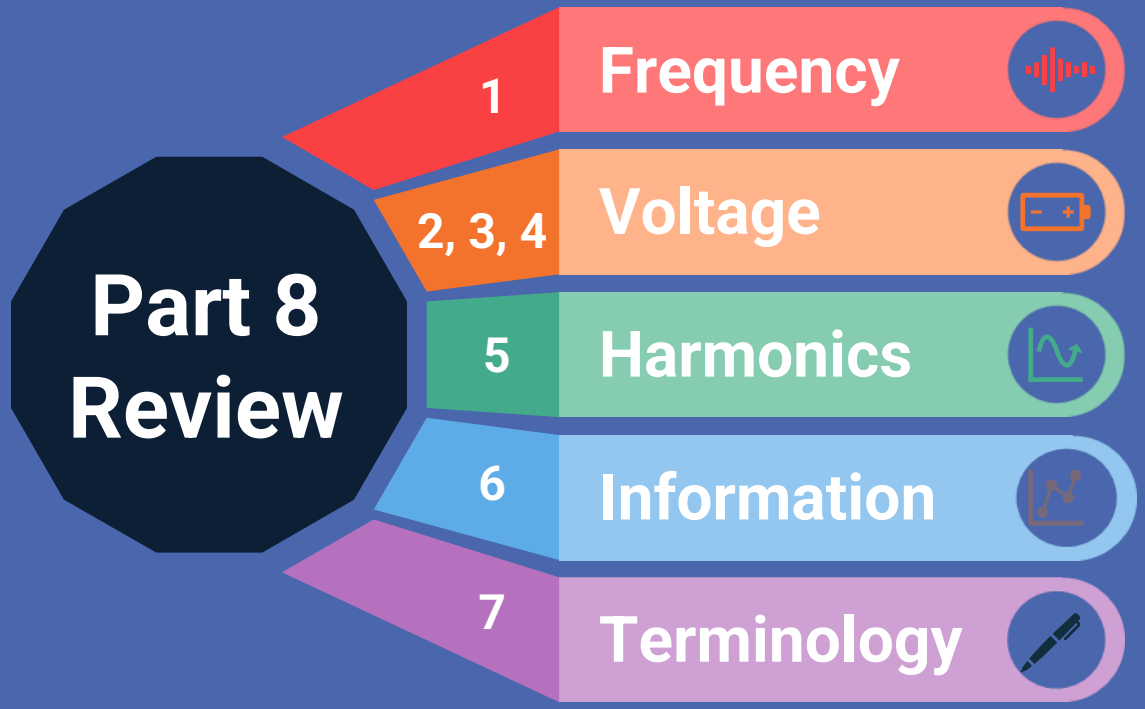
Change in job vacancies

Leveraging new technology

47.26k

New generation pipeline MW

Future Security and Resilience: Part 8 review and Code amendment process



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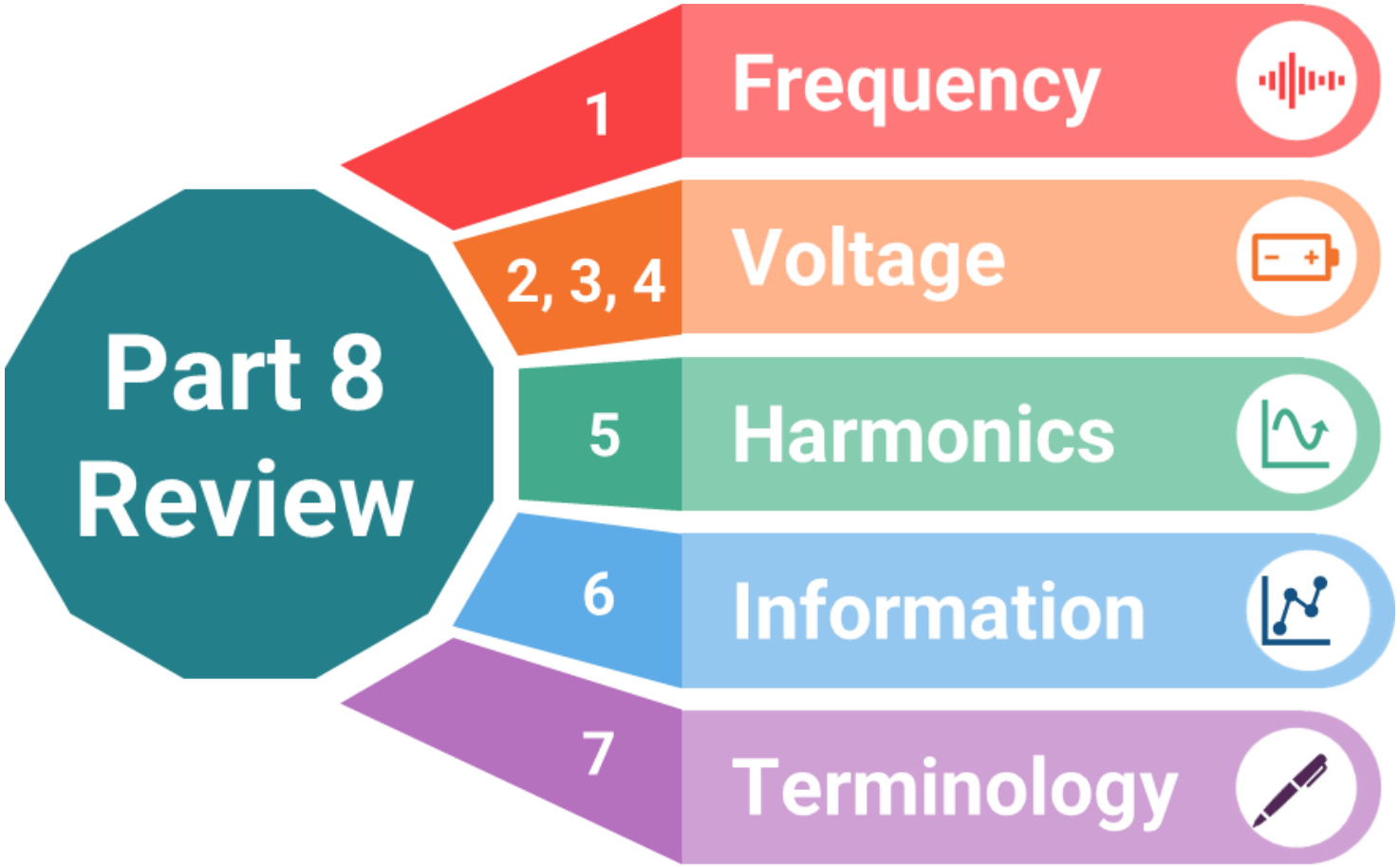
The Future Security and Resilience (FSR) programme

Key trends	Current	2030
Decarbonised: Transition to 100% renewables	• 85% renewable electricity • Mostly synchronous generation • Security of supply managed by market • Thermals to meet peaks and dry years • Small amount of DER	• 100% renewable electricity • More asynchronous and inverter-based generation • Will energy-only market manage security of supply? • New solutions needed for peaks and dry year • Increased reliance on DER
Decarbonised: More electrified economy	• High reliance on electricity in the economy • Electricity not relied on heavily for transport • Few, traditional demand growth sources – new industry, new housing	• Very high reliance on electricity in the economy • Electricity relied on heavily for transport and in industry • Many different demand growth sources – hydrogen, data centres, EVs, process heat
Distributed: More distributed electricity system	• Small amount of DER • Limited performance requirements in the Code but small penetration means this is not yet an issue • Limited use of demand-side and battery technology to manage peaks	• Millions of DER able to manage peaks in real-time (EVs, batteries, smart appliances) • Multi-directional power flows • More consumer participation and more market players • Potential issues caused by inverter-based DER
Digitised: Increasing digitisation and use of digital tech	• Increasing data and data management requirements • Gradual use of automation for control and switching • Increased use of data-driven decision making	• Increased complexity and volume of data • Expectation from operators and customers that controls, and communications will be automated and data-driven • Opportunities to improve consistency and efficiency

Background


November 2021
August 2022
April 2023
May 2023
July 2023
FSR discussion paper
FSR Roadmap
Review of Part 8 Issues paper
FSR indicators published
CQTG formed

Review of common quality requirements in Part 8 of the Code



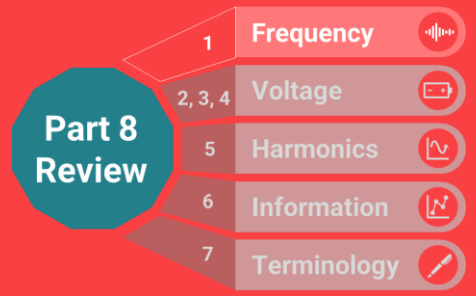
Amending the Code

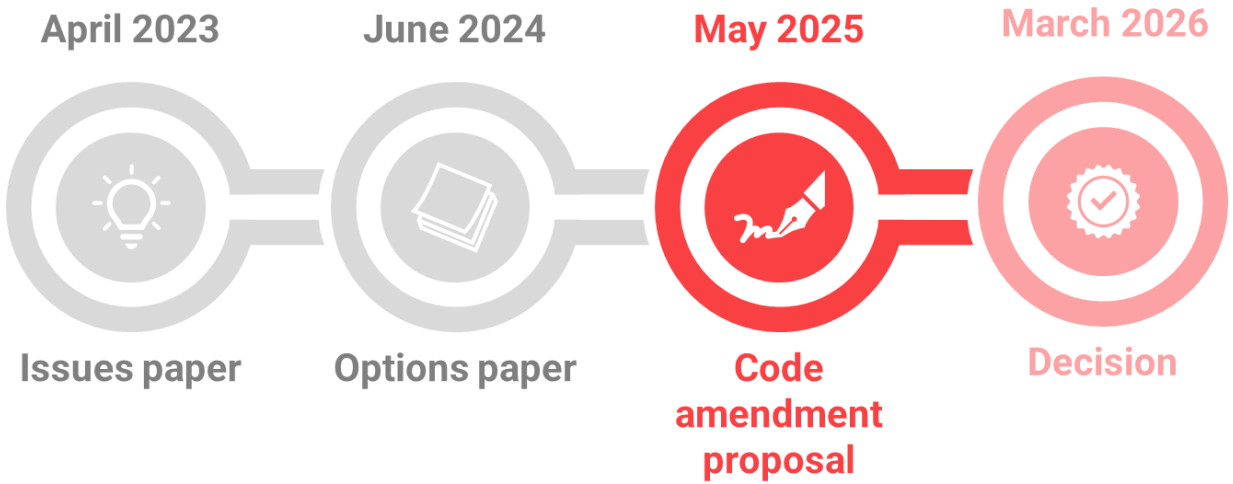
1. Issues paper
2. Options paper
3. Code amendment proposal
4. Decision paper

Amending the Code – proposed CACTIS

1. Issues paper
2. Options paper
3. Code amendment proposal
4. System operator consultation
5. Decision paper
6. Public notification

Issue 1: Frequency



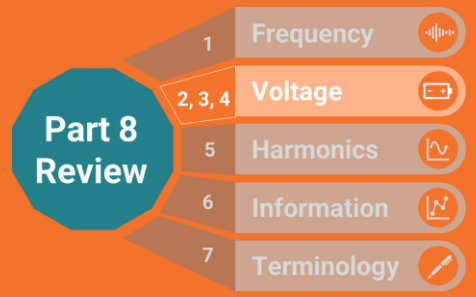


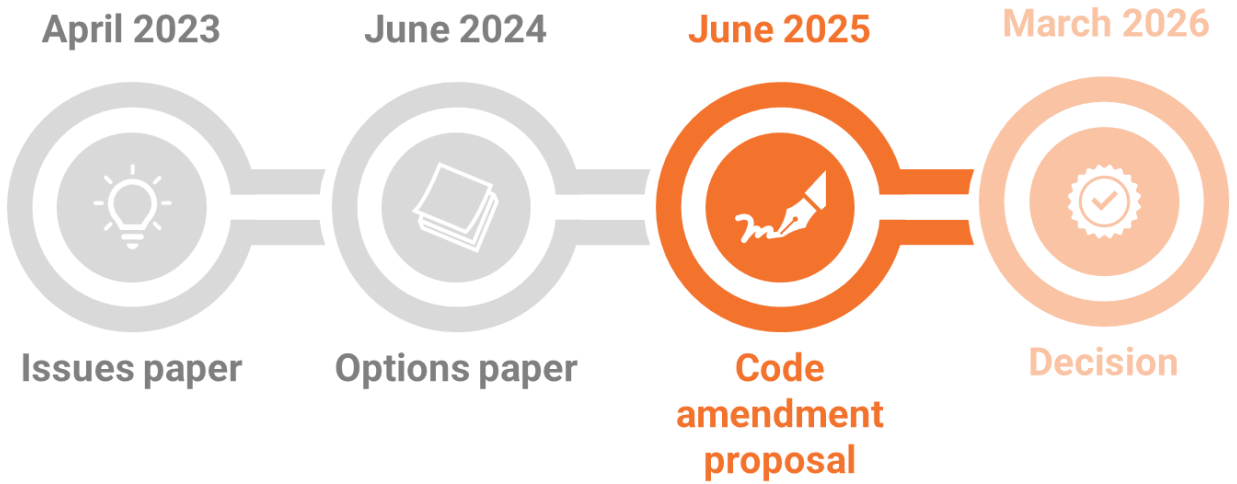
Proposal

1. 10MW threshold for generating stations to be excluded by default from complying with the frequency-related asset owner performance obligations and technical codes in Part 8 of the Code.

