



Wildlife and Environment Society of South Africa (WESSA) input into the Draft Scoping Report and Public Participation Process for Eskom's proposed New Nuclear Build at Thyspunt or Bantamsklip

1. Section A: Rights and Laws informing our input:

We include in detail below extracts (with our own emphasis) from the relevant legal statutes we believe have direct applicability to the scoping phase of Eskom's proposed development of a nuclear plant at Thyspunt or Bantamsklip; and which informs our subsequent input into the Draft Scoping Report (DSR) and public participation process.

South African Constitution:

24. Everyone has the right—

- (a) to an environment that is **not harmful to their health or wellbeing**; and
- (b) to have the environment protected, for the **benefit of present and future generations**, through reasonable legislative and other measures that—
 - (i) prevent pollution and ecological degradation;
 - (ii) promote conservation; and
 - (iii) **secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.**

33. (1) Everyone has the right to administrative action that is **lawful, reasonable and procedurally fair**.

41. (1) All spheres of government and all organs of state within each sphere must—

- (c) provide **effective, transparent, accountable and coherent** government for the Republic as a whole;
- (d) be loyal to the Constitution, the Republic and **its people**;

National Environment Management Act (NEMA) - Act 107 of 1998

4.(a) (iii) that the **disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided**, or where it cannot be altogether avoided, is minimised and remedied;

(f) The participation of all interested and affected parties in environmental governance must be promoted, and **all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation**, and participation by vulnerable and disadvantaged persons must be ensured.

(g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.

(i) The **social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.**

(k) Decisions must be taken in an **open and transparent manner**, and **access to information** must be provided in accordance with the law.

Environmental Impact Assessment Regulations, 2014 (as amended up until 2022)

3. Timeframes

(7) In the event where the scope of work **must be expanded based on the outcome of an assessment done** in accordance with these Regulations, which outcome could not be anticipated prior to the undertaking of the assessment, or in the **event where exceptional circumstances can be demonstrated**, the **competent authority may**, prior to the lapsing of the relevant prescribed timeframe, in writing, **extend the relevant prescribed timeframe and agree with the applicant on the length of such extension.**

(8) Any public participation process must be conducted for a period of **at least 30 days.**

11. Combination of applications

(3) If a **proponent or applicant intends undertaking more than one activity as part of the same development within the area of jurisdiction of a competent authority, a single application must be submitted for such development** and the assessment of impacts, including cumulative impacts, where applicable, and consideration of the application, undertaken in terms of these Regulations, will include an assessment of all such activities forming part of the development.

(4) If one or more proponents intend undertaking interrelated activities at the same or different locations within the area of jurisdiction of a competent authority, the competent authority may, in writing, **agree that the proponent or proponents submit a single application in respect of all of those activities** and to conduct a consolidated assessment process but the potential environmental impacts of each activity, including its cumulative impacts, must be considered in terms of the location where the activity is to be undertaken.

13. General Requirements for EAPs and Specialists

- (1)(a) be independent;
- (b) have expertise in conducting environmental impact assessments **or undertaking specialist work as required**, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity;
- (f) **disclose to the proponent or applicant, registered interested and affected parties and the competent authority all material information in the possession of the EAP and, where applicable, the specialist, that reasonably has or may have the potential of influencing-**
 - (i) any decision to be taken with respect to the application by the competent authority in terms of these Regulations; or
 - (ii) the objectivity of any report, plan or document to be prepared by the EAP or specialist, in terms of these Regulations for submission to the competent authority; unless access to that information is protected by law, in which case it must be indicated that such protected information exists and is only provided to the competent authority.

40. Purpose of public participation

- (2) The public participation process contemplated in this regulation **must provide access to all information that reasonably has or may have the potential to influence any decision** with regard to an application unless access to that information is protected by law and must include consultation with-
 - (a) the competent authority;
 - (b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation;
 - (c) all organs of state which have jurisdiction in respect of the activity to which the application relates; and
 - (d) all potential, or, where relevant, registered interested and affected parties.

Appendix 2

1. Objective of the Scoping Process

The objective of the scoping process is to, through a consultative process-

- (a) identify the relevant policies and legislation relevant to the activity;
- (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

- (c) identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks;
- (d) identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- (e) identify the key issues to be addressed in the assessment phase;
- (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
- (g) identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

2 Content of the scoping report

(1) A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include-

- (a) details of-
 - (i) the EAP who prepared the report; and
 - (ii) the expertise of the EAP, including a curriculum vitae;
- (b) the location of the activity, including-
 - (i) the 21 digit Surveyor General code of each cadastral land parcel;
 - (ii) where available, the physical address and farm name;
 - (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;
- (c) a plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is-
 - (i) a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or
 - (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;



(d) a description of the scope of the proposed activity, including-

- (i) all listed and specified activities triggered;
- (ii) a description of the activities to be undertaken, including associated structures and infrastructure;

(e) a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;

(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;

(g) a full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including-

- (i) details of all the alternatives considered;
- (ii) details of the public participation process undertaken in terms of regulation 41 of the regulations, including copies of the supporting documents and inputs;
- (iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;

(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;

(v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts-

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be avoided, managed or mitigated;

(vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;

(vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;

(viii) the possible mitigation measures that could be applied and level of residual risk;

(ix) the outcome of the site selection matrix;

- (x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and
 - (xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;
- (h) a plan of study for undertaking the environmental impact assessment process to be undertaken, including-
- (i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;
 - (ii) a description of the aspects to be assessed as part of the environmental impact assessment process;
 - (iii) aspects to be assessed by specialists;
 - (iv) a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;

Section B: Detailed Response to the Draft Scoping Report and Public Participation Process as conducted by WSP

2.1 Preamble:

In consideration of the *Section A* above we believe an environmental impact assessment process must:

- a) Evaluate the social, economic and environmental impacts (both positive and negative) to assess if the proposed development meets the “sustainable development” intent
- b) Consider both immediate and future generational needs, which means assessing conditions at time of proposal, anticipated conditions during operations, and when the development is no longer operational
- c) Consider the holistic and full-range impact of the proposed development, not just it’s immediate footprint
- d) Include the necessary base documents and expertise that inform the assessment, including identifying the applicant’s own input
- e) Seek independent expert input where complex issues are assessed
- f) In assessing impact and evaluating the proposed development, ensure that arguments made for or against the development are: consistent, grounded in science, make sense and are thorough
- g) Take care to evaluate and assess impacts and options in a way that doesn’t unfairly favour the applicant or have the effect of manipulating the process to secure a pre-ordained or preferred outcome
- h) Take care to avoid the unconscious bias of the EAP that may arise due to familiarity with the applicant or nature of the development
- i) Enable the meaningful participation of the public broadly, and interested and affected parties specifically

2.2 Comments relating to process aspects:

a) *The EIA process is premature:*

Several processes are underway that have the potential of materially influencing the impact assessment of a building a nuclear plant at Thyspunt/Bantamsklip, they include:

