



**PRESIDENTIAL  
CLIMATE COMMISSION**  
TOWARDS A JUST TRANSITION

A Presidential Climate Commission Report

# Stakeholder Perspectives on the PCC Recommendations on Electricity Planning in South Africa

## Draft Report for Circulation

March 2023

*Caveat: While climate change will drive low carbon transitions across the broader economy and wider energy sector (e.g., transport and liquid fuels), the PCC stakeholder consultations and **this Report** focused specifically on the electricity sector (i.e., electrical energy/power). This is largely due to the current electricity crisis and the concurrent review of the Integrated Resource Plan (IRP) 2019. This draft report is part of an ongoing consultation on stakeholder perspectives about PCC recommendations on electricity planning.*

## About the Presidential Climate Commission

The Presidential Climate Commission (PCC) is a multi-stakeholder body established by the President of the Republic of South Africa to advise on the country's climate change response and pathways to a low-carbon climate-resilient economy and society.

In building this society, we need to ensure decent work for all, social inclusion, and the eradication of poverty. We also need to protect those most vulnerable to climate change, including women, children, people with disabilities, the poor and the unemployed, and protect workers' jobs and livelihoods.

The PCC facilitates dialogue between social partners on these issues—defining the type of society we want to achieve, and detailed pathways for how to get there.

## About this Report

This report is submitted under the project “Presidential Climate Commission Recommendations for South Africa's Electricity Future”, whereby the PCC's Electricity Recommendations Report has been developed in draft form.

The integrated energy dialogues comprised an information session and a formal consultation with each social partner: Business, Civil Society (including Faith and Youth), Government (including Local Government) and Labour.

This Report is structured into the following sections whose headings also contain the essence of the recommendations.

- Methodology and procedural justice for consultation
- Electricity Governance
- Electricity Mix, Pricing, and Financing
- Environmental Sustainability and Human Health
- Socio-economic Sustainability
- Electricity planning and the JET-IP

The Report concludes with a short Synthesis of the various recommendations.

OneWorld Sustainable Investments was contracted by the PCC to support this social partner consultation process on the socialisation and development of PCC recommendations to government on Just Energy Transition in both electricity planning and the JET IP contexts. A report on the stakeholder perspectives on the JET-IP has been prepared separately to this report.

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## **1. Introduction**

During the February 2022 PCC Commissioners Strategy Session, following input by the Minister of Mineral Resources and Energy, the PCC commissioners took the decision to make recommendations to H.E. the President of South Africa and Cabinet on taking climate change into account when planning energy, and more specifically electricity. As is the PCC mandate, the PCC ran a year long process of engaging with stakeholders, first in a series of technical sessions and then in a series of stakeholder and community specific engagements, with the latter done in parallel to consulting on the Just Energy Transition Investment Plan (JET-IP).

Conducted between January and March 2023, these dialogues reached all the country's social partners. These included business, civil society (including faith and youth), local and national government, and organised labour. This process elicited a range of stakeholder perspectives on South Africa's energy security, electricity and energy planning and investment, and decarbonisation. The consultation process was delivered in two formats - an information session, followed by a formal consultation with each social partner and stakeholder group. This approach sought as far as possible to ensure that stakeholders were informed and prepared for the consultations. In addition to understanding stakeholder perspectives on electricity planning, a key objective of the consultations was to gather perspectives from across society on South Africa's just energy transition (JET), which also influence the PCC's recommendations on electricity planning. This report is the summary output of these engagements as they pertain to recommendations on South Africa's electricity planning. A report on the stakeholder perspectives on the national JET-IP has been prepared separately to this report.

This summary stakeholder perspectives report is an important input into a separate report that holds the recommendations. Read together they provide a record of the PCC process of wide stakeholder consultation backed by research into the best available science.

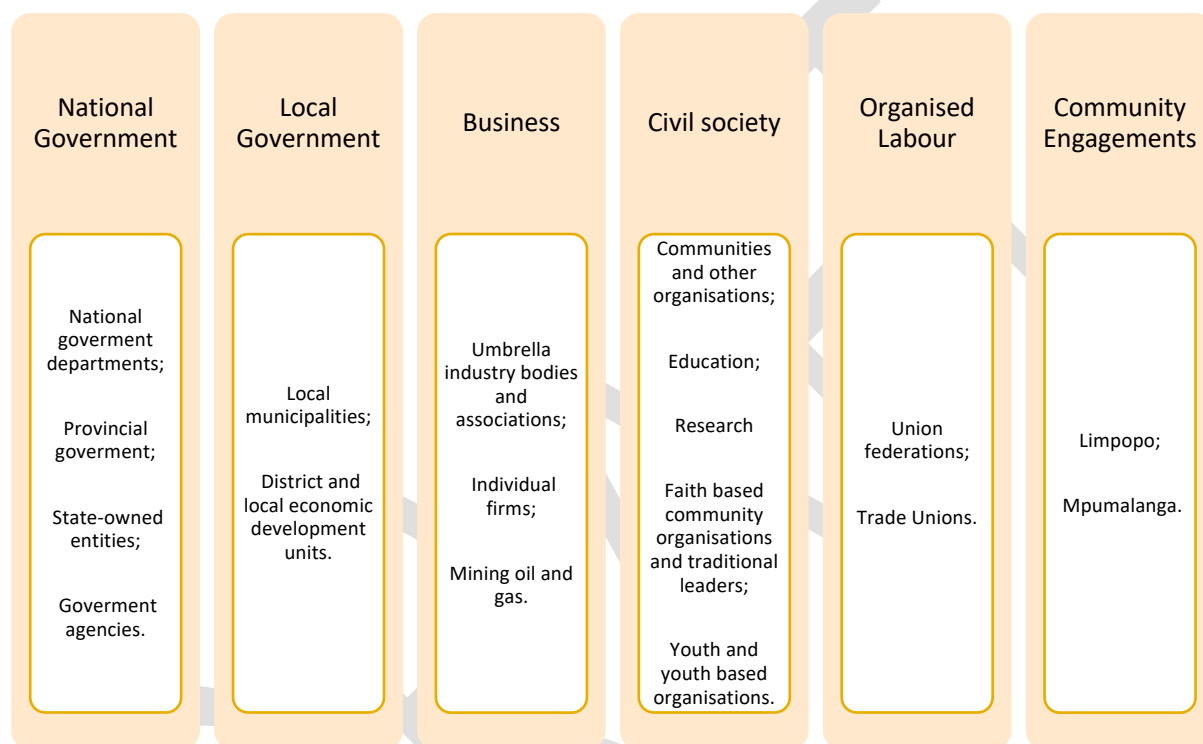
### **1.1. Methodology underpinning this report**

This Stakeholder Perspectives Report presents the varied opinions across South African social partners (Figure 1) involved in the energy transition and presents the outcomes of the PCC's consultation process conducted over the first Quarter of 2023.

The objectives of the project were to (i) solicit input in terms of the country's future electricity mix and security; (ii) build trust and understanding between parties; (iii) understand the principal elements of the national Just Transition Framework which need to be built into electricity planning; and, iv) establish a consensus regarding the principal elements of a set of recommendations on incorporating climate change into energy investment and electricity planning in South Africa. This engagement is ongoing as the PCC seeks to incorporate perspectives of social partners in all of PCCs work and in the expansion of their work in electricity to the broader energy landscape. A long-term exchange of views between social partners and the PCC is critical to our reaching consensus and enabling implementation.

Stakeholders to the consultation process did not necessarily differentiate their comments between this short-term instrument and the electricity PCC recommendations report. Those stakeholders that provided written inputs (see Table 2 below for a register of written inputs) did however tend to provide differentiated their inputs on electricity planning from those for the JET-IP. Furthermore, some stakeholders perceived the JET-IP as providing important framing for and inputs into the next iteration of the PCC electricity recommendations report.

Figure 1: Balanced stakeholder representation



This section of the report sets out the methodology used to capture and synthesise stakeholder data and perspectives gathered throughout the consultation process. The data captured to inform this report arose from the series of energy planning and JET-IP dialogues conducted by the PCC as outlined in Table 1, as well as by the written comments received from some stakeholder groups, as summarised in Table 2.

Table 1: Summary of PCC integrated energy and community consultations and engagements

Social partner	Event type	Date
Youth	Information sharing	08 February 2023
Industry and Business	Information sharing	10 February 2023

Social partner	Event type	Date
Organised Labour	Information sharing	14 February 2023
Industry and Business	Formal consultation	17 February 2023
Limpopo Communities	Integrated community consultation	20 February 2023
Civil Society	Information sharing	01 March 2023
Local Government	Information sharing	02 March 2023
Faith-Based Community	Information sharing & Consultation	08 March 2023
National Government	Information sharing	10 March 2023
Organised Labour	Formal consultation	13 March 2023
Local Government	Formal consultation	14 March 2023
Youth	Formal consultation	24 March 2023
Civil Society	Formal consultation	27 March 2023
National Colloquium on Electricity Recommendations	Multi-stakeholder Colloquium	14 April 2023
Mpumalanga Communities (Secunda and Emalahleni)	Information sharing	12 and 13 October 2022

In addition, written comments submitted by various stakeholders (see Table 2 below for a full schedule of these) have been taken into consideration in preparing this synthesis report.

Table 2: Register of written comments submitted on the PCC recommendations

Submitting Organisation	Format of the Written Comments	Social Partner
Black Business Council	Black Business Council JET-IP Review and Input	Business

Submitting Organisation	Format of the Written Comments	Social Partner
Centre for Environmental Rights	20230404 - Email Body from Centre for Environmental Rights	Civil Society
Centre for Environmental Rights	20230317 - DRAFT PCC_Electricity Planning and Recommendations Report_V6_Centre for Environmental Rights	Civil Society
Centre for Environmental Rights NPC	Life After Coal Campaign and (LAC) and Fair Finance Coalition Southern Africa (FFCSA) Comments on the JET-IP 3 April 2023	Civil Society
COSATU	COSATU JET IP Submission Document	Organised Labour
City of Cape Town	29032023 - Email Body from CoCT	Local government
City of Cape Town	Addendum A Response to JETP Finance Task Team letter	Local government
Department of Environmental Affairs and Development Planning	20230208 Email body WC gov Questions	Local government
Energy Council of South Africa	Energy Council comments on PCC power sector draft recommendations	Business
Groundwork	Groundwork_Contested transition Report-2022	Civil Society
IDC	20230326 - Email Body feedback _IDC	National Government
Institute For Economic Justice (IEJ)	Final version_IEJ & CLiFT_JET-IP Submission_March 2023	Civil Society
PCC	20230327 - Email Body -A critical appraisal of the JET-IP - PCC recommendations (the other report prepared in this series)	PCC Commissioners

Submitting Organisation	Format of the Written Comments	Social Partner
SACAN	20230403 - Email Body from SACAN	Civil Society
SACAN	SACAN PCC JETP Submission	Civil Society
SALGA	SALGA Letter to PCC-21032023 (002)	Local government
Section 27	20230328 - Email Body from Section 27	Civil Society
Shared Value Africa Initiative (SVAI) & Shift Impact Africa	01032023 - Email Body comments SVAI	Civil Society
Shared Value Africa Initiative (SVAI) & Shift Impact Africa	SVAI Questions and comments on the JET-IP and EP draft recommendations	Civil Society
Sustainable Energy Africa (SEA)	02032023 - SEA comments on the JET-IP and EP draft recommendations	Civil Society
WWF	20230404 - Email Body from WWF	Civil Society
WWF	Cover Letter 03042023_PCC Consultation on Recommendation on the Electricity Plan + JET IP	Civil Society
WWF	PCC consultation on Electricity Plan and the JET IP - WWF inputs	Civil Society

For each consultation event presented in Table 1, the OneWorld team captured detailed notes, ensuring that all comments and questions raised in the discussions, as well as in the chat box or Question and Answer (Q&A) function, and from later written submissions, were noted and captured. This included names and organisations of stakeholders providing feedback, questions and comments. Notes recorded during information sharing and consultation sessions, as well as written feedback submitted by stakeholders post event, was then transcribed and analysed in an Excel workbook, the layout of which is presented in Table 3 below. Some sessions were closed at the request of the social partners concerned, notably Government and Labour. As such, the information from these sessions is not publicly available.

Stakeholder data was classified and clustered by theme. The classified clustering of stakeholder feedback allowed for the unbiased identification of frequently raised stakeholder perspectives and comments and provided a preliminary view of



emerging points of convergence and divergence. While the themes were pre-identified with stakeholder perspectives classified accordingly, a range of sub themes emerged from the analysis of the dialogue discussions and are also captured in Table 3 below. A summarised view of the consolidated stakeholder perspectives is presented in Annexure 1.

