

South Asia Regional Energy Partnership (SAREP)

Presentation

on

Draft Terms of Reference (TOR) of the Knowledge Study

on

“Regional Policy and Regulatory Framework For Electricity Market Monitoring and Oversight”

Session 3: Updates on the planned Interventions of the SAREP Task Force-I on “Coordination of Policies, Legal and Regulatory Frameworks for CBET”

11th Meeting of SAREP Task Force-I on “Coordination of Policies, Legal and Regulatory Frameworks for Cross Border Electricity Trade”
Maitland State Room, 9th October 2023, Mount Lavinia Hotel, Mount Lavinia, Colombo, Sri Lanka

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Why we need Electricity Market Monitoring & Oversight (EMMO)

Competitive Electricity Markets can be manipulated despite market rules are in place due to various factors

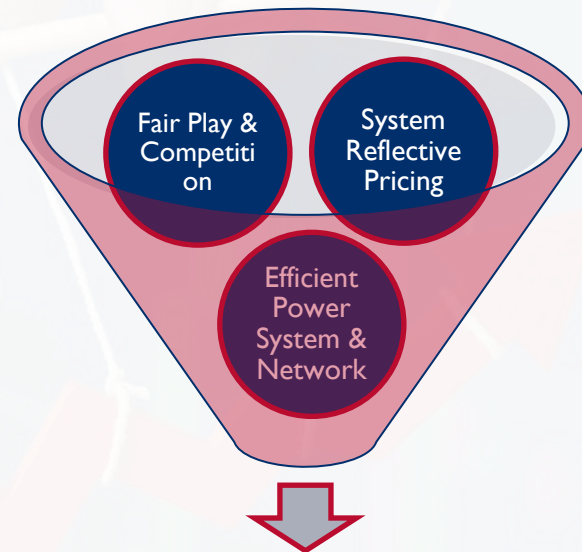
- Abuse of Market Power
- Cartelization
- Insider trading
- In appropriate conduct/abuse by any Market Participant
- Loophole in the Market Rule/ market structure/Market Design
- Information Asymmetry

Electricity Market Monitoring & Oversight scope could cover

- **Market Power (MP)**: Detecting, Monitoring of MP, evaluating participant conduct, behaviour & mitigating when appropriate
- **Market Manipulation**: Detecting attempts to influence market outcomes through fraud or manipulation, and support enforcement
- **Market performance**: Determining whether market rules & procedures provide efficient incentives & lead to efficient outcomes.
- **Operator performance**: Assessing whether operation of system is consistent with reliability needs & efficient market performance.
- **Market design changes**: Evaluating whether proposed new market rules or revisions will improve market performance and provide efficient incentives

Source: USAID MLET Program/USEA

EMMO provides Confidence in the Market



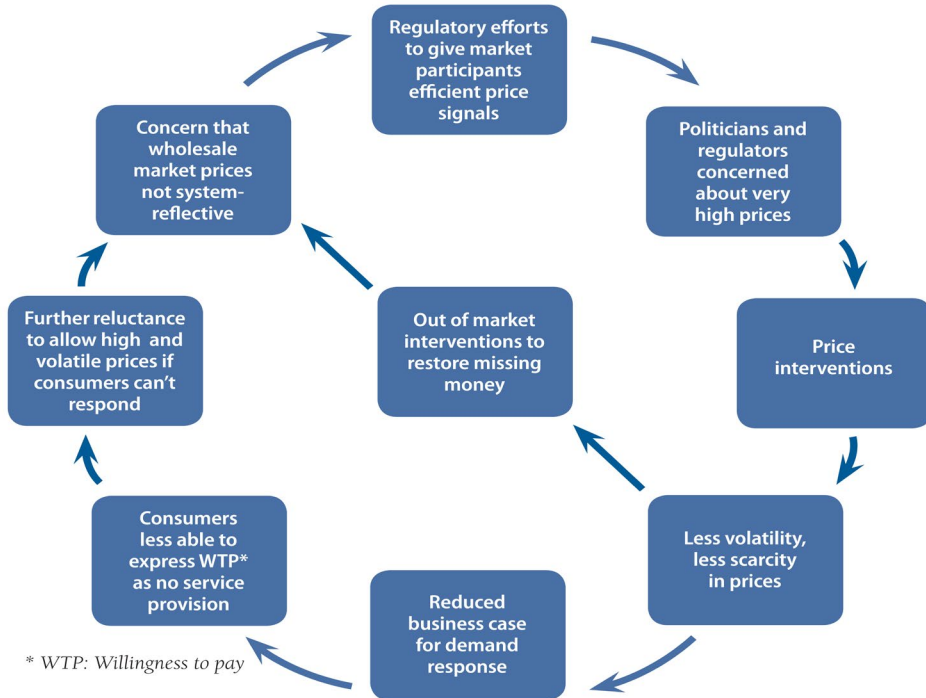
Ensures the Price in the market is reflective of Cost, Values and System Conditions