- (i) Cabinet announced on the 06 May 2026 (and subsequently published) that it had approved publication of the **Draft Nuclear Energy Amendment Bill, 2025** and that, *“The Draft Bill amends the Nuclear Energy Act of 1999 which provides legislative framework for South Africa’s participation in international trade in nuclear material and technology. The Bill addresses the regulatory gaps resulting from developments in the global and domestic nuclear landscape by updating terminology, aligning the Act with international standards, and strengthening oversight of nuclear material, goods, and related activities across the value chain.”* (see <https://www.gov.za/news/cabinet-statements/statement-cabinet-meeting-wednesday-6-may-2026-07-may-2026>)
- (ii) The previous **Section 34 determination** for 2 500MW new nuclear build was withdrawn by Minister of Energy and Electricity, Dr Kgosientsho Ramokgopa on Friday 16 August 2024. No new determination process has been announced despite an undertaking to do so within a short period of time
- (iii) As far as we are aware neither the DMRE nor Eskom have initiated the required procurement process to identify and then select a nuclear plant model to purchase, included in which is how the build will be financed.
- (iv) Eskom’s unbundling, as announced by President Ramaphosa at the 2019 State of the Union address (and reiterated again in SONA 2026) is still underway, with only the National Transmission Company of SA (NTCSA) being set up. The *“Roadmap for Eskom”* published in 2019 talks about the possibility of setting up two competing generation entities (see pg. 24 of the Roadmap).
- (v) The previous decision to grant Environmental Authorisation to build 4 000MW new nuclear at Duynefontein has been taken on review after the DFFE Minister dismissed appeals in 2025. That matter has not been heard and goes directly to the EIA process.

In our view, the ambiguities noted above will have material impact on the proposed development. Eskom has delayed launching a new EIA since the EA decision taken in October 2017, why the haste now for a generation source that will only see service late 2030’s or early 2040’s?

b) *Time-frames of the process are too short:*

As it stands the Draft Scoping Report (DSR) and the 24 Special Reports (SR) total approximately some 2500 pages. The matters they address are complex and technical and occur within a context of a previous environmental assessment process that took some 10 years to complete and went through three iterations. In our discussions with representatives of the EAP prior to the start of the formal process, and again once it was launched, we raised our concern about time-frames (see email correspondence to the EAP 29/01/26 and again 10/04/26) of the public participation process. Specifically to the issue of allowing interested and affected parties (I&AP’s) sufficient time to read, understand, research, and respond to the reports. At the initial engagement the EAP had assured us that they would seek extension of

the period upon registration with the decision-maker (DFFE). This did not occur. While the EAP did subsequently seek an extension, which was then granted, it has not explained the rationale on which the extension (and subsequent others) was sought.

We would therefore request of the EAP that they engage with the decision-maker at this early stage of the process and set sufficient time frames in place that enable informed public participation. And that they communicate their rationale in setting new time-frames. Our suggestion for the next phase would be that the public and I&APs have four weeks to consider each consolidated report (e.g. the draft *Environmental Impact Report - EIR*), five days per specialist report and five days per supporting document.

We would also ask that the EAP take into account the local government election in early November, and that the next six months will see active campaigning across all areas in the lead up. Our suggestion is that there be a pause on public meetings for a month prior and after the election (keeping in mind the December break).

c) ***Founding documents are absent:***

At various places in the DSR and SRs reference is made to documents upon which the EAP bases their arguments. A number of those documents are not included in what has been made available to the public and thus their merits nor accuracy of interpretation can be assessed. As a general principle we would ask that any document that is foundational to a point/conclusion made by the EAP be included.

Specifically, we would request that the following documents be made available:

- (i) The *Nuclear Industrialisation Plan* as referenced in the IRP 2025 (see pg. 142 in the DSR)
- (ii) *Nuclear Site Investigation Programme (NSIP)* study (referred to on page 164 of the DSR and other places)
- (iii) The *Site Safety Report for Thyspunt* (2025 - referenced on pg. 125); and the *Site Safety Report for Bantamsklip* (2013 – referenced on pg. 174)
- (iv) Hart’s 2012 Heritage Assessment (referenced extensively in the Specialist Heritage Study)
- (v) The outcomes/report of the DMRE’s *RFI for Nuclear New Build Power Programme* (issued June 2020) as referenced on pg. 255 of the DSR, and also NECSA’s own RFI on the same
- (vi) Minutes and copies of the PowerPoint presentations in Eskom’s “Roadshows” that took place during the week of 16 February 2026 with the Kouga Mayor and team, the NMB Mayor and team, CDC, and NMB’s Business Chamber – these meetings we understand discussed the possibility of deploying 400MW of SMR technology to the Coega IDZ and 4800MW of power to Thyspunt, with no mention of Bantamsklip.

d) ***The use of a technology envelope gives the applicant a “blank cheque”:***

The use of a *Plant Parameter Envelope (PPE)* is central to the EAP’s scoping assessment. It argues that, “the PPE approach is a concept that is used internationally to allow utilities to apply for Early Site Permits (ESP), in situations where the choice of the nuclear technology is unknown.” (DSR pg. 106). It then subsequently lists 13 nuclear models, 6 of which are



Generation 3+ (PWR) plants, and seven of which are Gen 4 (SMR) plants, and adds the caveat that this list does not exclude the possibility of selecting other models.

In our view, the EAP conflates the EIA process, which assesses if the proposed project is a “sustainable development”, with the nuclear licensing process (NSIL/NIL as overseen by the NNR) that is specific to nuclear technology. Furthermore, the envelope approach creates a paradox in which the specific impact of the technology cannot be assessed due to the range of models and their variation, and consequently assumed impacts cannot be quantified because the technology is unknown. In our view an EIA can only proceed off the basis of known technology or must hold off in recognition of the precautionary principle.

To this point, it is our understanding that several of the PWR models listed by the EAP are no longer commercially available, and none of the proposed SMR models are commercially available. It is our view that in the case of nuclear, and in the absence of a completed procurement process, the EIA must restrict itself to technology the applicant can reasonably acquire, namely that which is commercially available. To include technology that is under development or still in process of design would render the EIA speculative at best or useless at worst.

An EIA cannot mitigate for that which is not known, and in effect the EIA thereby grants the applicant a “blank cheque” for its development. We would therefore request that the full assessment phase be restricted to nuclear models the applicant reasonably intends to purchase and models that have a history of operational performance that can be used to assess its actual impact.

e) ***Alternatives that have no reasonable chance of selection are meaningless:***

It is our view that a proper EIA process must include the consideration of alternatives that have a reasonable chance of selection otherwise the comparison/juxtaposition is rendered meaningless.

For instance, in the case of this EIA, the EAP includes two potential sites in the scoping: Thyspunt and Bantamsklip. And it does so off a site selection process (NSIP) undertaken in the 1980’s that it doesn’t include in the supporting documents.

The DSR (pg 169) argues as follows: “the EIA Regulations require the assessment of reasonable and feasible alternatives. Reliance on the NSIP and subsequent investigations does not constitute pre-determination. It reflects the technical and regulatory reality that nuclear site selection is a staged, cumulative process spanning decades. The current EIA remains outcome-neutral and subject to full regulatory review, public participation, and authority decision-making. Undertaking a new national-scale coastal site search would amount to duplicating the NSIP, despite the fact that the physical and safety constraints underpinning nuclear siting have not materially changed and several NSIP-derived sites remain technically viable and well characterised. The EIA process is not intended to re-open settled strategic-level screening exercises where these remain valid, but rather to refine and test viable options

at project level. Thus, the two site alternatives taken forward for further assessment in this application are Bantamsklip and Thyspunt.”.