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Table 3. Layout of Excel workbook used to capture stakeholder perspectives captured from the Information sharing and formal consultation sessions.

Column	Details
<b>Topic</b>	Select the appropriate topic: <ul style="list-style-type: none"> <li>• Electricity Planning Recommendations</li> <li>• JET-IP</li> </ul>
<b>Theme</b>	<ul style="list-style-type: none"> <li>• Methodology and procedural justice for consultation</li> <li>• Electricity governance</li> <li>• Electricity mix, pricing, and financing</li> <li>• Environmental sustainability and human health</li> <li>• Socio-economic sustainability</li> </ul>
<b>Sub-Theme</b>	<ul style="list-style-type: none"> <li>• Methodology and procedural justice for consultation <ul style="list-style-type: none"> <li>○ Methodology for consultation</li> <li>○ Consultation timing and preparation</li> <li>○ Thematic consultations</li> <li>○ The PCC's response</li> <li>○ Procedural justice for consultation</li> </ul> </li> <li>• Electricity governance <ul style="list-style-type: none"> <li>○ Role of the state</li> <li>○ Upgrading the grid</li> </ul> </li> <li>• Electricity mix, pricing, and financing <ul style="list-style-type: none"> <li>○ Demand side management</li> <li>○ Pricing</li> </ul> </li> <li>• Environmental sustainability and human health <ul style="list-style-type: none"> <li>○ Air quality and human health</li> <li>○ Energy-water nexus</li> </ul> </li> <li>• Socio-economic sustainability <ul style="list-style-type: none"> <li>○ Social ownership</li> <li>○ Skills development and transition</li> </ul> </li> <li>• Electricity planning and the JET-IP</li> </ul>
<b>Question/Comment</b>	Comment or question raised by stakeholder
<b>Stakeholder (Speaker)</b>	Name or identifier for the stakeholder contributing a comment or question
<b>Organisation</b>	Organisation or affiliation of the stakeholder (speaker)- used to capture comment or feedback as well as identify points of divergence or convergence on frequently raised comments or questions
<b>Response</b>	Used to capture responses or feedback provided for comments or questions raised.
<b>Consultation Group</b>	Used to capture the stakeholder group (Business, Civil Society, Faith, Local Government, National Government, Organised Labour, Youth)

## Key Messages

The following key messages emerged from the integrated energy consultations and community engagements. These are elaborated in Chapter 2 below and are highlighted here as critical messages that emerged from the consultation process, either because there was broad consensus on these issues, or because of contestation requiring balance and future dialogue.

The justice, or just transition aspects of the PCC's recommendations came under significant scrutiny. Although the social partners raised different issues pertaining to justice, many stakeholder groups were concerned (in no particular order) with issues of energy poverty, incentives, the pace and extent of decarbonisation, the role of state and the extent of privatisation, skills development and employment, and corruption, theft and vandalism.

### *Messages emerging from convergence between stakeholders*

- **Procedural fairness** is a critical success factor of all consultations and dialogue. Timely and inclusive sharing of relevant information and notification of consultations as well as thorough stakeholder mapping and inclusion are all key in this regard.
- **Energy poverty** is an unresolved issue in South Africa with too many people still struggling to afford and/or access electricity and energy services. A collaborative approach between all the social partners toward finding and implementing solutions and realising tangible outcomes is critical and urgent.
- **Electricity governance** needs to be addressed in its entirety to facilitate and enable justice in South Africa's energy transition. Effective electricity governance is a necessary condition of the just transition and must be addressed in all its facets. Paramount is for government to confront and invest in an architecture for transparency and accountability, and to address and eradicate corruption, theft and vandalism.
- **Local government is** emerging as a stronger player in electricity planning and delivery than has been envisaged in the country's previous electricity and industrialisation plans.
- **Grid upgrading is a critical and urgent priority** that needs targeted investment, thorough planning and consideration for inclusive access as well as short and long term electricity and energy security.
- **Social outcomes** for localisation and social and community ownership, electricity access and affordability, and employment are non-negotiable outcomes of current and future electricity planning.
- **Skills development and transfer is pivotal** to ensuring these social outcomes and realising a just transition through South Africa's electricity planning, alongside ongoing electricity and energy security.
- **There are overlaps and gaps between South Africa's electricity planning and the JET-IP** and these further need to be aligned with the national industrial policy development framework and the skills development framework.

### **Messages emerging from divergence between stakeholders**

- The PCC's Electricity Recommendations Report needs to address the role of the state in electricity planning and industrialisation and attempt to resolve the **impasse between some groups on the issue of privatisation**. Some groups encouraged private sector participation in, and funding of, electricity generation, while other groups rejected the notion of private sector funding, and raised concerns that the state was retreating from its role of providing electricity as a national public good.
- South Africa's **electricity mix** must include all viable and reliable electricity resources while also yielding positive human health and other social outcomes – particularly jobs and social ownership, and energy security. While all groups agree on this labour and parts of national government interpreted it as prolonging coal as a priority. There was also some divergence around the use of gas, with civil society being sceptical and business arguing for its inclusion.
- **Least-cost electricity solutions** that comprise variable renewable energy (wind and solar) along with peaking support, are a top priority. While all groups agree that decarbonising South Africa's electricity sector must follow a least cost pathway, the social partners do not all agree on the precise composition of this pathway's electricity mix. Labour argues for coal to dominate the mix, with arguments based primarily on job and livelihood protection, and on electricity security. Civil society largely opposed gas-to-power, while business perceived gas as a critical solution, including to address grid capacity shortfalls in the near term. Most of business and civil society, as well as parts of local government agree that battery storage, as an important demand side measure, is important for peaking support.
- **Decarbonisation is the PCC's Electricity Recommendations Report** needs to align with decarbonisation in the JET-IP. Accelerated decarbonisation (in either /any instrument) cannot happen without systemically addressing land capacity and ownership issues, social ownership models and energy access and affordability for all. However, some groups emphasised positive human health outcomes (Civil Society), while others prioritised job protection (Labour) notwithstanding that both these groups recognise human health and job protection issues, alongside the need for South Africa to decarbonise.

Throughout the integrated energy consultation and community engagement process, the PCC has taken account of the key messages and recommendations that stakeholders have articulated. These perspectives, have incrementally influenced the recommendations in the PCC's Electricity Recommendations Report. This recommendations report will be further deliberated at the Colloquium being held on the 14<sup>th</sup> April. Both the PCC's Electricity Recommendations Report and this report on Stakeholder Perspectives on the recommendations report will be updated following the outcomes of the Colloquium before the reports are presented to the Presidency.

## 2. Key stakeholder perspectives on electricity planning in South Africa

In addition to the emerging trends and themes synthesised above, there are important process lessons to take on board in both planning for and convening stakeholder engagements. Key perspectives arising from these engagements on both the procedural and substantive aspects of the project are detailed below, against a series of themes that emerged from the dialogues and process.

This section synthesises the emergent stakeholder perspectives captured systematically from these dialogues (following the methodology outlined in chapter 1 to this report). Key perspectives, particularly those that featured in the comments from more than one participant and social partner groups, are summarised in this chapter against the themes outlined below. Both points of consensus and points of divergence have been highlighted, while important outlying voices have also been noted. The Annexure A to this report provides a summary of the perspectives arising for each stakeholder group consultation shown against the following discussion themes that emerged from the consultations:

- Methodology and procedural justice for consultation
- Electricity governance
- Electricity mix, pricing, and financing
- Environmental sustainability and human health
- Socio-economic sustainability

### 2.1. Methodology and procedural justice for consultation

#### *Methodology for consultation*

All constituencies commented on the methodology applied to the consultation process, particularly in the initial phase of conducting these. Key methodological issues included timing of and preparation for the consultations, and the need for thematic discussions to address systemic issues such as energy poverty, and emerging energy transition solutions, such as green hydrogen.

#### *Consultation timing and preparation*

The social partners concurred that the execution of the consultations should be procedurally just. In the initial dialogues, stakeholders highlighted the need for constituencies being consulted to have sufficient time to review materials and prepare positions which are open to public discussion and debate. Constituencies particularly noted that receiving transparent information at least two weeks, but preferably a month ahead of a formal consultation is critical. This allows for preparation, which for some constituencies, such as Labour, includes consulting internally to prepare positions that are agreed by members within the constituency, for presentation in the formal consultations.

“We call for a more inclusive process with youth, communities, CSOs, women’s groups. There should be participation in drafting, planning and monitoring implementation - not just for information and feedback. There should be support for consultation – data, documents provided in advance. There must be more sharing of information with more details.” Civil Society

Some constituencies (parts of government and labour) further requested that their constituency consultations be established as closed processes open only to invited stakeholders representative of the constituency.

### ***Thematic consultations***

Some constituencies expressed the need for more intensive discussion on key thematic issues that although canvassed and covered in the PCC presentations, are complex and require further unpacking with key interest groups. In addition to technical sessions already held by the PCC, some stakeholders requested further technical sessions, or thematic consultations, on systemic issues that either remain unresolved in the South African landscape, or are emerging and less understood opportunities for energy provisioning and economic development. Specifically, thematic consultations were proposed on energy poverty, green hydrogen and electric vehicles. Although not all the social partners expressly called for these thematic consultations, all groups raised issues around persistent energy poverty with some calling for a dedicated consultation (Civil Society, Faith). In terms of emerging energy resources, all the groups raised questions on green hydrogen, with Civil Society leading calls for a thematic consultation. Furthermore, most of the social partners positioned electric vehicles as a greater priority than green hydrogen, and as a critical industrial development pathway for reasons elaborated further in section 3 to this report, as well as in the Stakeholder Perspectives Report on the JET-IP.

Civil society - including Faith - led the call for addressing the complexity of energy poverty in a transitioning energy environment, through thematic dialogue. However, Labour and Local Government also raised the issue of energy poverty, albeit from different standpoints. While these nuances are discussed in the relevant section to this chapter, the energy consultations made clear that the issue of energy poverty needs significant discussion, with the associated needs of all affected constituencies being brought into consideration of the solution to this long standing and systemic problem. If not addressed as central to the just energy transition (JET) energy poverty is likely to stand in the way of achieving justice for all.

### ***The need for and content of the integrated consultations***

All constituencies welcomed the opportunity to review and consult on the just energy transition vis-à-vis the ongoing update of the PCC electricity recommendations report. Stakeholders particularly welcomed the opportunity to discuss the needs of the recommendations report ahead of its final preparation for the public consultation process. All constituencies raised issues for the PCC to consider including in its recommendations on South Africa's electricity planning. These issues raised had primarily to do with recommendations for the electricity mix and pricing models, and with environmental and social sustainability and human health.

Furthermore, all constituencies regarded these consultations as critical. This was heightened by the ongoing electricity crisis which was raised by all social partners as being a drain to the economy, with impacts on the lives of citizens from all walks of life. All constituencies noted the necessity for South Africa to participate in a more thorough consultation process to maximise inclusivity within electricity planning (and

the JET). Discussions and inputs by all constituencies were permeated by the electricity crisis, which has sharpened the need for and focus on justice and social inclusion.

The need for policy coherence was also raised as an important consideration, with stakeholders calling for and questioning alignment between various policy and planning instruments. In the context of the integrated energy consultations, stakeholders struggled to understand the relationships between different policy instruments and plans, particularly the Integrated Resource Plan (IRP), Integrated Energy Plan, the JET-IP, and the National Industrial Policy Framework. The relationship between the PCC's Electricity Recommendations Report, and the JET-IP, came under particular scrutiny.

### ***The PCC's response on procedure and methods for consultation***

Following this feedback, the PCC reconfigured the dialogue process to hold two dialogue events for each constituency: i) a briefing, or information session, and ii) a consultation session. The consultation sessions were typically held two to four weeks after the information sessions (as preferred by stakeholders) with the exception of Business, where the formal consultation followed a week after the information session. The PCC recognised that Organised Business has been very active in South Africa's energy security, pricing and transition discussions, including through the Energy Council of South Africa, a CEO-led initiative that brings together key public and private sector companies, business/industry associations such as the Black Business Council, Business Unity South Africa (BUSA) the National Business Initiative (NBI) and local development finance institutions that have a significant presence and actively participate in the energy sector.

The adjustment in consultation methodology allowed constituencies to be adequately briefed on the Presidency and PCC's forthcoming and living plans, through an information sharing session, with time to prepare for the consultation. A closed consultation was conducted with Labour following the prior, open information session and at this constituency's request. Closed sessions were also held with individual government departments.

