

The logo for SiVEST, featuring the word "SiVEST" in white capital letters on a red rectangular background.

Proposed Thyspunt Transmission Lines Integration Project (TTLIP)

MINUTES OF PUBLIC MEETING HELD AT SEA VIST, ST FRANCIS BAY

SiVEST Environmental (Pty) Ltd

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Held

**Thursday 29 September 2011, Sea Vista
Community Hall, St Francis Bay**

Draft Minutes prepared by:

Nicolene Venter

Please address any comments to Nicolene Venter at the above address

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YOUR COMMENTS ON THE DRAFT MINUTES

Your comments on these draft Minutes will be appreciated. In particular, we request you to verify that your comments during the meeting have been minuted correctly. It is important to note that the draft Minutes are not verbatim. Please address your comments, in writing, before or on **MONDAY 21 JANUARY 2013** to Nicolene Venter at the address given on the cover page.

COMMUNITY CONSULTATION MEETINGS

Venue: Sea Vista Community Hall, St Francis Bay
Date: Thursday 29 September 2011
Time: 18h00

1 WELCOME AND INTRODUCTIONS

Solly Manyaka, independent Facilitator, thanked attendees for attending the Public Meeting.

The attendees were requested to identify themselves when raising questions, comments and/or concerns for minute taking purposes.

2 MEETING ATTENDEES

A copy of the Attendance Records are attached as Annexure A.

3 PURPOSE OF THE MEETING

Solly Manyaka informed the attendees that the purpose of the Public Meeting is to:

- present the environmental findings as per the DEIR;
- present the Northern and Southern Corridors as well as the EIA Team-preferred alignments as per the DEIR;
- provide you with the opportunity to verify information presented on the maps and in the DEIR;
- provide attendees with an opportunity to submit any additional comments and information on the project and on the findings of the DEIR that they believe the environmental team needs to be aware of;
- provide the attendees with another opportunity to raise any further comments / concerns not previously raised with regards to the TTLIP; and
- allow them to discuss any aspect of the project project with the members of the EIA team present;
- present the way forward and;
- record comments, issues and concerns raised at the meeting.

4 AN OVERVIEW OF THE PROPOSED PROJECT

Paul da Cruz informed attendees that:

- The applicant is Eskom Transmission;
- SiVEST has been appointed as the independent environmental consultants for the EIA;
- The decision-making authority is the Department of Environmental Affairs and Tourism

- An EIA is being undertaken because it is a legal requirement to ensure that environmental best practice is followed.

Why is the Project necessary:

- To link the electricity generated by the proposed Thyspunt Nuclear 1 Power Station (should it receives an Environmental Authorisation and developed) into Eskom's electricity network;
- The proposed development entails: The construction of 5 x 400kV Tx power lines between Thyspunt and Port Elizabeth via Uitenhage and Dispatch to Eskom existing Grassridge & Dedisa Tx Substations;
- The upgrade of Eskom's existing Grassridge and Dedisa Tx Substations; and
- Two corridors are being investigated, a northern corridor and a southern corridor, that are not alternatives to one another; instead there are route alignment alternatives within each corridor;
- To supply the NMBM with increased power which will include:
 - the construction of a newly proposed Port Elizabeth Tx Substation;
 - two 400kV Tx power lines from the newly proposed Port Elizabeth Tx Substation to Grassridge and Dedisa Tx Substations.

Applications to DEA

Three separate Applications have been lodged with DEA:

- Southern Corridor
- Northern Corridor
- Port Elizabeth Substation

Should Nuclear-1 Project not be granted an Environmental Authorisation then only the newly proposed Port Elizabeth Tx Substation and the 2 x 400kV Tx power lines will be developed.

It was pointed out to the attendees that the proposed 5 x 400kV Tx power lines would link into the Thyspunt High Voltage Yard at the north of the shifting dunes, north of the Thyspunt Nuclear-1 site. The Thyspunt High Voltage Yard does not form part of the scope of this project.

5 SUMMARY OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS AND ENVIRONMENTAL FINDINGS AS PER THE DEIR

Paul da Cruz presented the EIA Process as defined by the NEMA.

The various Corridor alternatives as assessed during the Scoping phase was presented and the recommended Corridors as per the various environmental studies undertaken was also presented. Alternatives such as technology alternatives and the *no-go* alternative was also presented.