Having already excluded the two other possibilities (i.e. Brazil and Schulpfontein) on the NSIP’s list of five sites, the DSR then goes on to scope out Bantamsklip pre-assessment, and does so on the same grounds Bantamsklip was excluded from the 2016 Nuclear-1 EIA process. But it includes the caveat that this does not permanently exclude the three remaining sites from future consideration – seemingly the applicant wants it both ways, exclude the three sites now because they are unsuited, but include them later because they are suitable? It is an argument of convenience, in effect the applicant is simply working its way down its list of five sites, excluding the other sites in favour of its targeted site at each new EIA.

And whether intentional or not, scoping out Bantamsklip has the effect of presenting the decision-maker with only one option. The decision maker has already demonstrated in the Nuclear-1 process that it may select the other alternative, the scoping out of Bantamsklip renders this possibility moot.

In our view it is non-sensical to include sites that are known prior to their inclusion to be unsuitable. And while the existing site selection process was understandably complex and time-consuming, if it renders only one option viable, it in effect pre-determines or pre-ordains the outcome.

The DSR also scopes out Bantamsklip prior to the public participation and focus group sessions, which in effect renders the input of those processes moot.

As argued in the public participation meetings, and by the EAP themselves, we would hold that an EIA must include “reasonable and feasible alternatives” - including Bantamsklip in our view renders the comparison meaningless.

To be clear, we are not calling for the inclusion of Bantamsklip, the process point we are making is that to be true to the intent of the EIA process, new alternatives are required to provide the decision-maker with the possibility of a choice, irrespective of whether this will cost monies or time.

e. The “Project Area of Influence” requires that all EIA’s are assessed together or as one consolidated EIA:

The DSR takes a “battery” approach of restricting the scope of the EIA to the properties it has acquired at the respective sites, and on this point specifically it states

“The following activities are explicitly excluded from the battery limits and are not authorised through this ESIA:

- *External access roads and public road upgrades*
- *Transmission lines and transmission corridors beyond the on-site HV Yard*
- *Water use and discharge authorisations, including cooling water abstraction and return flows requiring separate authorisations*
- *Final disposal facilities for radioactive waste or spent nuclear fuel located off-site*



- Off-site construction camps, and material sourcing areas
- Off-site site staff accommodation
- Off-site emergency planning and evacuation infrastructure

These activities are subject to separate environmental authorisations and statutory approvals, where required. (Pg 105 DSR).

Part of the motivation of such an approach by the applicant appears to be that other entities (e.g. NTCSA) manage those aspects (e.g. transmission lines) and thus falls outside the control and responsibility of the applicant.

Yet in the Socio-Economic Impact Study (pg. 117) the specialist quotes IFC Guidance Note No. 1 in describing the area of influence “*as the area where the project has identified physical elements, aspects, and facilities that are likely to generate impacts, and environmental and social risks...*” and “*associated facilities are part of the project and would not have been constructed or expanded if the project did not exist, without which the project would have been viable*”.

The DSR itself under the discussion of “Impact Screening Methodology” (see pg. 32) notes that its methodology is been adapted from the “*Draft Best Practice Guidelines for Implementing the Mitigation Hierarchy in South Africa*” (Feb 2023). Those self-same *Best Practice Guidelines* hold that defining the project area of influence (see 5.1.1 pg. 15) entails the following:

“In this step, the applicant and EAP, with specialist input where relevant, define a broad boundary for assessing the proposed development, also referred to as the PAOI³⁴. This boundary must take into account the proposed development and probable direct and indirect (including induced) impacts in a wider landscape context. All associated infrastructure, structures and facilities must be taken into consideration, as well as resettlement areas and/or areas likely to be impacted by project-displaced livelihood activities.

This step is carried out in the pre-application phase, and may need to be refined during the EIA phase based on additional information suggesting that potential impacts would be more or less extensive.

*An assessment boundary should be defined which can reasonably be expected to encompass the area in which there are VECs and an impact may be significant. A development often has impacts which extend beyond the ‘footprint’ or site of that development, e.g. having downstream effects on water resources, reducing landscape connectivity, polluting an airshed, and influencing socioeconomic patterns. **Assessing impacts on a project site alone is not sufficient; the role of that site in the wider landscape must be taken into account.**”*
(emphasis our own)

We take it as common cause that any of the above listed activities are critical to operation of a nuclear plant, specifically roads (see pg. 132 of the DSR), transmission lines (see pg. 135 DSR), and the construction village (see pg. 130 DSR) that will house workers and their families.

The EIA must in our view assess simultaneously the key components of the proposed development to understand the full scope of the project and its impacts. For instance if building a new transmission line between Thyspunt and Grassridge is untenable the build itself cannot proceed. Or if the two bridges across the Kromme and Sand Rivers prove incapable of supporting the build traffic, the project cannot commence.

If the applicant chooses to separate each of the aspects into separate EIA's they must run concurrently to avoid the outcome of one unduly impacting the consideration of the others. It will place undue pressure on the decision-maker evaluating the NTCSA transmission application knowing the plant has been approved but cannot proceed unless the transmission line EIA is favourable. In our view completing the site EIA first will prejudice the consideration of the transmission, housing and road EIAs, and conversely running these EIAs prior to the site EIA may prejudice the project's EIA. It would appear that NEMA would allow for either a consolidated or concurrent EIA process including multiple project owners.

The EAP needs to be consistent in its use of the *Best Practice Guidelines* and apply the PAOI as intended.

f. Rating scales used to evaluate impacts must include weighting and threshold limits:

In the DSR a relatively complex significance rating methodology (see pg.'s 33-36) is applied to assess potential impacts and evaluate mitigation possibilities. However, the listed impacts significance's are assumed to be of equal importance to their impact, there is no weighting or threshold applied. For instance which is more critical: "wetland conservation" (DSR pg. 558) or "intertidal habitat loss and disturbance" (DSR pg. 564)? If either have components that will be lost forever, does that create a threshold limit on the proposed development?

The scoping out of Bantamsklip is in part dependant on the preferences stated by the specialists (as per the summary table on pg. 706) and it appears the EAP has given equal weight to each report and then simply calculated those in favour of one site over the other to inform the decision. That assumes that the Heritage assessment carries equal weight to that of Traffic?

We are of the view that this may unduly influence the decision-maker. Our suggestion is that any rating of impacts also includes a discussion on criticality thresholds. For instance the destruction of fish traps at Thyspunt would be an irreversible loss of Khoikhoi heritage – how does that loss weigh up in the bigger scheme of the project?

2.3 Comments on substantive aspects raised in the Draft Scoping Report and public meetings

2.3.1 The discussion of South Africa's energy context is incomplete:

In the DSR (pg. 99) the EAP makes the following statement about the energy context in South Africa: *“Coal continues to dominate South Africa’s generation mix, providing dependable baseload power but largely contributes to greenhouse gas (GHG) emissions and environmental impacts. Renewable energy sources such as wind and solar have expanded rapidly, offering clean alternatives but remaining variable and weather dependent—not providing baseload power.”*. The DSR makes the same point in other places (see pg. 144 of the DSR).