2. Set a permitted maximum dead band of ±0.1Hz, beyond which a generating station must contribute to frequency management and frequency support.

Issues 2, 3 & 4: Voltage



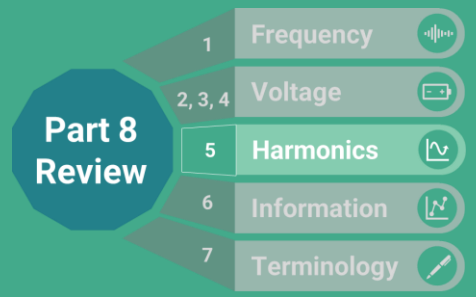


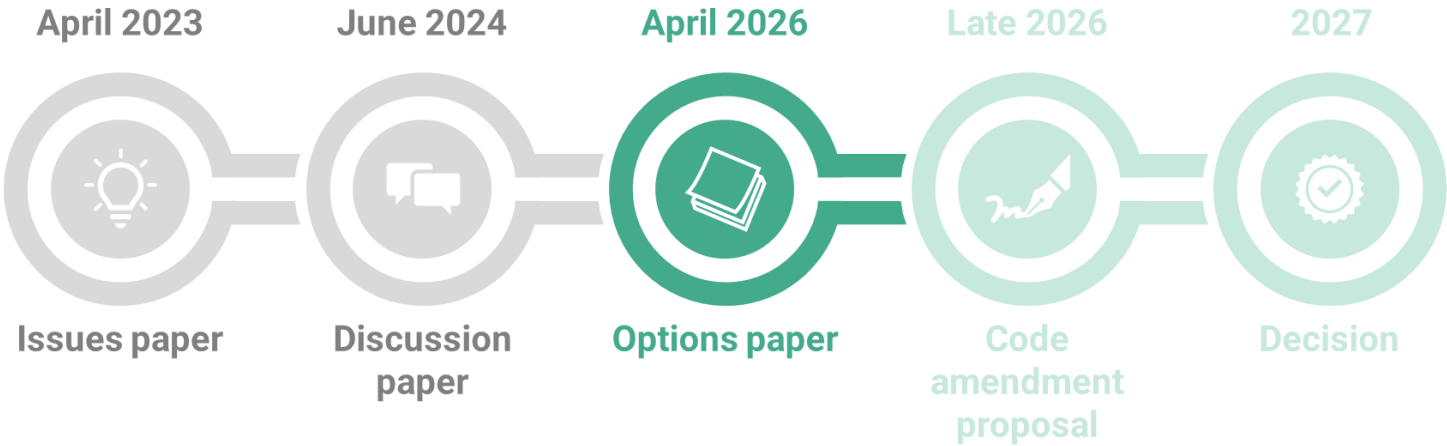
Proposal

1. ≥10MW embedded generating stations connected at GXP voltage operate in default voltage control mode:
   a) Default reactive power requirement = ±33% of station's maximum continuous MW output power
   b) Distributor may direct embedded generator to operate in alternative voltage control mode.

2. ≥10MW generating stations comply with Code's fault ride through obligations.

Issue 5: Harmonics





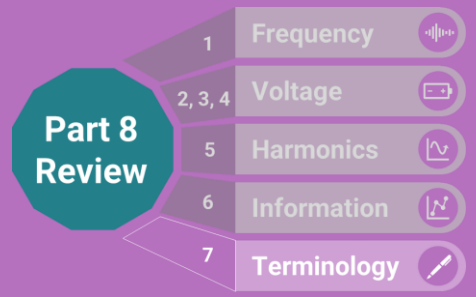
Possible options under consideration

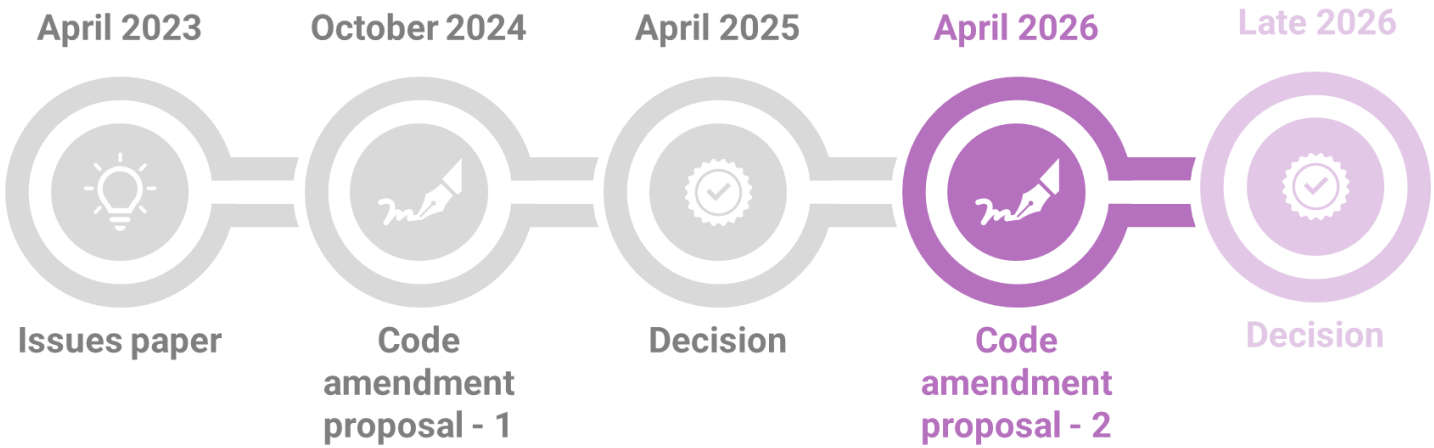
1. Update NZECP 36:1993 to address its shortcomings.

2. Revoke NZECP 36:1993; mandate planning levels in AS/NZS 61000 standards for transmission harmonics & in EEA PQ guidelines for distribution harmonics; require network owners to allocate THD using good practice.

3. Revoke NZECP 36:1993; recommend aspects of EEA PQ guidelines that also apply to transmission harmonics.

Issue 7: Terminology

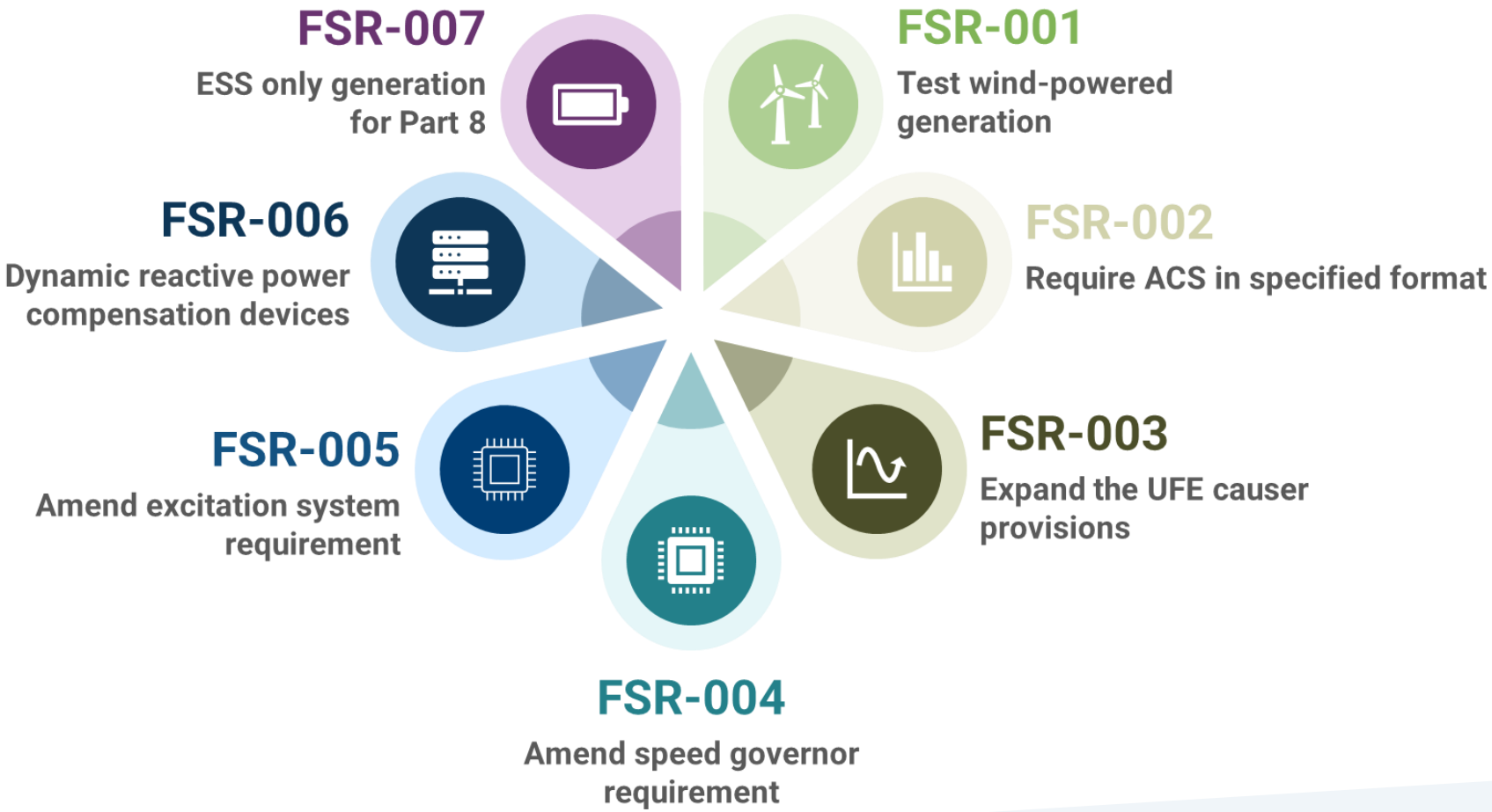




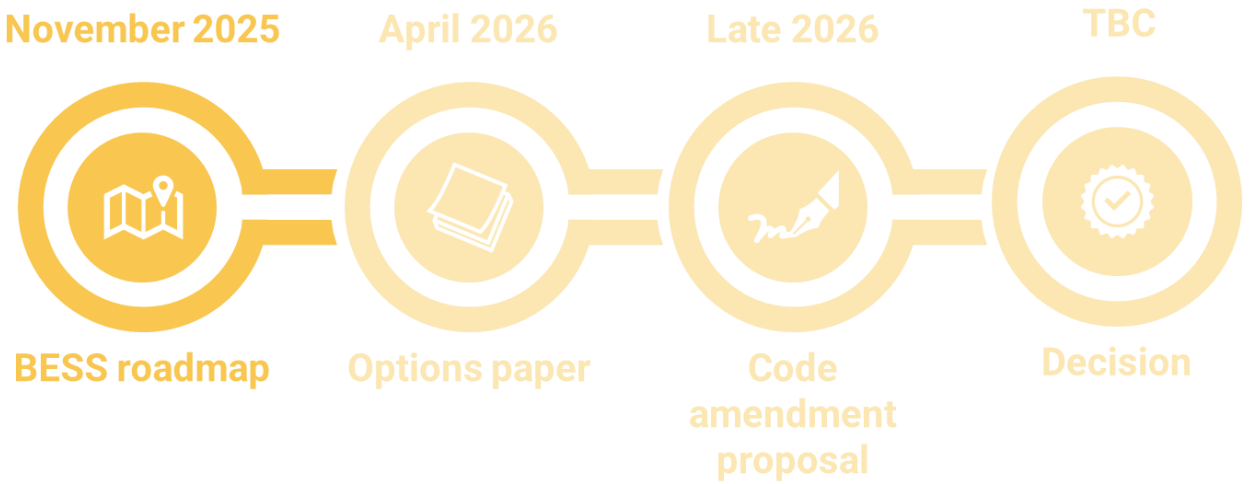
Problem definition

1. Part 8 of the Code was drafted >20 years ago.
2. Terms used in Part 8 of the Code enable only a subset of technologies.
3. Some existing definitions appear not fit for purpose.
4. There appear to be some missing definitions.