The draft Environmental Impact Assessment Report (DEIR) is currently available for public review

The following Environmental Parameters, and per phase, was presented:

- Biodiversity – Flora/Fauna (Scoping & EIA Phase)
- Avifauna – Birds (Scoping & EIA Phase)
- Geology and Geohydrology (Scoping & EIA Phase)

- Surface water (Scoping & EIA Phase)
- Agricultural Potential (Scoping & EIA Phase)
- Visual Environment (Scoping & EIA Phase)
- Socio-economic Environment (Scoping & EIA Phase) – See Table attached as Annexure C
- Heritage (Scoping & EIA Phase)
- Palaeontology (EIA Phase)
- Tourism (Scoping & EIA Phase)

The potential environmental impacts and the mitigation measures proposed, as included in the draft EMPr, was also presented.

A copy of the presentation is attached as Annexure B.

6 DISCUSSION SESSION AND QUESTIONS

Please refer to Annexure C.

7 CLOSURE AND THE WAY FORWARD

Solly Manyaka informed attendees that the draft Public Meeting minutes will be distributed to the attendees and those who submitted apologies.

All present were thanked for their attendance and the valuable inputs received at the meeting. All were informed that the meeting would not be the only opportunity to submit comments on the proposed project. At any time throughout the EIA process they can submit comments and/or concerns.

The meeting was closed at 20h30.

Annexure A

ATTENDANCE RECORD


**ENVIRONMENTAL IMPACT ASSESSMENT (EIA) and ENVIRONMENTAL MANAGEMENT
PROGRAMME FOR THE PROPOSED THYSPUNT TRANSMISSION LINES INTEGRATION
PROJECT, EASTERN CAPE PROVINCE**

**Attendance Record
PUBLIC MEETING HELD AT SEA VISTA COMMUNITY HALL, ST FRANCIS BAY
(alphabetically according to Surname)
IMPACT PHASE**

TITLE	SURNAME	NAME or INITIALS	POSITION / AFFILIATION
Mr	Barratt	Chris	Chairman
Mr and Mrs	Barratt	Valda	Resident: St Francis Bay
Mr	Bhagza	RN	Community: Sea Vista
Mr	Busakwe	Edward	Member: SANCO
Ms	Byker	Nonka	Senior Social Management Practitioner
Mr	Da Cruz	Paul	Project Manager: Thyspunt
Mr	De Bruin	Martin	Financial Manager
Mr	Ferndale	Tyrone	Planning Engineer
Mrs	Hutchinson	Martha	Landowner
Ms	Koch	Liesl	Environmental Scientist
Mrs	Langlands	Maggie	
Mr	Leen	Petrus	Inwoner: St Francis Baai
Mr	Malaka	Sammy	Project Manager
Mrs	Malan	Trudi	Member
Mrs	Malan	Trudi	Member
Mr	Manyaka	Solly	Facilitator
Ms	Mokgwathheng	Lerato	Snr Environmental Manager: Thyspunt
Mr	Mzanywa	Mnikeli	Resident: St Francis Bay
Mr	Ndlovu	Caswell	Technical Engineer
Mrs	Ntengwane	Nomalungelo	Resident: Sea Vista
Mr	Ntshota	Mvuyisi	Community: Sea Vista
Mnr	Potgieter	Hein	Landowner
Ms	Quinisile	Mabel	Public Participation Co-Ordinator
Mr	Rautenbach	Peter	Director
Mr	Thorpe	Hilton	Vice Chairman
Ms	Venter	Nicolene	Stakeholder Engagement Practitioner

Annexure B

PRESENTATION




EIA FOR THE PROPOSED ESKOM THYSPUNT TRANSMISSION LINES INTEGRATION PROJECT – EASTERN CAPE PROVINCE

PUBLIC MEETING – SEA VISTA

29 SEPTEMBER 2011


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Agenda

- Welcome and Introduction.
- Purpose of meeting.
- Background to the proposed development.
- Environmental process that has been followed.
- Discussion.
- Closure.


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The Legal Framework

The participation of all I&APs 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 [2(4)(f)].


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Purpose of Meeting

- To update I&APs on the proposed Eskom Thyspunt Transmission Lines Integration Project.