Source: Adapted from RAP-Can We Trust Electricity Prices?

Market Monitoring primarily serves as a means of check, balance and act against concentration of market power and potential market manipulation so as to ensure competition in competitive markets and the price is reflective

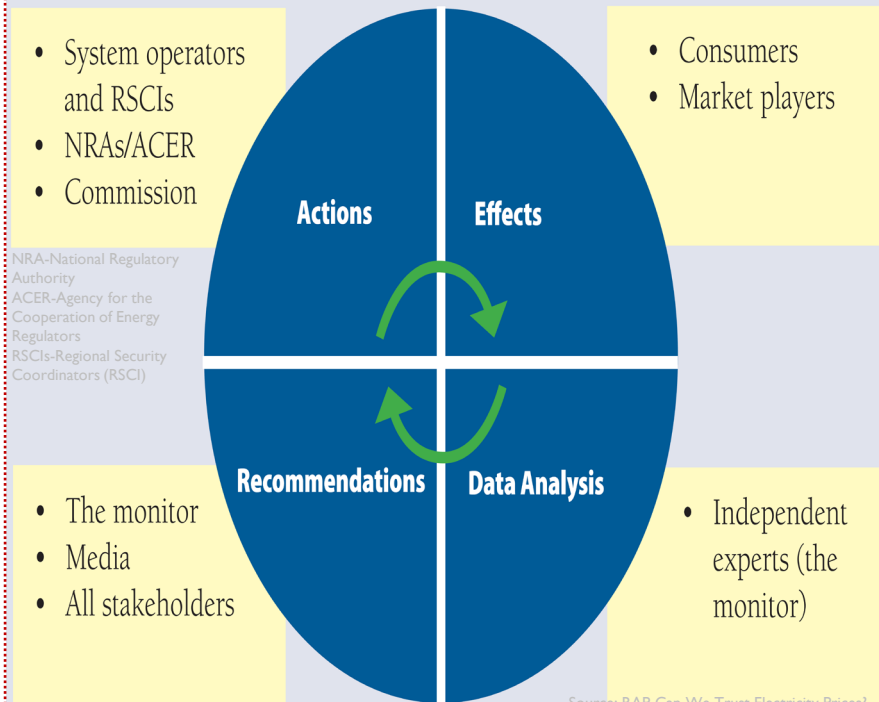
Why we need Market Monitoring and Oversight function

The Spiral of Price Interventions in Wholesale Power Markets Ensures Full IEM Benefits Remain Unattainable



Source: RAP-Can We Trust Electricity Prices?