April 2025 amendment to Part 8 of Code



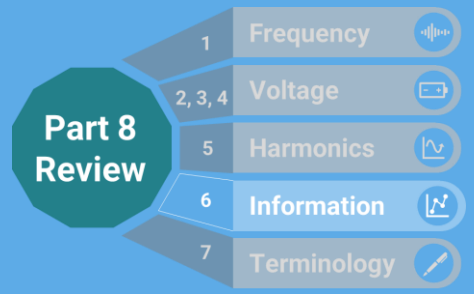
(Battery) energy storage systems and hybrid plants

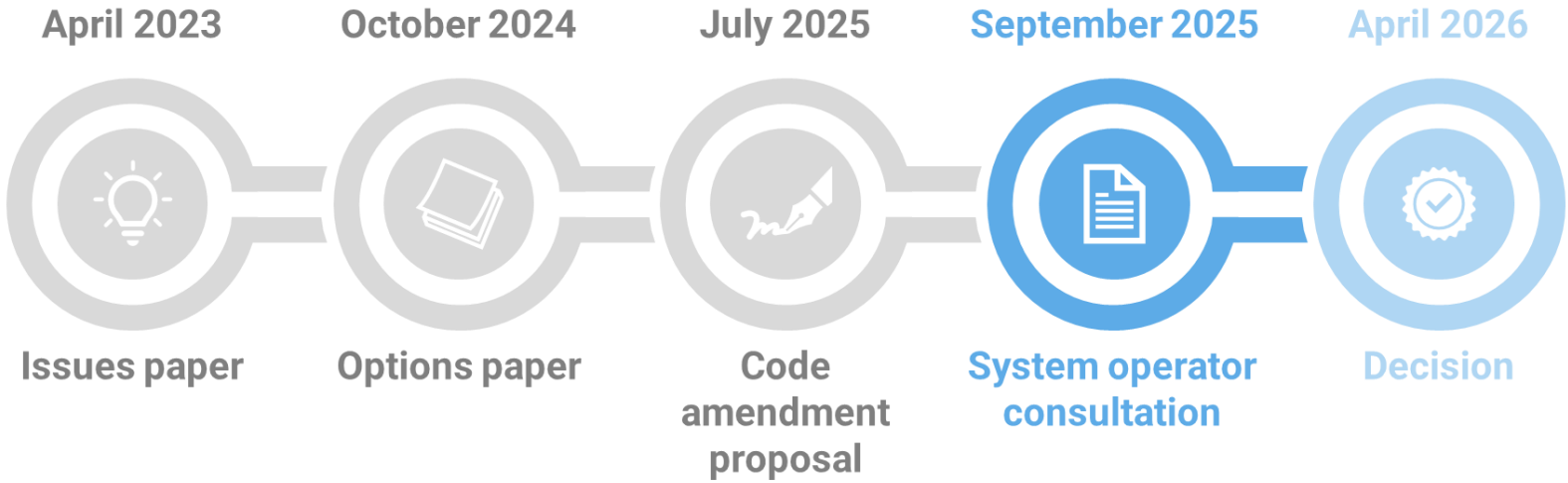


This work is addressing

1. Common quality Code obligations on hybrid plants.
2. What AOPOs should apply to (B)ESS while idle.
3. Droop and ramp rate requirements.
4. Point of compliance under clause 8.23 of the Code.

Issue 6: Information





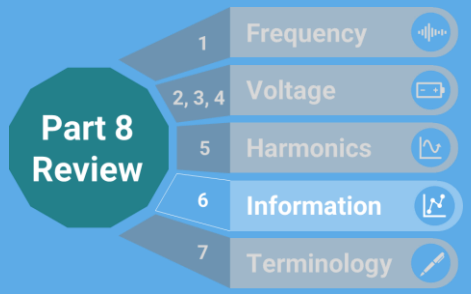
Proposal

1. Update and clarify the common quality-related information requirements in the Code.

2. Enable the system operator to share common quality-related information with distribution network operators.

3. Enable the system operator to share common quality-related information with Transpower, as a transmission network owner.

Staged approach



1

Update and clarify requirements.

Incorporate technical specifications in document incorporated by reference.

2

Enable system operator to share information with:

- **Transpower, as a grid owner**
- **distributors**

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Proposed CACTIS

Key

- Unchanged from Part 8
- Additional requirements
- New Requirements

1 Time Frame Requirements

2 Commissioning Plan Requirements

3 Asset Capability Statement Requirements

4 Modelling Requirements

5 Connection Study Requirements

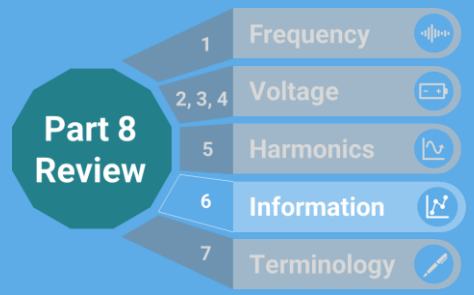
6 Test Plan Requirements

7 Testing Requirements

8 Operational Communication Requirements

9 High Speed Data Requirements

Feedback



A Confidentiality & intellectual property

B The thresholds for compliance with the CACTIS

C Equivalence arrangements & dispensations

D ‘Legacy clause’ arrangements for existing assets

E Cost benefit assessment

F Governance of system operation documents

System operation documents are governed by Part 7 of the Code

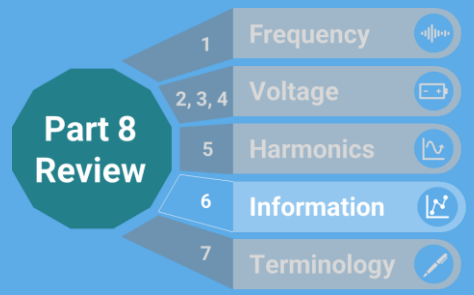
The system operator must:

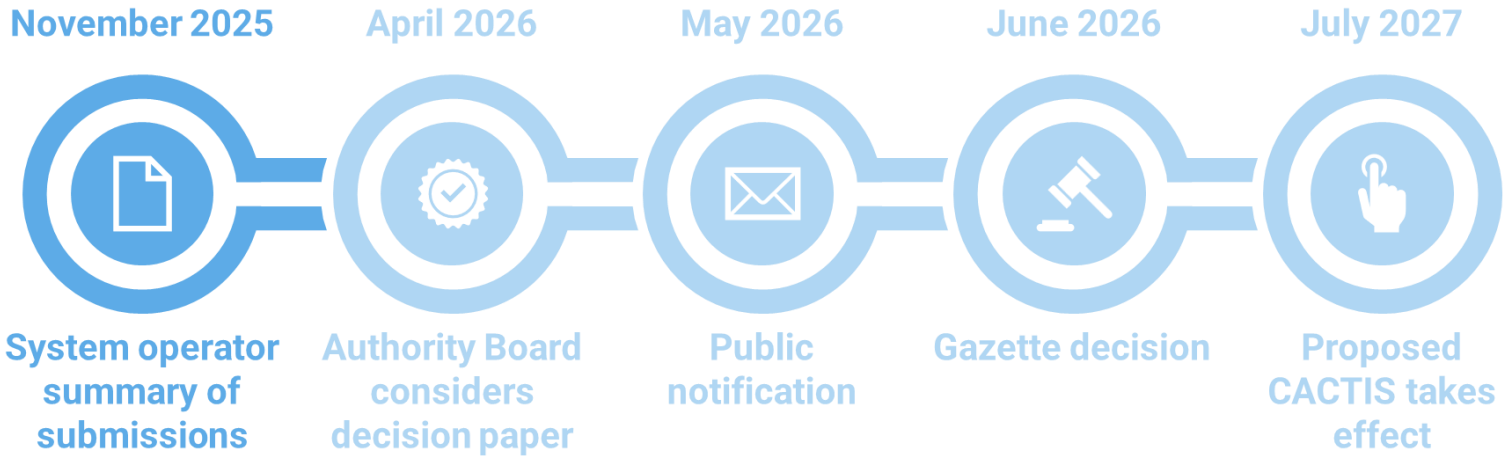
- obtain the Authority's consent before consulting on any proposed amendment
- consult with affected participants
- provide key information as part of the consultation, including an evaluation of costs and benefits and alternative options
- provide a reasonable consultation period

Following consultation, the Authority may:

- approve the proposed amendments to the system operation document, or
- require the system operator to conduct further consultation, or
- decline to approve the proposed amendments to the system operation document.

Next steps


Part 8 Review
1
Frequency
2, 3, 4
Voltage
5
Harmonics
6
Information
7
Terminology


November 2025
April 2026
May 2026
June 2026
July 2027
System operator summary of submissions
Authority Board considers decision paper
Public notification
Gazette decision
Proposed CACTIS takes effect

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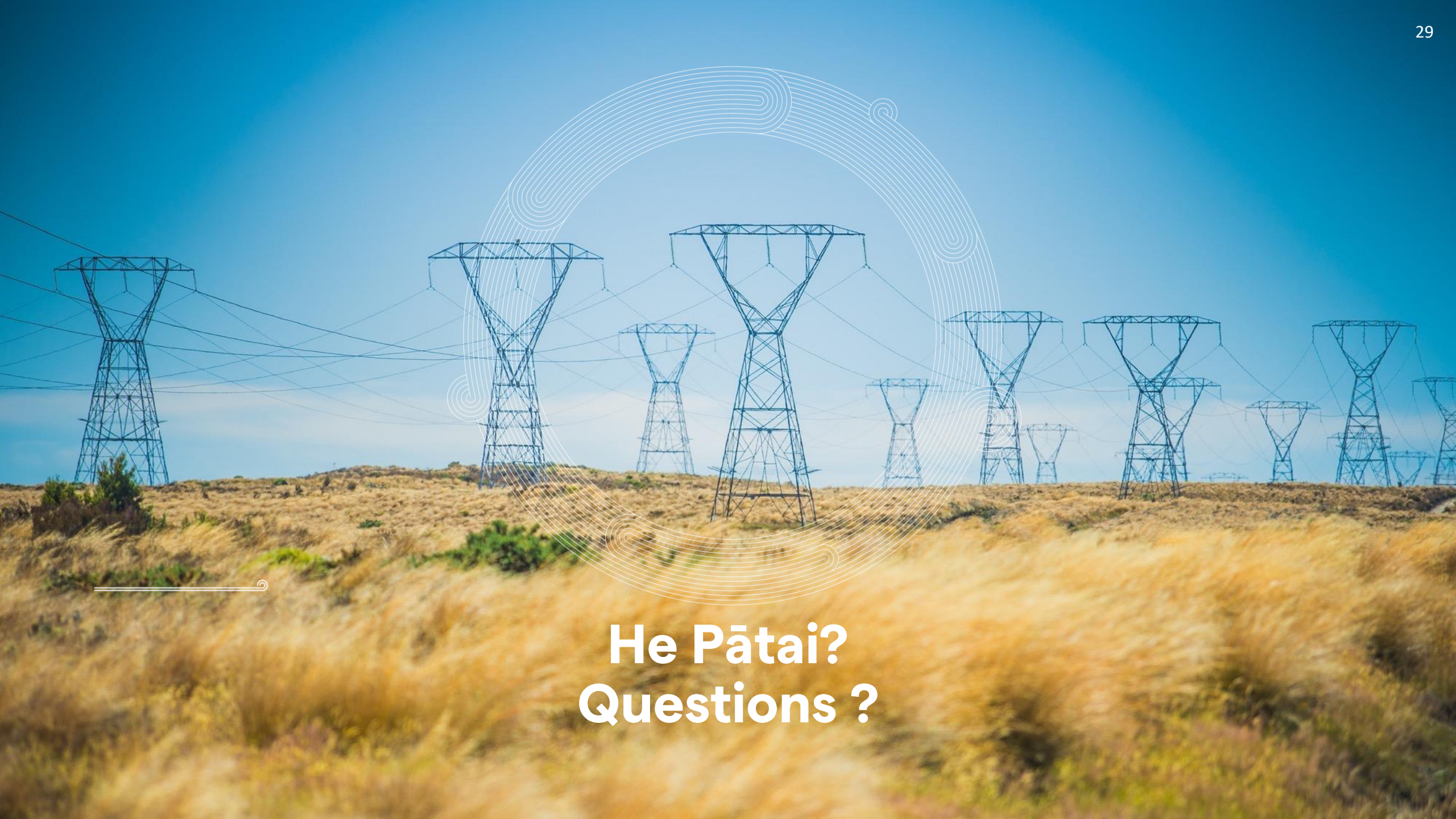
THANK YOU



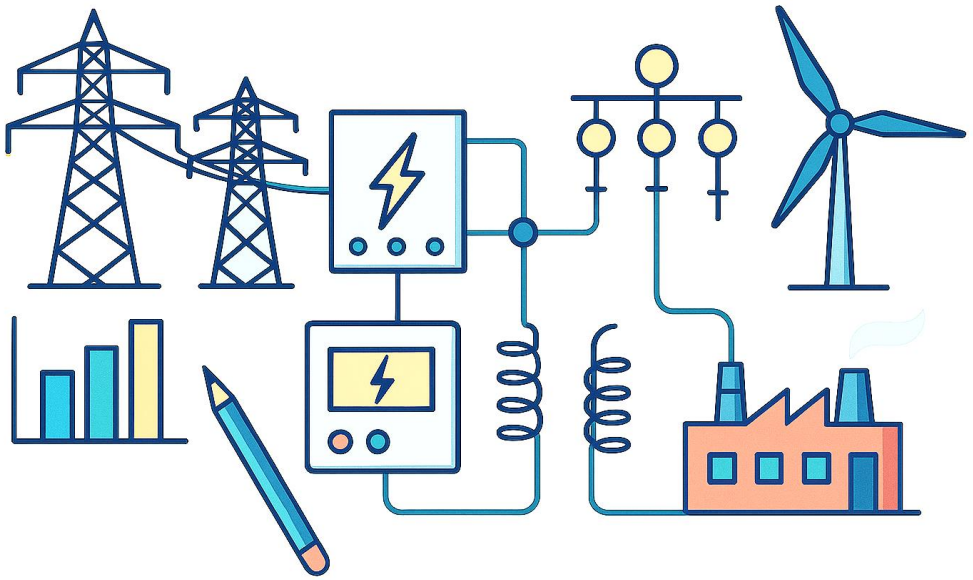
He Pātai?
Questions ?

