

NERSA

National Energy Regulator of South Africa



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European Union – South Africa (EU-SA) Partners for Growth Programme

Who is NERSA

- Established in terms of the National Energy Regulator Act, Act No 40 of 2004:
 - Independent Regulator: **4 Full-Time and 5 Part-Time Members**
 - Responsible for the regulation of three energy industries: electricity; piped-gas; petroleum pipelines
 - Rest of the NERSA staff support the Regulator
 - Decisions based on reasons, facts and evidence

Vision & Mission

■ Vision

- To be a recognized world-class leader in energy regulation

■ Mission

- To regulate the energy industry in accordance with government laws and policies, standards and international best practices in support of sustainable and orderly development

Legislative Mandate

NERSA's mandate is anchored in:

- 4 Primary Acts:
 - **National Energy Regulator Act, 2004 (Act No. 40 of 2004)**
 - **Electricity Regulation Act, 2006 (Act No. 4 of 2006)**
 - **Gas Act, 2001 (Act No. 48 of 2001)**
 - **Petroleum Pipelines Act, 2003 (Act No. 60 of 2003)**

- 3 Levies Acts:
 - **Gas Regulator Levies Act, 2002 (Act No. 75 of 2002)**
 - **Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004)**
 - **Section 5B of the Electricity Act, 1987 (Act No. 41 of 1987)**

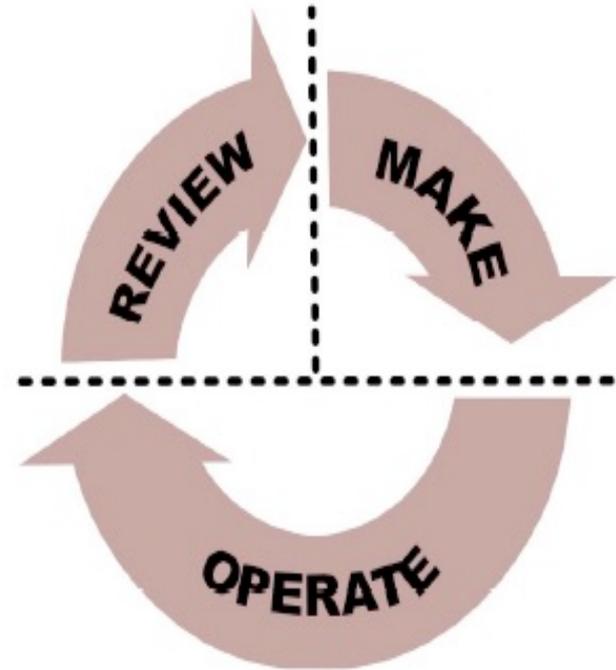
Facilitation legislation

- 3 Facilitating Acts:
 - ❑ **Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA)**
 - ❑ **Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA)**
 - ❑ **Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000) (PAJA)**

The Regulatory 'Cycle' in South Africa

Elemental parts:

- **Make** – In South Africa this is predominantly in the Sphere of National Government
- **Operate** – administering and enforcing regulation which is predominantly in the realm of the Regulator e.g. NERSA
- **Review** – assessing regulation and making any adjustments required.