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Purpose of Meeting

- To provide I&APs with feedback on the impact assessment phase.

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Purpose of Meeting

- To provide I&APs with an opportunity to comment on the findings of the impact assessment.

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Purpose of Meeting



- To record comments, issues and concerns raised.

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Conduct of Meeting



- Switch off cell phones.
- Identify yourselves.
- Work through facilitator.
- Equity in participation.
- Language of choice.
- Agree to disagree.
- **Focus on issues relating to this EIA.**

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PROJECT OVERVIEW



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Overview of Project



- Who is the Applicant?
 - Eskom Transmission
- Who is the independent Environmental Consultant?
 - SiVEST
- Decision-making authority:
 - DEA
- Why do an EIA?
 - Legal requirement
 - To ensure environmental best practice

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Overview of Project



- Why is the project necessary?
- 2 Drivers:
 - To link the transmission grid (Grassridge) with the proposed Thyspunt Nuclear Power Station (if approved & developed)
 - To supply the Nelson Mandela Bay Metropolitan Municipality with increased power via the proposed PE substation

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Overview of Project



- What does the proposed development entail?
 - The installation of **5** Transmission power lines
 - The upgrading of existing substations (Grassridge and Dedisa)
 - The development of the proposed Port Elizabeth (PE) substation

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Overview of Project

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- Three Separate Applications lodged with DEA:
 - Southern Corridor
 - Northern Corridor
 - Port Elizabeth Substation
- Scenario if nuclear power station not authorised / developed:
 - Only 2 X 400kV lines between Grassridge and PE SS, and PE SS would be developed

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Overview of Project

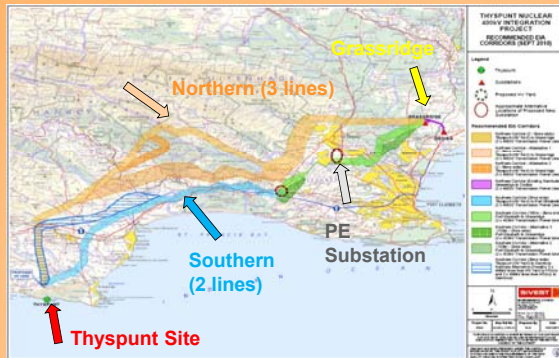
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- **Proposed Assessment Corridors**
 - Proposed Northern Corridor: 3 x 400kV Transmission power lines
 - Proposed Southern Corridor: 2 x 400kV Transmission power lines
 - Note: 2 corridors not alternatives of each other
 - Servitude Width = 55m, therefore:
 - Northern Corridor lines = servitude of 165m
 - Southern Corridor lines = servitude of 110m

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Corridors - start of EIA Phase

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Overview of Project

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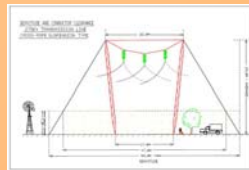
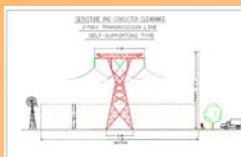
- Note – the 5 lines would link into the Thyspunt High Voltage Yard to the north of the dunes, thus the shifting dunes to the north of the Thyspunt Site are not part of the scope of this project

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Overview of Project

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- **Tower Types**

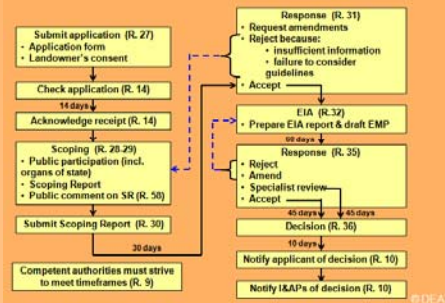


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NEMA EIA Process

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SCOPING AND EIA



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Environmental Process



● Alternatives

○ Location alternatives

- Different possible alignments within corridor



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Environmental Process



● Alternatives

○ Location alternatives

- Alternative sections within corridor



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Environmental Process



● Alternatives

○ PE Substation alternatives



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Environmental Process



● Alternatives

○ Technology alternatives

○ The No-go alternative

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Environmental Aspects



Environmental Parameter	Phase: Scoping / EIA
Biodiversity (Flora & Fauna)	Scoping & EIA
Avifauna	Scoping & EIA
Geology and Geohydrology	Scoping & EIA
Surface Water	Scoping & EIA
Agricultural Potential	Scoping & EIA
Visual Environment	Scoping & EIA
Socio-economic Environment	Scoping & EIA
Heritage	Scoping & EIA
Palaeontology	EIA
Tourism	Scoping & EIA