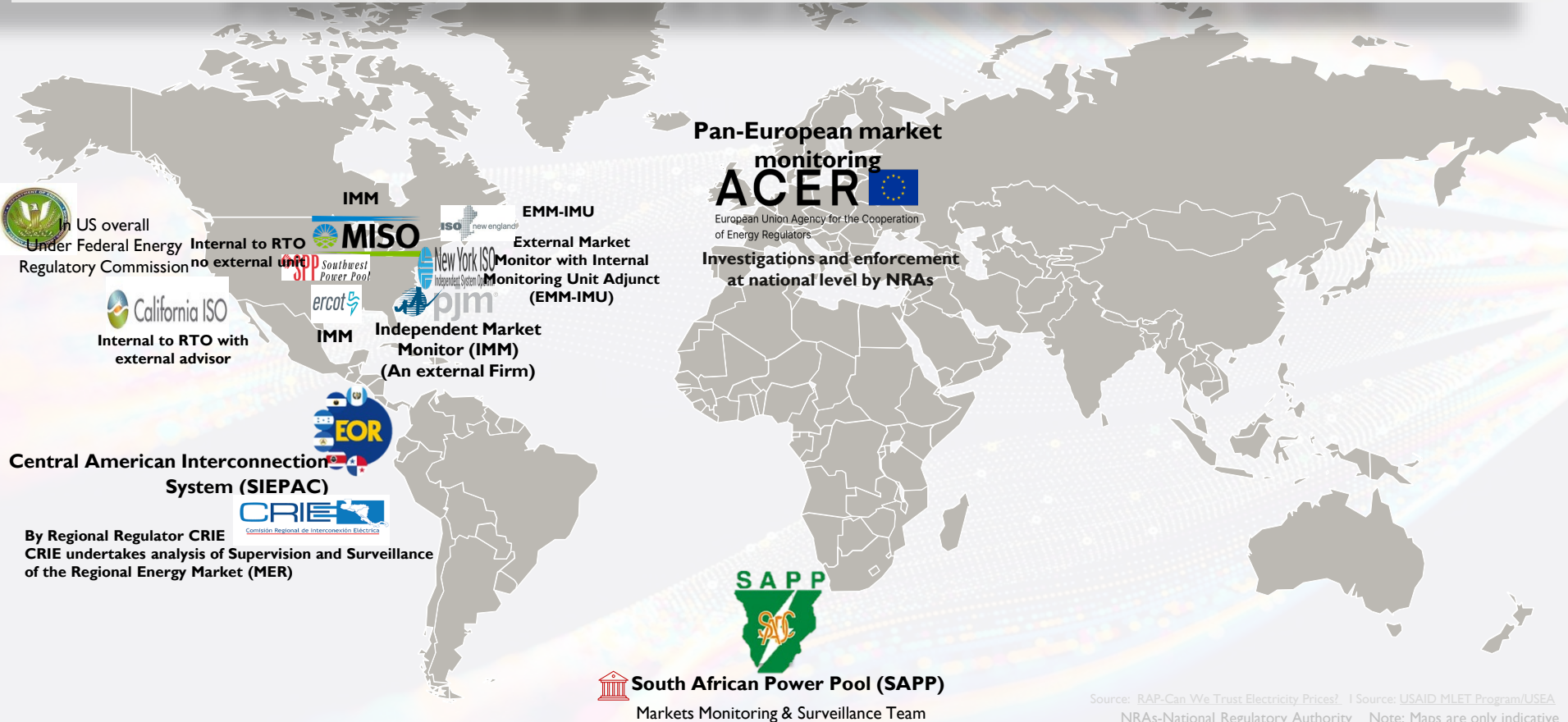
Market Monitoring: A Continuous Evaluation Process



Source: RAP-Can We Trust Electricity Prices?

In the absence of effective market monitoring, it is hard to break the spiral of price interventions in wholesale power markets where one intervention, such as a price control, can lead to another. This makes it impossible to realise the full benefits of competitive markets.

Market Monitoring and Oversight function in Regional Power Markets and RTO Markets around the Globe



US FERC Investigation: The Case of Constellation Manipulating Trades in NYISO

In January 2008, having received an anonymous tip-off regarding un-economic power flows in and out of the New York power market (NYISO), FERC initiated an investigation into the trading behaviour of a company called Constellation. The investigation involved FERC's submission of 99 data requests, the review of more than 90,000 documents (more than 0.5 million pages) and the holding of 17 days of depositions. In addition, the FERC rebuilt the company's trading book (of more than 2 million trades) and had NYISO re-run the market to isolate the impact.

