

The role and importance of an electricity market for a sustainable South Africa Transition

Road to SAWEM 2026

JUNE 2025





Agenda

08h30: Welcome

Nedbank

08h35: Setting the scene

Deputy Minister of
Energy & Electricity

08h40: Introduction to Road to SAWEM 2026

Energy Council

09h00: NTCSA preparation work

NTCSA

09h20: Panel deep-dive with Q&A

Panel members

10h30: Our road ahead

Energy Council

10h45: Close and Networking



UNITED IN PURPOSE

The Energy Council of South Africa serves as the collective and unified voice of the energy sector. We enable a thriving and sustainable energy sector that supports inclusive economic growth for South Africa.

APPROACH

- Market & consumer led
- Technology agnostic
- Fact & evidence based
- Inclusive & collaborative
- Endorsed by Government
- Led by CEOs of business
- Diverse sector representation
- Delivery focused



Mobilising capacity and unlocking investment

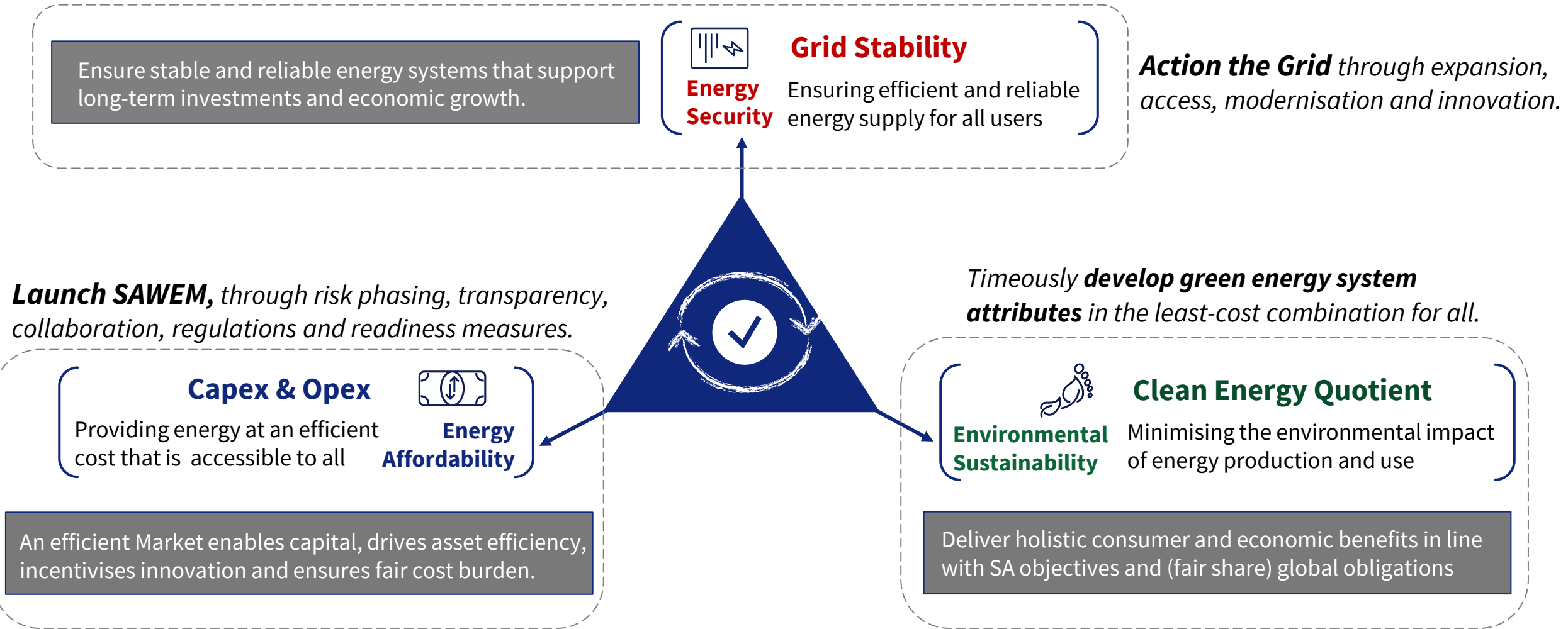
SAWEM is at the heart of energy reform

SAWEM is crucial to enable our Energy Transition.

- It fosters competitive pricing and investment.
- Promotes innovation and modernisation.
- Reduces reliance on national fiscus and enhances energy security.
- Enables transparent and fair cost distribution



Re-thinking the Energy Trilemma in delivery language



Consumers must ultimately carry the huge energy investment burden, but it must be distributed in a socially fair and transparent manner.
We have an obligation to all South Africans to deliver an efficient and reliable system, drive least cost and progress green attributes.

SAWEM matters beyond the Market

SAWEM is a reform catalyst

Risk of delaying the market launch?

- **Investment downturn & confidence loss**
- **Inefficient and higher pricing**
- **Reduced innovation**
- **Lost economic opportunities**
- **Energy security risk increases**
- **Extending Eskom monopoly**

Benefits of market launch?



Generator Optimisation

- Incentives for performance improvement
- Opportunities to restructure debt and assets
- Reduced political and cross-subsidy burdens



Cost Transparency

- Better price signals - Reveals the true cost of generation
- Improves tariff setting
- Supports informed investment decisions
- Empowers large users and consumers



Grid Modernisation and Access

- Unlocks new investment in grid infrastructure
- Improves open and non-discriminatory grid access
- Enables better grid planning and optimisation
- Supports regional integration



EDI service improvement

- Aligns local and national reform agendas
- Encourages rationalisation and consolidation
- Promotes embedded generation and prosumer participation
- Enables better grid planning and optimisation



Innovation

- Creates space for new business models
- Drives product and service innovation
- Accelerates technology adoption
- Encourages entrepreneurial activity

SAWEM stakeholder mapping



**Policy &
Regulatory**

Dept of Electricity & Energy
Policy direction & legislation

NERSA (including oversight & advisory bodies)
Licensing, approves tariffs, monitors compliance, enforces market rules

Generation Participants



Eskom Gx

Dominant supplier; sells via vesting contracts and market bids.