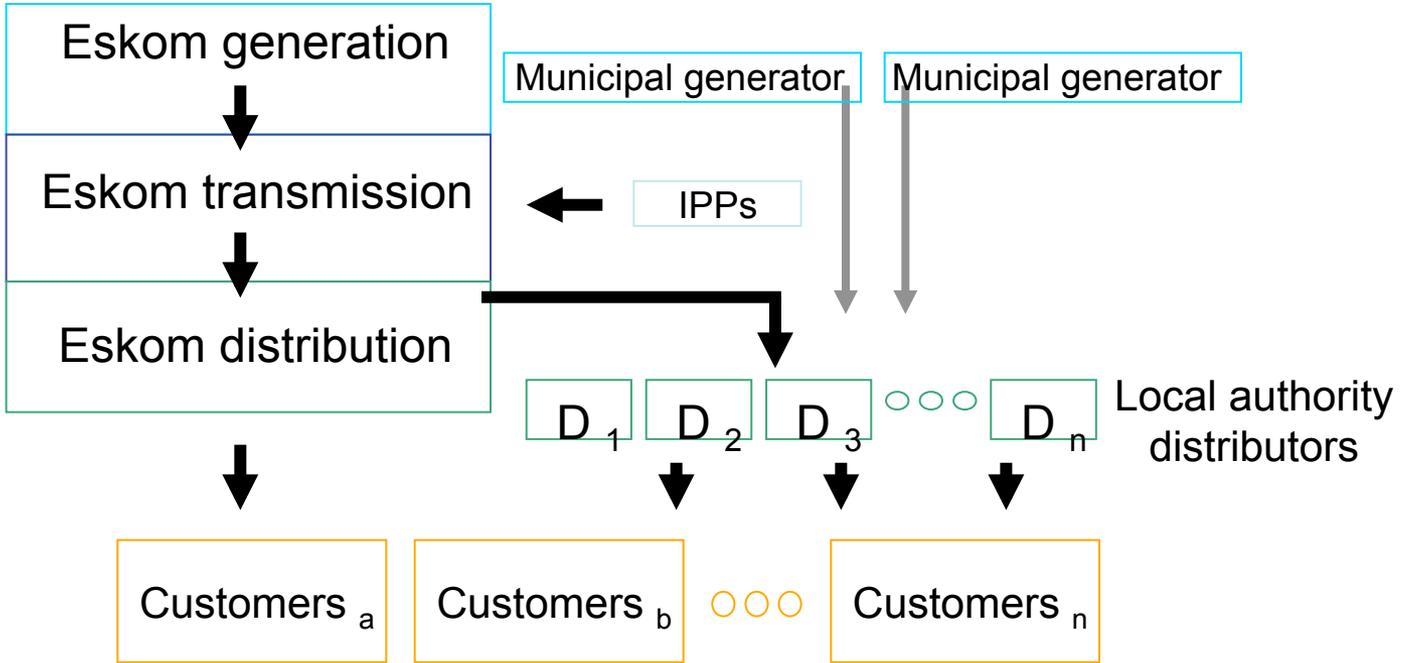
Electricity Regulation Mandate

- **Electricity Regulation Act, 2006 (Act No. 4 of 2006) ('ERA')**
 - [New Act under consideration](#)
- ERA Regulations and other regulatory instruments:
 - **Electricity Pricing Policy (EPP) GN1398**
[19 December 2008]
 - **Electricity Regulations on New Generation Capacity GN 399**
[4 May 2011]
 - [“New Gen” regulations under consideration](#)
 - **Licensing Exemption and Registration Notice GN 43151**
[26 May 2020]
 - **“Directives”**

Industry Structure

- It is dominated by the vertically integrated incumbent – Eskom
- Eskom is responsible for the generation of 96% (~27 Power stations) of electricity in the RSA
- There are 112 licensed IPPs (65 are operational and rest under construction)
- IPPs will sell to Eskom and not compete directly
- Total Distribution licensees = 179 including Eskom :
 - 165 Municipalities
 - 13 Private Distributor
 - 1 Eskom
- Eskom Dx - distributes 40 % to end user customers
- Municipalities and private distributors distribute 60 % to end user customers

Current Structure



Generation oligopoly
Transmission monopoly
Distribution fragmentation

Understanding the role of Regulator

1. All regulators do fundamentally the same things:-
 - Regulate tariffs and price;
 - Licence;
 - Set Licence Conditions;
 - Monitor compliance;
 - Enforce compliance;
 - Mediate or arbitrate in disputes and
 - Gather and store industry information.
2. The Methodologies used are nearly the same and well understood in literature.
3. The differences are in the Objectives.

Every Regulator must have Objectives to achieve regulatory function

- To achieve efficient, effective, sustainable & orderly development of the ESI in SA.
- To safeguard & meet the interests & requirements of present and future electricity customers & end users.
- To facilitate investments & universal access to electricity.
- To promote the use of diverse energy sources, energy efficiency, competitiveness & customer choice.
- To facilitate a fair balance between the interests of customers, licensees, investors & the public.