The DSR also appears to accept without discussion the need for centralised systems of power generation, for instance, *“Centralised power generation is identified as the preferred alternative. The NPP is intended to deliver large-scale, firm and dispatchable electricity over a long operational life, a requirement that is inherently aligned with a centralised generation model. While dispersed generation and islanded systems play an important complementary role in supporting renewable integration and local resilience, they are not capable, in isolation, of meeting the system adequacy, stability and bulk power delivery objectives underpinning the proposed project. Centralised generation enables economies of scale, high availability, synchronous grid support and effective integration with existing and planned transmission infrastructure.”* (Pg 201)

What the EAP appears to have failed to consider in its assessment of South Africa's energy context is the recent joint 2025 report *“South Africa’s Energy Sector Investment Requirements – To Achieve Energy Security and Net Zero Goals by 2050”* issued by the Development Bank of SA (DBSA), National Planning Commission (NPC), SA-TIED, and the Presidential Climate Commission (PCC), that argues that, *“Given the urgent need to address energy shortages over the short- to medium-term (2025–2035), no new coal or nuclear capacity is envisaged during this period. Furthermore, the modelling reveals that across all three scenarios, the system can meet reliability and emissions constraints through a mix of renewables, storage, and flexible gas capacity without requiring new coal or nuclear investments through to 2050.”* (Pg xxvii, see https://www.nationalplanningcommission.org.za/assets/Documents/South%20Africa%27s%20Energy%20Sector%20Investment%20Requirements%20to%20Achieve%20Energy%20Security%20and%20Net%20Zero%20Goals%20by%202050_2025.pdf)

The EAP also appears not to have considered the *“Roadmap for Eskom in a Reformed Electricity Supply Industry”* published by the Department of Public Enterprises in 2019 that describes the changing energy market as follows: *“The global electricity market has shifted from the traditional business model of centrally producing, transmitting and selling to a captive market. Instead, rapidly changing technologies, modern infrastructure and declining production costs have increased the complexity of managing the supply side. This includes managing a blend of diverse energy sources of traditional and renewable generation, distributed generation including those produced by small and household generators, multiple contracting arrangements and performance monitoring. Demand patterns are also changing with the availability of more affordable self-*

generation, energy efficiency and storage technologies. Large, unwieldy and vertically integrated institutions such as Eskom struggle to adapt to conditions in a dynamically changing market. Decarbonisation commitments to address climate change are accelerating investment in renewable infrastructure including new technology such as smart-grids and digitisation that improves both supply and demand management. Large, unwieldy and rigid institutions such as Eskom struggle to adapt to conditions in a dynamically changing market” (pg. 7)

In 2017/18 the CSIR had already addressed the feasibility of renewables supplying all or the bulk of South Africa’s electricity requirements. In conjunction with researchers from the Karlsruhe Institute of Technology, Lappeenranta University of Technology, Delft University of Technology and Aalborg University they analysed hundreds of studies from across the scientific literature on the question of renewables contribution. As per their findings “*they demonstrate that there are no roadblocks on the way to a 100% renewable future*”. Specifically, CSIR’s key scientist at the time, Dr. Tobias Bischof-Niemz, one of several other scientists, held that “*It’s beyond any scientific doubt that a renewables-led energy system is technically feasible, and recent technology cost developments for solar and wind have now made it economically viable too*” (see <https://www.csir.co.za/energy-renewable-sources-sceptics> and their paper: T.W. Brown, T. Bischof-Niemz, K. Blok, C. Breyer, H. Lund, B.V. Mathiesen, “*Response to ‘Burden of proof: A comprehensive review of the feasibility of 100% renewable-electricity systems’*,” Renewable and Sustainable Energy Reviews, DOI:10.1016/j.rser.2018.04.113, 2018.)

See too the CSIRs *Wind and Solar PV Resource Aggregation Study for South Africa: Final Report* (01 November 2016) compiled in conjunction with Eskom, Fraunhofer IWES and SANEDI that concludes (emphasis is our own):

- (i) *The wind resource potential is as good as the solar resource. Almost the entire country has sufficient resources with potential for very high load factors and, thus, profitable wind projects. **It is possible to generate significantly more electricity from wind and solar PV energy than what is needed by the country** even when considering spatial exclusion zones.*
- (i) *While the solar irradiation and electricity generation from solar PV shows nearly no seasonality, **wind speeds and generation from wind closely follows the demand over the year**. In addition the diurnal characteristics of wind feed-in complement the solar PV peak by showing a minimum at noon. Those complementary effects enable the integration of wind and solar PV power into the grid to a great extent.*
- (ii) *As determined in [1], at least 20% overcapacity of wind and solar PV power can be installed per substation without any curtailment of wind and solar PV power.*
- (iii) *Gradients of the electricity feed-in from wind generation can be reduced noticeably through aggregation effects (more distributed wind turbines result in reduced fluctuations). A wider distribution of turbines also leads to a significant reduction of forecast errors.*
- (iv) *Finally, up to 20 to 30% energy share of variable renewable energies (wind and solar PV) for the whole country will not increase short-term (15 min) gradients or ramps significantly if there is a balanced combination of wind and solar PV in the electricity system.*

(https://www.csir.co.za/sites/default/files/Documents/Wind%20and%20Solar%20PV%20Resource%20Aggregation%20Study%20for%20South%20Africa_Final%20report.pdf)

And we wish to alert the EAP to assessments by independent energy analysts such as Chris Yelland that hold views contrary to that stated in the DSR. In a recent interview on Cape Talk with John Maytham (published 20 April 2026), Chris Yelland considers the proposed nuclear build “*not necessary at all*”, “*frankly unhelpful and useless*”, and “*it doesn’t solve the needs of the power system in 2040*” (see: <https://omny.fm/shows/the-john-maytham-show/thyspunt-gets-the-nod-nuclear-plans-move-ahead-amid-heritage-concerns>).

Given that the duty of the EAP is to consider the range of views/arguments, any discussion of South Africa’s energy future that excludes the views of the likes of the DBSA, PCC, NPC, CSIR, Department of Public Enterprises and independent energy analysts can only be incomplete. And in this instance, the views held by such persons are in direct contradiction to the conclusions of the EAP and material to need and desirability of the project. Specifically, they bring into question the notion of “baseload power” and that “centralised generation” is necessary and demonstrate that South Africa’s actual wind and solar supply resources closely match its demand profile.

It would be amiss of the EAP not to consider and address such views in its presentation of information to the decision-maker. To this end, we would ask that the EAP make clear the expertise of those who authored such views within the DSR and for the next phase to appoint instead an independent energy expert to do a separate specialist report on South Africa’s energy future that addresses the future of energy markets both within a global and South African context.

2.3.2 The discussion of Eskom is deficient:

The DSR holds uncritically that “*Eskom Holdings SOC Limited (Eskom) is South Africa’s primary electricity provider, responsible for generating, transmitting, and distributing about 95% of the nation’s power.*” (pg. 99). As discussed above, the “*Roadmap for Eskom*” depicts a very different future for Eskom, in which Eskom would exist in a mixed generation market and would have relinquished the role of transmission and sales. The EAP already refers to the existence of the NTCSA in the DSR, which contradicts the “primary” responsibility statement above.