Constellation had used actual and virtual transactions to manipulate the NYISO market and several manipulative behaviours were identified, including:

- Actions that alter fundamental economic relationships among products
 - Importing higher cost electricity into New York to lower prices at a given point/region
 - Exporting lower cost electricity to increase prices

- High market concentrations during trading windows
 - Taking large virtual positions that account for up to 80 percent of the market
- Ignoring competitive market feedback within discrete periods of time
 - Submitting bids for virtual supply and demand prices to ensure being cleared
 - Bidding the same amount into the market repeatedly in spite of growing losses

In 2012 a settlement was reached involving a civil penalty of \$135 million and disgorgement of unjust profits of \$110 million. As a consequence of the investigation, the monitoring of virtual trading was strengthened.

Source: FERC. (2015). *FERC market oversight and monitoring. Presentation by FERC at the Energy Working Party of the Council of the European Union, Brussels.*

Source: [RAP-Can We Trust Electricity Prices?](#)

Objective

To carry out a Knowledge Study on

“Developing a Regional Policy and Regulatory Framework for Electricity Market Monitoring and Oversight to ensure fair play, competition, prevent & act against any potential market abuse and creating an enabling system conditions for investment in cross-border electricity trade projects and development of regional integrated power market in South Asia Region“

Terms of Reference of the Knowledge Study

1

Carry out a comprehensive international review, analysis and develop detailed case studies on the evolution process of electricity market structure, products in different regional models across the globe (such as Europe, North America, Africa, ASEAN, East Asia etc. from the perspective of Electricity Market Monitoring and Oversight (EMMO)).

2

While doing so, review and analyse to focus on the Policy and Regulatory Framework vis-à-vis the provisions currently in vogue to curb any market manipulation/market power and dominance, insider trading, cartelization, abuse of dominant position by any Market Participant in detail, with reference to EMMO framework & its overall philosophy/approach.

3

Electricity Market Monitoring and Oversight is evolutionally in nature, and therefore International review/Case studies should specifically include to capture and answer the following:

3

3.1. Key drivers and enabling factors towards introducing EMMO;

3.2. Analytical details of Strategic, Legal, Policy, Regulatory, Institutional framework & instruments put in place for smooth transition and account of how consensus was built amongst different parties and how issues were reconciled.

3.3. Barriers, key challenges, and issues faced in implementation, and how these challenges and barriers were mitigated;

3

3.4. A thorough analysis of institutional set up of EMMO-Structure, capabilities, Infrastructure, reporting & its independence;

3.5. Impact of the EMMO framework. This to include qualitative and quantitative (such as no of cases/instance of intervention etc. both Ex-Ante & Ex-Post) assessment of EMMO framework vis-à-vis competitiveness of the market;

Terms of Reference of the Knowledge Study

4

Based on the Review & analyse from 1 to 3, prepare a detailed report on the international review and analysis of EMMO, present a comparative overview of the models prevalent towards detecting & mitigating abuse of market power.

5

Review & analyse the scenario prevalent in South Asian (SA) countries with respect to electricity market development, electricity market structure/practices/philosophy vis-à-vis the market design, products, portfolio management, demand-supply management, resource adequacy in the context of trade of electricity including CBET, electricity market integration perspectives and scenario for the near future (next 5-10 years).

6

The above review and analysis to also cover specifically the Policy and Regulatory Framework vis-à-vis the provisions currently in vogue to curb any market manipulation/market power and dominance, insider trading, cartelization, abuse of dominant position by any Market Participant in detail, with reference to EMMO framework & it's overall philosophy.