1



Legacy IPPs

Supply via existing PPAs through the CPA;

2



New IPPs

Bid directly into the DAM and participate under new market rules.

1

Core Market Institutions

NTCSA



System Operator (SO)

Responsible for the operation and stability of the grid



Market Operator (MO)

Hosting of platform for Day Ahead Market (DAM)

CPA

Central Purchasing Authority

Trades all energy on DAM
Sale agreements with distributors
Provides ancillary services to SO

3



Finance Industry

Project finance, credit guarantees, payment security mechanisms.

Demand-Side Participants

4

Large Power Users



May purchase directly from the market

Municipalities



1

Eskom Dx



Purchase from market - sell to end users.

4

Aggregators & Traders



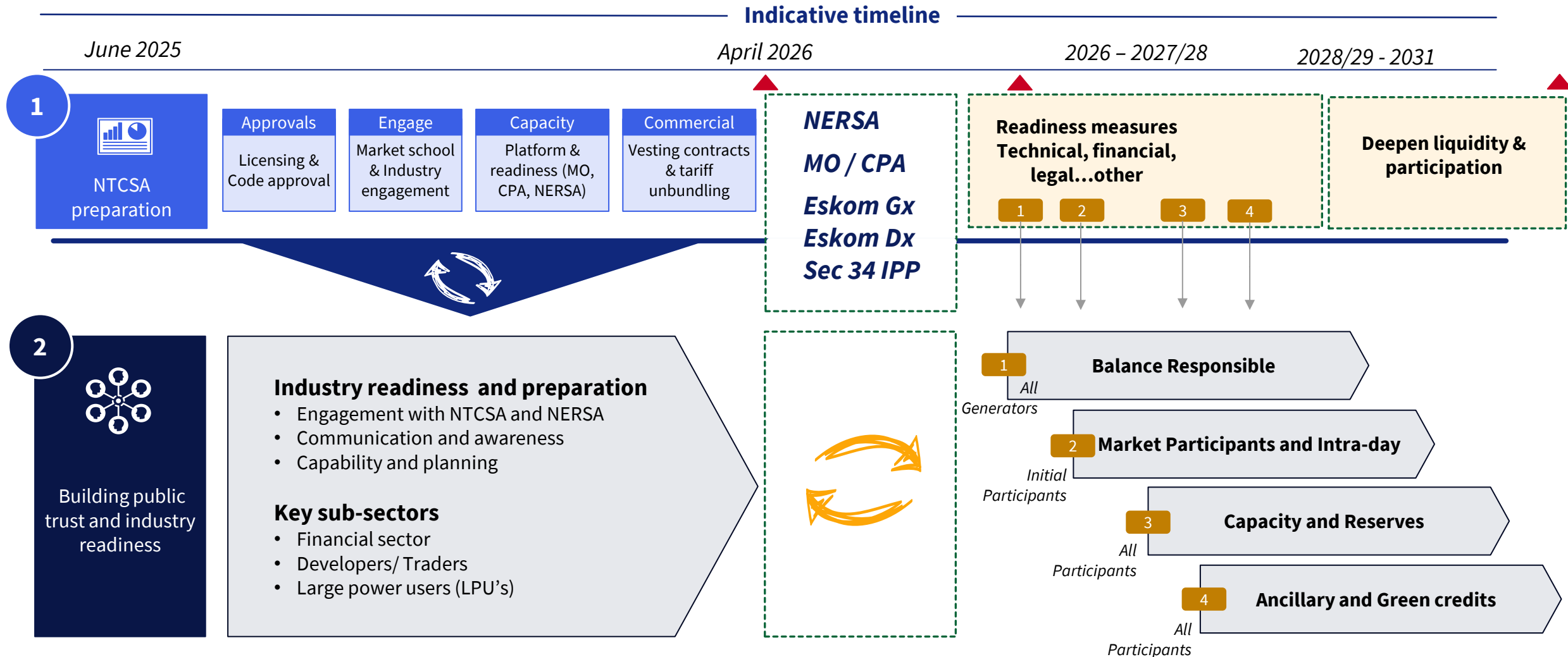
Grouped small generators; Intermediaries buying and selling electricity