Eskom’s MOI (# 2002/015527/30) lays out its mandate as follows: “*The objective of the Company is to provide energy/electricity and related services, including the generation, transmission and retail thereof, whether directly by itself or indirectly through a wholly owned subsidiary. In doing so it has all the powers to implement this mandate subject to any limitations set out herein, the Shareholder’s Compact, the Strategic Intent Statement and any other limitations imposed by the Shareholder. In fulfilling its obligations, it is specifically acknowledged that the Company has a developmental role and will through its activities promote transformation, economic development, broad based black economic empowerment and may support relevant national initiatives, in a manner that is sustainable and financially responsible.*”

Eskom’s 2025 *Integrated Annual Report* states that its commercial mandate is to “*assist in lowering the cost of doing business in SA, enabling economic growth*” and that in turn its social mandate is “*providing electricity in an efficient and sustainable manner*”. Eskom’s objectives are listed as: *pursue financial and operational sustainability; facilitate a competitive future energy industry; modernise our power system; strive for net zero emissions by 2050.*

We see in the above no specific mandate that Eskom is meant to generate electricity through a centralised system, rather that its provision of electricity is to be guided by efficiency and sustainable considerations that lower the cost of business and enables economic growth.

It appears that Eskom will have undergone fundamental change by the time any new NPP will be ready to contribute to the grid - this aspect and its implications is not covered by the EAP in the DSR. It may be argued by some, that Eskom's unstated intention is to secure its future by building a new nuclear plant of this scale, that gives it priority in the generation mix and due to debt commitments binds it to the state for the period of the NPP's life. This may not be the case, but that possibility is not considered by the EAP. We believe that to be a critical omission and suggest, as with the energy context, that an institutional expert be commissioned to report on Eskom itself and included in the final EIR presented to the decision-maker.

2.3.3 The identification of alternatives serves Eskom's preference and is flawed:

We have already made the process point that we believe the inclusion of alternatives that have no reasonable chance of selection renders the exercise meaningless.

On a substantive aspect however, we wish to raise with the EAP further flaws within the discussion of alternatives, namely:

- (i) The discussion on the alternative use of the Thyspunt site, the DSR (Pg. 215) states that *"there is clearly a strong pressure to extend coastal development into the current site, and the site would have high value for this, in the event that it was sold."* It holds this to be the likely future, despite noting the adjacent private nature reserve and elsewhere the current heritage status of the site. It is our understanding from discussions with local residents and Khoikhoi persons that they envisage the site to be a "coastal cradle of humankind" and prime opportunity to create a protected space for natural and cultural heritage. The EAP has not considered this as a possible alternative, and ignores the conservation-orientated nature of the community in concluding that coastal development is the only option. We would encourage the EAP to interview local conservation initiatives, Khoikhoi representatives, and residents as to their vision for an alternative use.
- (ii) In response to the possibility of considering the Coega IDZ as a possible site for a nuclear plant the EAP/DSR (pg. 172) appears to err in relying on the NSIP's evaluation of the Alexandria area. The Coega IDZ was not in existence at the time of the NSIP, and the dune field the NSIP assessed is some 10-15 km's further north along the coast. This needs to be clarified in the next phase and Coega IDZ properly described. The DSR also appears to contradict itself at this point in that it rates the environmental value of the Alexandria area so high as to discount building a nuclear plant there, but is prepared to build in the other active dune field in the Eastern Cape at Thyspunt, a sister site in universal heritage and natural value to the Alexandria dunes.
- (iii) With the inclusion of SMR's in the PPE approach; and consistent with what we understand Eskom committed to in its "roadshows" with key persons in Nelson Mandela Bay and Kouga, namely their intent to site a 400 MW SMR at Coega IDZ; and in addition the stated intent at public meetings to explore placing SMR's at retiring coal stations; the original terms of reference of the NSIP that only considered Gen 2 PWR reactors are

rendered outdated. To this end, sites for instance at Mossel Bay, and the Hydra sub-station/Gariep dam sites are seemingly obvious possibilities to consider as alternative sites in addition to the Coega IDZ. They offer shorter transmission routes (Coega and Gariep) and water availability (all) at scale. It is further evidence in our view that NSIP must be updated, including being subjected to Constitutional and NEMA principles.

- (iv) On the issue of technological alternatives of electricity generation, we have noted already the inadequate DSR discussion on the possibility of renewables. What the EAP also appears not to have considered is the possibility of electricity provision by means of green ammonia driven turbine generation (specifically that Hive Energy and Dedisa Gas Plant both are located within the Coega IDZ), and the generation of electricity by harvesting the continual movement of the Agulhas current. If the time horizon is 2035-2040 and beyond, the EAP would be inconsistent in our view to exclude from consideration alternative technologies under development, while simultaneously putting forward SMR's that are under development as a possibility.

With the above in mind, we must state that we are left with the overall impression that the DSR is geared through selective argument to serve Eskom's stated preference to build a nuclear plant at Thyspunt.

2.3.4 Uncritical discussion of the accident risks associated with nuclear power generation:

The DSR (pg. 93) when discussing the issue of nuclear (energy) accidents, states the following: *"The International Atomic Energy Agency (IAEA) has developed a scale called the International Nuclear Event Scale (INES), which they use to rate the severity of a nuclear accident on a scale from 0 to 7. There have been three major reactor accidents in the history of electricity power generation from nuclear technology – Three Mile Island, Chernobyl and Fukushima. These are the only major accidents to have occurred in over 14 500 cumulative reactor-years of commercial nuclear power operation in 32 countries. Table 3-6 provides a comparison of these nuclear incidents—highlighting their causes, impacts, and lessons learned."*

What the EAP fails to raise in this discussion is the nature of the INES scale (it's a logarithmic scale whose thresholds are determined by whether radiation is released); and suggestions in critique of INES that measuring the cost of nuclear power events is a better measure of risk. See for instance the 2016 article by Wheatley, Sovacool and Sornette in which they explain *"We summarize the results of a recent statistical analysis of 216 nuclear energy accidents and incidents (events). The dataset is twice as large as the previous best available. We employ cost in US dollars as a severity measure to facilitate the comparison of different types and sizes of events, a method more complete and consistent than the industry-standard approach. Despite significant reforms following past disasters, we estimate that, with 388 reactors in operation, there is a 50% chance that a Fukushima event (or more costly) occurs every 60–150 years. We also find that the average cost of events per year is around the cost of the construction of a new plant. This dire outlook necessitates post-Fukushima reforms that will truly minimize extreme nuclear power risks. Nuclear power accidents are decreasing in frequency but increasing in severity."*

The Wheatley et al article raises three further aspects that questions the DSR specialist's assessment of nuclear accidents: the first is that the article refers to 216 accidents and incidents (events), while the DSR mentions only three. In part this is explained by the INES ranking, anything rated 1-3 is considered an "incident", and anything rated 4-7 is considered an "accident". But when applying cost as a measure of impact the numbers shift significantly upwards. The second is that the EAP looks only at reactor accidents and nuclear power operation, thereby excluding any other radiation release events or nuclear accidents. Consequently, the radiation release accidents at Mayak, Kyshtym (a military facility in Russia) rated 6 on the INES scale and Windscale (UK) rated 5, are not taken into consideration. Both events however provide actual data on dispersion as opposed to dispersion models and would usefully inform the EIA. The third aspect is that the EAP does not put forward for assessment events below the Level 5 threshold, which means that "near-misses" such as the breaching of the seawall at Blayais (France) in 1999, and an earthquake resulting in the shutting down of Kashiwazaki Kariwa (Japan) in July 2007 are not considered in the DSR. But both the risk of a seawall being breached and the underestimation of seismic risk are pertinent to the Thyspunt site.