CACTIS: Applicability, Thresholds and General Feedback

Kevin Wronski

Principal Engineer | Power Systems Group

What is CACTIS?



Connected Asset Commissioning, Testing and Information Standard

Commissioning and testing

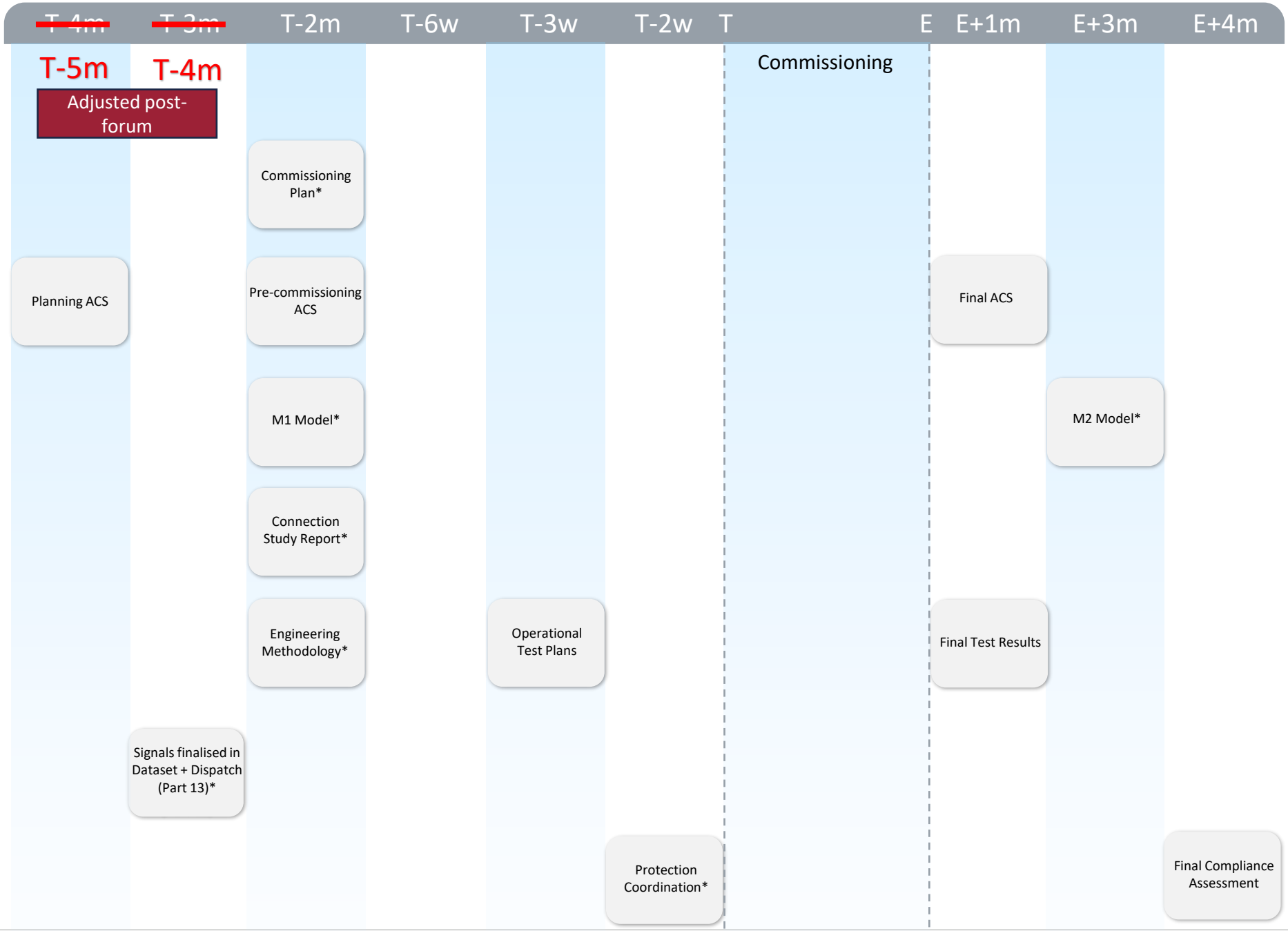
- Time frames
- Documentation
- Studies

Information sharing

- Modelling
- Operational communications

Introduction to Chapters of Proposed CACTIS

Timing
T = start of commissioning
E = end of commissioning
m = month
w = week



Commissioning Plan (Chapter 2)

Asset Capability Statement (Chapter 3)

Modelling (Chapter 4)

Connection Study (Chapter 5)

Testing (Chapters 6 and 7)

Operational Communications (Chapter 8)

Other Compliance Milestones

* Indicates a final copy for sign-off

Applicability of CACTIS Requirements

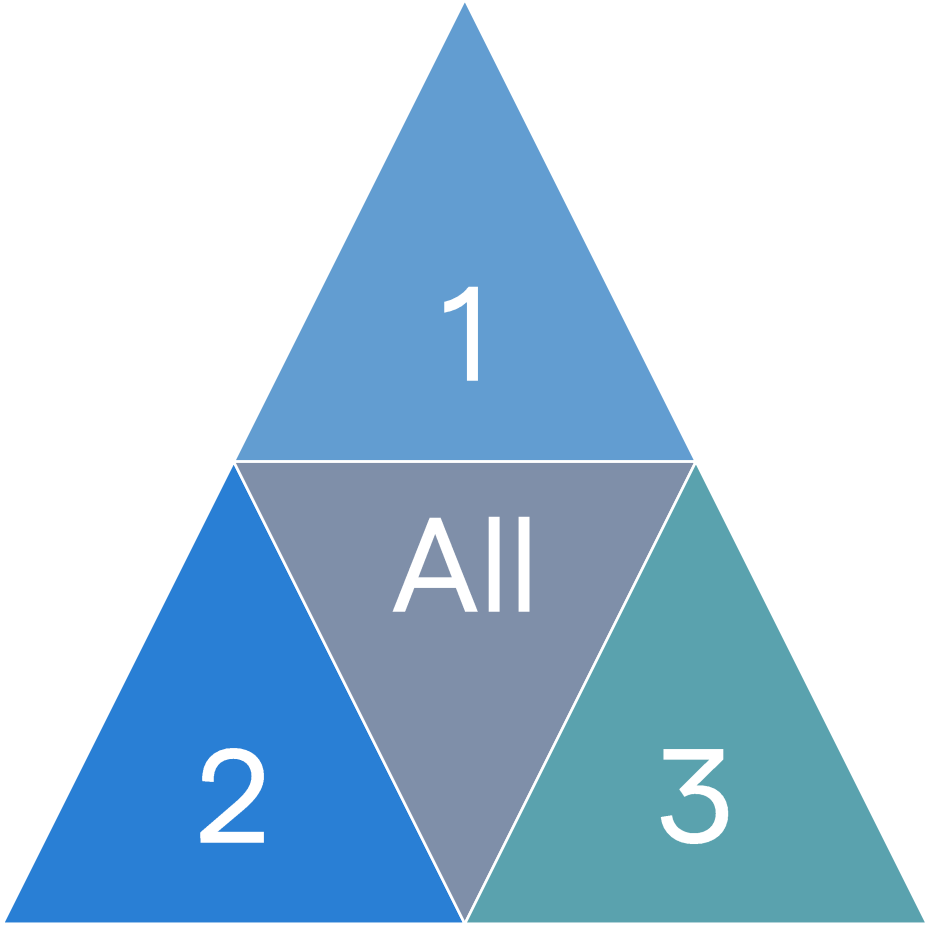
Submissions

- Unclear which assets and/or participants must comply
- Concerns re: cost for smaller generating stations
- Inefficiency if existing grid processes for commissioning and information sharing are duplicated

System Operator Proposition

- **Indicate** applicability and thresholds within each chapter
- **Continue** to utilise existing processes for “static” grid equipment

Asset Grouping



Group 1:

- Generating units MCO ≥ 1MW, and
- Reactive power devices ≥ 5MVAr, and
- Grid Owners and Distributors

Group 2:

- Generating stations MCO ≥ 10MW, and
- Dynamic reactive power devices ≥ 10MVAr

Group 3:

- All group 2 assets, and
- All other assets identified in Chapters 7 and 8

Applicability by Asset Group

Accurate as at 29/10/25

Group 1:

- Generating units MCO ≥ 1MW,
- Reactive power devices ≥ 5MVAr,
- Grid Owners and Distributors

Group 2:

- Generating stations MCO ≥ 10MW,
- Dynamic reactive power devices ≥ 10MVAr

Group 3:

- All group 2 assets,
- All other assets identified in Chapters 7 and 8

Requirements Chapter of Proposed CACTIS	Asset Group 1	Asset Group 2	Asset Group 3
1. Time Frame	☑	☑	☑
2. Commissioning Plan		☑	
3. Asset Capability Statement	☑	☑	
4. Modelling		☑	
5. Connection Study		☑	
6. Test Plan		☑	
7. Testing		☑	☑
8. Operational Communications		☑	☑
9. High Speed Data		☑	

Reasonableness

Submissions

- System operator has too much discretion
- Unclear what a “reasonable” information request is

System Operator Proposition

- **Add** “acting reasonably” where information may be requested
- Our information requests support our role in CACTIS and:
  - planning to meet, and meeting PPOs
  - meeting the dispatch objective

CACTIS: Applicability and Thresholds and General Feedback

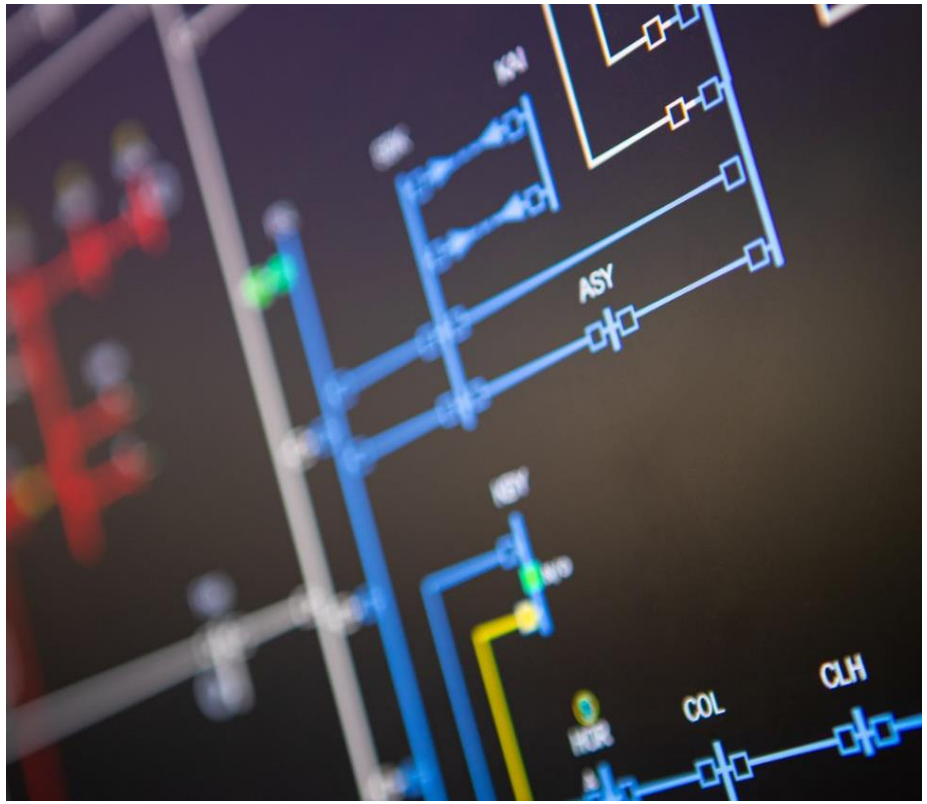
Discussion

CACTIS: Modelling Requirements

Snehalkumar Joshi and Nyuk-Min Vong

Senior Engineer and Principal Engineer | Power Systems Group

Proposed Modelling Requirements Pre-Consultation



Required model types for IBR

- PowerFactory
- PSCAD
- TSAT
- WECC

Model time frames

- M1 model
- M2 model

Model maintenance requirements

- Model submission post-software upgrade
- Model submission post-asset upgrade

Model documentation

- Functional description and user guide

Multiple Model Types

Submissions

- Unclear purpose of multiple models
- Align with international requirements
- How to ensure model accuracy across multiple software?