Indirect Participants

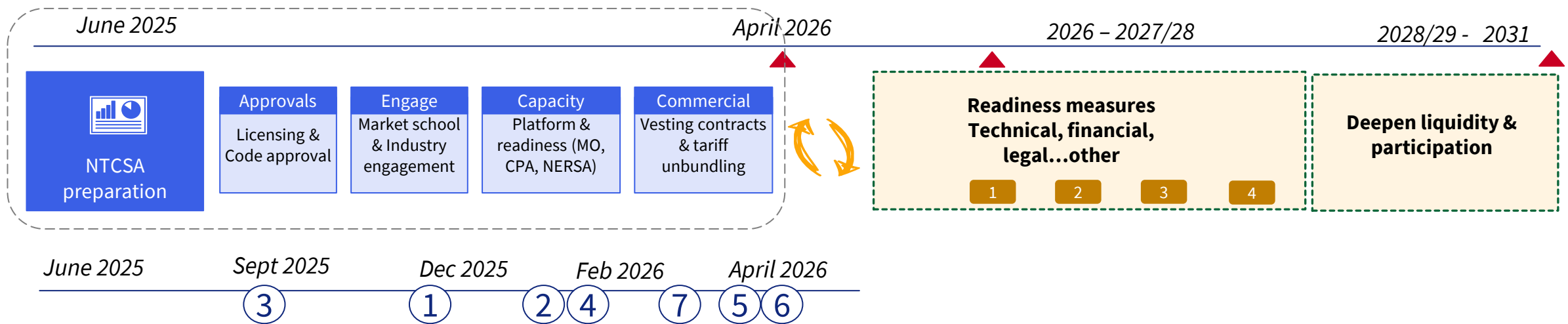
Purchase from
Market Participants

SAWEM launch preparation and potential phasing



What must NTCSA do to launch SAWEM

Indicative timeline



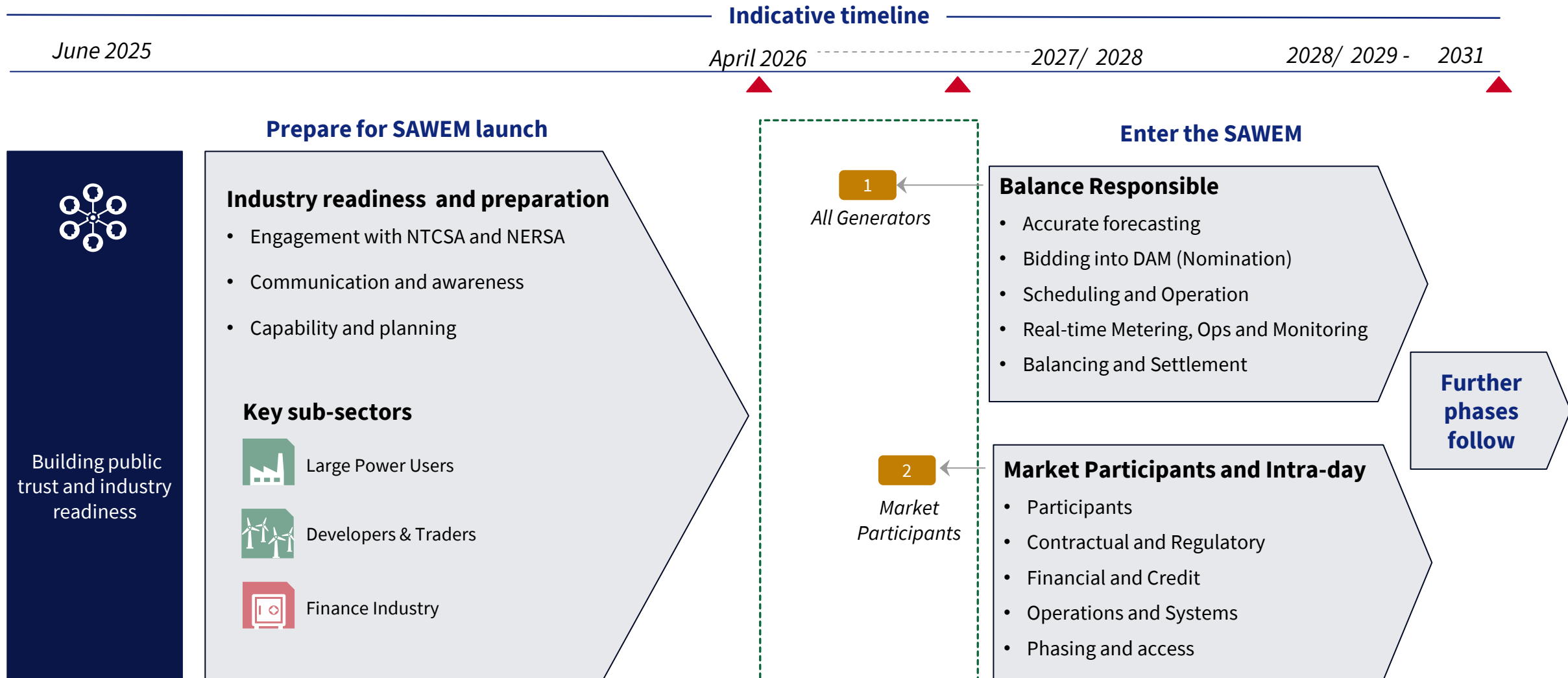
NTCSA priority steps

- 1 Market Operator License
- 2 Market Code
- 3 Market School and Capacitation
- 4 Market Participation & Balancing
- 5 Market Platform Developments
- 6 Vesting and Capacity Contracts
- 7 Unbundling the Wholesale Tariff

Development of SAWEM outcome

- Market launch as Eskom Gx to Dx plus S34 IPPs included through the CPA
- Price transparency but all trading is fully hedged to regulated revenue
- Balancing demonstrated, impact and penalty rates managed through the CPA and hedged back to Legacy PPA's
- Transparency, public engagement and market platform provides confidence
- Monitoring and regulatory oversight is tested
- Preparation and readiness measures continue to expand Market functionality

What can Industry do to prepare and support





NTCSA presentation

“We are encouraging all South Africans to give it a full go to get this going by 1 April 2026”

“This will be the first iteration and as the market evolves it will be increasingly closer to a full competitive electricity market as prescribed in the ERA”

NTCSA



The South African Wholesale Electricity Market (SAWEM) Roadmap has key milestones to be achieved

System development for platforms

- Conclude gap analysis
- Conclude recruitment
- Develop banking and finances interface
- Test market platforms
- Dry run market platforms

October 2025

NERSA approval for Market Operator license

- NERSA process for approval

September/October 2025

Wholesale tariff rules approved

- Draft proposed rules for Wholesale pricing
- Submit proposed rules to NERSA
- NERSA process to approve rules

March 2026

Market launch

March 2026

Vesting contracts finalized and approved

- Finalise industry paper on Vesting Contracts
- Workshop industry paper
- Draft proposed vesting contracts
- Governance approval for vesting contracts
- NERSA approval for vesting contracts

January 2026

Agreements for balancing and market participation finalised

- Publish draft agreements
- Workshop draft agreements
- Governance approval for agreements