NERSA adopted Regulatory principles from international best practice

- *They guide the Regulator's conduct and service delivery*
 - a. **Rule of Law:** Law applies to everybody and provides a clear framework for everyone to operate. Review and appeal by high court.
 - b. **Transparency:** Reason for decisions and consultative processes;
 - c. **Neutrality:** Neutral to all market players without favouring one or other groups (non-discrimination)
 - d. **Consistency:** Explained decisions enabling stakeholders to take informed decisions – no surprises; predictability
 - e. **Independence:** Independence from stakeholders and politicians; within legal framework and published Government policy
 - f. **Accountability:** Internal accountability – Regulator takes responsibility for actions and decisions.

New Capacity Procurement

- Act empowers the Minister to determine in concurrence with the Regulator
 - Required generation capacity
 - Types of Energy Sources
 - Who it may be sold to and how
 - How it is to be procured and to provide for private sector participation

- Accomplished via
 - Integrated Resource Plan
 - Ministerial Determination

- Procurement Accomplished Via
 - New Gen Regulations
 - Request for Bids
 - Selection of Preferred bidders

Criteria for licensing

- **Electricity Regulation Act, 2006 (Act No. 4 of 2006)**
- Section 4(a)(i) says that the regulator must consider applications for licences and may issue licences for the operation of generation, transmission or distribution facilities, import and export of electricity as well as trading
- Section 7 (1) (a) says:- *“No person may, without a licence issued by the Regulator in accordance with this Act- (a) operate any generation, transmission or distribution facility, (b) import or export of electricity (c) be involved in trading”.*
- Section 7 (2) says:- *“Notwithstanding subsection (1), a person involved in an activity specified in Schedule II (**Substituted by Licensing Exemption and Registration Notice**) need not apply for or hold a licence issued by the Regulator.*
- **Section 8** says:- *“The Minister may, after consultation with the Regulator and stakeholders in the advisory forum, determine by notice in the Gazette that any activity contemplated in section 7 (1) need no longer be a licensed activity from the date set out in such notice.”*

Criteria for Registration & Licensing

- **Electricity Regulation Act, 2006 (Act No. 4 of 2006)**
- Section 9 (1) says that “The Minister may, in consultation with the Regulator, determine by notice in the Gazette that any person involved in an activity relating to trading or the generation, transmission or distribution of electricity that does not require licensing in terms of section 7 read with section 8 must register with the Regulator.”
- Section 34 specifies that the Minister of Energy may in consultation with the Regulator determine that new generation capacity is needed, how it is to be procured, what types of generation are needed, who may buy it and is also given wide powers to accomplish this
- Section 34 (3) says:- *“The Regulator, in issuing a generation licence- (a) is bound by any determination made by the Minister in terms of subsection (1)*
- The New Gen Regulations only apply to organs of state and means that they cannot just buy from anyone.