System Operator Proposition

- Conducting system studies
- International alignment
- Model compatibility
- **Remove** WECC model from CACTIS requirements

Software Format	Purpose
DIgSILENT PowerFactory	To model New Zealand's power system and enable detailed studies and stability analysis, particularly for: • Connection studies • Fault ride through studies • Planning studies • Event investigations • Other general frequency and voltage studies
PSCAD	To simulate various power system scenarios with precision, particularly for: • Fault ride through studies • Control interaction studies • Event investigations
TSAT	To analyse off-line and on-line transient stability, especially for: • Rotor angle stability studies (TRAS) • Frequency stability analysis • Event investigations • Real-time operation support • Running simulations using exact system conditions like frequency studies

Jurisdiction/System Operator	Tools for RMS Studies	Tools for EMT Studies	Other Tools*
UK (National Grid ESO (Electricity System Operator))	**PowerFactory**	**PSCAD**	**TSAT**
European Union	**PowerFactory**	**PSCAD**	**PSS/e**
North America	**PSS/e**	**PSCAD**	**TSAT**
Ireland (EirGrid/SONI)	**PSS/e**	**PSCAD**	**TSAT**
Saudi Arabia	**PSS/e**	**PSCAD**	**TSAT**
Australia (AEMO)	**PSS/e**	**PSCAD**	**SSAT⁺**
South Korea (KEPCO)	**PSS/e**	**PSCAD**	**SSAT**

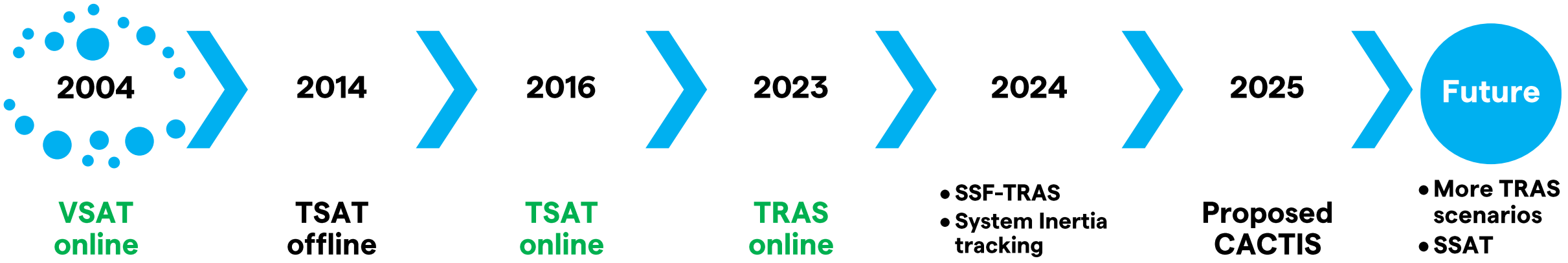
DSA Tools and TSAT in Real-Time

Submissions

- Disagree with TSAT model requirement
- OEMs lack capability
- Lack of capability for validation

System Operator Response

- DSA tools and TSAT used for a decade
- International use of DSA tools
- OEMs have confirmed capabilities
- Clarification: validation requirements



DSA Tools and TSAT in Real-Time
Clarification on Validation Requirements

Typical Model Validation Process

OEM

Develop model:

- Based on source code
- Translate to a DLL or a block diagram
- Benchmark

Asset Owner

Validate model:

- Compare against test data

System Operator

Verify the response:

- Translate to real-time tools
- Validate against test data
- Use in real-time and offline studies

Pain Points

OEM	Modelling capability	**AO**	Software competency	**SO**	Complexity of translation
	International market share		Resource availability		Tools competency
	Process of new development		License availability		Model maintenance

DSA Tools and TSAT in Real-Time

OEM Modelling Capability

		PF	PSCAD	TSAT		
OEM	Modelling capability ✓				**SO**	Complexity of translation ✓
	International market share ✓					Tools competency ✓
	Process of new development ✓					Model maintenance ✓
AO	Software competency					
	Resource availability	✓	✓	✓		
	License availability					

Summary of OEM Capabilities

as of 21/10/2025

Sr No	Power Factory	PSCAD	TSAT	Other model	Process of developing model	Cost of PSCAD and TSAT development
OEM 1	✓	✓	✓	PSSE , SSAT	Inhouse **modelling capability**	No incremental cost
OEM 2	✓	✓	✓	PSSE , SSAT	Inhouse **modelling capability**	No incremental cost
OEM 3	✓	✓	✓	PSSE , SSAT	Inhouse **modelling capability**	No incremental cost
OEM 4	✓	✓	✓	SSAT (✓)	Inhouse **modelling capability**, Engage PowerTech- BAU	No incremental cost
OEM 5	✓	✓	✓	PSSE , SSAT	Inhouse **modelling capability**, Engage PowerTech - BAU	No incremental cost
OEM 6	✓	✓	✓	SSAT (✓)	Inhouse **modelling capability**	No incremental cost
OEM 7	✓	✓	X	X	Reached out – No response so far	X
OEM 8	✓	✓	X	X	Not reached out - Supplied only PPC to NZ so far	X
OEM 9	✓	X	✓	X	Not reached out - Supplied only PPC to NZ so far	X
OEM 10	✓	X	X	X	Not reached out- Historically, supplied equipment	X

✓ = Submitted model or confirmed capability ✓ = Under development X = No data

TSAT

Option 1

- OEM to prepare
- OEM to benchmark
- AO to validate (consultants)
- Two consultants confirmed capability
- No TSAT license and would be costly

Option 2 — **SO Proposal**

- OEM to prepare
- OEM to benchmark
- SO to validate

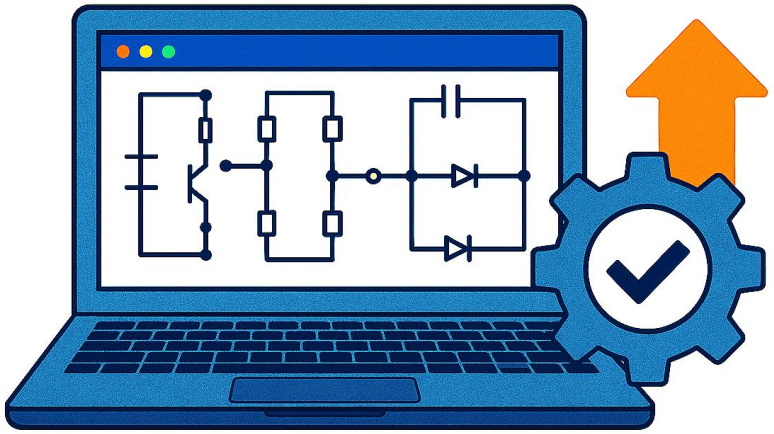
Model Updates

Submissions

- Unrealistic time frame to submit updated model
- OEMs would not be able to provide model in 1 month

System Operator Proposition

- Paced out upgrade for new software versions
- OEM capability to update models: 3 months
- **Update** the CACTIS time frame to 3 months



Model Accuracy

Submissions

- Clarity needed on model acceptance, validation and benchmarking.

System Operator Proposition

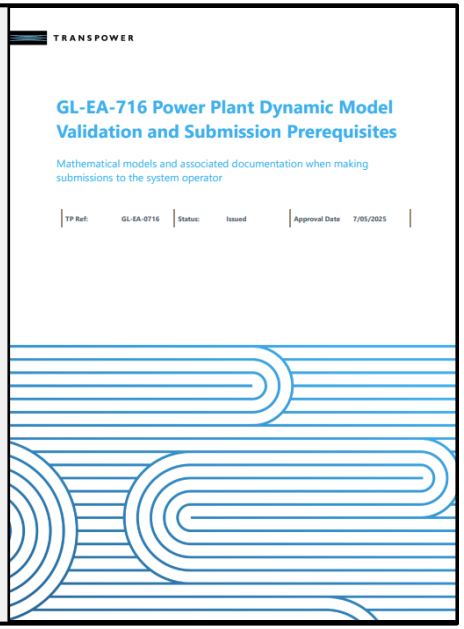
- CACTIS intended to be less prescriptive
- **Add** more precise details in SO Modelling Guideline GL-EA-716.

Feedback from CQTG

- Template needed for AOs and OEMs

System Operator Proposition

- **Add** a template in GL-EA-716, as requested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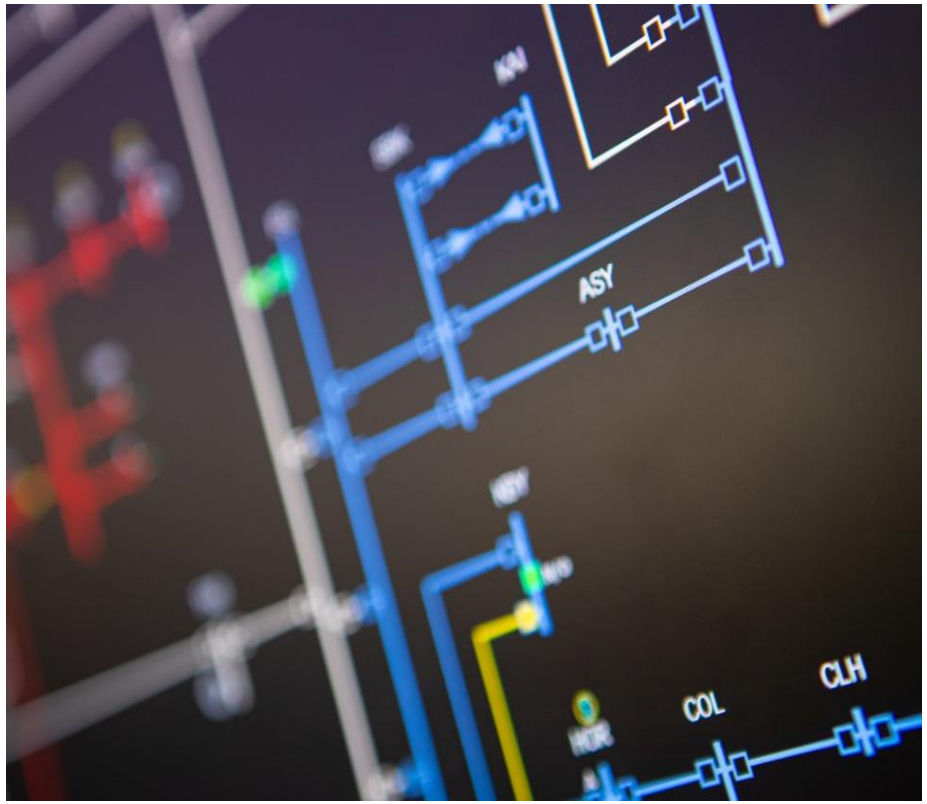
GL-EA-716 Power Plant Dynamic Model Validation and Submission Prerequisites

Mathematical models and associated documentation when making submissions to the system operator