June - August 2025

Training platform and simulations developed

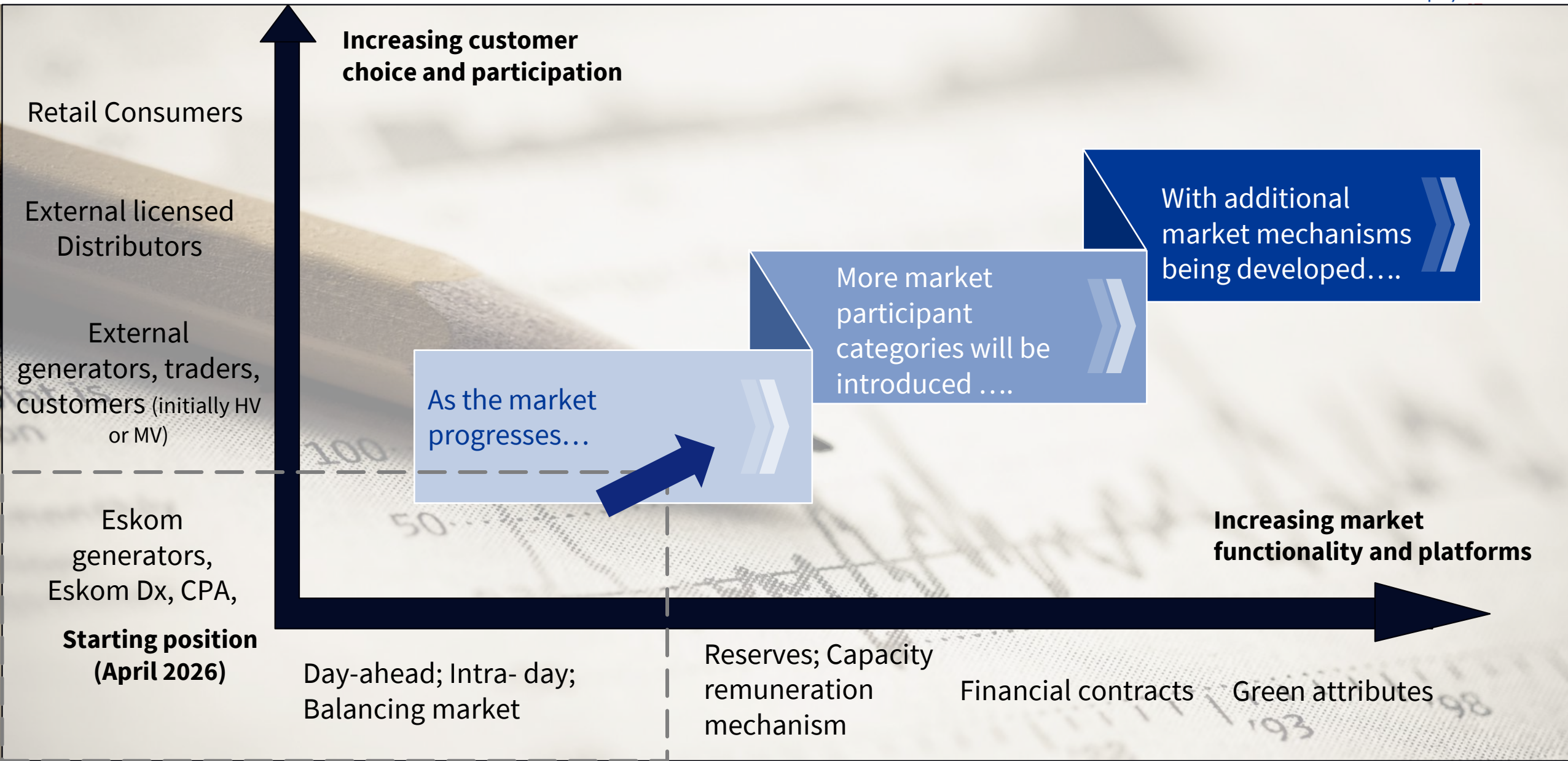
- Simulation tool for Market School
- Finalise course material
- Dry run scheduled for June
- Advertise for training events and process applications