On the question of thematic consultations, the PCC is currently planning a dialogue on the topic of energy poverty. Furthermore, the PCC has noted the significant level of discussion on the issue of industrialisation (discussed later in this report). Positions were put forward by most social partners on the role of the energy transition in South Africa's industrialisation policy, alongside substantial inputs on the question of achieving the scale of industrialisation still required in South Africa to ensure economic development and employment. The role of green hydrogen and electric vehicles as emerging energy sources in the South Africa economy will be central to the framing for any decisions on South Africa's industrial development pathways under the JET and in electricity planning more broadly. The PCC therefore proposes to conduct a thematic consultation on green and just industrialisation in addition to that for energy poverty. These will form part of the dialogue process as the PCC moves their attention from electricity planning to energy planning as a whole (the remainder of 2023).



All constituencies perceived these methodological issues to be critical foundations of procedurally just consultations.

## 2.2. Electricity governance

Electricity governance emerged as a major theme of the consultations, raising key questions on the role of the state in the sector. Every stakeholder group raised specific questions in this regard, many in some detail. The current electricity crisis, which has sharpened society's focus on the governance arrangements of this sector, was an overarching driver of the governance focus during the consultations. A further key driver was the just transition toward low carbon and climate resilience in the electricity sector. Here most constituencies were particularly concerned with electricity affordability, job security, and skills development trajectories. However, governance also came under scrutiny in terms of divergent and convergent perceptions around the specific roles of different actors in the transitioning electricity governance space - particularly that of national government and the state-owned enterprise, Eskom, local government, and the private sector. The role of the state was also considered in the broader context of capacities required for implementing the plan and the JET. This concern was coupled with the pervasive issue of corruption, theft and vandalism, resulting in increased demands for transparent and accountable governance arrangements.

Stakeholder group perspectives on the governance aspects that arose from the consultations are outlined in further detail in the section that follows. Because of the weight many stakeholders afforded this issue these precede issues raised around grid upgrading, which although also considered as a state role, is discussed separately.

### **Role of the state**

A major theme within discussions focussed broadly on the changing role of the state in electricity governance in respect of the different levels of government and the various institutions comprising the state's operations. A number of issues were brought to the fore by various social partners, all of which were deemed important, and which warrant further clarification and elaboration in future electricity (and industrial) development plans. These are outlined below.

### **DMRE conflict of interests**

At the national government level, resolving the DMRE conflict of interests was on the minds of many stakeholder groups. In its current form, DMRE has dual responsibility for developing the “mineral resources and energy sector so as to promote economic growth and development and social equity...”, while DMRE defines mineral resources and energy as one sector (DMRE 2023).

In this respect stakeholders (business, civil society, faith) expressed the view that DMRE is mandated with oversight and market functions and noted a conflict of interests between these functions. Stakeholders further raised concerns as to DMRE's dual responsibility for developing the coal mining sector and energy sector which has contradictory future resolution pathways. Faith organisations expressed concern about

“How does the just energy transition impact the work of the Minister of minerals and resources – this department is still pushing coal and further gas exploration” (Faith)



reconciling the DMRE focus on growing the mineral sector as a key component of economic growth, with the objectives of ensuring development and social equity in the Just Transition.

Most groups raised issues around the perceived failure of the National Energy Regulator of South Africa (NERSA). Civil society, on behalf of the local government sector expressed concerns with NERSA's ability to provide Use of System cost approvals, alluding to a conflict of interest given that the regulator falls under the DMRE. Civil Society further highlighted that NERSA should implement its mandate, under the Electricity Regulation Act, to set up forums "as may be necessary to advise the Regulator on matters affecting customers or end users in general, or a category of customers or end users in particular" – with a particular focus on addressing energy poverty and recognising that the free provision of electricity is arguably the most cost-efficient social investment available in SA".

### **Role of municipalities**

An intensified but also more varied role for municipalities in the future electricity sector was perceived by local government and business groups, as well as some parts of civil society as being a critical feature of the new electricity plan (and the JET-IP). Constituencies raised various suggestions about how municipalities should be positioned as deliverers of new generation capacity and enabling localisation. These groups were in favour of a new role for municipalities, but they had different viewpoints about how to position municipalities. The risk of the energy transition for municipal revenue models was a primary driver behind Local Government and Civil Society considerations of the role of municipalities in energy generation, whereas an increased role for the private sector was on the minds of Business.

Local Government highlighted that the energy and electricity landscape has changed fundamentally (and continues to do so). The development of power plants in parts of the country that have not previously engaged much in power generation (e.g., Northern Cape) coupled with the disruptive innovation of distributed energy resources, such as small-scale embedded generation (SSEG) has given cause for a much greater role for local government in power generation than has traditionally been the case. Local Government was the one constituency that was clear about the different issues involved in the changing role of municipalities in the provision of electricity within their municipal boundaries. They differentiated between a) the impact of accelerating SSEG from commercial and residential consumers on their existing role as distributors and electricity, and b) their need to become direct procurers of electricity from IPPs to enable security of electricity supply as well as maintain security of revenue. Many participants from other social groupings conflated these two roles in generation and distribution, which had implications for their views on privatisation as discussed below.

Local Government and some civil society groups emphasised the revenue losses municipalities have experienced because of accelerated SSEG installations, also a consequence of the ongoing electricity crisis. These stakeholders argued that persistent revenue losses from reduced electricity sales are unsustainable and that changes to their business models are therefore necessary. With this, some civil society groups strongly supported calls from Local Government for the fiscal framework of the municipalities for revenue generation to be addressed. These groups seek a means for alleviating risks to revenue generation arising from the energy transition. Local government argued that “there has been a decline in electricity sales ... (and)... the old model of reliance of municipalities on the sale of electricity to co-fund other initiatives is an unsustainable model.” The role of electricity tariffs in co-funding key basic service delivery and supporting socio-economic development was a critical consideration for Local Government and for some civil society groups.

“..... (the) local government fiscal framework (is such that) in aggregate 38% of local government costs will be funded by electricity tariffs. The main issue to balance budgets is from electricity tariffs. This is key for things like funding water and services. The higher the penetration of Eskom prepaid meters, the less citizens end up paying for other services to municipalities. These issues are very key. We must remember that water and sanitation infrastructure is in a mess. We must consider how these things connect.”  
Civil Society

These participants made a strong case for the need for the social partners to reach an agreement on reconfiguring and supporting the entire local government fiscal

We also need cost of supply tariffs, but that must happen alongside an agreement of the entire local government fiscal framework. You cannot separate out financial sustainable electricity supply without a sense of financially sustainable municipality. Civil Society

framework. Local Government specifically argued that the business model of being resellers of Eskom is no longer sustainable for municipalities. Municipalities must be network service providers in a way that talks to the grid and the network and how these institutions can access generation and deliver electricity supplies to consumers. Local Government

noted that municipalities are submitting cost of supply studies and plans to NERSA, with a view to ensuring cost reflective tariffs. These stakeholders noted that the issues around SSEG are still a major focus and that this necessitates support to impacted municipalities to address these issues for example through processes for determining tariffs. Local Government expressed the view that this is a process that municipalities will get right over time as they move away from Eskom power and highlighted that municipalities moving toward procure power from IPPs.

Resultant to the risk of municipal revenue losses from electricity tariffs, Local Government and Civil Society are of the view that municipalities need to play a central role in electricity generation. Some stakeholders went as far as to articulate that municipalities would simply not be able to survive if they cannot generate and sell electricity. This view was supported by some business groups who foresaw an important role for local government in procuring electricity from Independent Power Producers (IPPs), thereby increasing the role of the private sector in electricity generation and future security of electricity supply.

As noted by Local Government, municipalities have begun to engage in the procurement of larger scale electricity generation capacity through IPPs. Thus, municipalities are increasingly facing the tasks of sourcing alternative generation capacity, and wheeling electricity from designated IPPs (and from SSEG), in addition to their traditional role for the distribution of electricity to commercial and residential customers. Consequently, municipalities, especially (but not only) the metros, are increasing their capacities for securing and procuring generation capacity, as highlighted by Local Government and some civil society groups. Recognising that Local Government lacks the requisite capacities,

“ (The) greatest challenge is that if going to be investing in infrastructure need capacities. Munis cannot even be able to deliver water and sanitation. We have major capacity issues and challenges”.

these stakeholders pointed out

“... municipalities have to engage with generation. That seems to be a gap. If we do not get into that game in 2023-2027 then that is a problem. We are already working with DBSA on this... We also need (instruments) to allow municipalities to play a role. (Local Government)

that such new responsibilities require a programme to build needed capacity for procurement and delivery within the

municipalities. Some groups (mainly civil society) also raised concerns about the low capacities among most municipalities to deliver basic services - their constitutional mandate - noting that such lack of capacity could compromise the ability of municipalities to deliver new generation capacity.

Alongside enhanced capacities, some groups considered the strengthening of the enabling environment to be integral to increasing and supporting the role of municipalities in electricity generation, and in their broader role as network service providers. Local Government clearly positioned themselves as being in the business of selling network services. Municipalities therefore need to guarantee the network and earn from IPPs for their network access. Local Government pointed out however that there are complications that specifically arise from the need for municipalities to cross subsidise (for example water services, and tariffs for low-income households). These stakeholders highlighted that increased energy efficiency means reduced availability of cross subsidy opportunities. They highlighted that tariffs need to be balanced and realistic to avoid driving consumers off the grid.

“We need tariffs that work for all players, both the business, the wealthier and poor residents. We are seeing business migrating to own generation or escape the cross subsidy by going to Eskom supply areas.” Metropolitan Municipality

“The infrastructure maintenance backlog and the cost of a new generation model and grid cannot be funded largely by local government. City Power backlog is R26bn. There is also a need for support on water and sanitation. That needs to be an external source of funding.” Civil Society

Municipalities also argued that the new electricity context meant they needed support to expand their energy distribution infrastructure. They advanced a strong view that local government must be brought into grid development and energy planning processes and that financial support is critical to addressing the maintenance backlog facing many municipalities.

Business called for accelerating the pace of private sector generated renewable energy as well as assuring the ability and capacity of municipalities to procure electricity from the private sector. In this regard, business groups, and Local Government called for further amendments to the evolving regulatory environment as an important enabler of IPP contracting by municipalities.

Municipalities focused on the need to clarify their role in financing generation, collecting revenue, and localisation (both of energy generation and facilitating local industrialisation) as the process of commercial and residential SSEG accelerated. They needed a change to the regulatory frameworks to enable them to coordinate and regulate (residential/commercial) feed-in to the local municipal grid.

### **Privatisation of the electricity sector**

The labour constituency argued that IPPs generating renewable energy was tantamount to privatisation of the electricity sector/market. They perceive electricity to be a public good and saw a large degree of privatisation as contradictory to Eskom's role in providing affordable electricity for the economy. In addition they were

We as labour are particularly concerned around current push toward privatisation.”  
Labour Research group

“We do not believe that IPPs can work. We are not saying they don't have a contribution but we are questioning reliability. We don't need more research. The private sector is all about making money.”  
Labour Union

concerned as to the capacity for (IPP generated) renewable energy to yield security of electricity supply. However there was some marked differentiation between the labour organisations as to how much weight they accorded to these arguments as well as the strength of their views on these issues.

Some unions that stand to be strongly affected by the energy transition, expressed strong views that the role of the state cannot be replaced in the economy. These groups, particularly one union, argued that the state needs to play a catalytic role and stimulate an inclusive economy. In their view, the state should be championing manufacturing and industrialisation, and restore land to the people. These perspectives were echoed to some extent by the trade union federation of which the union concerned is a member. This federation argued that in the electricity transition, government must create an enabling environment for investment while also facilitating sectoral reforms and the restructuring of the sector, noting that this would create “...a bonanza for business”. The federation further highlighted that South Africa is in the process of creating an enabling environment to attract domestic and foreign investment, and that in doing so, government is prioritising the interests of the business class. The federation noted that one of the mechanisms government has put in place to facilitate privatisation is Public Private Partnerships (PPPs). It was noted that PPPs are being used by the private sector to reduce or eliminate its risks in electricity provisioning and that government should guarantee transmission of electricity and not the profitable side of electricity supply. This federation representative further noted that government also guarantees the market through the PPP/IPP mechanism and this does not really create the environment for free market competition.

While other trade union federations and unions present also raised issues on the role of the state in electricity provisioning, they focused more on the possible impact privatisation would have on affordability of electricity, stressing that government must play a key role in ensuring affordable electricity for all. These groups argued that leaving electricity generation up to the private sector, without government balances and check in place, including subsidies for low income households, would render electricity unaffordable for low income households. These groups argued for the need for a review of the national fiscal policy in this regard.