7

Taking in consideration the findings of 1 to 6 , Undertake a high-level Landscape Questionnaire Survey/Interview to gather perspectives among Policy Makers, Regulators, Market participants and other stakeholders on EMMO for South Asia.

8

Based on the findings and learnings from international experience and the analysis of SA scenario, identify

8.1 The anticipated areas/categories of exercising market manipulation/market power by the different market players, including possible strategies and methods, with ample degree of clarity and supported with illustrations and examples.

8

8.2. The specific need and the techniques towards identifying above actions of market manipulation/ market power abuse and the details of the market monitoring and oversight, to address and mitigate the same.

9

Based on the findings from 1 to 8 , suggest a Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight along with model regulatory provisions template, which may address the issues of market manipulation/abuse of market power, including structural/institutional, regulatory and information-based solutions.

10

Based on 1 to 9 , prepare a detailed draft report covering all the analysis and suggest a road map and action plan for implementation of Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight.

11

Present the Draft findings of international review, South Asia analysis, Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight along with model regulatory provisions template in the 12th Meeting of Task Force-I and incorporate the suggestions/comments.

12

Submit the Final Comprehensive Report, Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight along with model regulatory provisions template and conduct dissemination workshop.



04

Tentative Timeline of the Knowledge Study

Developing Regional Policy and Regulatory Framework Electricity Market
Monitoring and Oversight in South Asian Region



Tentative Timeline : 9 Month

SL NO	Deliverable	TIMELINE
1	Consultant On board	T
2	Inception Report	T+1
3	Draft Report Covering international review, South Asia analysis, Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight along with model regulatory provisions template	T+5
4	Draft Report Covering international review, South Asia analysis, Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight and incorporate the suggestions/comments	T+7
6	Final Report on Regional Policy and Regulatory Framework Electricity Market Monitoring and Oversight	T+8
7	Report Release and Dissemination Workshop	T+9

Thank You



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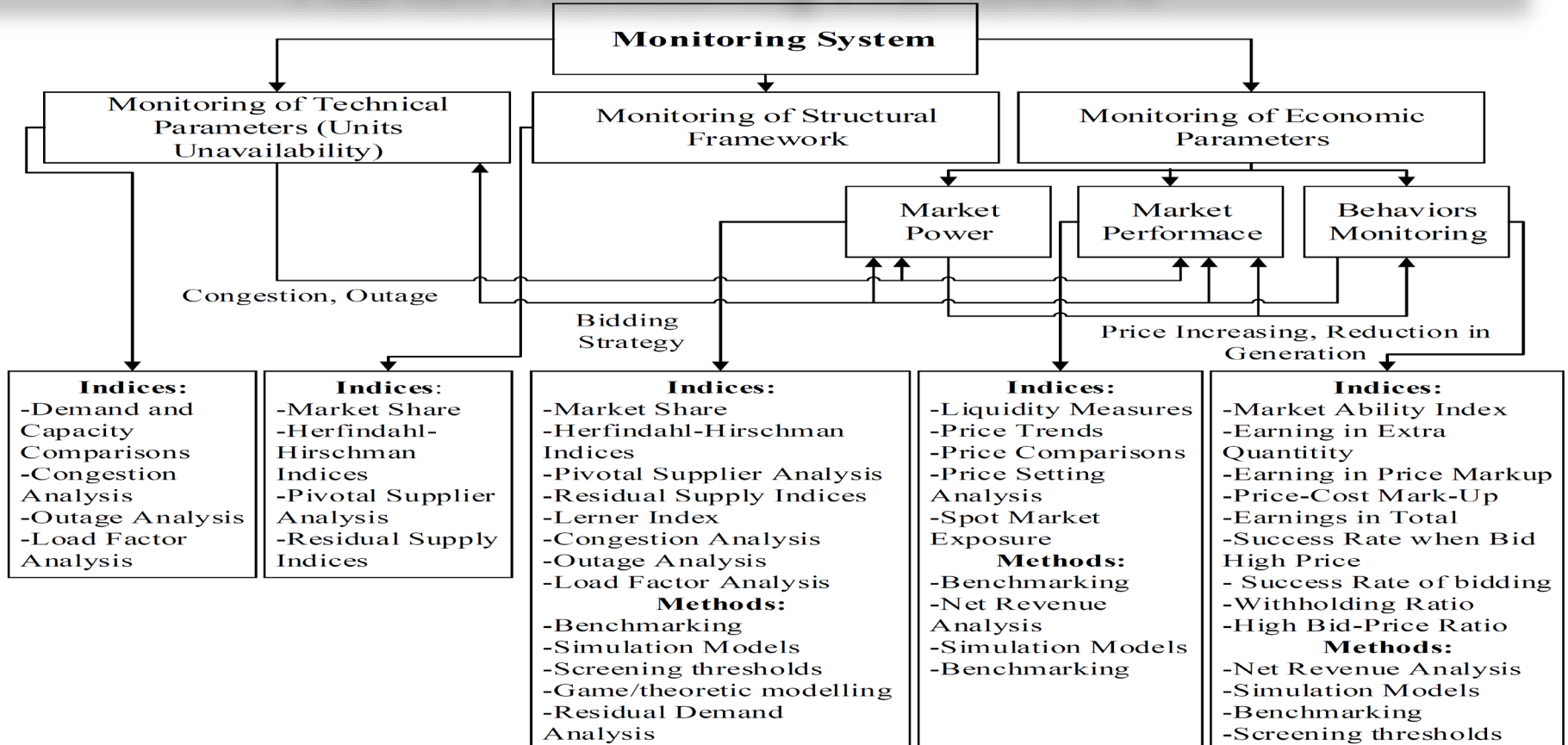