July – December 2025

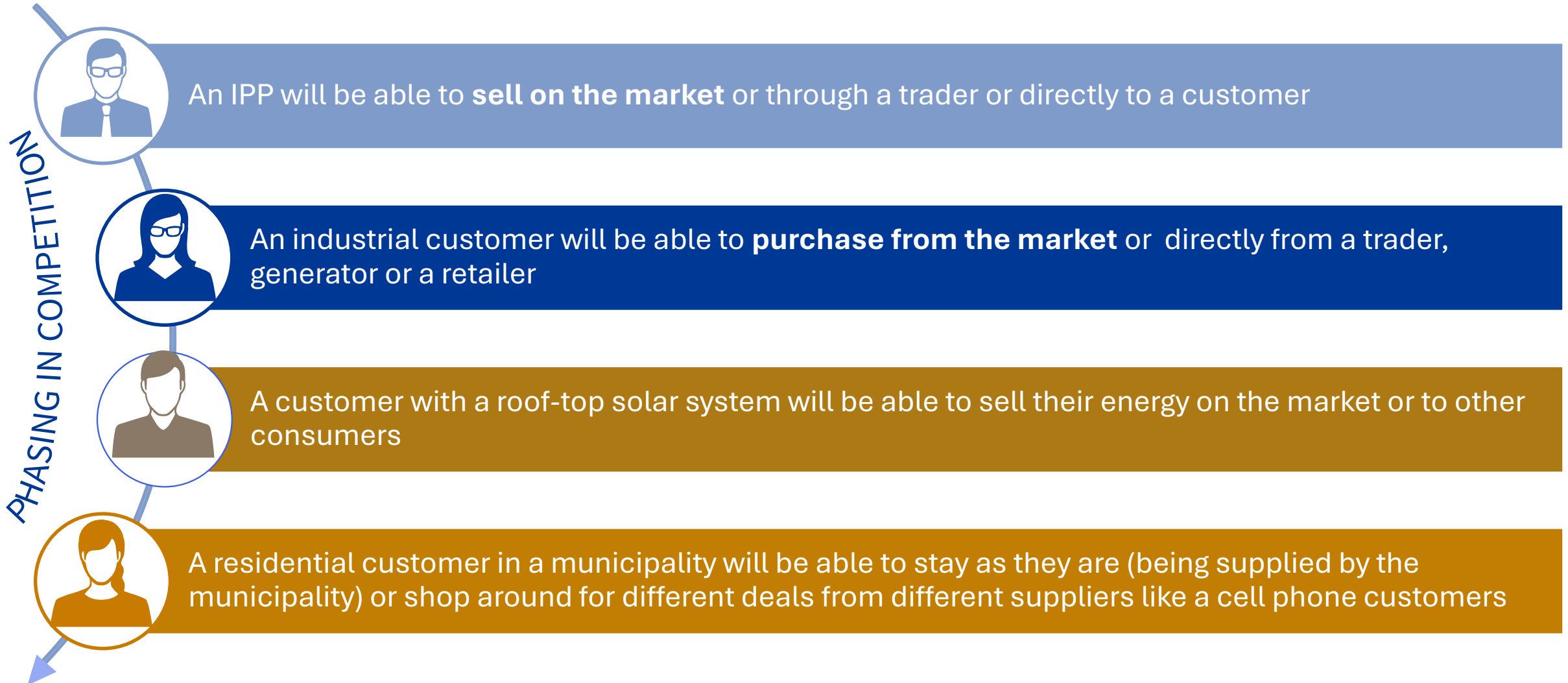
NERSA approval for Market Code

- Incorporate legal findings into final revision of Code
- NTCSA approval of revision
- Relaunch revised Code with industry players
- Submit to NERSA

Evolution of the energy markets will progress over time....



The market will have positive impacts for consumers once full consumer choice is implemented



Building capabilities to participate in the SAWEM

SAWEM School: “Know the Rules. Enabling Participation.”

SAWEM School is a structured, expert-led training programme established by the **NTCSA Market Operator** to equip future market participants with the skills, tools, and accreditation needed to operate confidently in South Africa’s reformed wholesale electricity market.

“SAWEM School is your launchpad into the competitive electricity market.” Intensive 3-day in-person training, held monthly nationwide from July 2025, covering all aspects of SAWEM — trading, compliance, market operations, and settlements..

Who Should Attend?

SAWEM School is designed for **individuals and entities intending to participate in SAWEM** , including:

- Prospective applicants to SAWEM Market Operator systems
- Independent Power Producers (IPPs)
- Energy Traders
- Regulators
- Aggregators and Energy Service Providers
- Retailers
- Large Industrial or Commercial Consumers
- Municipalities
- Balancing Responsible Parties
- Market Analysts and Advisors
- Investors

Why Attend?

- Receive official SAWEM Accreditation, mandatory for market participation
- Understand the Market Code and participant obligations AND
- Gain practical exposure to bidding, gate closure, balancing, and settlements
- Interact with NTCSA market experts and facilitators AND join a growing network of certified market-ready professionals

NOTE: Only individuals who have completed SAWEM School and obtained certification will be permitted to register or participate in the SAWEM market.

Training attendance fee: R 1500 - A nominal fee is charged to encourage commitment and confirmed attendance. No fee will be charged for participants from partner organisations

Panel deep-dive on hot topics



Panel discussion format – market simulation

- A** Legal & Regulatory
- B** Balancing
- C** Market Participation
- D** Bilaterals
- E** Finance
- F** Readiness

“Legal advisor”



Claire Tucker

Moderator



James Mackay

“MO/ CPA”



Keith Bowan

“Market Participant”

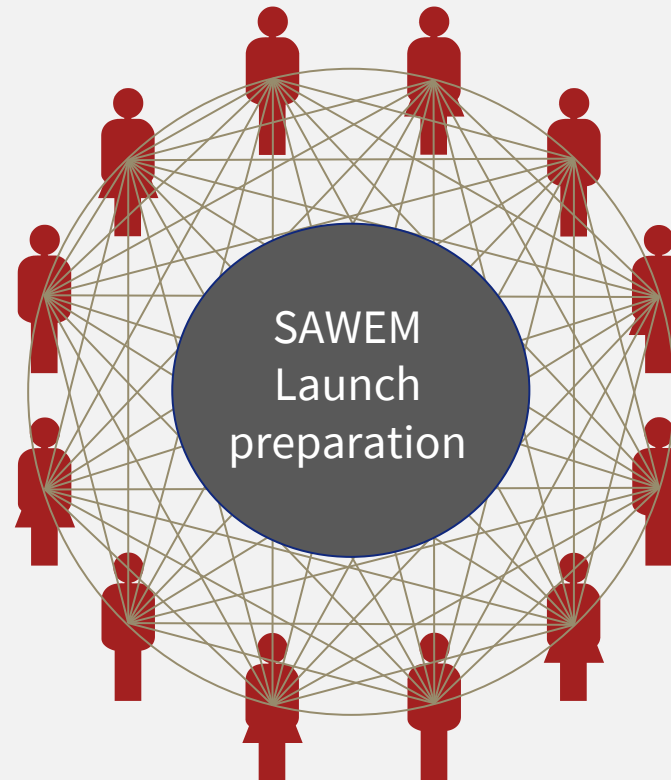


Rob Futter

“Finance partner”