“Affordability will not be there if profit and not people at the centre..., and, Opportunities are clearly guaranteed for business and risks clearly for the poor”.  
Trade Union.

The strong perspective of some labour groups on privatisation contrasted with calls from some civil society groups, Local Government, and some business groups to increase the role of IPPs (and SSEG) in future electricity markets. Notably, some federations that were present at the integrated energy consultation were less vociferous about impacts of privatisation on Eskom than others. Some unions and federations appeared to have differentiated views on the role of the state vis-a-vis privatisation of the electricity sector.

All of Labour was concerned that the increased role of the IPPs in generating electricity would promote private sector profits rather than community wellbeing. Hence, Labour argued that the “privatisation” of renewable energy was risky and would lead to increased electricity prices and that this would exacerbate inequality, while some labour groups were also concerned, as previously highlighted, that

“...the privatisation pathway, ...will be expensive, and by consequence deepen energy poverty.” (Labour)

privatisation would compromise energy security. Labour was either wholly hostile to the process as privatisation, or at best arguing that a clear regulatory balance was required to be struck between the role of the state (which should be the dominant partner) and

the emerging role of the private sector in the electricity market. One union that is directly affected by the electricity transition stated that Eskom should own 70% of generation capacity, highlighting their view that private sector investment should be contained so as to ensure the affordability of energy services.

Some civil society groups were also concerned about the impact of increased privatisation, expressing concerns about “putting the private sector at the centre of what is claimed as a JUST transition”. They were worried that this will push energy prices up, and out of reach for low-income groups. On the other hand, organised business, the municipal sector, and some civil society representatives expressed the need for increasing private sector IPPs, including through adjusting the regulatory environment to enable new generation capacity from the private sector. They also countered the fear that the increased role for the private sector would lead to unaffordability, citing the role of REIPPPP in reducing unit costs of the electricity provided to Eskom through the renewable energy programme. Electricity price rises were a result of NERSA allowing Eskom to recoup its losses not IPPs providing expensive electricity to Eskom. The extent of the role of the state in emerging electricity markets was thus highly contested among stakeholder groups and should also be considered within the context of capacities for implementing electricity plans.

In summary, the question of the extent of privatisation, and the role of state in the future electricity sector was a contested issue both within and between social partner groups. It was also evident that these questions need to be differentiated when addressing accelerated SSEG generation of electricity.

Labour and some civil society groups expressed discomfort with the possibilities that SSEG held in the Just Transition, primarily citing concerns of access to SSEG by less low-income households, including those in rural areas that have inadequate grid access. This issue of affordable access was of significant concern, with these social partners highlighting that there are many parts the South African population that cannot afford to install SSEG. This was also articulated by local government groups as an issue disadvantaging small business, wishing to use SSEG to mitigate the impact of load shedding and the electricity crisis. Labour particularly highlighted the need for SMMEs to be able to access finance for SSEG, and that this is currently not available. Local Government perceived a role for municipalities in enabling SMMEs, through ensuring reliable electricity supply for these businesses, either through subsidising SSEG installation or municipalities being able to procure renewable energy from IPPs. Faith groups also argued that government should make available SSEG solutions to poorer community as well as schools and religious institutions.

Local Government was unambivalent on their role in IPP procurement and distribution of large-scale electricity supply. In terms of South Africa's electricity, financial management and procurement regulatory environment, municipalities stand to have more control over IPP procurement from the private sector than they have had over SSEG, which has been an innovation that has disrupted municipal business models while responding effectively to the country's energy security issues. Careful consideration is needed to both define the role of municipalities in private sector electricity procurement (through further regulatory and fiscal model reform) and how best to capacitate municipalities to procure from and manage IPPs, and to deliver equitable and affordable access to electricity.

In sum, Labour, and to some extent Civil Society, was concerned that IPP and SSEG generation of renewable energy, and therefore part of the electricity market, signalled the social retreat of the state from being wholly responsible for the provision of this public good. It was evident however from the integrated energy consultations that government can enable necessary transitions in the electricity sector without fully withdrawing from its role of protecting electricity as a public good. The mechanisms available to government necessitate that various government capacities are enhanced to ensure a just transition in and around the electricity sector.

### **Capacity of government**

Most social groupings were concerned about the capacity of government to implement electricity and energy plans. Within this broad issue, all articulated deep concerns with transparency and accountability measures, arguing that theft and corruption stand to block the just transition. They also raised issue with capacities to implement electricity planning and to upgrade the grid, as well as expressed concerns over the lack of coherence in energy, electricity, and industrial policy. Most groupings further recognised that government capacities need to be enhanced for increasing localisation and skills development, addressing issues of energy poverty

and social protection within the context of persistent inequality in the South African economy and society. Each of these issues is further elaborated below.

#### *Capacities for transparency and accountability*

“...Eskom has been shown to already be corrupt and inefficient so wont money just disappear and leave us their major loans to pay back.”  
(Faith)

All groups argued that it was crucial for government to establish transparent & accountable infrastructure bolstered by robust management strategies, so as to effectively implement, manage, monitor, and report on the energy transition. All social partners expressed concerns as to the current lack of accountability and transparency, in government (both central and local)

highlighting that this must be addressed urgently to ensure a JET and future electricity and energy security.

Each and every stakeholder group and social partner was vociferous and unanimous in their demand that **theft, corruption and vandalism**, alongside the issues of accountability and transparency in government (both central and local) be addressed with the utmost urgency and rigour. Business argued for a robust accountability framework so that corruption and theft can be tackled. Civil society felt that establishing an anti-corruption operational rollout could not be undertaken without establishing a transparent accountability framework for ensuring oversight and managing the Just Transition. This also requires creating effective monitoring and evaluation processes. The youth and faith participants raised the importance of transparent and accountable oversight as the only way to manage corruption, sabotage, theft, illegal connections, and damage to infrastructure. Labour was adamant that an accountability and transparency framework to counter corruption and theft has to become a major priority if the JET is to be successful, and implementation of electricity plans sustainable.

“Criminality, as mentioned previously, is systemic. We see this for example in public transportation and illegal mining. Electricity infrastructure is falling apart and lack of skilled workers to fix it.” (Business)

#### *Capacities for ensuring policy coherence*

Most constituencies, albeit with variation in language used, argued for aligning energy policy/implementation with industrial policy/strategy to ensure that economic growth under a JET was inclusive. Many stakeholder groups perceived critical links between electricity planning and the national industrial policy framework, while some social partners made robust calls for government to improve its policy on localisation within key policy and planning instruments, and implementation and roll out.

“The only way the Transition will be “Just” is if the value chain of renewable energy components are localised just as coal was localised.... The question will then be: what is the government strategy on funding research and development on localisation of renewable energy components?” (Business)

#### *Capacities to implement electricity planning*

All social partners felt that the lack of capacity in government to implement electricity plans must be addressed through capacity development programmes and through diversification of electricity generation responsibilities. Diversification of generation responsibilities would, for some stakeholders, mean that the risks currently associated with centralised generation responsibility would be mitigated, while the capacity burden could be spread across national government, local government and the

private sector. That said, stakeholders articulated the need for capacity development programmes to support this aspect of the transition, as discussed in the section on municipalities above.

#### *Capacities for enhancing social ownership and inclusion*

For many stakeholders, particularly civil society, faith and labour groups, an inclusive JET is one that ensures social ownership. Although framed in different ways, all groups perceived the establishment of social ownership models and ensuring affordable electricity as being a state role, with some groups (particularly Civil Society and Labour) going further to express fears that if the state does not play a prominent role in this regard, the energy transition will not be just. In this regard, some stakeholder groups raised the need for government to design and implement incentives and subsidies, as well as other means of social protection, for ensuring equitable energy access and affordability for all. These include revisiting policy and subsidy models for low-income households (as one of the means for addressing persistent energy policy). Other groups (Civil Society and Labour) raised the need to subsidise SSEG for small businesses and indigent populations. Some stakeholders, particularly Business, highlighted the requirement for incentive mechanisms to enable critical development such as EVs, with a view to protecting jobs and enterprises, the latter particularly in the small components manufacturing sector.

Civil Society further argued that the PCC's Electricity Recommendations are "gender blind", highlighting that energy systems lies at the heart of food systems at the household level. (the Recommendations Report) must consider participation of women at all levels and women's energy needs. These groups argued for the PCC's Electricity Recommendations Report explicitly recommends that access to sustainable, safe, adequate, and reliable energy be recognised as a self-standing right. Recognition would give impetus to a rights-aligned energy transition that must simultaneously end energy poverty, meet energy needs in a manner that addresses gender inequalities while curbing emissions.

#### *Capacities for enabling localisation*

All groups raised localisation. Some groups articulated their frustrations with current localisation models, which were perceived by some, Civil Society (including Faith and Youth groups) and Labour, as being inadequate. Most social partners articulated the need for government to make stronger linkages between its industrial policy framework and its energy policy and planning framework. With this, certain social partners (Civil Society, Local Government) highlighted the need for government to make appropriate provisioning for incentives and subsidies to stimulate uptake of these policies and instruments, and above all, to ensure social inclusion and equitable access and affordability.

All groups called for the state to play a critical role in facilitating innovation, specifically in enabling the incorporation of new smart electricity generation and management technologies, localisation of old/new technologies – for example battery storage, inverters etc – as well as developing an investment plan for localising smart grid technologies. Business stressed that localisation and social ownership opportunities should be pursued by government to support and enable the inclusion of contractors, goods and service suppliers, the logistics industry and the informal sector, in the future electricity sector.



As discussed in the previous section, Civil Society stressed how important it is for the state to accelerate inclusivity in terms of SSEG access through subsidies and social ownership models, and in developing an investment plan for localising smart grid technologies. These specific calls were echoed by Local Government, while Labour emphasised the criticality of the state in ensuring the advancement of localisation and social ownership, equitable electricity access, and affordability in the electricity sector. Youth groups also supported calls for prioritising localisation, urging government to provide explicit local content support for job creation strategies, and subsidisation schemes to proliferate renewable energy and low carbon technology enterprises. Local Government was keen for localisation assistance at the municipal level, highlighting that municipalities can play a pivotal role in the implementation of industrial policy (if it is aligned with evolving electricity and energy policy) and its localisation aspects, for example through promoting small and medium enterprises.

Labour was more conflicted. On the one hand it supported developing a concomitant industrial strategy that will drive localization, employment creation and economic growth. However, on the other hand, many labour participants were reluctant to have local job creation dependent on the transition away from coal towards renewables. Hence some groups proposed state support to ensure localisation of jobs through renewable pathways, while others framed the issue in terms of the state protecting local jobs in the transition.

#### *Capacities for ensuring skills development*

All groupings argued for a greater emphasis on skills development and investment, while most perceive this as being government's role to facilitate. The links between inclusive industrial and energy policy, employment stimulation and skills development were articulated by Business, Civil Society (including Faith and Youth), Labour and Local Government, although opinions varied among these groups as to where and how the state should place emphasis in investing in and enabling skills development. Ultimately, investment in skills development is understood to be a critical enabler of the just transition. As such the issue is discussed in more detail in section 2.5 to this report on the socio-economic sustainability and the Just Transition.

“The point has been made that we have a skills shortage. (The) budget for skills seems inadequate given the scale of the shortage and the dependence on new technology” (Business)

#### **Upgrading the Grid**

A major focus of the consultations centred around the need for upgrading the current electricity transmission and distribution grid. Although grid modernisation is the role of the state, it is separated out for emphasis given that almost all stakeholder groups raised grid upgrading as a critical issue for the short, medium and longer term.

All groups pointed out that the current grid is severely constrained, with some highlighting that Eskom struggles to cope with current load transmission requirements. Some groups specifically raised issues with new renewable energy coming on stream through the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) being held back by these constraints, which compromises efforts to increase electricity security (Civil Society, Business, Faith).

Groups also raised concerns as to grid access, with some parts of the country, particularly areas in the Eastern Cape, still not being in a position to enjoy full grid access and who therefore experience severe energy poverty. Thus, grid upgrading needs to address social access issues as well as technical aspects. A plan for grid upgrading that addresses immediate or short-term needs (related to the electricity crisis, maintenance and immediate upgrading and improvement of access) as well as the medium to longer term requirements for the country's future electricity security and needs is urgently required to remove grid constraints and optimise new generation and to ensure equitable access. Although different social partners varied in what they would emphasise as an outcome of grid upgrading, the requirement for a grid upgrade plan arose among all the social partners, although to a lesser extent from labour. In summary however, a new grid plan must facilitate increased pace, extension, & alignment of VRE implementation, and enable inclusivity of rural areas requiring electricity connection, as well underdeveloped communities through SSEG and grid expansion.