Again, when discussing the Fukushima-Daiichi accident in 2011, the EAP does not indicate the current 20-km exclusion zone, nor how far radiation travelled (over 200km by air and across almost the entire Pacific by sea), and that 160,000 persons were evacuated in total, of which 2,314 persons died (see <https://ourworldindata.org/what-was-the-death-toll-from-chernobyl-and-fukushima> and here: <https://thebulletin.org/2026/03/fukushima-at-15-living-with-radioactive-hot-spots-and-stigma/>). In our view, the EIA must present to the decision-maker a holistic discussion when considering impact, but by virtue of excluding key impacts of the Fukushima-Daiichi disaster, the discussion in the DSR is incomplete and potentially misleading. The next phase of the EIA should discuss the Fukushima-Daiichi disaster more thoroughly, for example, including indirect impacts, actual dispersion by air and sea, actual zones that have been evacuated, the challenge of radiation waste (water and topsoil) and costs of the clean-up.

2.3.5 The DSR discussion fails to provide a balanced overview of the nuclear industry – the nuclear industry (Gen 3+) is undoubtedly a "sunset" industry

- (i) The DSR in its discussion on the **relationship of nuclear to renewables** asserts that, "*The argument is not nuclear versus renewables, it is nuclear plus renewables; each playing a unique, mutually reinforcing role.*" (pg. 144). And yet it is clear that there is substantial disagreement globally about whether nuclear power (specifically Gen 3+ PWR) pairs well with renewables.

In an extensive discussion on the future of energy markets, which includes the transition globally from centralised (monopoly) generation to decentralised multiple-owner systems, the *World Nuclear Industry Status Report (WNISR - 2025)* is of the view that "*proposing nuclear power as a component in a firm power energy mix with strongly fluctuating renewable power, however, neglects its weak points. For technical and economic reasons, nuclear plants do not provide the type of flexible, dispatchable power that can fill the gaps*

between solar power peaks. They need flexibility from other sources for bridging considerable planned and unplanned outages and for buffering between changing demand and their inflexible full-load operation. The cost of their baseload electricity is more expensive than the ultra-flexible combination of renewables-plus-storage-plus-flexible demand.” (see <https://www.worldnuclearreport.org/IMG/pdf/wnisr2025-v2.pdf>)

The EAP appears not to have considered the actual “argument” around pairing renewables with nuclear. And for purposes of the EIA, whether the EAP supports the applicant’s argument for nuclear or not, its primary duty is to weigh up the contrasting views and provide the decision-maker with a balanced view of the nuclear industry. This the DSR fails to do and is in our view is a material failure. We would encourage the EAP in the next phase to incorporate the argument (and data) of the WNISR and thereafter, if still in agreement with the applicant, provide the rationale for why it sides with the applicant’s view on nuclear and not WNISR.

- (ii) When discussing **nuclear power’s role in minimising environmental impact** the DSR (pg. 143) notes that *“In this context, nuclear power strengthens environmental outcomes by providing very low life-cycle GHG emissions and high availability, which raises system EAF, reduces the risk of load-shedding, and enables deeper renewable integration—thereby supporting a diverse, balanced and greener energy future consistent with the IRP and national climate policy.”*. As noted above this position (and it’s concomitant argument on JET) would appear to be in contrast to that of the Presidential Climate Commission (PCC) as laid out in their joint paper *“South Africa’s Energy Sector Investment Requirements – To Achieve Energy Security and Net Zero Goals by 2050”*. The PCC is the legislated body tasked with researching and implementing climate change action – the EAP needs to substantiate why it takes up a contrary view.

The EAP’s view also stands in stark contrast to that of several critiques of the role of nuclear in a renewable-dominated future. For instance, as one example of many, Saier and Trevors as early as 2009 argue that *“the claim that “we need all energy options” to face growing energy needs is irresponsible. In fact, we cannot afford all energy options. Further investment in nuclear power is likely to squander the limited financial resources that are available to implement meaningful climate change mitigation policies. Moreover, nuclear power plants are not CO₂ free. Enriched uranium is the required fuel for all US nuclear power plants, and the uranium enrichment process emits about 15% of the CO₂ emitted from a coal-fired power plant per unit of electrical energy.”* (see <https://pmc.ncbi.nlm.nih.gov/articles/PMC2773373/>)

- (iii) On the issue of **SMR’s**, the Radiological Impact Assessment (pg.4) states: *“The Eskom site safety reports submitted to date to the NNR site licensing purposes do not include a GEN IV type NPP. GEN IV reactors have enhanced safety features when compared to large GEN III PWR reactors. There are numerous (at least 14) HTR, gas-cooled type SMRs under development or in operation.”*

It requires noting that the DSR is putting forward in its PPE approach 7 SMR models for which the site safety plan details have not been viewed. It also bears noting that “in development”, “in operation”, “commercially operating”, and “commercially available”, are very different stages of nuclear technology development. The specialist in this instance appears to conflate two of those categories and ignores consideration of the difference between a plant delivering power into a grid on a commercial basis and a model being available for commercial sale to other parties.

We repeat the point that this EIA should ideally only consider the technology Eskom is committed to purchase, or failing that, only technology it can reasonably be assumed to acquire, namely nuclear models that are currently commercially available for purchase. SMRs are an unknown at this point – in our view South Africa’s energy needs will be better served by introducing technology that is current and has proven commercial viability. To that end, Gen 3+ technology will be old technology on installation, and SMR’s (Gen 4) too early to know their operational capabilities and constraints. In our view any nuclear procurement (and an EIA) should hold off until SMRs become a known entity and not waste taxpayer money in pursuing outdated Gen 3+.

- (iv) In the discussion on the **industry specifics**, the DSR offers that, “*operational data underscore nuclear energy’s decarbonisation impact and reliability. Global nuclear generation reached a record 2 667 TWh in 2024, with an average fleet capacity factor of ~83%— performance that avoided an estimated ~2.1 billion tonnes of CO₂ versus coal-fired generation and underpinned power-system stability. In 2024, seven reactors were connected to the grid (China ×3, USA, India, France, UAE), nine construction starts were recorded (China ×6; Pakistan, Egypt, Russia), and ~70 reactors were under construction worldwide*” (Pg 137). In our view, the point made in this discussion of the industry is both wholly inadequate and overly positive.