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Biodiversity



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Avifauna

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Impacts & Mitigation Measures

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Environmental Parameter	Potential Impacts	Mitigation Measures
Bio-diversity	<ul style="list-style-type: none"> • Loss of habitat • Loss of species richness • Transformation and erosion 	<ul style="list-style-type: none"> • Avoid Sensitive Areas • Use existing access tracks • Rehabilitation • Minimal vegetation clearance • Walk down of Tower Sites
Avifauna	<ul style="list-style-type: none"> • Collision with overhead cables • Habitat destruction • Species disturbance • Compromised quality of power supply due to birds 	<ul style="list-style-type: none"> • Fit bird guards and flappers along sensitive stretches • Avoid Sensitive micro-habitats where possible • Walk down

Surface Water

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Impacts & Mitigation Measures

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Environmental Parameter	Potential Impacts	Mitigation Measures
Surface Water	<ul style="list-style-type: none"> • Physical degradation & alteration of hydrology due to placing of towers in wetlands 	<ul style="list-style-type: none"> • Avoid wetlands to wide to be spanned • No construction of any accesses across surface water features
	<ul style="list-style-type: none"> • Construction of new accesses across wetlands/ rivers • Sensitive wetlands and rivers identified 	<ul style="list-style-type: none"> • All Surface Water features = no-go areas, esp. in the Longmore Area

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Impacts & Mitigation Measures

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Environmental Parameter	Potential Impacts	Mitigation Measures
Geology and Geohydrology	<ul style="list-style-type: none"> • Erosion and siltation • Pollution of underlying aquifers • Coega fault area could damage towers 	<ul style="list-style-type: none"> • Minimise disturbance of natural vegetation on sites • Rehabilitation of vegetation and soil disturbance • Avoid areas of higher yielding aquifers • Maintain 300m buffer zone related to Coega fault

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Agricultural Potential

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Impacts & Mitigation Measures



Environmental Parameter	Potential Impacts	Mitigation Measures
Agricultural Potential	<ul style="list-style-type: none"> • Impact on agricultural production & associated revenue • Centre Pivots are sensitive as they would not be able to operate under lines 	<ul style="list-style-type: none"> • Avoid agricultural hotspot areas • Interact with landowners to discuss areas of least impact
Visual Assessment	<ul style="list-style-type: none"> • Impact on sensitive receptors • Visual intrusion over ridges and hills • Vegetation clearance under the servitudes in areas of intact thicket vegetation highly visible 	<ul style="list-style-type: none"> • Follow visual routing recommendations • Keep NC lines outside the viewshed of the Elands River Valley • Avoid hills, koppies or ridges • Avoid areas of thicket vegetation

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Visual Impact



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Tourism & Heritage



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Impacts & Mitigation Measures



Environmental Parameter	Potential Impacts	Mitigation Measures
Tourism	<ul style="list-style-type: none"> • Visual intrusion in undisturbed areas with a natural character or scenic beauty • Change in natural character/land use of natural undisturbed areas 	<ul style="list-style-type: none"> • Completely avoid areas with significant tourism facilities • Avoid areas with significant tourism growth potential
Heritage	<ul style="list-style-type: none"> • Damage, degradation or physical disturbance to heritage sites • Damage to heritage artefacts in known areas of heritage resources 	<ul style="list-style-type: none"> • Avoid known heritage sites • Known sites = no-go zones • Walk down • Plan of action for unknown burial places if discovered • Span Kabeljous River Valley

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Socio-economic



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Impacts & Mitigation Measures



Environmental Parameter	Potential Impacts	Mitigation Measures
Socio-economic	<ul style="list-style-type: none"> • Impacts on Agriculture (sterilisation) • Influx of construction workers and job seekers • Employment creation • Impact on property values • Forfeit of development opportunities 	<ul style="list-style-type: none"> • Avoid centre pivots • Unskilled jobs for local residents • Employment procurement through local stakeholders • Route power lines close to cadastral & agricultural boundaries • Avoid structures and fixed capital features, • Avoid resettlement and/or displacement