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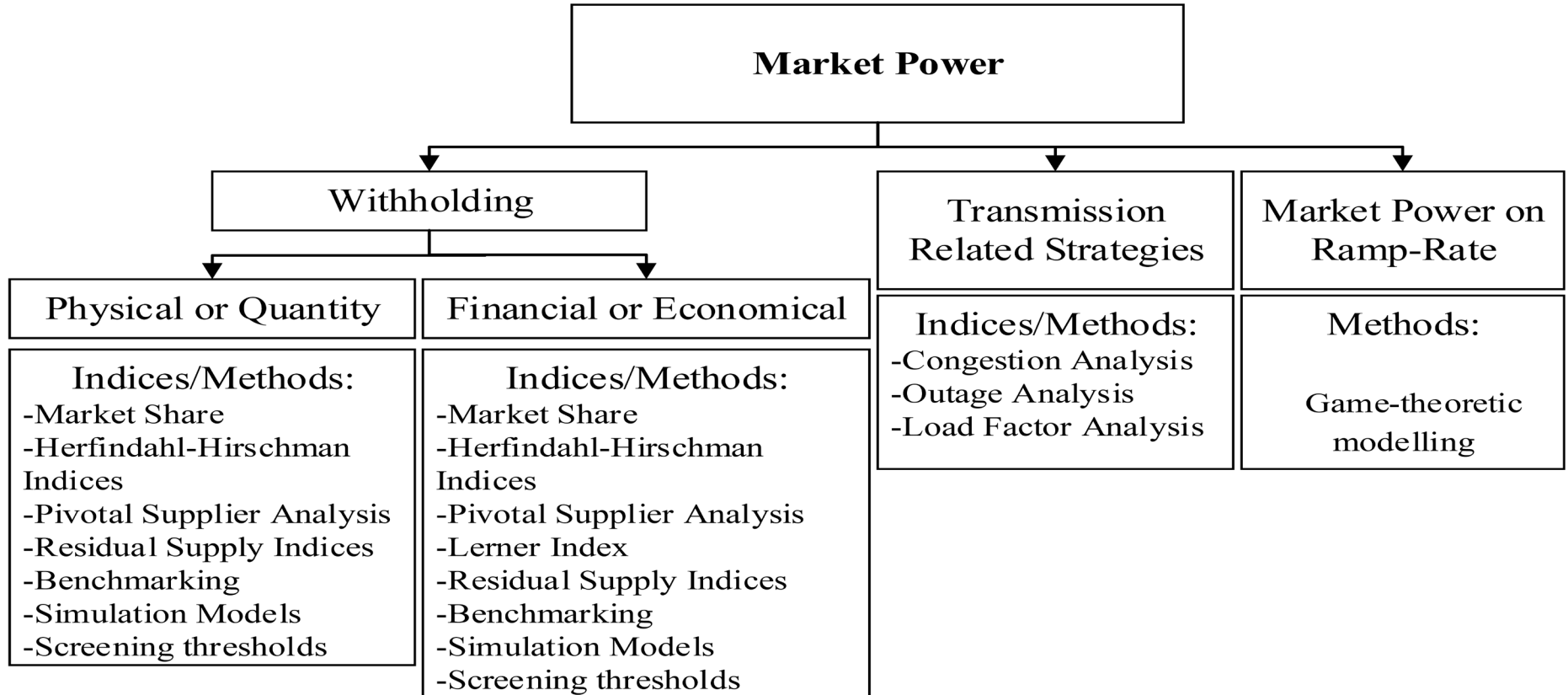
Disclaimer