“Spatial planning ... is critical in the near term to optimise the amount of renewable energy on the grid, in the medium term for grid expansion, and the long term for the evaluation of the environmental footprint of electricity infrastructure.” Civil Society

Business and government (national and local) concurred on the urgency of upgrading the grid, expanding and optimising it. Local government stressed the importance of upgrading municipal distribution grids which are severely stressed and will become even more so as IPP procurement and SSEG uptake accelerates. In addition, both groups called for prioritising the necessary investment to ensure an upgrading plan was able to expand the grid so that the new wave of renewables coming onstream could be accommodated. Civil society highlighted the need to expand the grid to enable access by poorer communities.

“How do we take account of areas with energy poverty ... where there is no infrastructure to support new energy opportunities?” (National Government)

### 2.3. Electricity Mix, Pricing, and Financing

#### Electricity Mix

There was general acceptance among the social partners of a least cost mix of VRE, storage, and gas for peaking power – with exceptions. Labour and parts of national government argued for prolonging coal. Civil society was sceptical of gas, but Business argued for the inclusion of gas, particularly for peaking power in the short to medium term.

All groups expressed concerns about electricity and energy security, as well as cost, and these concerns largely contributed to the nuances around the discussion on the future electricity mix. Labour's arguments for both keeping and prolonging coal as part of the electricity mix were primarily driven by their need to protect jobs and livelihoods, as well as to ensure electricity security. These and other groups within civil society (mainly Youth) also questioned the time frames for phasing coal out. Labour

and Youth queried why South Africa is not considering clean coal technologies, while others noted that these technologies are not yet viable. Civil society stood out as the most sceptical group about the role of gas in the electricity mix.

Overall, new generation introduction and the process of prioritising technologies must balance the electricity crisis with longer-term planning, as well as taking into account potential job losses and the necessity for skills transfer. The major components of the energy mix considered by stakeholders are further elaborated below, noting however that some stakeholder groups (mainly civil society groups) called for integrated energy planning that considers electricity planning in light of all energy needs to be conducted.

**Renewable energy** generating capacity (mainly from VRE such as solar and wind) was considered the main priority by all stakeholder groups with the exception of labour and parts of national government who prioritised coal but still saw renewables as part of the electricity mix. Strong support for increasing the pace

“Why not invest in public renewable energy? Otherwise energy in this country will be in the hands of the private sector .... we lose what little capacity is in the hands of the Eskom.”  
(Labour)

and scope of renewable energy coming from all groupings except for parts of labour. Part of Labour's objection was in-principle derived from the fear of job losses in coal mining while some groups within Labour saw renewables as not being able to support electricity security. However, another strand of Labour's contestation came from

Accelerating RE deployment, which will enable the acceleration of coal phaseout, will bring down electricity costs, although not necessarily the price to consumers, in the short-term.  
(Civil Society)

private sector ownership of IPPs. As discussed in previous sections, this was regarded as privatisation and undermining of the state's role in providing public goods (i.e., energy). Municipalities supported renewables as a way of solving their electricity supply problem as well as being a solution to climate change but feared

the impact that SSEG would have on their revenue generation models.

**Coal**, currently South Africa's primary source of power, was considered by all groups

“...emissions from some sectors are hard to abate, and are also more expensive to abate than in the power sector.” (Civil Society)

to be a major part of the immediate mix, and should be maximised within the useful life of plant. Only parts of labour advocated for new coal generation, while this group also wishes to prolong the dominance of coal for as long as possible. This call was echoed by Youth participants , who with

Labour, were of the point of view that clean coal technologies could be deployed, enabling emission reductions while maintaining the status quo, which includes job and electricity security. For these subgroups, coal was considered critical to both energy and job security, as well as to economic development. Some stakeholders also raised the role coal plays in South Africa's export market and sought to ascertain whether or not South Africa would continue to export this commodity to earn much needed revenue. Other groups (Business, Civil Society, Faith, Government) recognised the need for South Africa to decarbonise, although some saw this as an urgent need (some Civil Society, Faith and Local Government groups) while others felt strongly that South Africa should not rush the energy transition so as to ensure that the transition is

just. The need for South Africa to be enabled to continue and increase its industrial development was widely recognised within this context, with some groups raising concerns that coal is a necessary ingredient of future industrialisation (and therefore employment and economic) pathways.

**Gas-to-power** was seen by a few groups as a critical short to medium term solution in order to assist with resolving grid issues and smoothing the pace of onboarding renewables. Those arguing for a role for gas in the energy supply mix came from the Business sector, and from some labour groups. As discussed, Business (and some local government actors) perceived gas as an important short-medium term solution while grid capacity constraints are addressed, and as renewables are onboarded. Some participants from the civil society consultation were vociferously not in favour of using gas, especially if it involved offshore gas extraction from South African coasts. Some groups also expressed concerns that gas prices are internationally linked and volatile, thus increasing electricity price risks for South Africans. Some civil society groups (who were sceptical about gas), pointed out that peaking support could be provided by batteries and other means of support which may, but does not necessarily come from gas.

“if the gas amendment bill and upstream petroleum bill are passed by parliament, then this process is simply a waste of time! as the intentions of the PCC would be completely undermined” (Civil Society)

**Nuclear** was articulated by some groups within business and labour as being a climate change solution, while also being an affordable resource, including for peaking power. Overall, the social partners did not articulate a strong role for nuclear in the electricity mix.

**SSEG** was discussed by most stakeholder groups as becoming critical for the electricity mix. The main thrust for expanding **SSEG** in the consultations came from the local government sector, although all stakeholders appeared to recognise the inevitability of SSEG (it has already taken hold among electricity consumers that can afford to install distributed energy generation). However, some groups raised concerns, as previously discussed in this report, with equitable access to SSEG, highlighting that governments needs to consider its exclusionary impact on revenue models, and general access by lower income groups and consumers.

“...market-based costing mechanisms must safeguard low-cost supply of basic electricity needs for low-income households...” (Civil Society)

Municipalities saw the increased spread and pace of commercial and residential SSEG as providing energy security and a way to solve their chronic electricity supply problem. As discussed in previous sections, they were concerned about the potential loss of revenue as a consequence but also realised that the “old business model of being resellers of Eskom is no longer sustainable” (SALGA). As one official put it: “Municipalities can lose revenue from the embedded generation installation only if they don't establish processes to allow SSEG in their network, with the right costing on a basic charge and export tariff, which will benefit both SSEG customer and protect municipal revenue.”

### **Demand Side Management**

Many stakeholders recognised that the optimum electricity mix does not only involve issues of supply. Energy efficiency should also be properly incentivised to decrease energy demand on the system (Business, Civil Society, Local Government).

Battery energy storage systems (BESS) and demand side management measures such as Time of Use tariffs (ToU) and Feed-in tariffs (achievable through tariff reforms) were among the key measures discussed by these groups. BESS came under considerable debate within Business. One business group, an umbrella body for a particular electricity resource, argued that BESS technologies are still too nascent and expensive, while other business groups contested this, citing that significant technological advancements and reducing costs of the technology are making BESS increasingly viable. The latter was further supported by some parts of the local government sector who highlighted the benefits of BESS.

ToU tariffs, which can play a critical role in distributing demand towards peak availability times, were recognised by Civil Society, Local Government and some Business groups as being important to introduce, particularly for industrial customers, while some Local Government actors highlighted that ToU tariffs are not appropriate for residential consumers. This was because residential customers, particularly low-income households, often do not stand to benefit from the incentives that ToU tariffs offer, largely because these households have little control over their peak demand times (employment requirements, school hours, etc.). Smart meter technologies can also distribute demand appropriately, but these may not be viable in low-income households.

### **Pricing**

In terms of pricing, in considering the above for the electricity mix most stakeholders require that priority be given to the least cost model. However, there were diverging opinions between some social groupings, mainly some groups within Labour, and parts of national government, over whether renewables-based systems or coal and fossil fuels-based systems would constitute least cost. All groups felt that ensuring affordability and access for all must be safeguarded, these calls came particularly from Civil Society, Faith and Labour groups. The Energy Trilemma – which requires that policy makers navigate a pathway that provides the cheapest and most accessible electricity, that is at the same time reliable and stable, and which meets decarbonisation and therefore climate policy requirements while also yielding positive public health benefits – came under considerable scrutiny by all social partners, albeit with emphasis on different aspects of this trilemma. (Further stakeholder deliberations on the trilemma can be found in the section 2.4 on environmental sustainability and human health).

Groups also called for cost reflective pricing (specifically Business, parts of civil society and Local Government). Organised Business recommended that the PCC's Electricity Recommendations Report recommend that current pricing system be adjusted to be cost reflective, while some civil society groups and parts of local government emphasised the need for and support of Cost of Supply studies to determine cost reflective tariffs. Some groups in civil society also highlighted that whilst the PCC must

be more explicit on cost reflective pricing, this should not mean that households carry the related burden.

Overall, the increased rate, scale and frequency of electricity price increases are a major concern for all user groups. Price increases are believed to impact negatively on economic growth, commercial and residential consumers, and exacerbate energy poverty across significant sections of the population. All recommendations from the PCC will have to factor this issue in carefully, which raises again the importance of prioritising least cost models that at the same time meet other societal and policy requirements of South Africa. Civil Society, Faith, Labour and Local Government raised these issues although some placed greater emphasis on affordability for low-income households, while others perceived the importance of having tariffs that are reflective of the true costs of electricity supply, and that remove the reliance on government subsidies to cover the variance between the current tariff and the true cost of supply of electricity (some business groups, and some civil society and local government stakeholders).

A common theme however for Civil Society, Faith and Labour was that electricity must be affordable and accessible across society and that rural areas and low-income population groups must not be left behind. An emerging perspective is that if electricity cannot be made equally affordable for all, then subsidies, or some form of social protection must be available to ensure equity and social justice.

“(electricity planning) must be more explicit about cost reflective pricing – but that does not mean that every household must pay the same or carry the burden of cost reflection – with our inequality we cannot handle that.”  
(Civil Society)

## 2.4. Environmental Sustainability and Human Health

The issue of air quality and its impacts on human health, the drivers of climate change, and issues of job and livelihood security permeated discussions by stakeholder groups on the question of the pace and extent of plans and processes for the decommissioning of South Africa's coal power station fleet. The timing for decommissioning came under serious consideration by parts of labour and civil society, although for civil society the impacts of prolonging the lifecycle of coal fired plants on human health were a significant factor in determining timeframes. The energy water and land-use nexus also came under scrutiny by some groups. These issues are further elaborated below.

### **Air quality and human health, and climate change**

Air pollution brings significant impacts on human health, particularly affecting human

“This is not just a compliance issue - it is about health and lives lost, and cost to the public health system and to individual households.” (Civil Society)

lungs. Thus, some stakeholders, especially Civil Society, have advocated for the accelerated decommissioning of coal fired power plants. Although Civil Society argued that accelerated plant decommissioning is needed

for decarbonisation, it is also critical for the improvement of local air quality, while being necessary to solving the dysfunctionality of the current coal power system.

Some stakeholder groups stated that climate change policy targets, as well as air quality legislation and the Minimum Emission Standards (MES) necessitate accelerated decommissioning.

Calls for decommissioning to improve human health, particularly in areas where local air pollution is very high, were strong – particularly from some local government actors and from Civil Society. These actors highlighted that the big issue at stake is the timing of plant closures. Some civil society actors noted that while jobs and livelihoods are already at risk in the transition, accelerating the phaseout of coal will save non-electricity sector-based jobs and livelihoods that will be threatened by climate change (e.g., tourism and agriculture), and create new jobs in the new economy. With this, these actors, supported by some parts of the local government sector argued strongly that decommissioning of coal-fired power plants will reduce the burden of pollution that is currently causing severe respiratory disease among populations living around the coal mines and power stations. These population groups “...may well become more economically active and have more disposable cash as a result (of decommissioning)”. (Civil Society)

All Social Partners recognised the climate change requirements but there were divergent views on the speed and extent of decommissioning, making the pace of decommissioning a highly contested issue, particularly among parts of labour, and Civil Society. Principally tensions in stakeholder perspectives emerged between the impacts on health and drivers of climate change versus prolonging the lifecycle of the mines and power plants to save jobs, which was a particular focus of labour. Labour also expressed the view that clean coal technologies could be deployed to save coal fired power plants from decommissioning, arguing that deployment of such technologies would enable a prolonged plant lifecycle which in turn would protect jobs. Furthermore, Labour, alongside some groups within Civil Society and Business argues that plants could rather be mothballed or repurposed for alternate economic activity.