TP Ref: GL-EA-0716 | Status: Issued | Approval Date 7/05/2025

Updated Modelling Requirements Post-consultation



Required model types for IBR

- PowerFactory
- PSCAD
- TSAT
- ~~WECC~~

Model time frames

- M1 model
- M2 model

Model maintenance requirements

- Model submission post-software upgrade *
- Model submission post-asset upgrade

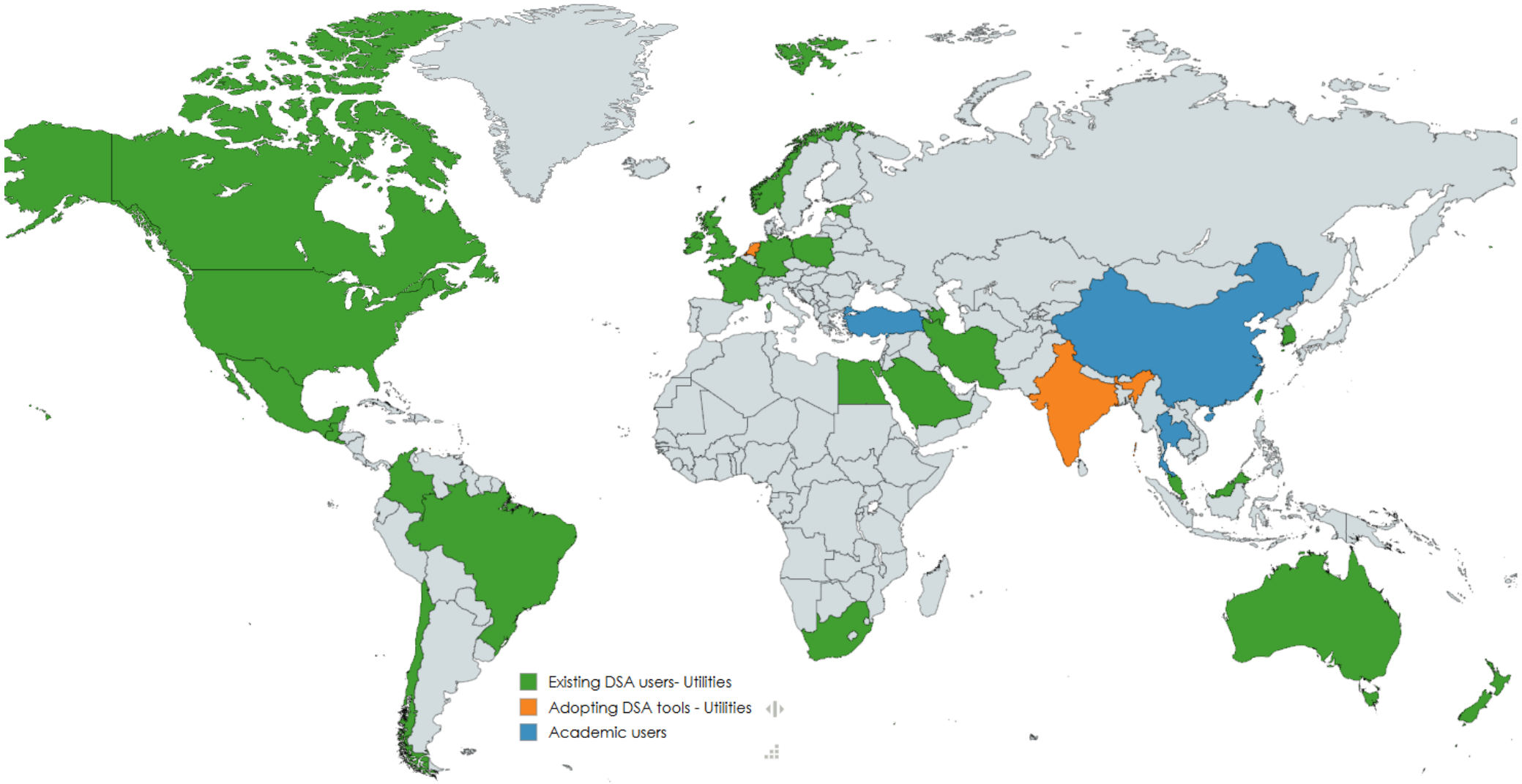
Model documentation

- Functional description and user guide *

CACTIS: Modelling Requirements

Discussion

DSA tools user base



Ref: Powertech labs

TRANSPOWER

Whakamana i Te Mauri Hiko

2025 Asset Owner Engineering Forum

Lunch

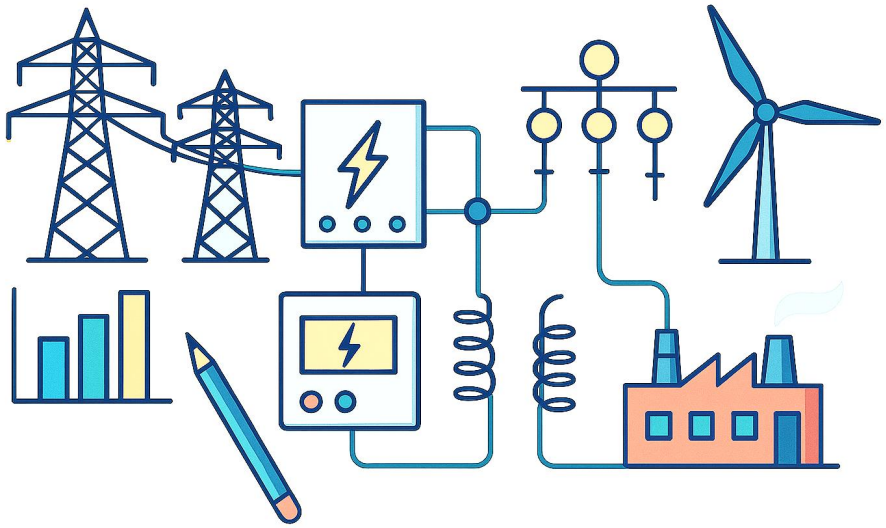
12:00-13:00

CACTIS: Connection Study Requirements

Snehalkumar Joshi and Nyuk-Min Vong

Senior Engineer and Principal Engineer | Power Systems Group

Summary: Connection Studies



Requirement to conduct EMT studies

- EMT studies required for all IBR
- Selective EMT studies

Connection study time frame

- T-2 months: final study report

Model sharing for connection studies

- Sharing an encrypted model with other asset owners

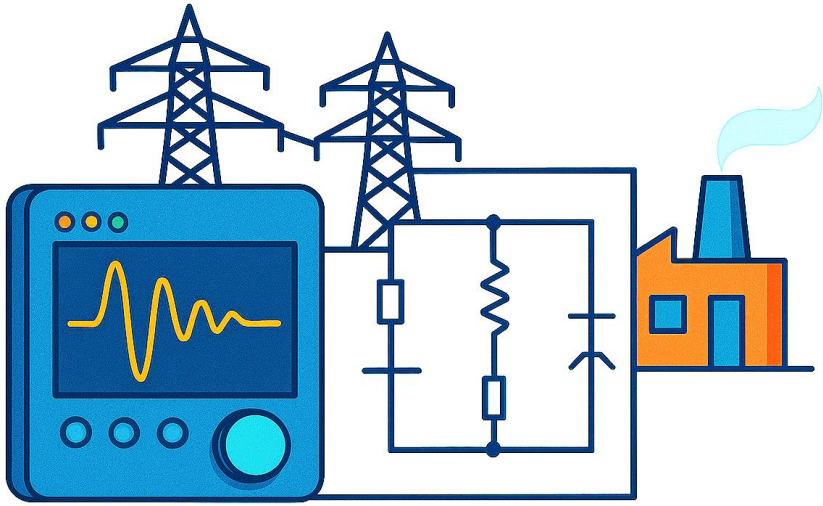
Requirement to repeat FRT studies

- Following change to asset capability

EMT Study Requirement

Submissions

- Acknowledge the increased complexity
- Requirements need to be flexible
- Propose conducting studies only for low system strength

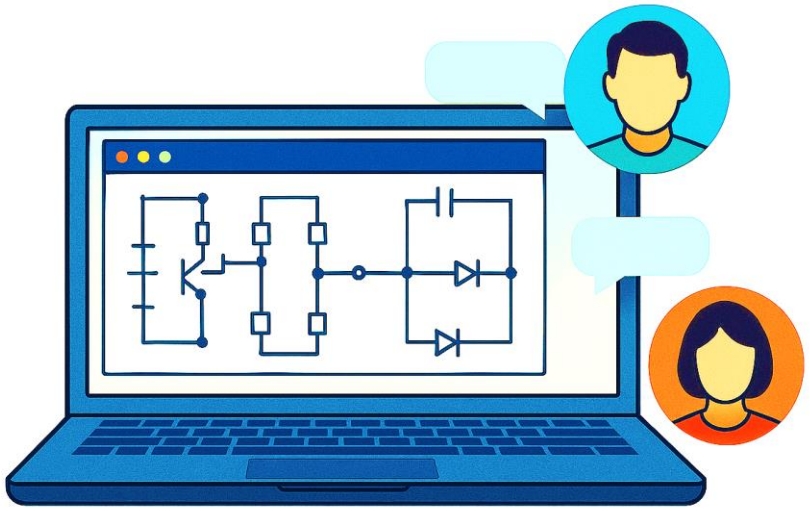


System Operator Proposition

- System strength: not the only contributing factor
- SO efforts made to reduce EMT cases
- **Keep** requirement to conduct selective EMT studies

EMT Studies SO Initiatives	Regional EMT cases
	Selective EMT studies
	Additional simulation techniques
	Support for EMT studies

Sharing Encrypted Models to Run Studies



Submissions

- Acknowledge studies depend on accurate models
- Concerns re: confidentiality and additional delays
- SO should conduct the studies

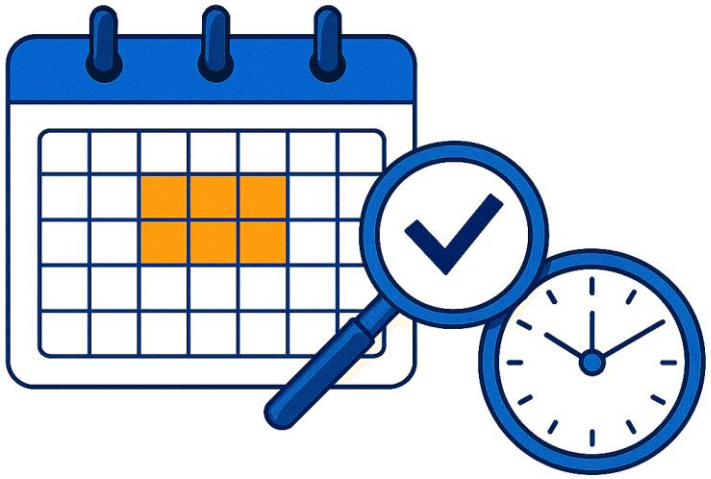
System Operator Proposition

- We acknowledge the confidentiality concerns

Option 1	Option 2
• Keep CACTIS Requirements • AO to conduct EMT FRT studies	• Keep CACTIS requirements • SO to conduct EMT FRT studies

SO Proposal

Review Time Frames



Submissions

- Concerns re: review time frames

System Operator Proposition

- Time frame: based on deadlines
- General practice and status quo
- **Keep** the review time frame as proposed