The Act in relation to regulation of electricity prices & tariffs

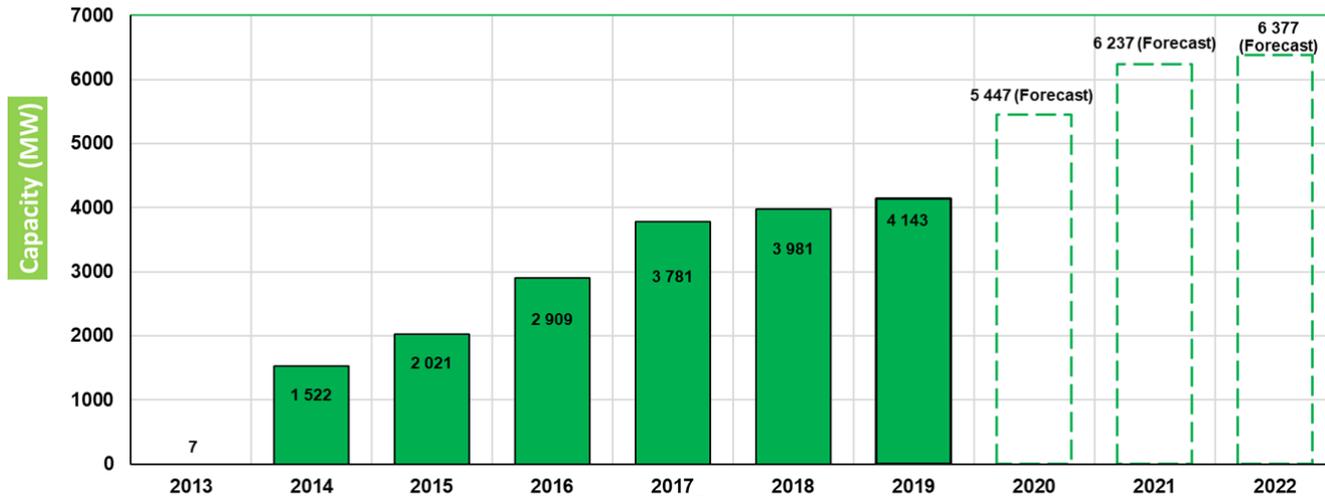
- **Electricity Regulation Act, 2006 (Act No. 4 of 2006)**
- Section 4(a)(ii) says that the regulator must regulate prices and tariffs.
- Section 15 (1) (a) says:- *“must enable an efficient licensee to recover the full cost of its licensed activities, including a reasonable margin or return;”*.
- Section 15(1) (c) and (d) says:- *“must avoid undue discrimination between customer categories”* and *“may permit the cross-subsidy of tariffs to certain classes of customers”*
- NERSA also has to comply with the Principles in the Electricity Pricing Policy document because Section 4 (a) (iv) says:- *“issue rules designed to implement the national government's electricity policy framework, the integrated resource plan and this Act;”*

Licensing of Renewable Energy Projects

Technology	Number of projects selected						
	BW 1	BW2	BW3	BW 3.5	BW 4	Small Projects	Total number per technology
Onshore wind	8	7	7	n/a	12	2	36
Solar PV	18	9	6	0	12	16	61
CSP	2	1	2	2	n/a	n/a	7
Small hydro	n/a	2	n/a	n/a	1		3
Landfill gas	n/a	n/a	1	n/a			1
Biomass	n/a	n/a	1	n/a	1	2	4
Biogas	n/a	n/a	n/a	n/a			n/a
Total number per BW	28	19	17	2	26	20	112

Renewable Programme Progress

Annual Cumulative Commercial Capacity and forecast of REI4P projects on 31 December 2019



- The above figure shows annual growth in terms of capacity of RE IPPs due to new power plants being commissioned.

Licensing of Projects as per Ministerial Directive

- Section 10(2)(g) says that “*evidence of compliance with any integrated resource plan applicable at that point in time or provide reasons for any deviation for the approval of the Minister*”
- Blanket exemption in terms of 10(2)(g) of the Act received from the Minister on 30 April 2019
- 2019/20 Financial year
 - Lots of enquires
 - New licence applications received were not adequate (No PPA, No EIA, No connection and Use of system agreements, other permits outstanding)
 - No new licences issued
 - One licence amendment (New Capacity): Bronkhorstspuit Biogas Power Plant (Pty) Ltd (Increase in capacity from 4.2MW to 8.4MW (4.2MW increase)
(Biogas plant using farm waste- vegetable waste, ice cream waste, fruit waste, animal waste etc)

Licensing of Projects as per Ministerial Directive

- Another exemption in terms of 10(2)(g) of the Act was received from the Minister at beginning of February 2020
 - *Licensing of Own use generation regardless of capacity (Bilaterals)*
 - *This directive substituted the one sent on 30 April 2019*
- 2020/21 Financial year
 - Lots of enquires
 - Five new licences issued (resubmission of 2019 applications with all the information)
 - Currently considering one application (40MW)
 - Other applications received are inadequate (No PPA, No EIA, No Connection and Use of system agreements, other permits outstanding)
 - An application is considered valid once adequate information has been received