Compare for instance the discussion of the industry in the WNISR (2025), that states that “*as of 1 July 2025, a total of 408 reactors—excluding Long- Term Outages (LTOs)—were operating in 31 countries, which is the same as the number of reactors reported in WNISR2024, but operating in one less country. There were 33 units in LTO, [long-term outage] including 19 in Japan and 6 in Ukraine. Operating units are also 10 less than in 1989—the first peak and the end of the preceding uninterrupted rise—and 30 below the historic peak of 438 in 2002. As of the end of 2024, the world fleet had a total electric net operating capacity of a record 369.4 GW that had slightly declined by mid-2025 to 368.7 GW, which is just 1.6 GW—the equivalent of a large reactor—more than the previous end-of-year record of 367.1 GW in 2006.*” (pg. 21, 22)

The impression created by the EAP/DSR is that the nuclear industry is on the up, whereas the WNISR paints the very clear picture that the PWR Gen 3+ industry is in effect in decline - a “sunset industry”. Again, it would appear that the EAP has assessed the argument of the applicant uncritically and therefore is at risk of presenting to the decision-maker an incomplete assessment. We would ask that the discussion of the nuclear industry be more thorough and balanced in the assessment phase.

- (v) Throughout the DSR the assumption of **construction time** of a NPP (without knowing which model, but supposedly off a “worst case” PPE basis) is central to the assessment of impacts such as the construction village, and to this end the DSR states that “*the site-preparation period is expected to be between 24 – 36 months, with the construction phase accommodating for laydown areas, temporary construction facilities and a construction parking lot. The construction period will be 5 – 8 years.*” (pg. 123).

In the light of Eskom’s mega-project record for less complicated coal-fired plants (Kusile and Medupi); the delays of EPR new builds such as Hinkley Point (estimated to start up in 2030, 13 years after construction start) and Flamanville (18 years to complete); the lack of suitable nuclear building and operation skills locally; the need to import materials and equipment; the challenges of adapting the model to local licencing requirement and site challenges; and the delays due to capacity constraints with nuclear builders, it is difficult to understand how the EAP comes to a minimum build time of five years? It is certainly not in our view an appropriate application of the precautionary principle.

Again, the WNSIR assessment offers a very different view, it argues that “*the longer-term perspective confirms that short construction times remain the exceptions. Eleven countries completed 69 reactors over the decade 2015–2024—of which 37 in China alone—with an average construction time of 9.4 years (see Table 3) ... The construction durations from the beginning of concreting of the foundations of the reactor building to first grid connection have had better and worse years but over a decade they have averaged out around 10 years for over a decade, with a broad range between countries and between projects inside individual countries.*” (pg. 62)

We would ask that the EAP reconsider the construction time-line based on a more thorough purview of the data on NPP build times. And if it insists on maintaining its overly positive view, it should then explain its reasoning to the decision-maker as to why South Africa would be the exception.

- (vi) One final point on the DSR discussion on the nuclear industry; we find no discussion within the DSR of the **value-chain of nuclear**, for instance the role of enriched uranium, how it’s mined and produced, who supplies it, and what the future prospects are of supply. Similarly we find no discussion as to who is building nuclear plants, and what their lead times are. As we understand it, only Russia and China are building Gen 3+ reactors, China is almost exclusively focused on its internal build, and Rosatom’s build capacity severely limited. We would ask that in the assessment phase the specialist considers such matters and its impact on the build and long-term viability of the NPP.

2.3.6 Gaps within the Specialist studies:

As a general comment we need to note that we have found it impossible to cover in depth all the specialist studies in the time given. Consequently, we have chosen to focus on the following, which we believe central to the EIA.

(i) Climate Change:

We note that Climate Change is identified for further study in the full assessment stage. On reading the specialist report, it appears the focus of the specialist report is in evaluating the carbon savings of nuclear plants. But it does so without considering the carbon footprint of the uranium industry that exists to serve nuclear, and it does so without consideration of the impact of decommissioning.

We are also surprised that readily available range of desk-top analysis of sea level rise has not been consulted when it comes to considering the impact of climate change on the operation and subsequent feasibility of nuclear plants. We assume this will be covered in detail in the assessment.

Given the central role that flooding, sea wall breaching/tidal surge, and intake water temperature has played in nuclear plant accidents and operations, we would have expected a far greater focus on these aspects already in the scoping.

For instance, we find the discussion on climate change impact on sea temperatures absent in entirety from the specialists' considerations. Given that French and Swiss plants have been impacted by high temperatures of intake waters, causing their shutdown or lowering of output, we think it essential to consider the impact of climate change on sea temperatures. Will the sea be too hot for the plant to run in 2050/60/80?

It is also a concern that the climate change report and DSR generally ignores the flooding event that washed away the Sand River bridge in 2011/2012 (see <https://stfrancischronicle.com/2012/10/21/the-sand-river-canyon-develops-as-bridge-washes-away-for-3rd-time-photo-gallery/>). The specialist appears to believe that flooding is not a significant risk. We would suggest a review of that assessment.

(ii) Heritage Report:

In the specialist heritage report, the specialist comments as follows on the Thyspunt site "A rare aspect of the area is the active dune field – a headland bypass system almost 15 km in length, which together with the wide range of archaeological and palaeontological resources on it, place it among a few surviving landforms of this kind and size around the country. This dune field, together with the coastal thicket vegetation and rich shoreline with its natural springs represents a uniquely intact environment in which KhoeKhoen pastoralists and San hunter-gatherers existed. The Gamkwa Khoisan Council (stakeholder meeting, Hankey 2010) regards the completeness of this natural and human environment as a holistic entity of extraordinary heritage value to all Khoisan descendants." (Pg 65) and,

"...taking into account the earlier findings by Binneman (1996, 2001) and the findings of this study the pre-colonial heritage in the study area [Thyspunt] is extraordinarily prolific, particularly within 300m of the high-water mark and the open dune fields. Along the coast archaeological material was found almost everywhere where ground surface visibility

allowed. It stands to reason that the total number of archaeological sites that exist on the affected properties is undoubtedly more than the number of occurrences that were found during the surveys. Shifting dunes and oscillating vegetation patterns have obscured many sites that were identified years ago” (Pg 72),

But despite these “rare” and “extraordinarily prolific” assessments, the specialist concludes, *“the remaining two sites have been considered in this report and both sites were found to be highly significant and worthy of at least Grade IIIA protection (local, high significance) in particular areas within the study sites. Thyspunt has emerged as the slightly less sensitive site from a heritage perspective, albeit with significant caveats.”*

While we do not doubt that the Bantamsklip site has significant heritage value, we would have assumed the extent of the sand dune middens, the identification of the value by the Khoikhoi, and the intact fish traps would mark Thyspunt as the more valuable site. The specialist’s rationale does not make sense. The Thyspunt site is some 80ha greater in extent than the Bantamsklip site. We would ask that clarity be provided by the specialist in the revised and final Scoping Report as to the extent of heritage properties at both sites, and an item-by-item comparison be completed to demonstrate how such a conclusion can be made.

We are particularly concerned about the fish traps at Tony’s Bay which appear to lie in the centre of the coastal front of the planned development footprint. In the Geotechnical specialist report (see pg. 6) the fish traps are central to the intake corridor area as identified by the boundary drawn. The fish traps are largely intact and extensive. And because they occur below the high-water mark, they are as we understand it automatically protected heritage assets. There appears to be no consideration in the heritage report or DSR as to the impact on these fish traps in relation to the coffer dam and water conveyancing (and break water). Unlike the middens, whereby remains can be excavated and preserved, if the fish traps are broken, they cannot be restored. They will be permanently lost to future generations. It is somewhat of a mystery as to why they have been given such a low profile in the DSR, and we would ask that they be given specific attention in the full assessment.