Jan Malan



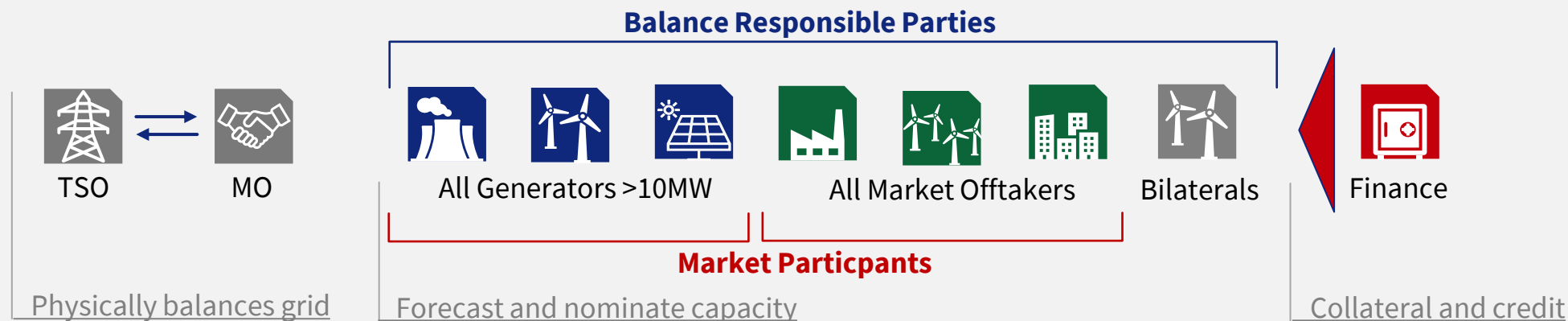
Audience Participation

Legal and contractual issues to be finalised/ clarified

| | Legal Risk / Issue | Description (initial work) |
|----|---|---|
| 1 | Alignment of Codes and Laws | Alignment of Market Code with ERAA, Grid Code, System Operator Code. |
| 2 | CPA Legal Framework | CPA role, pricing methodology, and licence need to be clearly legislated and/or regulated. Approved Vesting Contracts (subject to public participation process) |
| 3 | Municipal Participation | Legal barriers under MFMA; need regulation for municipal participation and retail eligibility. |
| 4 | Contractual Transition Impact | ERAA impact on existing PPAs, ESAs, CUoSAs; potential changes in law risk. Balancing Agreements with Generators, Market Participation Agreement with CPA, Market Participation Agreement Eskom Gx and Eskom Dx |
| 5 | Retail Code / Retail Eligibility | Need for regulatory framework on retail thresholds and municipal retailer roles. |
| 6 | CPA Cost Pass-through | Need regulation/codes for how CPA costs (Vesting, legacy PPAs) flow through to customers. |
| 7 | Governance Structures | MCAC, MSU, MSP must be constituted and capacitated. |
| 8 | Unbundled Network Charges | New framework for unbundled transmission/distribution charges and pass-throughs is required. |
| 9 | Enforcement of BRP obligations on out-of-market IPPs ≥ 10 MW | Legal mechanism needed to compel grid-connected IPPs >10 MW to register as BRPs and comply with balancing rules; alignment required across Market Code, Grid Code, NERSA licences and contracts. |
| 10 | Market Participation & Balancing Contracts | Define the legal obligations for trading and balancing in SAWEM. Clarify registration, credit, forecasting, and settlement duties — including enforcement of BRP roles for generators >10 MW, even if outside formal market participation |

Balancing and Balance Responsible Party

Balancing Responsible Party (BRP) is responsible for matching its forecasted and actual energy delivered or consumed, and for settling any imbalances with the market. Offtakers buying from Distributors or Traders are not BRP's



Non-Market offtakers are **not balance responsible parties**



Penalties or rewards depend on **actual vs forecasted performance (5% tolerance)**



All participants must be **part of a BRP arrangement**.



All BRPs must submit **day-ahead forecasts (will progress to Intra Day)**.

Over-Balance

You delivered **MORE** than nominated
MO buys below SMP

Outcome: Reduced profit

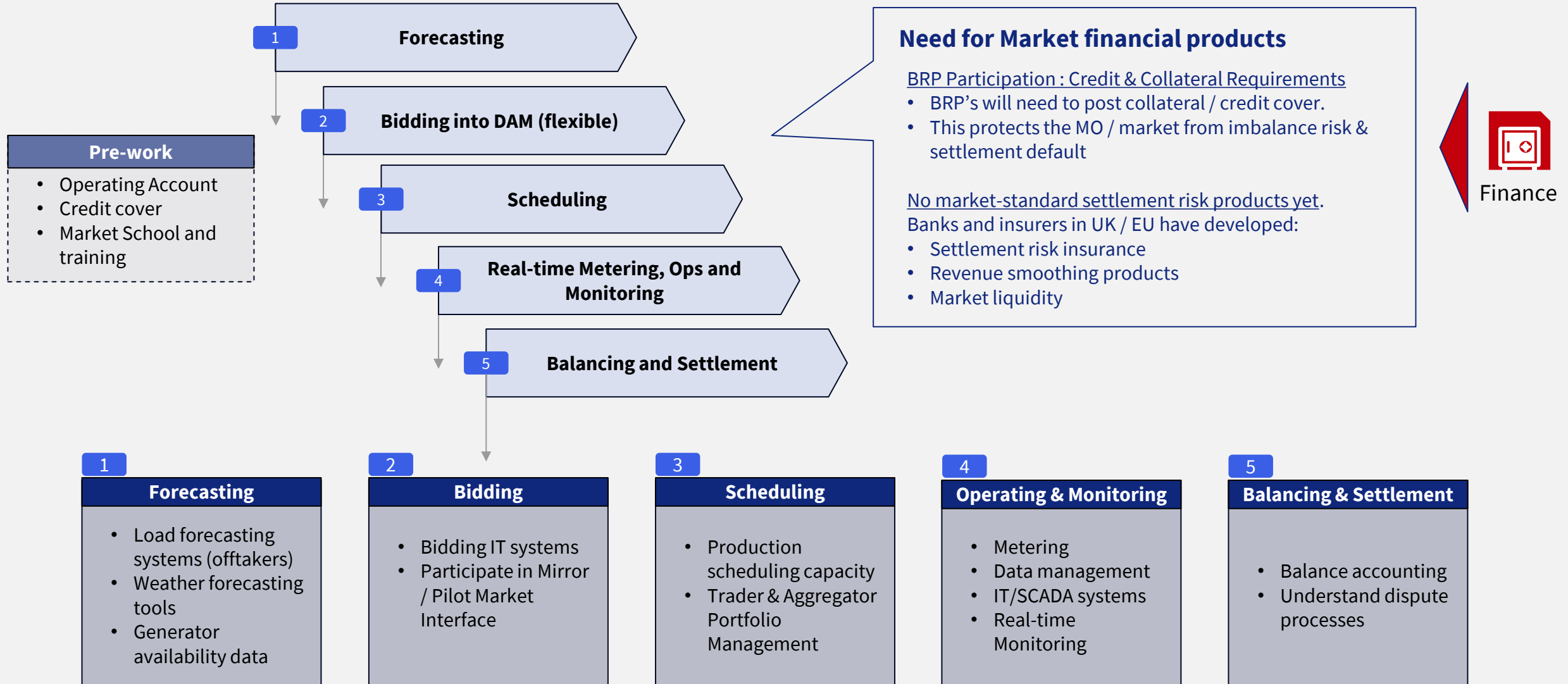
Under-Balance

You delivered **LESS** than nominated
You must buy the shortfall from the MO —
and pay above SMP.