CACTIS: Connection Study Requirements

Discussion

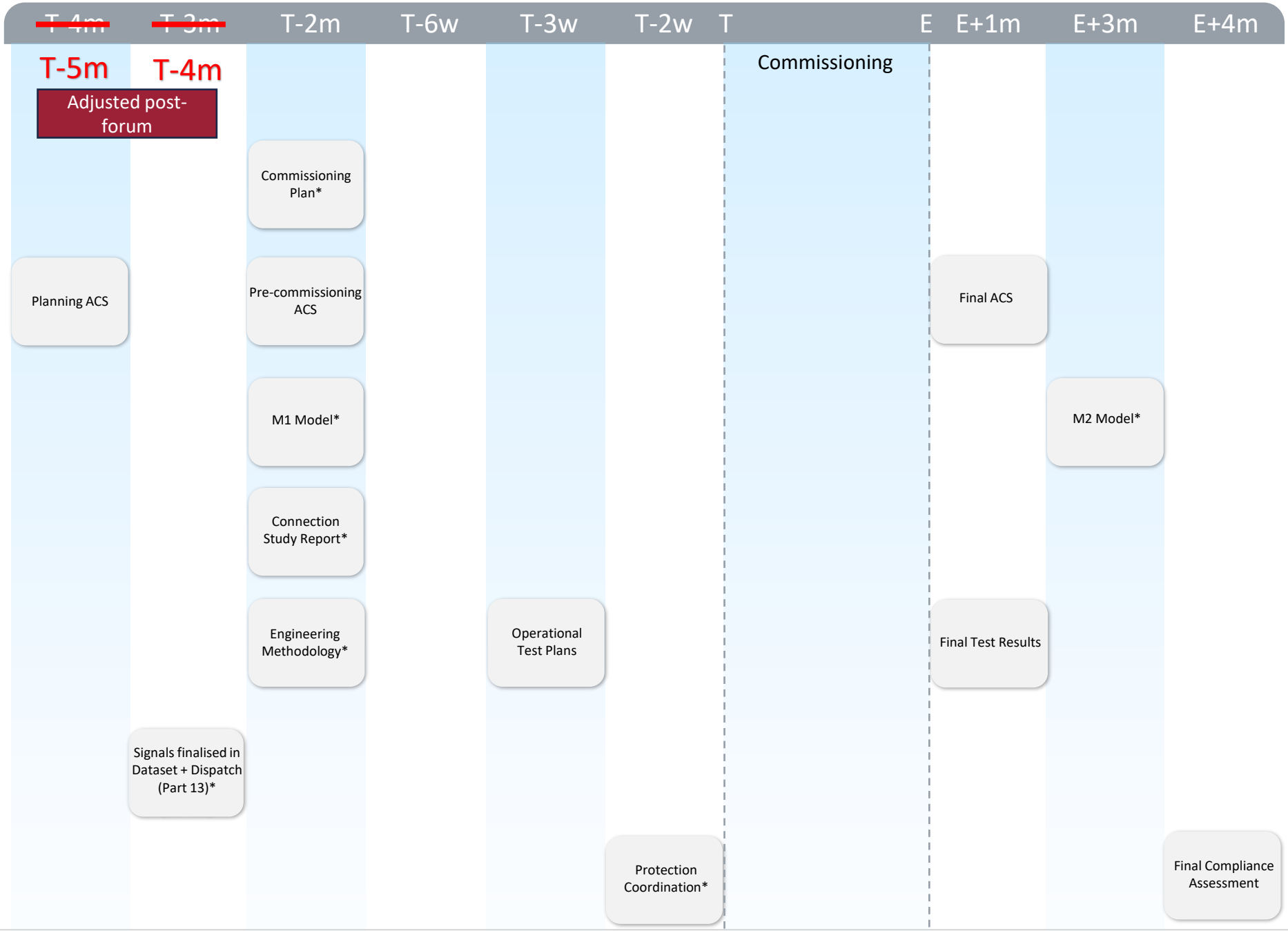
CACTIS: Time Frame, Commissioning Plans, ACS, Test Plans, and Testing Requirements

Varun Nand and Kevin Wronski

Senior Engineer and Principal Engineer | Power Systems Group

Introduction to Chapters of Proposed CACTIS

Timing
T = start of commissioning
E = end of commissioning
m = month
w = week



Commissioning Plan (Chapter 2)

Asset Capability Statement (Chapter 3)

Modelling (Chapter 4)

Connection Study (Chapter 5)

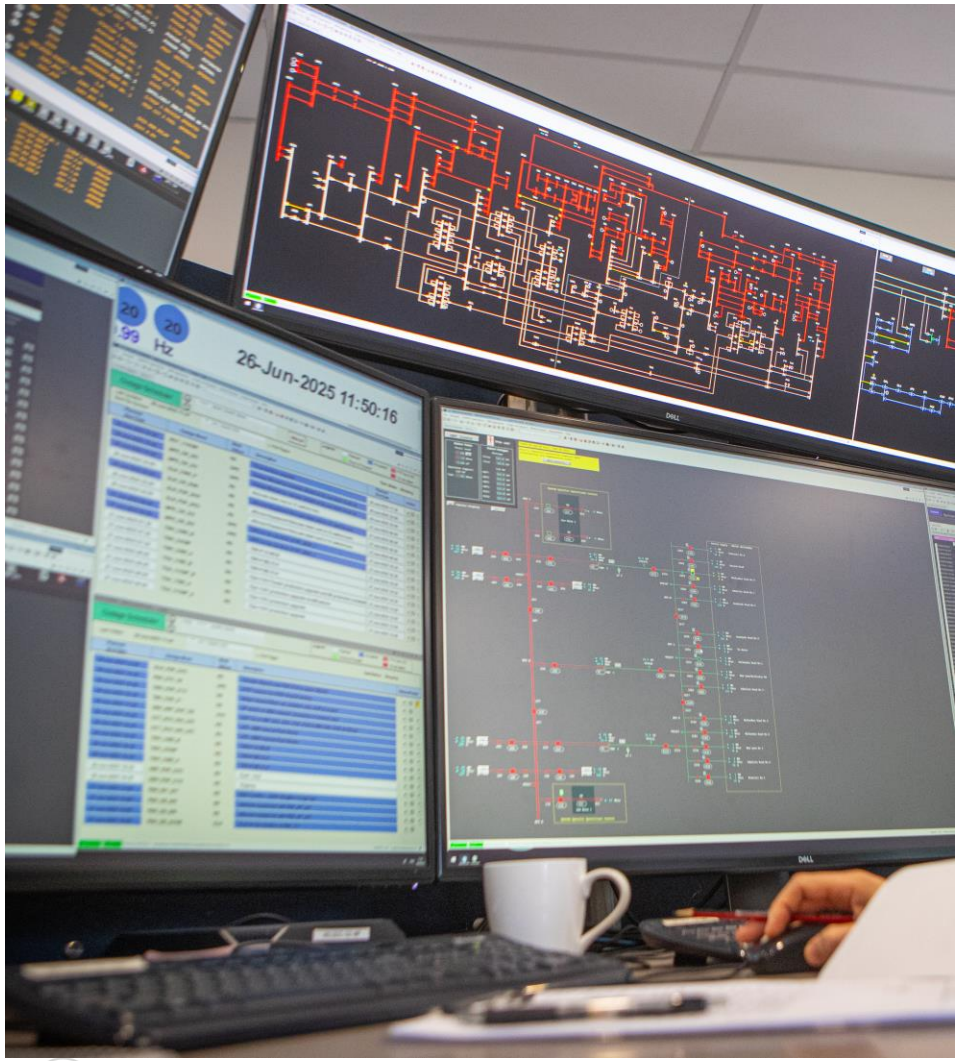
Testing (Chapters 6 and 7)

Operational Communications (Chapter 8)

Other Compliance Milestones

* Indicates a final copy for sign-off

Time Frames



Submissions

- SO review time too long/too short
- Align Engineering Methodology and Commissioning Plan timeline
- Need flexibility in timing for plant failures

System Operator Proposition

- **Align** timing of Engineering Methodology and Commissioning Plan (T-2 months)
- **Allow** shorter timeframes for emergency breakdowns

Testing Assets

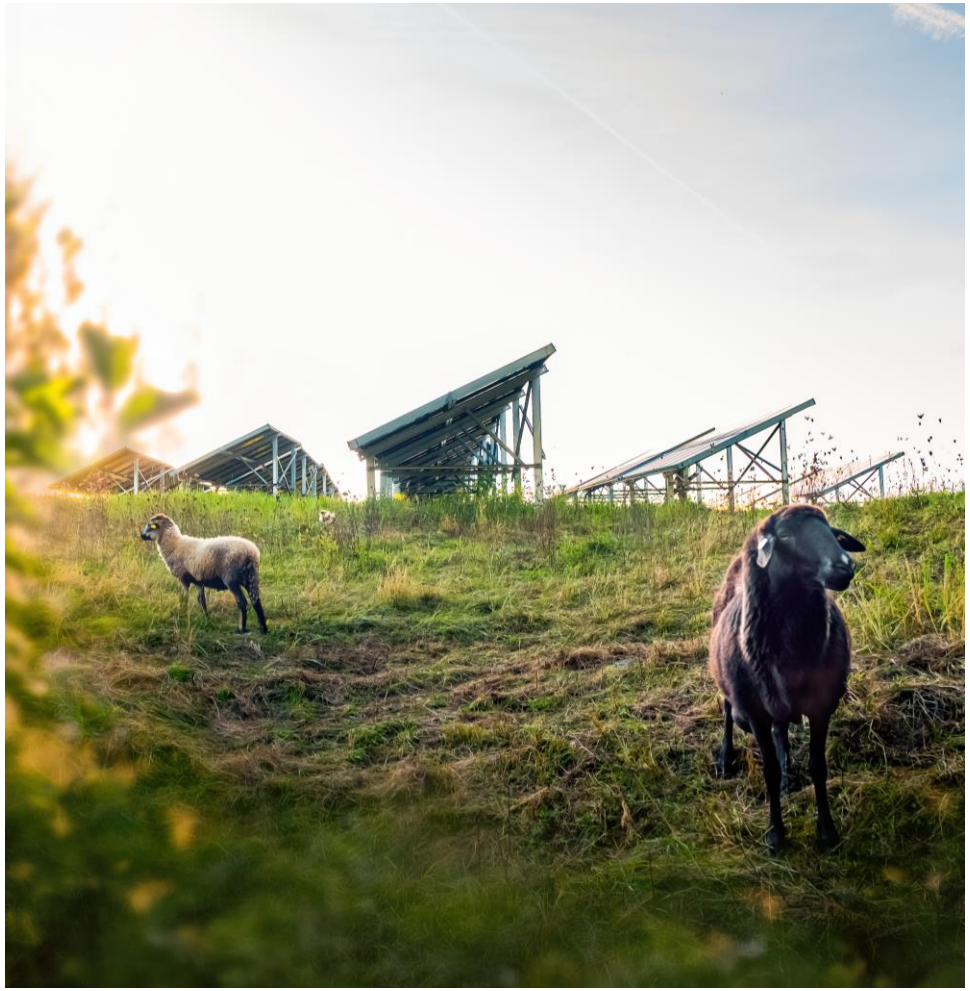
Submissions

- Testing IBRs will mean volumes of results
- Asset owners should decide when to test assets
- Is the obligation for protection coordination with the right participant?

System Operator Response

- Most IBR testing is at the station level
- Periodicity of testing unchanged
- Part 8 clearly state obligation

Asset Capability Statement (ACS)



Submissions

- Concern re: planning ACS requirement
- Concern re: ACS update time frame
- Clarity requested about urgent or temporary capability change

System Operator Proposition

- **Shift** planning ACS from 12 to 4 months
- **Amend** ACS update requirement from 2 to 5 days
- Urgent or temporary changes do not require ACS updates

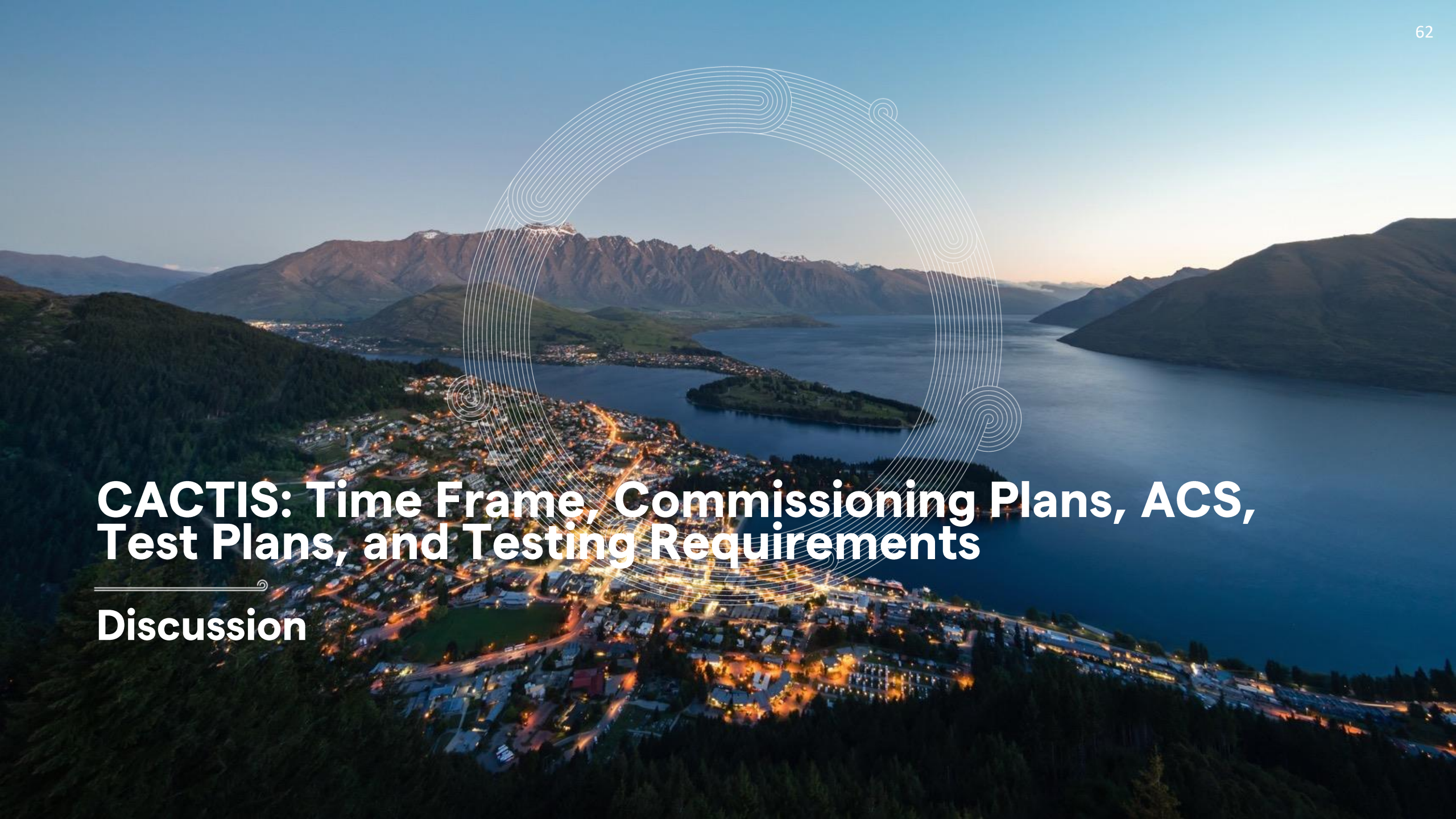
Commissioning and Test Plans

Submissions

- Clarity requested about control system and setting changes
- Concern re: applicability