The data, information and assumptions (hereinafter ‘data-set’) used in this document are in good faith and from the source to the best of SAREP (the program) knowledge. The program does not represent or warrant that any data-set used will be error-free or provide specific results. The results and the findings are delivered on “as-is” and “as-available” data-set. All data-set provided are subject to change without notice and vary the outcomes, recommendations, and results. The program disclaims any responsibility for the accuracy or correctness of the data-set. The burden of fitness of the data-set lies completely with the user. In using the data-set data source, timelines, the users and the readers of the report further agree to indemnify, defend, and hold harmless the program and the entities involved for all liability of any nature.

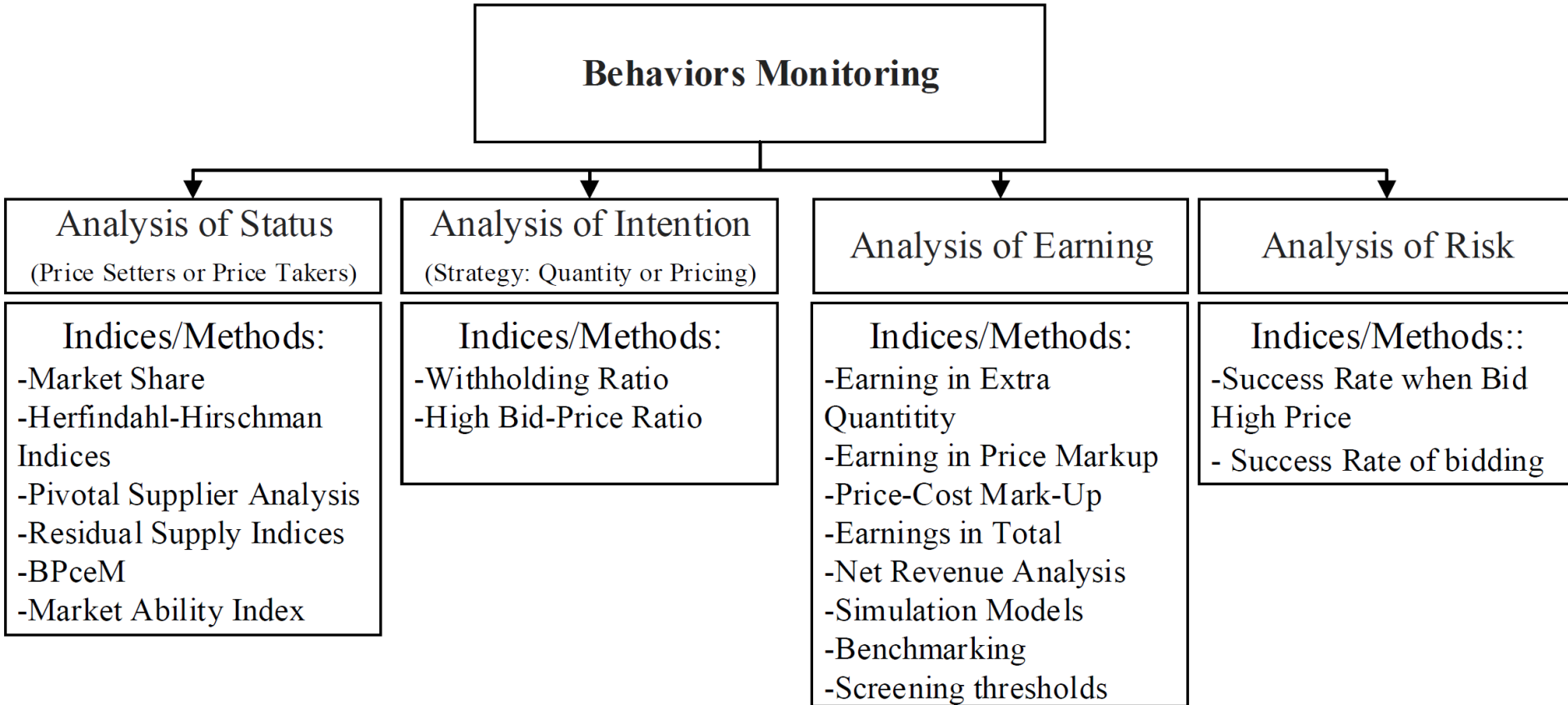
Market Monitoring Framework



Market Power Monitoring Framework



Behaviours Monitoring framework



Examples of categories of Market Power Detection Techniques and Mitigation System

	Ex-Ante	Ex-Post
Long Term	<p>Detection techniques: simulation models of strategic behaviour; structural indices.</p> <p>Mitigation options: merger rulings; testing prospective reforms to market design</p>	<p>Detection techniques: competitive benchmark analysis based on historical costs; comparison of market bids with profit maximising bids.</p> <p>Mitigation options: reforms to market design (based on lessons learned); litigation cases.</p>
Short Term	<p>Detection techniques: bid screens-comparing bids to reference bids; some use of structural indices such as pivotal supplier indicator and congestion indicators.</p> <p>Mitigation options: spot market bid mitigation</p>	<p>Detection techniques: forced outage analysis and audits; residual demand and demand response analysis.</p> <p>Mitigation options: penalties; short-term price calculations.</p>