Outcome: Suffer loss

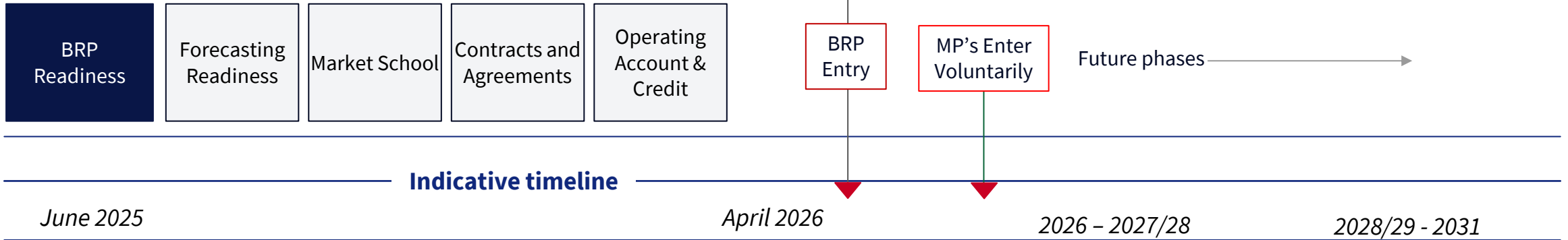
NOMINATED LOAD

Balancing capabilities you must prepare



c Electing and qualifying to be a Market Participant

Generators > 10 MW



Eligible Participants



Key Support



Market Participants Can

- Trade all or part of their load or generation
Split volumes between market and bilaterals
- Include a wide range of entity types
Generators, Offtakers, Aggregators, Traders, and Distributors
- Choose when to enter the market
Entry is voluntary — but once entered, full compliance applies
- Participate via service providers
e.g. appointing a BRP or using a trader/aggregator intermediary

Market Entrance is Voluntarily but must be eligible and compliant

- You decide when to participate
- However, IPP generators >10 MW must balance from launch
- LPUs, traders, municipalities can enter, based on readiness and strategic value

Once entered

- You forfeit reliance on your historic default supplier
- You are financially exposed to real-time price movements(e.g. SMP, imbalance penalties, forecasting errors)
- You must comply with operational and credit requirements

D Bilateral Agreements and SAWEM

- Long-term power purchase agreements (PPAs) or energy supply agreements (ESAs) between IPPs, LPUs, Traders, or Distributors
- Will co-exist with SAWEM — participation is initially optional, but requires compliance with BRP and scheduling rules if >10 MW
- Over time SAWEM will become the preferred platform and bi-laterals will face increasing pressure to adjust

What Happens to Bilateral Agreements?

- SAWEM allows existing bilateral contracts to continue and initially remain external to SAWEM
- S34 IPPs with legacy contracts will enter through the CPA as a legacy contract ;
- Generators >10 MW must still register as BRPs, even if trading bilaterally
- Offtakers staying outside the market will not carry balancing obligations
- SAWEM introduces new visibility and cost-reflective benchmarks (SMP, UoS & Legacy charges) — impacting pricing and risk



PPAs may require revision:

- To clarify who is the BRP and who carries forecasting /balancing risk
- To address potential new costs due to tariff unbundling
- To enable partial market participation (e.g. trading excess volumes)

Wheeling Agreements:

- Must align with SAWEM tariff structures, including losses, UoS, and future SMP exposure

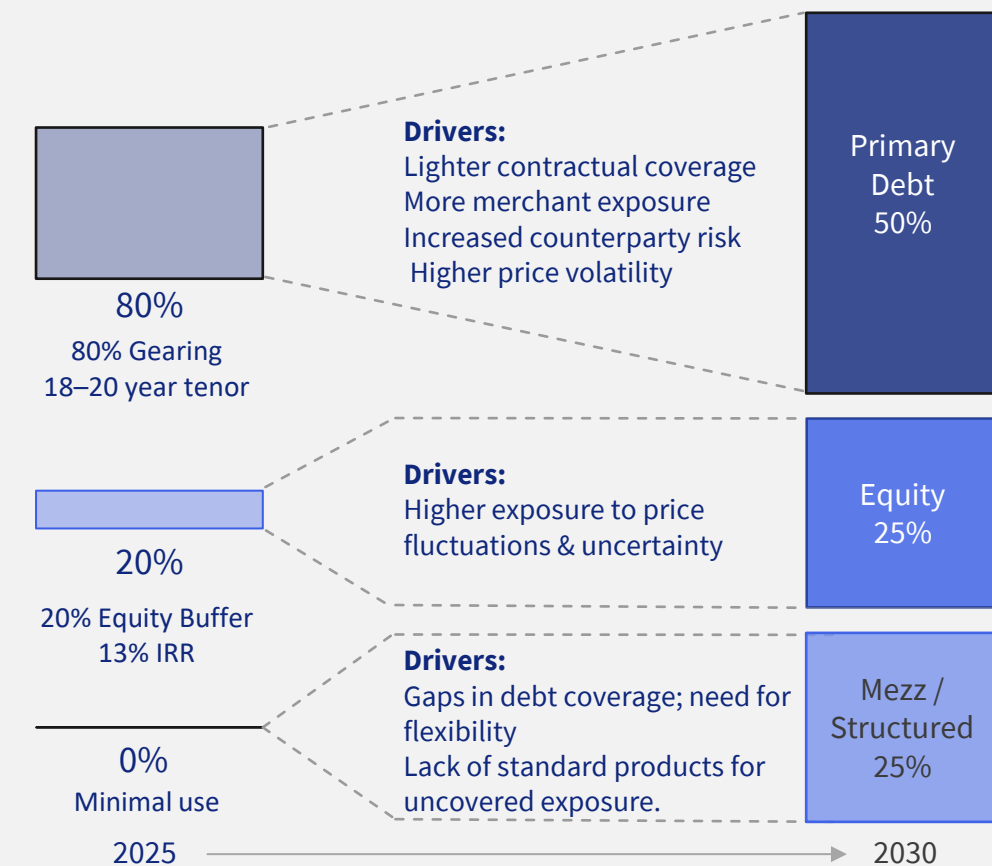
Risks

- Rigid TOP clauses may block optimisation
- Uncertainty on BRP or imbalance liability
- Uncertainty on wholesale tariff unbundling
- Loss of competitiveness vs market-based pricing