Impacts & Mitigation Measures		SIVEST														
Transmission Lines																
		ESTIMATED NUMBER OF PEOPLE PER SITE ACTIVITY														
On Site Activities		Pre-Construction Phase				Construction Phase								Post-Construction Phase		
Month		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Technical survey	10															
Environmental survey	10															
Access negotiations	1															
Pegging central line				10												
Bush clearance					20											
Gate erection					10											
Foundation team						50	50	50								
Assembly team								50								
Erection team									50	50	50					
Stringing team											50	50	50			
Commissioning team														25	25	25
Rehabilitation team															30	30
Management team		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
TOTAL		30	31	30	50	80	80	140	140	80	140	80	80	75	75	75

EIA Process

- Post-EIA process (if Authorisation granted): Construction EMP (CEMP)
- As per conditions of Environmental Authorisation
- Walk-down of all tower locations and spans undertaken by environmental specialists
- All environmental sensitivities along each span noted in CEMP, compliance measures specified
- Independent ECO typically required to monitor compliance with CEMP

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EIA Team-preferred alignment

- Specialist Workshop held to discuss issues

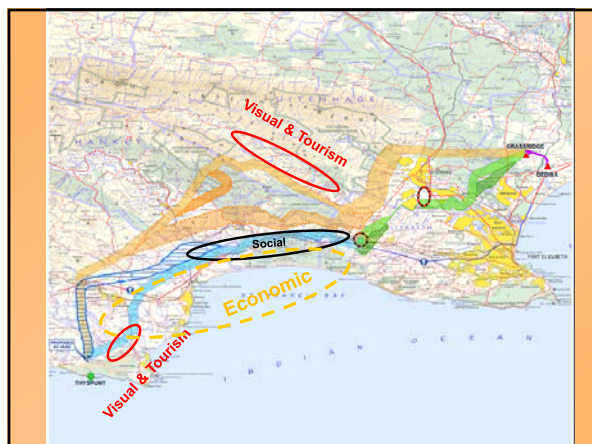


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EIA Team-preferred alignment

- Fatal Flaws identified:
- Social – a number of areas along the Southern Corridor between Gamtoos & Rocklands (SC)
- Economic – entire coastal belt to be avoided due to intensive development (SC)
- Visual & Tourism – Krom River Valley (SC) & Elands River Valley (NC)

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EIA Team-preferred alignment

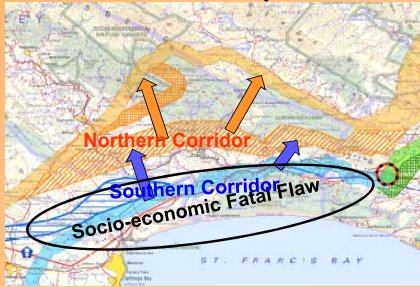
- Outcome of Workshop:
- Social and Economic – Because much of Southern Corridor = fatal flaw, proposal to:
- shift SC from Gamtoos to Rocklands into Southern Firebreak Alt of NC
- align NC into Northern Firebreak Alternative

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EIA Team-preferred alignment



● Outcome of Workshop:



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EIA Team-preferred alignment



● Outcome of Workshop:

- EIA Team agreed to shift of corridors as proposed, provided Elands Valley not visually affected
- All identified sensitive areas avoided as far as possible
- EIA Team alignment based on these revised corridors

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EIA Team-preferred alignment



● Why has an EIA Team-preferred alignment been created?

- Requests from numerous land owners and stakeholders to see a potential alignment in addition to a corridor
- The need as identified by the EIA Team to avoid sensitive areas
- The requirement to show I&APs that their submissions on sensitive areas were considered

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EIA Team-preferred alignment



● How was the EIA Team-preferred alignment created?