(iii) Socio-Economic Report (SER):

In our discussions with residents, and in assessing the input during the public meetings, two issues appear front of mind: impact on the nature of communities south of the Kromme river (Oyster Bay, St Francis, and Cape St Francis); and the possibility of employment (Sea Vista particularly). We also take note that two of the public meetings; Oyster Bay and Sea Vista were abandoned, indicating the level of tension that exists on the prospect of a plant at Thyspunt. We believe it critical that the socio-economic assessment is thorough and balanced in its assessment. Unfortunately, despite the length of the report, we believe it lacking in both regards.

On the issue of thoroughness: the SER conducts its assessment off the basis of demographic data collected pre-COVID; it estimates the influx of 10,000 workers without including families and partners in the equation; it assumes the villages are “quiet” during off-peak season, and at

no point does it appear to provide an indication of the nature of jobs the plant will provide. If the DSR's view is that local employment will benefit from the plant it does not do so off a basis of analysing the nature of the jobs, and the local availability of such skills. COVID has greatly impacted the permanent residency of the self-same villages, and all three village's numbers have increased significantly since. The specialist appears not to be aware of this. And to limit the influx of persons to only workers, ignoring that such workers are likely to bring with partners and/or families is in our view a gross underestimation of how many people will arrive in a short time.

The Kouga area is served by dams that are subject to long periods of drought, and the resource is shared with Nelson Mandela Bay. As we understand it there is no spare capacity to provide water for such an influx of persons. The mitigation suggestion of the specialist is that infrastructure challenges are addressed by undertaking "*a municipal infrastructure capacity assessment (water, sanitation, health, education, waste) prior to peak construction to identify and manage pressure points*" (pg. 145). To leave such an assessment to when the project is already underway would be wholly inadequate and irresponsible. Any such assessment must form part of the EIA, and if water, sanitation, roads, schools, police services, etc. cannot cope with the influx, the project cannot commence until such provision is made. It must be a proactive assessment and action.

Amongst the SER specialist's other mitigations is the suggestion that "*social cohesion should be maintained to prevent rising tensions between pre-existing and newer arriving people*" (pg. 145). What exactly does this mean? What action will be taken that addresses social cohesion? In previous Eskom projects, local employment reach has been ring-fenced at 70km. This would exclude Nelson Mandela Bay metropole. Yet Eskom is utilising the services of Coega Development Corporation (CDC) based in NMB to manage local employment, and as a manufacturing hub the kind of industrial skills such a project needs is more likely to be found in the metropole than in the adjacent area to the proposed NPP. It seems obvious that in a general cultural environment that is hostile to outsiders, conflict will arise between Sea Vista and NMB job seekers. The applicant must have a plan to manage this.

On the issue of property values, the SER specialist notes both potential and negative impacts, but appears to exclude negative impacts in its risk and mitigation analysis? There can be no doubt that the presence of a nuclear plant at Thyspunt will fundamentally change the character and appeal of villages south of the Kromme. It is incumbent upon the SER specialist to avoid speculation of this impact. A thorough assessment, with reference to other nuclear towns, to the impact on Lephalale, and consultation with local estate agents is required to ground any views.

Finally, as an example of the need for balance in the SER, we note the specialist's statement that a NPP "*could benefit tourism*" (pg. 182). On what grounds is such an assessment made? Has the specialist analysed how many tours and tourists visit Koeberg, or other NPP's globally? A nuclear plant is a national key point site; it will require strict access and restriction of movement controls. How is this conducive to tourism? The specialist offers no substance to this claim. We would ask that in the assessment phase specialists are required to substantiate

claims made, speculative statements by persons unfamiliar with the place are in our view misleading and should be avoided.

(iv) Geotechnical report:

The Geotechnical report describes the geology of Thyspunt as being “*relatively free of major faults*” and derives its information from the published 1:250 000 geological map Sheet 3324 (see page 8). And under the seismic hazard assessment the report asserts that “*in accordance with the seismic zoning defined in SANS 10160-4, the site does not fall within any designated seismic zone. This indicates that the area is expected to experience low levels of seismic hazard*” (pg. 11). The report therefore concludes “*the geotechnical sensitivity rating of the proposed Thyspunt site and Bantamsklip site was verified to be “Low” as presented in Table 5-1. There exists no geological, geotechnical or seismic hazard that precludes either site for the proposed development*” (pg. 13)

While we believe that the “relatively free” is not a standard acceptable for siting a nuclear plant (see the example of Kashiwazaki Kariwa), the area of real concern is the failure of the WSP specialist to include Claassen and De Wit’s (2017) *Site-specific geoscientific characterization of Thyspunt, South Africa – an area identified for the proposed construction of a nuclear power plant* study of the preferred site (see https://www.researchgate.net/publication/324709108_Site-specific_geoscientific_characterization_of_Thyspunt_South_Africa_-_an_area_identified_for_the_proposed_construction_of_a_nuclear_power_plant). The study was done in collaboration with Eskom and using their own data. And found that “*it would be near impossible to construct a nuclear power station safely at Thyspunt, near Jeffrey’s Bay, because of deep, hidden canyons in the bedrock covered by sand and soft rock, a geological study has found*” and that “*if in future, for example such a similar earthquake [the event thew study discovers that took place 10,000 years ago in that location] occurs along the extended St Croix Fault offshore, it is likely to generate a large submarine slump, and possible significant local tsunami that would affect the coastal region, including Thyspunt.*” (emphasis our own, see <https://news.mandela.ac.za/Mandela-University-in-the-NEWS/Mandela-University-in-the-NEWS-Archive/Eskom-nuclear-site-not-safe,-say-studies>).

It is a very different view to that of the specialist. While Eskom may disagree with the assessment, it is the duty of the EAP to raise such, and provide reasons for why the site specific study using Eskom’s own data and with their knowledge has no relevance. Given that this is a specialist from WSP, the question arises as to whether WSP is able to referee itself? We would ask that the Claassen and De Wit study be included in the next phase and responded to.

3. Conclusion:

The DSR and specialist reports clearly have taken great effort on the part of the EAP and the specialists and are certainly voluminous.

We have tried in the above to give justice to the full extent of the DSR, but we simply could not digest and comment on the 2500+ pages given the process timeframes. Our comments and suggestions are therefore limited to what we could cover, and we reserve the right to raise further issues should they come to light at a later stage.

We are left with the overall impression that the EAP seeks to make the applicant's case for them, rather than consider the arguments and data holistically and present a balanced assessment to the decision maker. Thyspunt is clearly pre-ordained by the applicant, and the DSR in current format aids that intent, which in our view is a flagrant abuse of the EIA process.

We remain deeply concerned about this proposed development. If it proceeds it will reshape the Kouga region fundamentally and forever; and the pristine site Thyspunt will be lost to future generations. A Gen 3+ NPP is not needed for South Africa's energy future nor the energy demands of the region, it will be obsolete before it is even built and it great carries great risk with seemingly little benefit to ordinary citizens.

The DSR in our view, is deficient on both a procedural and substantive level. We hope our comments and suggestions will serve to give the EAP pause and contribute to an improved next phase of the EIA process.