Next Steps

- Review bilateral contracts for:
 - BRP assignment
 - Forecasting responsibilities
 - Flexibility for future market access
- Engage legal and regulatory advisors on SAWEM compliance
- Begin modelling how market pricing may affect bilateral decisions (SMP, CRM, losses)

Changing finance structures and need for new products



Cash Flow and Liquidity

Highly variable; increasingly project-specific.

- Short-term liquidity support reduces significantly
- Project viability more sensitive to reserve account adequacy and SMP volatility; liquidity mismatches present financing risks

Primary Debt

Riskier and less dominant.

- Gearing ratios drop from 80% to ~50%; tenors reduce from 18 years to around 12 years; Debt term linked to PPA length; repayment tail usually required
- Senior lenders demand stronger credit support (e.g., 1-year Buyer Credit Support)

Equity

Increasing share of total stack.

- Expected increasing equity portions due to reduced senior debt appetite
- Equity becomes the buffer absorbing early-stage market risk; higher IRRs (~14%) expected; Equity could include up to 75% shareholders loans

Mezzanine and Structured

Emerges as buffer between equity and senior debt

- Emergence of a “sub-debt market”
- High cost to reflect revenue variability and subordinated claim

Credit Support

Weakening across the board.




- Long-term credit support drops from 2–3 years of revenue cover to just 1 year or less
- Banks constrained without significant third-party guarantees or liquidity instruments
- Increases in uncovered cash positions

Financial readiness for SAWEM



F Who must prepare

Throughout the SAWEM rollout, the Energy Council will provide targeted information and guidance to help market participants navigate reform with clarity and confidence.

| | | | |
|--|---|---|--|
| <div>Industry wide</div> <div><ul style="list-style-type: none">Capacity building and training<ul style="list-style-type: none">Market schoolMarket CodeInternal trainingForecasting and scheduling readiness<ul style="list-style-type: none">Generation forecastsLoad forecastsMetering and data systemsLegal and contractual alignmentCredit & Collateral Arrangements</div> | <div><div></div><div>Developers & Traders</div></div> <div><div>Role in Market</div><div><ul style="list-style-type: none">Bid into Day-Ahead Market (DAM) and settle imbalancesMay aggregate generation</div></div> <div><div>Key Readiness</div><div><ul style="list-style-type: none">Register as Market Participants and BRPs (≥10 MW)Re-negotiate bilateral PPAsConclude MP & BRP agreementsSecure trade security cover and clearing accountsAudit generation/load flexibility</div></div> <div><div>Risk Areas</div><div><ul style="list-style-type: none">Imbalance penalties, inaccurate metering, insufficient forecastingContractual rigidity in PPAs, exposure to congestion/loss chargesBilling errors and trade settlement disputes.</div></div> | <div><div></div><div>Large Power Users</div></div> <div><div>Role in Market</div><div><ul style="list-style-type: none">May enter as buyers in DAM or remain on Bilateral SupplyCan balance via load curtailment</div></div> <div><div>Key Readiness</div><div><div><ul style="list-style-type: none">Market Participation Optional</div><div>To enter market:<ul style="list-style-type: none">Re-negotiate bilateral PPAsRegister as Market Participants and BRPConfirm metering, remote telemetry, and curtailment capability</div></div></div> <div><div>Risk Areas</div><div><ul style="list-style-type: none">Operational inefficiencies from rigid Take-or-Pay clausesInflexibility in first-right-of-refusal clausesOperational non-readinessPrice or loss differentials between bilateral and market pricing</div></div> | <div><div></div><div>Municipalities and other</div></div> <div><div>Role in Market</div><div><ul style="list-style-type: none">Initially limited participation; may follow Eskom Dx model</div></div> <div><div>Key Readiness</div><div><ul style="list-style-type: none">Prepare for future BRP obligationsAssess systems, governance, and grid visibilityAlign internal strategy and policy with evolving market access rules.</div></div> <div><div>Risk Areas</div><div><ul style="list-style-type: none">Lack of technical ability to measure, forecast, and nominate loadLegal and regulatory constraintsOutstanding debt</div></div> |
|--|---|---|--|

Close and Way forward



What can you expect next

1



Public sector
preparation to
be made visible

NTCSA preparation and engagement process

- 7 priority focus areas
- Capacitation (MO, CPA)

NERSA preparation and engagement process

Required areas of collaboration

- Consultation on vesting contracts
- Consultation on tariff unbundling
- Participation in Market School
- Responsive to coordinated requests

Continue to interface through NECOM Wks 3 on SAWEM Readiness

2



Building public
trust and
industry
readiness

Energy Council launch of Industry engagement channel

- B2B SAWEM governance connected to B4SA-NECOM Wks 3
- Registration open to all stakeholders run through Council Website NECOM page for Business Participation will receive notifications and updates on the channel
- Develop content and concepts notes through peer-review
- Mapping of risk heat-map and readiness surveys
- Supporting channel for NTCSA communication and progress dashboards

Key risks to be monitored

- Regulatory Uncertainty
- Public Sector Capacity Constraints
- Weak Collaborative Frameworks
- Available finance and bankability
- Readiness for Systemic Disruptions

ENERGY COUNCIL
OF SOUTH AFRICA