- All specialists asked to provide shapefiles / kml's of optimal alignments from their perspective → all overlaid
- Proposed developments brought into GIS
- All specialist problem areas / fatal flaw areas displayed

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EIA Team-preferred alignment



● Note:

- Along with ETPA, corridors revised to avoid sensitive areas, including discarded areas
- ETPA is a *proposed* alignment, *not final* alignment
- ETPA and corridors will be updated at the end of the comment period on the DEIR
- Eskom still applying for authorisation for 2 separate corridor, & authorisation for corridor

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EIA Team preferred



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EIA Team-preferred alignment

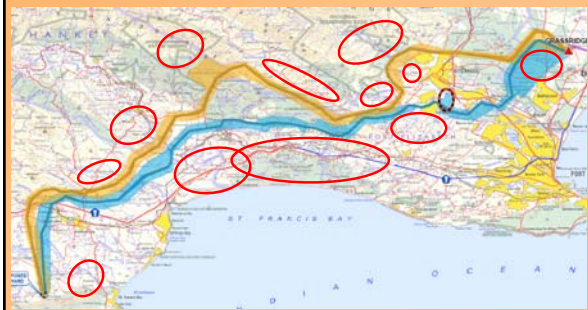


● Alignment & Revised Corridors avoid:

- Elands River Valley (tourism & visual)
- Krom River Valley (tourism & visual)
- Lower Gamtoos River Valley (intensive agric)
- Coastal belt between Gamtoos and Rocklands (agric, developments, tourism)
- Honeyville Area (tourism and heritage)
- KwaNobuhle / Hopewell & Coega Ridge (devt's)
- Groendal and Stinkhoutberg (Biodiversity)

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EIA Team preferred



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Way Forward



	2011-2012		
	July-October 2011	October 2011	November 2011
Draft EIR - Public Review	☀		
Finalise EIR		☀	
Submit to DEA			☀

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Contact Details



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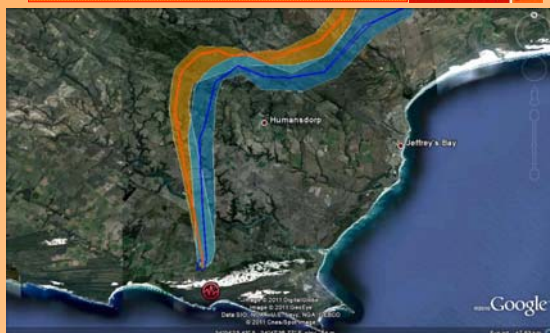
☎ Fax: (011) 803 7272

✉ E-mail: nicolenev@sivest.co.za / andreaq@sivest.co.za / mabelq@sivest.co.za

🌐 Website www.sivest.co.za

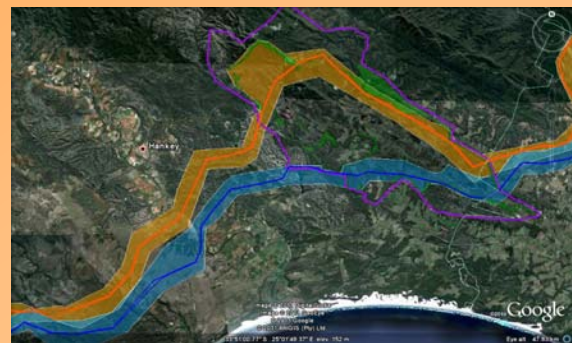
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Overview of Project



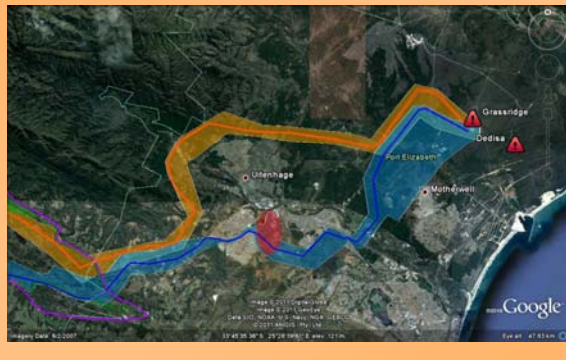
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Overview of Project



Overview of Project

SIVEST



Annexure C

DISCUSSION SESSION AND QUESTIONS

EIA FOR THE PROPOSED THYSPUNT TRANSMISSION LINES INTEGRATION PROJECT (TTLIP)

DISCUSSION DOCUMENT: PUBLIC MEETING

Thursday, 29 September 2011: Sea Vista Community Hall, St Francis Bay

1.	Social and Socio-Economic Related Comments	2
2.	Agricultural Potential Related Comments	4
3.	DEIR Comments	4
4.	EIA Process Related Comments	6
5.	EIA Team-Preferred Routing Related Comments	6
6.	Corridors Related Comments.....	7
7.	Technical Related Comments	7
8.	Project Related Comments.....	9
9.	General Comments	10
10.	Nuclear 1 (Proposed Thyspunt Nuclear Power Station) Related Comments.....	11

Comments captured alphabetically according to surname under each category.