Licences issued per Ministerial Directive

- Licensing of Own use generation regardless of capacity (Bilaterals)

Licensee Name	Capacity (MW)	Technology
Ceres Fruit Growers (Pty) Ltd	2.5	Solar PV
Belgotex Floor Coverings (Pty) Ltd	5	Solar PV
Ukomeleza Wind Power (Pty) Ltd	9.9	Wind
Ratelberg Solar (Pty) Ltd	3	Solar PV
Total (Year-to-date)	20.4	

Registration of Generation Projects as per Licensing Exemption and Registration Notice

- Licensing exemption and registration notice gazzeted on 10 November 2017
- An amendment to the Notice was gazzeted on 26 March 2020
- The Notice allows for generation facilities of no more than 1MW (output capacity) to be registered with NERSA
- Approval must first be granted by the Network Service Provider i.t.o of Connection and Use of System Agreements
- 130 generation facilities already registered with NERSA
- Total capacity amounts to 59MW
- Currently considering 7 application which have passed the NERSA adequacy test

Licensing and Compliance Monitoring

- The Act requires that anyone who is involved in Generation (Gx), Transmission (Tx), Distribution (Dx), Import/Exports and Trading should be licensed by NERSA
- With each and every licence granted NERSA imposes licence conditions which should be complied with.
- Licence Conditions include adherence to the Grid Code
- After a licence has been issued NERSA has to monitor for compliance

Compliance Monitoring

- Development of regulatory standards (NRS047, 048, 057, etc.), power quality directive, SA Grid Code and other regulatory tools
- Development and implementation of regulatory frameworks for the different industry sectors
- Distribution, Transmission & Generation Compliance Frameworks
- Undertake Compliance Monitoring of licensees (Independent Technical, Compliance & QoS Audits)
- Monitoring and enforcing compliance to license conditions, SA grid code and regulatory standards
- Develop incentive schemes for licensee
- Ensure Investment in asset maintenance

Quality of Supply and Service Incentive Scheme (SQI)

- Quality of supply is monitored in terms of quality service incentive schemes (Eskom & Metros)
- Design and implementation of quality service incentive schemes
- Imposition of penalties or reward for licensee(s)
- ➔ **Distribution:**
 - SAIDI (System Average Interruption)
- ➔ **Transmission:**
 - Faults per 100km of lines
 - System minutes
- ➔ **Generation: (Not yet implemented)**
 - UCLF – Unplanned Capability Loss Factor
 - PCLF – Planned Capacity Loss Factor

Investigations

- Investigate poor power quality of supply and poor service quality
- Investigation licensees due to complaints
(illegal tariff implementation, violation of licence conditions, SA Grid Code, etc.)
- Investigate unplanned outages due to negligence by the license
- Eskom Load Shedding Incidents
- Municipal debt to Eskom

Dispute Resolution & Complaints

- Ensure and monitor conformance to regulatory requirements when complaints and disputes are lodged with NERSA
- Evaluate and analyze the complaints and disputes using the dispute resolution procedure
- Mediate between licensees and end-users or between licensees
- Only arbitrate between licensees and end-users, not between licensees
- Ensure service delivery by electricity suppliers
- Build relationships between licensees and end-users or between licensees, e.g., Eskom & Municipalities & customers
- Provide customer education to both licensees and end-users

Adaption of Regulatory Frameworks

- As technology changes drive industry change regulatory frameworks need to adapt.

Examples are:-

1. Revision of Schedule 2 of the ERA to create registration regime with thresholds
 2. Inclusion in schedule 2 of the ERA of requirements to deal with resellers
- New technologies require new rules such as the case with renewable generation technologies which brought about the addition of a renewable energy section of the grid code.
 - When technology changes fast regulators have to play catch up. Currently attention is being given to the placement and role/requirements for energy storage as it is both a load and generator as well as having quality of supply implications for the grid.