System Operator Proposition

- No change from Technical Code
- Thresholds apply



CACTIS: Time Frame, Commissioning Plans, ACS, Test Plans, and Testing Requirements

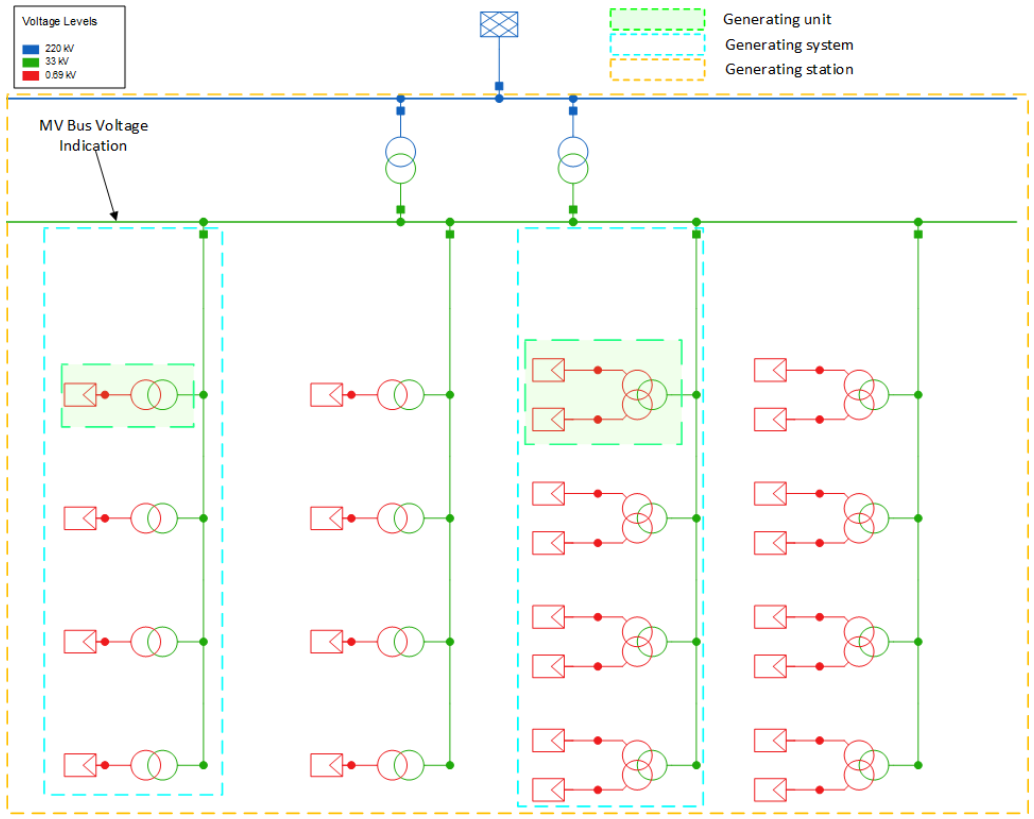
Discussion

CACTIS: Operational Communications and High-Speed Data Requirements

Connor McCarthy and Nyuk-Min Vong

Engineer and Principal Engineer | Power Systems Group

Operational Communications



Summary of Requirements

- Technical Code C with additions
- Some new indications for generators
- Generating system indications for IBR
- Controllable load indications from EDBs
- Wind speed, solar irradiance, state of charge (SoC)

Controllable Load Indications

Submissions

- Unrealistic accuracy requirements
- Are difference bids still required?
- Concern about third parties
- Concern future flexibility not accounted for

System Operator Proposition

- **Adjust** to “reasonable endeavours”
- Difference bids still required
- Third party concern shared
- Third party indications not required
- As flexible as possible given current uncertainties

Wind Speed and Solar Irradiance Data

Submissions

- Unclear purpose of indications
- Replication of DNV forecast
- Irradiance alone restricts forecast accuracy

System Operator Response

- Required for forecast and event investigation
- DNV cannot receive indications
- Balance between data and imposed burden

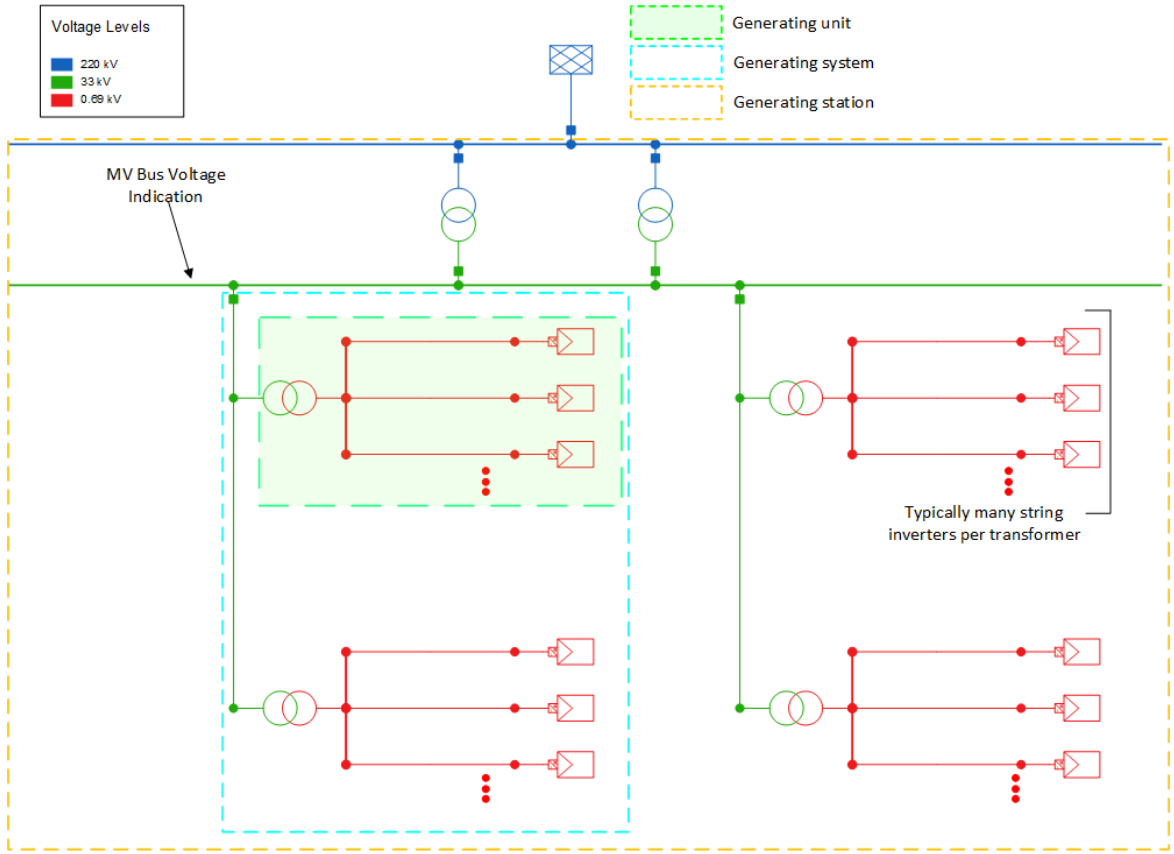
Miscellaneous

Submissions

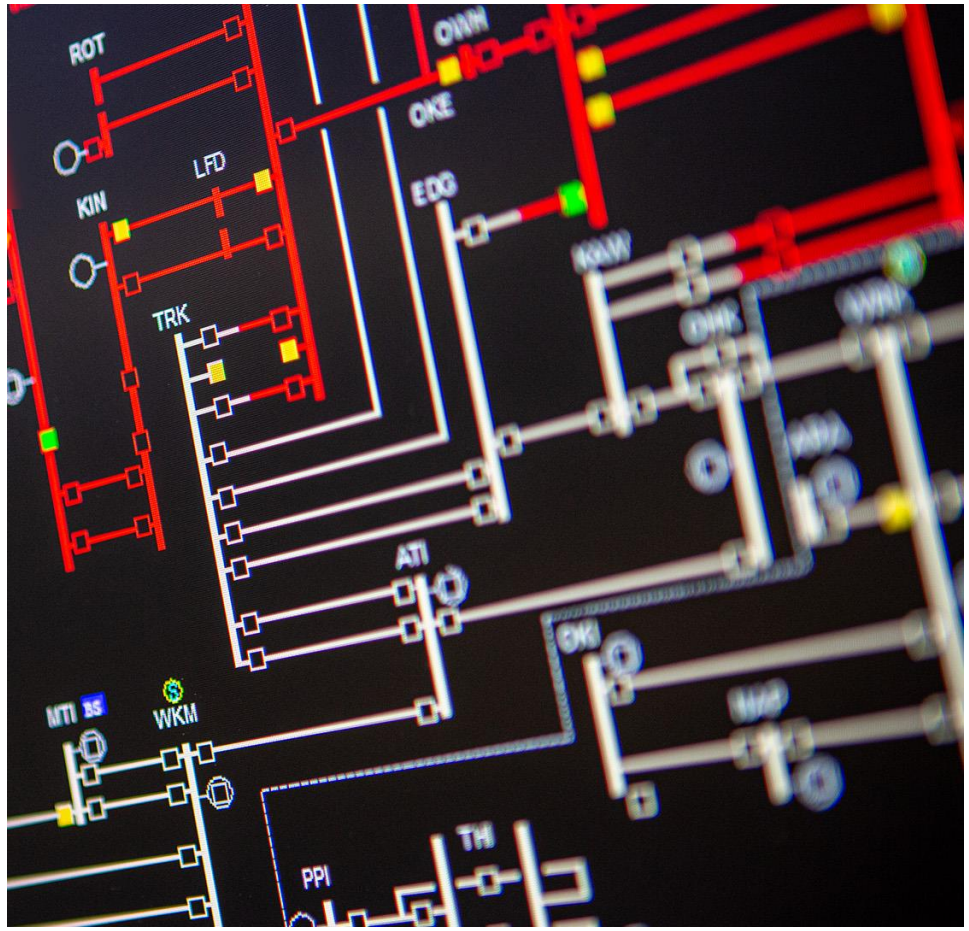
- Is ICCP required?
- Various minor technical queries
- Questions about SLDs and “generating unit”

System Operator Proposition

- Data transmission requirements unchanged from Tech Code C
- **Implement** minor updates
- Definition of “generating unit” out of scope



High-Speed Data



Summary of Requirements

- Added requirement to install high-speed monitoring (HSM)
- One HSM per station
- Resolution: at least 20 ms
- Alternative to routine testing for small stations
- Submit event data on request

Consultation Feedback

Submissions

- Opposed to requirement to install HSM at existing stations
- Unclear benefits of HSM
- Question data format for submission

System Operator Proposition

- **Amend** HSM requirement to apply only for new stations
- Event investigation, fault analysis, testing
- Specified formats allow automation

CACTIS: Operational Communications and High-Speed Data Requirements

Discussion

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2025 Asset Owner Engineering Forum

Afternoon Tea

14:30-15:00

General Discussion Q&A

Closing Address

Katherine Moore

Head of Power Systems | Operations

Closing Summary & Next Steps

1. Build a common awareness of the what and why of the Connected Asset Commissioning and Testing Information Standard (CACTIS).
2. Discuss perspectives, responses, and expertise related to aspects of the CACTIS.

Closing **Karakia**

Unuhia, unuhia,
Unuhia ki te uru tapu nui
Kia wātea, kia māmā, te ngākau,
Te tinana, te wairua, i te ara tangata
Koia rā e Rongo, whakairia ake ki runga
Kia tina! Tina! Hui e! Tāiki e!

Translation

Draw on, draw on
draw on the supreme sacredness
to clear, to free the heart,
the body and spirit of humankind
That is Rongo suspended high above us
Draw together! Affirm!

Thank you

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