Issue/Comment	Raised By	Response
1. Social and Socio-Economic Related Comments		
It was recommended the team must speak to the local people living and working on the farms to inform them what potential negative impacts there could be, especially from a social point of view, and to answer questions that they may have.	Leen, Petrus Ward Representative	Comment noted
It was asked that with the outcome of the existing EMF study, if someone should live under a power line what would the result be and is it a fact or just an assumption.		<p>The 765kV Tx power lines along the N1 were built in the late 1980s and landowners (Los) who have high voltage power lines on their properties for 20 odd years, no medical problems have been reported to Eskom to date. Should it become known and Eskom made aware of such medical cases, then Eskom would need to consider it.</p> <p>Dean Wilson, Eskom</p> <p>Post-note meeting: Reference is made to the “<i>Electric and Magnetic Fields from Overhead Power Line -A Summary of Technical and Biological Aspects</i>” prepared by EMPETUS CC”, in the Revised Draft EIR - Appendix 15 Electric and Magnetic Fields.</p> <p>Lerato Mokgwatheng, Eskom</p>
People raise job opportunities as a key point but the jobs will not be sustainable if there is no water resource.	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	<p>Post-meeting note: The construction process followed by Eskom whilst erecting the power lines is complicated and requires highly skilled technical people; therefore locals would not be employed for that process, but by law local businesses and individuals will have to be employed wherever possible.</p> <p>Karin Bowler: Karin Bowler Enterprises (Scoping Phase Comments and Response Report)</p> <p>It has been well documented and notified that jobs would not be long term or sustainable jobs. Jobs would largely be limited to the construction phase of the project. Details of the estimated job opportunities expected during the various phases of the project can further be found in Table 3.3 of the Social Impact Assessment Specialist Study.</p> <p>Rebecca Thomas, SiVEST</p>
It was asked whether there was not enough research done on the impacts of EMF.	Manyaka, Solly Facilitator	Reference was made to an incident reported to the Agricultural Research Council at Irene where it was reported that the cows' milk production dried up. Despite efforts, no evidence to support these findings can be found on this matter.