Addressing regulatory uncertainty

- Regulatory uncertainty reflects the potential for future regulation changes that might affect the market and its participants.
- Risks from compliance and pre-compliance regulations, potential for legal litigations, potential for eligibility rules to change, etc., may cause concerns for both licensees/investors and consumers, esp. when entering into multi-year agreements.
- The modern regulatory state has evolved to the point where its institutions can shape fundamental decisions; not just how to produce goods and services or how to employ labour and distribute the benefits of production, but even whether to produce at all.

Addressing regulatory uncertainty (2)

- Utilities make important capital investment decision, such as where to invest, how to invest, and where to locate facilities (sound business fundamentals).
- **Regulatory uncertainty poses significant risk to utility investments on many levels.**
- Regulatory certainty can only be achieved when there is clarity of roles, regulatory autonomy, accountability, and transparency.

Managing regulatory uncertainty

- Regulatory frameworks are said to be effective if their implementation by the regulator achieves the desired outcomes as stipulated in the Acts that regulate the industry.
 - Design rules and regulations that are efficient and effective
 - Ensure high quality research-based regulatory environment and strengthen regulatory processes
 - Be proactive in fact finding and encourage innovation in the regulatory sphere: Create new structures and process to address complicities.
 - Discuss key issues and solutions with stakeholders on proposed changes to key regulatory frameworks, rules and codes.
 - Prepare, review and update guidelines.

Key issues	NERSA Approach in addressing regulatory risks
Clear roles and responsibilities exist within the organisation (who does what).	Each industry has its own FTRM primarily responsible for the regulation of that industry. Departments within the regulatory divisions have clear definitions of roles and responsibilities.
The frequency of new regulatory requirements. Too many changes indicate a lack of forethought by the regulator.	Most of the regulatory tools (such as tariff methodologies) developed by NERSA in consultation with affected stakeholders stipulate the date on which they should be reviewed. Any revision that happens before the stipulated date is normally due to public requests or challenges on certain components of the tool. To make any changes in the methodologies, the public consultation process has to be followed.
The regulatory body is forward-looking to spot future regulatory challenges in sufficient time to have workable strategies and resources in place before the challenges occur.	The Energy Regulator makes written comments to any proposed legislative changes that might have a bearing on its mandate to regulate the energy sector both in the short and long run. These comments go through a formal approval process within the Energy Regulator.
Good internal quality assurance.	All major decisions of NERSA first go through the relevant sub-committee. Decisions are made after a vigorous public consultation process that gives regulated entities and other stakeholders a chance to contribute to the decision either through written comments or through oral presentations to NERSA during public hearings.
Capacity exists to fund and manage research and any work carried out by others because the regulatory body does not have expertise.	NERSA does its own research internally, and where the required skills are not available, we are free to contract external expertise. NERSA has sufficient budget for research.
Public consultations (transparency).	During the public participation process, all stakeholders are given a chance to express their views regarding all matters brought to the Energy Regulator's attention. Publication of RFDs in matters relating to licensing, new methodologies, guidelines, codes etc is done prior to the finalisation of the matter.

Challenges

- Eskom is the single buyer and is obligated to buy power from IPPs even though currently Eskom has sufficient capacity to meet the current low demand. This causes the current dilemma the utility sits with
- Increasing cross border trade will require stimulating the appetite for neighbour countries to be willing to buy power as well as increasing the Transmission capacity in order to evacuate the power
- Municipal debt to Eskom
- Performance of Eskom generation fleet resulting in load shedding
- Municipal capacity and refurbishment of distribution network
- Increase in energy losses due to non-payment or tampering of meters (electricity theft)
- Closure of some industries as a result of escalating electricity prices
- Increase in litigation from disgruntled industrial and commercial customers again due to high municipal tariffs
- Court cases between Eskom and NERSA regarding revenue determinations and RCAs.

Conclusions

- In executing its regulatory mandate the Energy Regulator:
 - endeavours to balance the interest of regulated entities, investors and end consumers;
 - acts within its governing legislation and published government policy.
 - takes into account its regulatory principles.
 - ensures that it contributes towards national goals.

- NERSA continues to conduct its business in fair and transparent manner, within published government policy and legislation in exercising its mandate.

THANK YOU

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