Source: RAP-Can We Trust Electricity Prices?

Market Power Mitigation Scope

Most mitigation is typically a two-part test:

(1) Conduct: We first measure conduct against a reference level to see if conduct exceed reference level by a “conduct threshold”

(2) Impact: Did the conduct in (1) cause a price increase (or uplift payment increase)?

If both are true, then the offer is automatically capped at reference value and market clears with the lower offer.

The mitigation software automatically performs the conduct and impact tests that determine when mitigation will be imposed.

This system ensures that mitigation to limit economic withholding is imposed within 10 minutes of the conduct and impact tests being satisfied.

On a daily basis, IMM compute the competitive reference levels against which suppliers’ offers are compared.

The impact test utilizes the real-time energy market software, run in parallel to determine the price effects of conduct that fails the economic withholding tests.

Source: RAP-Can We Trust Electricity Prices?

REMIT: Europe's Electricity Market Surveillance Framework

ACER

Pan-European market monitoring

Automatic
screening of
data

Initial
assessment
and analysis



NRAs

Investigations and enforcement at national level

Investigation
of suspected
breaches

Investigation

Monitoring at national level
(optional)

Note: 'Investigation of suspected breaches' is an initial investigation where evidence is collected and analysed with a view to deciding whether or not to launch a formal investigation. 'Investigation' is a formal investigation that could lead to court proceedings.