Most stakeholder groups, with varying motivations, argued that the decommissioning and mothballing of power plants must address the impact of coal mining and electricity generation on justice. Civil Society and Labour called for the (rigorous) application of procedural fairness in plant closures, highlighting the need for repurposing decommissioned power plants wherever possible, either for alternate energy generation or alternate employment and/or livelihood purposes. These groups further specified the need for repurposing programmes to include reskilling programmes for workers. Some groups, primarily Labour, but also some groups within Civil Society, emphasised the need for South Africa to determine its own pace and contours of decarbonisation and the associated energy transition. Within this discourse, some groups within Civil Society called for transition plans to factor in and continue coal exports for as long as global coal markets allow.



## Energy-water-land-use nexus

“One of the biggest energy consumers is the water sector. For every kilo litre of water moving, you need 1 kilowatt hour of energy. These internal efficiencies are not often examined but have impact on energy models and costs are passed on to consumers. Water leaks also equate to lost energy. From a revenue perspective, there is a lot being lost both in water and electricity due to leakages etc.” (Local Government)

Moreover, stakeholders highlighted that the energy-water-land-use nexus is creating a double crisis for the energy and water sectors, with shortages, inefficiencies, and decreases in quality (Local Government and Civil Society). In addition, they both have negative impacts on land use. Most important is the prevalence of unrehabilitated mining land from disused coal mines. Rehabilitation of the land as well as of mining-polluted water supplies is critical.

Coal mining, among other commodities mined in South Africa, degrades the land in and around its operations, while polluted acid mine water leeches into neighbouring streams and rivers feeding both populations and agriculture. These issues were raised by civil society and youth groups, as well as by parts of the local government sector.

“In a water constrained country like SA, water deserves a much bigger (focus in terms of) water pollution from coal mining and power generation, but also how the availability of water of adequate quality risks...power generation, (brings impacts) for climate resilience, and for human health and wellbeing.... the DWS has for many years flagged coal mining and power as a major risk to water.”  
Civil Society

Land rehabilitation should therefore be managed in a planned and inclusive manner through adequate finance, incentives and support mechanisms. Some groups within

“It is well known that there is often insufficient financial provision to ensure proper closure and rehabilitation...”  
(Civil Society)

Civil Society and Labour argued that inclusivity can be achieved through exploiting the potential for wind and solar on rehabilitated land and decommissioned power stations with communities participating and benefitting.

Land rehabilitation and land use issues were widely discussed, with strong views expressed by Civil Society, including Youth and Labour that the PCC consider these issues in its recommendations on electricity planning. These stakeholders expressed the view that electricity planning needs to demonstrate that it is cognisant of these issues and that it explicitly seeks to address the incorporation of local communities in the process of mine land rehabilitation and in their participation in the benefits that follow rehabilitation. Research shows however that consideration must be given to the practicalities of differentiated uses and repurposing activities.

## 2.5 Socio-economic Sustainability

While the social partners recognised that South Africa cannot ignore the holistic impact of climate change on all aspects of the national social and economic landscape, and the consequent necessity to significantly reduce carbon emissions, they also recognised the need that socio-economic issues are not compromised in the energy transition. To guarantee socio-economic sustainability in the transition the totality of the ‘Just’ aspects of the electricity recommendations report must be kept in the forefront and greatly strengthened. This means that in addressing affordable & accessible energy the JET must maintain, and implement, the three justice principles



of the PCC's Just Transition Framework. Furthermore, people are not to be left behind, the pace of change should cause minimum harm, and employment must be addressed.

### **Social ownership and social protection**

Moreover, whilst the majority of stakeholders – with the exception of parts of labour - perceived that the private sector is likely to play a significant role in the transition towards renewable energy, largely because of the experiences of REIPPPP and noting the increasing role of municipalities in procuring electricity from IPPs, additional related issues need to be maintained as a critical focus. These centred around issues and models that increase social ownership, as well as issues and solutions for social protection.

The possibility of social ownership should be emphasised wherever possible (Civil Society and Faith, Labour, Local Government). Some groups in labour and civil society highlighted the opportunities for ensuring transfer of ownership of disused mining land to local communities who could in turn lease the land to electricity producers, such as IPP. Such land may first need to be rehabilitated, or repurposed, as highlighted as a priority in 2.4 above.

Energy subsidies for low-income households will be required, as particularly called for by the Faith Community, and by Civil Society. Some groups within civil society, as well as parts of labour articulated that social assistance is likely to be needed for low income groups in the form of revised energy subsidies. Participants, largely Civil Society, and also parts of labour, noted that existing social protection or assistance mechanisms, such as South Africa's Free Basic Electricity (FBE) policy are outdated and require revision in light of both increasing electricity prices, and climate change drivers. One civil society group articulated that in terms of the cost of electricity, *“any market-based costing mechanisms must safeguard low-cost supply of basic electricity needs of low income households, and we support increasing this amount in line with the findings of PARI that increased FBE can both reduce household emissions and provide significant impetus for social upliftment of low income households as an equity measure within the transition.”*

Eskom can no longer produce electricity at a price that people or businesses can afford. In a country where 55% of people are poor, according to official statistics, and another 20% of people are at risk of falling into poverty, many are having to choose between food and the means to cook it. Civil Society

### **Skills Development and Transition**

A further factor crippling the JET and the just transition are skill shortages and a looming skills gap across the board, as discussed by all the social partners. Skills development and relevant educational plans and programmes were considered by all stakeholder groups as being crucial to address immediate skills requirements as well as medium term skills development and transfer. Civil Society and Youth groups argued that this will require significant investment and detailed planning on the part of the government, the private sector and appropriate institutions. Civil Society

“workers are not only those with formal jobs who belong to trade unions. They include street traders, waste pickers and food gardeners amongst others...” (Civil Society)

skills gap across the board, as discussed by all the social partners. Skills development and relevant educational plans and programmes were considered by all stakeholder groups as being crucial to address immediate skills requirements

proposed that they would be a critical partner to government in planning for and implementing skills development pathways. Although skills development was largely discussed under the auspices of the JET-IP, it was also evident that skills were regarded by all as integral to effective longer term electricity planning.

There was a general concern across all social groupings that South Africa's skills base across a wide variety of electricity plan related economic and operational activities (e.g., grid upgrading) was generally inadequate to enable an optimal and just energy transition. Business focused on the critical skills shortages that the country faced and called for significant investment in skills development. This social partner highlighted that addressing the current lack of capability was a long term issue and it would take time to close the local skills gap even if properly addressed by government. Moreover, business articulated the concern that some skills are needed urgently and that the country does not have time to wait for these to be built before taking electricity security action, such as for grid upgrading (see 1.2.2 above).

The general consensus was that skills development is seriously under-prioritised (in terms of both cost and clarity) and that this issue needs to be addressed across all aspects of electricity planning. The youth called for strategies to ensure there were significant opportunities for the youth in the emerging green economy. This would require government to provide subsidies for education and training in developing skills relevant to the energy sector and the JET. They also stressed the need to clarify the future for skilled workers under threat from the declining mining and energy sectors. Labour stressed that skills development was crucial for the JET but was skeptical that renewable energy pathways would create sufficient replacement jobs.

“the plans do not take seriously the issue of skills” (Labour)

One stakeholder group within Civil Society raised questions as to the impacts of unbundling the electricity system, principally Eskom, into three independent components - generation, transmission and distribution sectors. In particular, this group questioned whether the move toward unbundling will not come with negative socio-economic impacts and noted that the believed few countries seems to have unbundled effectively. This would suggest that the positive and negative impacts that unbundling will have on socio-economic sustainability need to be further clarified, with suitable steps taken to address them.

### 3. Electricity planning and the JET-IP

Most stakeholders did not distinguish between the PCC Electricity Recommendations Report and the JET-IP in delivering their comments and observations. They took it as a given that the PCC Electricity Recommendations and the JET-IP are interrelated, with some seeing the JET-IP as leading into current and future iterations of South Africa's electricity plans and policies. This is an issue that needs to be addressed and further clarified with the various social groupings. For example, Labour and some Civil Society organisations felt that the JET-IP should put in place long term commitments (beyond its current 5-year focus) on issues such as privatisation. Local Government and some civil society organisations likewise argued that local government should be engaged in longer term and meaningful participation in electricity planning (i.e. not limited to distribution) while they also argued for a clearer local government role in the JET-IP that includes generation and is not limited to energy distribution.

### **Validity of electricity planning and JET-IP instruments**

While all social partners sought to make inputs on both electricity planning and JET-IP recommendations, some Labour groups went as far as to call for the dismissal of both instruments on the basis that they could not be founded on the core just principles to the JT Framework. They argued that fairness is not apparent, noting that although they are not against the transition per se, they object to one where South Africa carries the burden for rich countries. Some labour groups argued that the electricity planning and JET-IP instruments have been influenced by powerful global actors which have established the targets and adaptation pathways on South Africa's behalf. Moreover, these groups argued that South Africa lacks the resources for managing the costs of climate change impacts, many of which have already been seen and are not all because of this country's emissions.

## **4. Synthesis recommendations**

The following recommendations have been synthesised from the various integrated consultations and written inputs. These will be revised as informed by the outcomes of the PCC-convened Colloquium to be held on the 14<sup>th</sup> April 2023.

**The role of the state in South Africa's electricity governance models requires a thorough review.** Paramount – because each and every social partner raised this – is that government greatly strengthen the architecture for transparency and accountability. Stakeholders were widely of the view that the absence of this architecture, and of government confronting corruption, theft and vandalism, the electricity transition, and particularly the just transition, will not be possible. Robust, credible and transparent governance arrangements and implementation pathways should be elaborated and co-developed with the various social partners. Lastly, ministerial oversight and the role of the DMRE should be clarified with concomitant recommendations for resolving perceived issues of conflict in the current form of the DMRE and NERSA mandate.

The desired balance between state ownership and management of South Africa's electricity and energy assets, and energy sector privatisation needs to be clarified and agreed with all the social partners. Issues of capacities for implementation (of the JET-IP, and of electricity planning outcomes), electricity access and affordability, optimal localisation outcomes, job creation, and energy security all need to be addressed by government who should not retreat from its role for protecting energy and electricity as a public good.

Furthermore, the role and positioning of local government in national electricity planning and in the JET-IP should be strengthened and clarified. The role of municipalities needs to be completely re-envisioned. The role of municipalities should extend beyond their current role in the distribution network to include a clearly articulated role in electricity generation. Local government capacitation must be an integral component of the PCC's Electricity Recommendations Report. This recommendation should also be factored into the process for clarifying government and private sector participation in the energy sector. Finally, the financial models

under which local government operate need serious consideration, especially as electricity systems transition.

**Government and other social partners should collaborate toward aligning South African policies and plans that are of high relevance to the electricity sector.** South Africa's electricity planning (including within the electricity and energy sectors), industrial development policy and implementation and skills development policies and plans must be aligned, along with aligned implementation pathways and partners. Such alignment is critical to realising positive outcomes for justice – as required by all stakeholders - across all three of the Just Transition Framework principles of procedural, distributive and restorative justice.

**The Just Transition is given insufficient focus in the PCC's Electricity Recommendations Report (and in the JET-IP).** The justice elements should be greatly strengthened, to show clear alignment with the principles and scope of the JT Framework. Specifically, social ownership and protection models, incentives and subsidies, electricity access and affordability, job creation and enterprise development, and skills need to be rigorously addressed in electricity planning and in the JET-IP.

**Skills development and transition is a critical issue.** Skills pathways and funding for skills development and skills transfer must be thoroughly reviewed and articulated in detail, with budget allocations and partnerships (e.g., with Civil Society) for their implementation. It is highly evident that skills must also be addressed as a key enabler and necessary condition of South Africa's electricity planning, localisation and industrial development.

**Positive outcomes for human health should be made a priority target of the energy transition.** This is of particular concern in timing, plans and processes for decommissioning coal fired power plants (along with protecting jobs and transferring skills). Positive human health outcomes will both significantly improve social well-being of affected communities and relieve the associated burden on the public health system.

**A balanced and clear rationale for the various priority energy mix pathways** must be clearly articulated in the PCC's Electricity Recommendations Report, with alignment with the priority investments in the JET-IP. Given that all groups recognised VRE in the mix, renewables should be given high priority and possibly a greater role in South Africa's future electricity mix, and therefore in the PCC's Electricity Recommendations Report. However, the role of VREs needs to be nuanced and the PCC's Recommendations should include concomitant measures for ensuring affordability and access for all, and for limiting job losses associated with transitioning from coal to VRE and in accelerating this transition, whether for human health, climate or operational requirements. Mitigation measures that address the perceived risks by some groups of coal phase out and VRE (and gas-to-power) roll out should be clearly articulated and quantified. Building consensus with the social partners on the priority energy mix should be viewed as an integral part of electricity planning, as well as the JET-IP. The impact of VRE systems and the transition to these systems in terms of energy security seems to be the key point of divergence amongst some stakeholders.

## Annexure 1: Stakeholder Perspectives by Group

The PCC's engagement with key social partners in South Africa on its Electricity Plan Recommendations yielded a range of pertinent concerns and insights. Due to the centrality of stakeholder engagement in the PCC's strategic approach, capturing these stakeholder inputs is of fundamental relevance.

The inputs themselves typically fell across a range of core themes:

- Procedural justice for consultation
- Electricity governance
- Electricity mix, pricing, and financing
- Environmental sustainability and human health
- Socio-economic sustainability and the Just Transition
- Electricity planning and JET-IP

This annexure offers a summary overview of the most salient points of insight and contention which emerged from each individual engagement, grouped loosely within the themes presented above. Note that these summaries are intended to capture general sentiments shared by stakeholders and stakeholder groups, and therefore do not necessarily highlight individual inputs or comments.

*Some of the key, cross-cutting comments which emerged across nearly all social partner consultations are as follows:*

- The need to safeguard communities though assured job absorption and creation, with a focus on skills development and social ownership.
- It was highlighted that protections against crime, corruption and over-privatisation are needed.
- Clarity on roles and responsibilities was called for, particularly for municipalities given their significant dependency on electricity sales in current business models.
- Balance between the ambitions of the plans and the need to address immediate energy needs was brought to the fore throughout.

### 1. Business

Engagement with the Business sector highlighted several pressing concerns regarding crime and corruption, skills shortages, MSMEs and battery storage supply.

Firstly, with regards to **Methodology and procedural justice for consultation:**

- Some participants were curious to know what effort the PCC had made to engage the finance community and whether this had been successful.
- It was suggested that the PCC develop accessible information 'packs' that explain technical concepts such as baseload, the traditional systems and new systems and how RE works. These could be circulated during dialogues and engagements.
- Linkages to the green industrialisation process were highlighted.

### On **Electricity Governance**:

- Questions were raised on what actions the government had been, or could be, taking to incentivise small-scale embedded generation (SSEG)
- It was suggested that the concept of the 'energy sector' in its current form and in future phases be clearly defined.
- Interest was expressed in a process of supporting installations that can feed into the grid if guarantees or development banks were involved.

### In terms of **Electricity Mix, Pricing, and Financing**, some comments which emerged:

- It was noted that retailers are committed to the localised production master plan, and that focus should be shifted to MSMEs who bear the greatest impacts of the energy crisis.
- Energy storage was discussed:
  - The viability given costs of battery systems was inquired about and the PCC noted that battery storage systems have shown significant decline in cost.
  - The suggestion of investigating/pursuing pumped-storage in conjunction with battery storage was put forward, using both to meet short- and long-term needs.
  - The conflicting interests of energy companies and the public has created discourse on the viability of battery storage, but the PCC noted the questionable credibility of these campaigns.
  - Costing models were brought into question noting the ratio of connection and running costs.
  - It was questioned if the cost of batteries made them viable only for short term in contrast to pump-storage. Vietnam's energy mix was cited as a case for this.
- It was suggested that a costed timeline be developed for summary.
- The viability of current GHG emission reduction targets was questioned in the context of the current value chains and their energy needs, with a suggestion of interim targets. The PCC noted the NDC commitment and its alignment with global policies and measures to achieve the 1.5°C fair share scenario.
- Future skills needs were highlighted along with the need for absorptive capacity for jobs. A focus on future pathways is required for this.
- The need for effective grid optimisation was noted, with a call for detailed plans that cover the components of energy efficiency, storage, and demand management.
- There were calls for a detailed plan that outlines the detail of tariff reform and the establishment of an independent grid operator.

### On **Environmental sustainability and human health**, insights included:

- The management of hazardous waste from battery storage system should be considered to avoid future challenges. The PCC noted the important role of the DFFE in compliance and enforcement of hazardous waste management regulations.

### Regarding **Socio-economic Sustainability** participants raised the following:

- Concern was raised over the suite of incoming RE and BESS projects that



have been approved with little/no public engagement.

- It was emphasised that a Just Transition requires localisation, avoiding importing, with questions on the potential for localising RE components.
- It was noted the SA RE Master Plan can be used as a model for harnessing RE for economic growth and job creation.
- The REIPPP was successful in ensuring and this must be maintained going forward with new developments.
- It was noted that addressing the skills shortage is crucial to ensuring that jobs are sustainable.
- Ensuring that crime and corruption are addressed will be critical to securing funding for this process.
- Caution was called for when discussing the expansion of energy welfare, with the need to focus on addressing systemic issues instead.

#### **Electricity planning and JET-IP:**

- It was requested that alignment of current studies to the IRP be highlighted, as well as with related studies by DMRE, noting the need for consensus for effective progress.

## **2. Civil Society**

The Civil Society engagements emphasised the points of equity, social ownership and brought discussions on free basic electricity (FBE) to the fore, among other critical points.

Comments on **Methodology and procedural justice for consultation:** which emerged:

- The need to ensure that energy poverty is considered in processes and linkages of the JET Framework and JET-IP.
- Need for extensive consultation in targeted areas that will be most impacted (Mpumalanga, Boeogobaai).
- There were concerns over the timelines in the process of document circulation with small comment windows and communication challenges. There were also inquiries on the availability of consultation records with IPPs.
- The process must ensure that there is equal representation and that consultations are not dominated by individual agendas.
- Interest was expressed in the process for consultation on the modelling of RE regarding social ownership and funding, noting that these will only be available near August 2023.
- The need for nuanced discussion of the balance between shifting to RE and Carbon Capture and Storage (CCS) was highlighted.

On **Electricity governance** comments that were raised included:

- The important role of municipalities was highlighted along with the need for integration into their Integrated Development Plans (IDPs)
- The need for investment to fund Free Basic Electricity (FBE) and Free Basic Alternative Energy (FBAE) implementation in municipalities was noted; and the subsequent tariff implications within the municipal fiscal framework.
- Questions raised regarding the availability of outcomes of discussions with local government in areas most impacted (Mpumalanga)

- How will justice be ensured if governance is shifting to include the private sector. Justice processes must also consider social ownership and risk of stranded assets going forward.
- There was discussion on the role of NERSA in addressing energy poverty through forums on FBE
- Decentralisation was highlighted with the need to consider areas that are not currently supported by the national grid and how they will be included going forward to provide grid access.
- Spatial planning for optimal development of RE was noted as an important factor for the short term.

Regarding **Electricity Mix, Pricing, and Financing**, some comments which emerged:

- The impacts of the energy crisis on the policy landscape were discussed, noting the need for revision of the IRP for alignment with NDC targets and questioning the role of the IEP in this. The PCC noted that revision of the IEP is planned, and that revision of the IRP is ongoing.
- The systems of cost approval for wheeling must be established.
- Clarity on gas peaking integration, its role and the investment case is needed.
- It was questioned if the consideration of job security, creation and absorption could also account for those jobs being lost as a result of the current energy crisis.
- Elaboration for the strategy and criteria for delivery of Free Basic Electricity (FBE) will be useful. Considerations for the tariff structure and electricity equity with this. It was noted that the current FBE system has resulted in impacts on the poor due to corruption and capacity limitations at the municipal level. The PCC noted the need to engage with municipalities and communities on this to ensure fairness and progressive pricing.
- It was noted that the planned energy mix must be informed by the energy needs of the country.

On **Environmental sustainability and human health**:

- It was suggested that current legislation seeking to promote fossil fuel use be withdrawn or risk making current efforts less impactful. The PCC reiterated its advocacy for models that promote renewable energy.
- The health benefits of the just transition should be emphasised throughout the process to ensure that short-term sacrifices are not made in this respect.
- The skills development a job creation plan should consider spatial issues, with job creation in restoration and ecosystem protection linked to the transition.
- It was suggested that funding efforts to remediate mine after closure, which often has significant costs, be prioritised urgently.

Discussions regarding **Socio-economic sustainability**:

- Allocations of finances in short-term efforts to address the energy crisis should not undermine long-term energy security.
- Consideration needs to be given to addressing current gaps in energy access under the new plan and sources of funding for this. Balancing the transition with need for development. It is essential in this that indigent households benefit from solar rollout as part of this.
- It was asked if there was support for an independent grid operator and the PCC noted that this was the case but that it was not yet clear how to



facilitate this.

- Gender must be mainstreamed and emphasised through the plans being put forward.
- Concerns were expressed over equity with expanding privatisation of the grid and electricity supply.
- Clarity was called for on plans for social ownership and its linkage to addressing energy poverty.
- More support is needed for cost of supply studies for utility sustainability.

## 2.1. Faith

Engagement with the Faith community focused on the impacts of the Electricity Plan for those at the community level, with considerations for ownership and safeguarding of affected peoples being common threads.

Comments on **Methodology and procedural justice for consultation:**

which emerged:

- It was noted that on-the ground engagements could facilitate greater engagement and discussion.
- It was questioned if the documents were being made accessible and the PCC noted the translation and simplification of the documents was ongoing.

On **Electricity governance** comments that were raised included:

- Questions on how municipal income generation will be shifted with reduced intake from electricity resale, and the PCC noted the nuance around absorbing costs through taxpayers or users.
- It was questioned how the JET aligns with the priorities of the DMRE which seeks to expand coal and gas use.
- There is need to identify the significant contributors to climate change and air pollution and possibly implement a 'Polluter Pays' type system for emissions.
- Consideration of the development of a Solar Thermal Plant to relieve the need for individual solar installations.
- It was questioned if government support of homestead-level generation would be viable and a cost-effective solution that could supplement the national grid.
- The question of immediate steps needed to capacitate Eskom for short-term security was raised.

Regarding **Electricity mix, pricing, and financing:**

- Clarity on the difference and role of both installed gas capacity and peaking time gas capacity is needed.
- The suitability of Small Modular reactors (SMR) was questioned, and the PCC noted that this technology was not a viable consideration for the short-term but could become viable in the long-term as the technology matures.
- It was questioned on whether coal exports would continue, and the PCC noted that they would.
- The role of nuclear power was discussed, and the PCC highlighted that model show nuclear is not a viable option due to the financial risks.

On **Environmental sustainability and human health:**

- The need for effective environmental management when utilising solar and coal energy was emphasised to prevent negative impacts.

The discussion on **Socio-economic sustainability** encompassed the following:

- The potential of schoolgrounds and property owned by faith organisations to establish energy generation that can feed into the grid.
- Significant emphasis was placed on the need for clarity of how mine workers' jobs will be affected and the need to ensure that these people are safeguarded through the process.
- Awareness raising is needed within affected communities with proper education on the relevant topics.
- Considerations must be highlighted for the impacts on the poor as these processes rollout.
- It was questioned if incentives for implementation of solar could be made more inclusive and equitable.
- Discussion is needed on how these processes will be linked to skills development for youth and how these skills will be absorbed.

## 2.2. Youth

Feedback from the engagements with Youth were enriching and brought to focus topics of the roles of municipalities as well as several technical considerations.

Regarding **Methodology and procedural justice for consultation**:

- The role of Koeberg and expanding nuclear power development within the scope of the IRP was discussed. The PCC noted the current revision of the IRP but highlighted the high costs associated with nuclear power and the extensive risk this brings, which makes it unfeasible.

Comments on **Electricity governance** which emerged:

- It was asked if considerations have been given to voltage and frequency control for ancillary service provision from RE plants. The PCC noted that for RE these require different technology than with coal.
- Clarity is needed on the management of the challenges related to grid connections. The PCC noted the constraints in the Distribution network and that the PCC is looking into ways to address this.
- It was noted that the role of municipalities must be made clear, and the integration of the Electricity Plan into municipal Integrated Development Plans (IDPs) is key to this. The need for development of skills at the municipal level was also mentioned, as well as increased funding allocations for capacity development. The PCC noted that a series of municipal consultations is planned.
- The need for transparency regarding planning, alignment with the NDC, and funding allocations was brought to the fore. In response, the PCC reiterated the legal commitment increasing the NDC.
- The conflict of highlighted priorities with those of DMRE was also noted, with the role of coal being seen as unclear.
- The composition of the PCC was discussed, with suggestions that provincial and municipal representation be added for full equity.

- When it was asked if there were plans to expand to offshore wind for alternative energy generation, the PCC noted current long-term plans for this that are underway with the AfDB and the World Bank.
- There were calls for clarity on how the current backlog of maintenance and debt will be accounted for in the unbundling process and the implications of this for tariffs.

Regarding **Electricity mix, pricing, and financing:**

- Questions on the impacts of old infrastructure and the backlog of maintenance were echoed in the context, noting that the tariffs should not be used to offset these if there is to be electricity equity. Looking forward, there were questions on the maintenance plans for new RE infrastructure to avoid repetition of the current challenges. The risk of sabotage will also need to be addressed in these plans.
- It was noted that the current generation system could be reliable and stable if it were implemented properly, but inadequate investment has prevented this, and that this condition would carry forward to a new system.
- When considering Battery Energy Storage Systems (BESS), there were questions on why Lithium-ion was the prioritised technology and the PCC noted that this is because it is the most commercially developed and viable.
- Technical questions were fielded on additional alternative energies, such as wave power and geothermal power. The PCC noted that these are not ideal paths to meet SA's needs.
- It was questioned how the recently approved tariff hike could impact the goal of equitable electricity access going forward. The PCC noted the need to ensure there are protections in place for poor households. Access to Free Basic Electricity (FBE) needs to be improved as part of this.

On **Environmental sustainability and human health:**

- The impacts of shifting to RE on water security was discussed, noting the current high-use case of water by coal plants. The PCC noted that proper water security assessment was still needed.
- The environmental impacts of mining the needed resources for RE installations and components was highlighted, and the PCC reiterated the high need for resources and the critical requirement for mining to be carried out in line with current environmental regulations. It was noted that the re-use of current mining land will be a vital strategy to reduce the environmental impact of new RE developments.

The discussion on **Socio-economic sustainability** was robust and included key points:

- The extensive potential of individual generation with sale back into the grid was noted, but the PCC highlighted the very specific business-model needs for this scenario within municipalities. Considerations for community ownership of solar generation for decentralisation were also brought forward.
- The need to ensure equity of electricity access and distribution as more of the grid supply becomes privately owned was reiterated.
- The role of education and curriculum integration was emphasised, with the PCC noting that there is need for skills development outside of direct technical skills for RE, but also in supporting construction, management and

business. A national skills strategy was noted as the envisioned solution for this. The informal economy must be included when this strategy is developed. Financing the requisite skills development needs a solution.

- It was noted that quality and safety assurance must be maintained in the rollout, citing the current dysfunction of solar geysers in RDP housing as lesson. The PCC has acknowledged this but must still find a solution. Security and theft prevention must also be factored into the rollout.
- The considerations for gender and youth need to be emphasised, with the PCC affirming these needs as part of ensuring equity and accessing funding.
- As with other dialogues, the need for job absorption and upskilling of coal workers was flagged as a significant concern.

### 3. Government

Consultation with government took place at the Local and National level, and feedback brought to light some key questions and ideas, ranging from technical aspects to broader strategies and long-term goals.

#### 3.1. Local Government

Consultation with Local Government on the PCC's Electricity Plan Recommendations revealed a range of concerns and suggestions including the need for Battery Energy Storage Systems (BESS) and general skills and capacity enhancement.

On **Methodology and procedural justice for consultation:**

- There were several firm calls for more widespread, transparent and inclusive consultation with local government and all social partners.
  - This included sharing of documents and an understanding that highly technical work is often difficult to engage with at speed.

In terms of **Electricity Governance**, the comments which were raised included:

- Reselling to Eskom is no longer a sustainable option and municipalities require improved grid access.
- There is a clear need for a network of service providers.
- NERSA is positioned to play a crucial role, particularly if its own capacity is enhanced.
- Participants strongly emphasised the need for municipalities to figure out best practices for decoupling their reliance on energy sales in order to generate revenue.
- A final point within this theme was the need to clarify the role of the state in the Electricity Plan implementation process – who would be in charge of oversight, and what set of accountability measures would be in place to ensure successful delivery of project and programme outcomes.

With regards to **Electricity Mix, Pricing and Financing:**

- Speakers noted that tariff reform will be a crucial mechanism going forward in order to strategically manage municipal revenue generation while still ascribing to the principles of a just transition. I.e., municipalities need money, but many cannot afford to pay them. This needs to be resolved.
- Battery storage was raised repeatedly, albeit in different contexts.
  - Some speakers argued that it would be a crucial instrument to ensure energy efficiency and energy security – especially in the context of the

current electricity crisis.

- Other speakers noted its high costs and potential wastefulness.

On **Socio-economic sustainability**:

- Speakers noted that the Electricity Plan *must* be in line with the broader tenets of a just transition. This applies to:
  - The inclusion of women, youth and marginalised groups in the development and implementation process of the Electricity Plan
  - And it applies to the need to focus on job creation in light of decarbonisation efforts (i.e., the shift away from coal and fossil fuels will threaten jobs, and this must be taken into account).
- Further, skills development specifically for local government is required in order to make up for the existing skills shortage.

Regarding **Electricity planning and the JET-IP**:

- As with the majority of the social partners, Local Government speakers struggled to differentiate between the JET-IP and the Electricity Recommendations as separate instruments and were confused about why they were being presented together.
  - The PCC noted that the two instruments have extensive overlap and simply presented them together to avoid stakeholder overload.

### 3.2. National Government

Engagement with National Government yielded comments on the need for clear roles and responsibilities and called for ways to address immediate needs.

On **Methodology and procedural justice for consultation**:

- Is there an opportunity lost- should this have been an energy planning assessment – especially since the focus is on various decarbonisation pathways. There has always been a gap for overall integrated planning in SA and in the region. It on that basis that one can undertake an electricity plan and make recommendations.
- The assumption on Pathways proposed should be defined and identify those that should guide the next IRP iteration.

Regarding **Electricity Governance**:

- Electricity Planning and Governance (as is) interpretation and outline not clear/some missing elements i.e.
  - Electricity Regulation Act and required amendments for planning and governance.
  - Role of NERSA – in the context of long-term planning
  - Inputs from the latest Transmission Development Plan
  - Infrastructure Development & Maintenance – investments required – who will pay?
  - Required changes in the Tariff Structure to drive infrastructure development and long-term sustainability.
  - Distribution network investments and governance amendments (context -ERA and Municipal Act requirements)
- Clarity was requested on the role of municipalities and how they can be supported through the process. The role of municipalities in decentralisation was highlighted. The PCC noted that municipalities have called for capacity support for effective administration, monitoring and tracking as priorities.

### On **Electricity Mix, Pricing and Financing:**

- Lastly on Decarbonisation Pathways Proposed (with high variable wind and solar), the following should be considered:
  - Levelized Cost of Energy (LCOE) for non-programmable renewable energy sources with high spatial resolution.
  - How the proposed RE sources will be prioritised including spatial planning issues for all IRP Resources in relation to the existing infrastructure.
  - Grid implications of non-programmable renewable energy sources in the current and expected evolution of the South African power system (in the context of integrated electricity planning)
- It was questioned if refurbishing current power stations would be viable for addressing the current energy crisis. The PCC highlighted the assessment underway by National Treasury and the National Energy Crisis Committee (NECOM) on this topic but noted that it was not viable as a long-term solution.
- When asked if gas could not be integrated sooner to meet immediate needs more rapidly than RE, the PCC noted the expenses associated with gas made this unviable.

### In regard to **Environmental sustainability and human health:**

- Some controversies:
  - Advanced Small Modular Nuclear Reactors (SMRs)? Any modelling on this considering we have identified sites and approved EIAs?
  - On Coal: what about?
    - Retrofitting of coal-fired power plants with Carbon Capture, Usage and Storage (CCUS).
    - Repurpose coal plants to co-fire with low-carbon fuels.
    - Retire less-efficient coal plants.

### On **Socio-economic sustainability:**

- The considerations for expanding grid coverage and supporting infrastructure and addressing current energy poverty need to be highlighted.

## **4. Labour**

The consultation with Labour yielded detailed discussions that highlighted the need for job security, energy security and emphasised the importance of localisation and called for less reliance on loans and foreign investment. There were also several points of contention and even rejection of the plan.

### Regarding **Methodology and procedural justice for consultation:**

- It was asserted that Labour views coal as necessary in the future energy mix and questioned the reports that coal infrastructure was outdated. Engagement and united vision on the future energy mix and its implications of job security is needed.
- Concerns were raised over the brief response window of documents shared and a 'box-ticking' approach to consultations. The PCC noted that it takes all consultations seriously and highlighted that forthcoming national colloquium and its commitment to sharing all views raised equally in the report-back process.



### Regarding **Electricity Governance**:

- Concerns were expressed over our desire to meet ambitious emissions reduction targets at the expense of jobs. China was cited as an example for this, and the PCC noted that China has taken actions to position themselves as leaders for RE supply rollout.
- Significant discussion was had regarding Eskom:
  - It was questioned whether Eskom's significant debt may hinder its role in RE leading to dominance of the private sector in generation. The role of the state will be critical in this to ensure development is prioritised over profit.
  - It was questioned how the State of Disaster would affect discussions related to Eskom given the lifting of certain environmental responsibilities.
  - The central role of Eskom in the national economy was highlighted and it was questioned if the unbundling would destabilise this.
  - Eskom's ability to ensure provision through RE was questioned.
- The need to include labour through each step of the process was emphasised.
- Social ownership was brought to the fore, particularly regarding assets, to offset losses from elimination of coal jobs.

### With regards to **Electricity Mix, Pricing and Financing**:

- It was noted that coal may be needed to sustain the grid until RE capacity is sufficient.
- It was questioned whether sufficient consideration is given to nuclear and hydro power within the planned energy mix. There were calls for greater discussion on the planned energy mix as some feel the consensus did not account for all viewpoints.
- The need to address the energy crisis in the short-term was emphasised.
- There is need for safeguards to ensure energy equity with the integration of IPPs and measures to ensure that supply is reliable. Germany was cited as an example of unreliable RE supply.

### On **Environmental sustainability and human health**:

- The role of land redistribution was questioned given the extensive spatial requirements for RE.

### On **Socio-economic sustainability**:

- Discussions of safeguarding against privatisation were echoed. The PCC noted these concerns. Social ownership was called for throughout.
- The reliability of RE supply was questioned along with the viability of the proposed energy mix to adequately ensure energy security.
- Concerns were raised over viewing the JET-IP as a solution to a suite of problems beyond its scope.
- Consideration needed on the impacts of climate change, with floods in Durban cited as an example.
- It was questioned how SASOL's role as a major emissions contributor will be handled, if it will be approached in the same way as Eskom was. Will some

- SASOL operations be forced to shut down?
- The PCC noted that there is currently no viable way to implement “clean” coal and that costs of electricity from new coal and nuclear have exceeded the expenses of RE.
  - It was noted that the REIPPP programme did not lead to establishment of manufacturers and this has raised concerns over the ability of the plan to create jobs as promised. Loss of jobs from Eskom in the switch to privatisation was also a concern.
  - The PCC reiterated the risks of not decarbonising, such as the Carbon Border Tax. It also noted the role of EVs for earning forex through exports to Europe.
  - The risks of loans potentially worsening existing national debt were emphasised.
  - The PCC noted that the JET-IP cannot fully fund the Just Transition and that other mechanisms would be needed. The focus of the JET-IP on the grid, kickstarting EV and GH2 uptake, and skills development were reiterated.
  - Linkages of the plan to things such as universal basic income and land redistribution were noted for the just element of the transition.
  - The current stranded industrial assets in SA were noted as a key element in job transition.
  - Concerns were raised over the reliance on foreign direct investment and the risk of perpetuating poverty through this.
  - South Africa's status among global emitters was cited and it was questioned why larger contributors are not be more harshly restricted.
  - It was noted that while minerals needed for RE are present in SA, the industrial strategy must account for this to prevent reliance on imports and loss of jobs.
  - China's approach to housing development to support rooftop solar rollout for the working class was cited as a case study.
  - A code of good practices for the Just Transition was proposed for the Labour Relations Act for workers to engage with.

**On Electricity planning and the JET-IP:**

- Electricity accessibility and affordability must be ensured. Localisation of RE will be critical in this with the recommendation to reinstate the 40% localisation requirements.
- Concerns were raised over the plan does not account for the working-class and supports over-privatisation.
- Questions were asked regarding how budget allocations will be adjusted based on the feedback received in these sessions. It was noted that no dispute mechanism is present within the plan and thus no space for resolution of disputes. Several calls to reject the plan were echoed.