<p>It was commented that at the previous community meeting held at Sea Vista, the community understood the power line project. Eskom took a group of community members to Koeberg to see how things work and what they saw is that everything is fine.</p> <p>It was asked as to why the project is back again as it seems nothing gets done other than just having meetings and our people need work. Come and build the nuclear power station.</p> <p>There are power lines crossing the area already and we don't see people dying.</p> <p>It was requested that the difference between the power lines that is presented at the meeting and those that are currently in the area be explained, and especially the electro-magnetic frequency(EMF) impact.</p>	<p>Ntenltwane, Nomalungelo Resident: Sea Vista</p>	<p>Dean Wilson, Eskom</p> <p>The comments regarding the proposed Nuclear Power Station is noted and will be forwarded to Arcus GIBB.</p> <p>The difference between the existing power lines in the area and those being proposed by this proposed project is:</p> <ul style="list-style-type: none"> Existing power lines: They are smaller lines with lower voltage and are usually constructed with wooden poles. These are the ones that distribute power from a Eskom Distribution (Dx) substation to the Local Municipalities. These smaller lines have a smaller span between the towers. Proposed Tx power lines: These are huge steel structures. Approximately 33m high. These high voltage lines general have a span of 400m between the towers, it could be less or it could be more, depending on the terrain. <p>Paul da Cruz, SiVEST</p> <p>A report in Eskom's possession indicates that the level of exposure at the edge of the servitude is not hazardous. One of the reasons why Eskom has a registered servitude and does not allow humans to live under the power lines is to protect them should the towers collapse and to also place them where EMF is known to be within guidelines.</p> <p>Caswell Ndlovu, Eskom</p> <p>As mentioned, the smaller power lines do have a narrower servitude compared to the bigger lines but the exposure to EMFs under both these voltage lines are the same.</p> <p>Liesl Koch, SiVEST</p> <p>Post meeting: The power lines in the area are reticulation lines and are between 11kV and 22kV and people can live close to these voltage lines. The higher the voltage, the higher the EMF and it is for this reason why a much larger servitude is required. Eskom does not allow people to live under these power lines because of the hazards of high voltage should the line break or collapse. The measured EMF's at the edge of the servitudes are within the required (ICNIRP and IEEE) guidelines.</p>
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		Caswell Ndlhovu, Eskom
2. Agricultural Potential Related Comments		
The attendee raised the concern of the negative impact the power lines will have on agriculture as most of the area is agricultural land and it is important that the EIA team go out to the specific farming areas where the power lines are going to traverse on agriculture land which could result in them losing productive land.	Leen, Petrus Ward Representative	<p>Post-meeting note: From an agricultural perspective the loss of high value farm land and production, as a result of the proposed activities, is a primary concern. Due to the extensive nature of the project an agricultural delineation and rating system was developed in order to classify areas of high agricultural value. The output from this process is mapped, which indicate the position and value of current agricultural activities and has allowed a low agricultural impact to be developed.</p> <p>If the recommended low agricultural impact route for the power lines is selected (i.e. skirting high value agricultural land as defined in the specialist agricultural report) then the crossing of agricultural land by these lines will have a very limited impact on agricultural production as normal crop production / grazing can still take place.</p> <p>Kurt Barichievy, SiVEST</p>
3. DEIR Comments		
Social and Socio-Economic Related Comments		
It was commented that exception is taken regarding the EMF Report as included in the DEIR. SiVEST has taken the study done by Eskom in 2006, which was done in line with the Equator Principle. This is seen as a 'cut and paste'. There are signs of leukaemia in children that has been caused by power lines. These power lines are going to affect people in Kruisfontein and that is a fatal flaw.	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	<p>The attendee was thanked for her comment and expressed the team's appreciation for the time spent to research this issue. It is certainly not something that the team will discard. SiVEST had to refer to the independent study undertaken on behalf of Eskom regarding the EMF and take note of the attendee's comment regarding the validity of the study.</p> <p>As stated in the EMF Report, EMFs are negligible at the boundary of the 55m servitude and it is likely it would decrease the further one moved away from the servitude boundary. SiVEST's recommendation will be that the power lines be constructed as far away as possible to limit or avoid any possible impact on human health in the Kruisfontein area.</p> <p>Paul da Cruz, SiVEST</p>
It was stated that the same context regarding EMF in the Agricultural Report has been picked up. This area is a dairy industry and the specialist refers back to a study done in 1989. She has evidence of six (6) court cases where power lines are running over dairy farms and its affect on cattle. The Precautionary principle should be addressed because it is not in the Report. Studies from America and Canada show		<p>Post-meeting note: An agricultural rating system has been developed to avoid high value agricultural centres, which includes dairy farms and associated centre pivots. It is hoped that this low impact routing will avoid such centres and thus mitigate the suggested impacts.</p> <p>Kurt Barichievy, SiVEST</p>

that there is an influence, even on employment, by the reduction of milk production and as stated, this is a prime dairy area in the country. The Agriculture Study is perceived as being a desk top study and that the specialist used the 'cut and paste' method. This is one of the Reports were SiVEST slipped up and needs to be re-done. Eskom needs to take responsibility by acknowledging that "yes" there is an impact on human life and milk production.		
Avifaunal Comments		
It was commented that the Avifaunal study does not have up to date information. It is understood that the document was peer-reviewed and if so, why is the reviewed document not included in the study. This is a fatal flaw on Eskom's behalf. It was mentioned that it does not matter what studies are being conducted, the power lines will have a huge impact on the birds. The question was raised as to why EWT undertakes all the Avifaunal studies for EIAs and then they are also sponsored by Eskom. Three (3) of the species mentioned in the Report will not minimize the impact by erecting bird flappers.	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	Comment noted. <u>Post-meeting note:</u> EWT was appointed by SiVEST for the proposed project and the contract in question is between EWT and SiVEST accordingly. Furthermore, EWT has signed a Declaration of Interest and Independence in relation to Thyspunt Transmission Lines integration Project. Eskom on a national level provides sponsors to various Non Government Organisations (NGOs), with EWT as a company being one of them. The work being undertaken by EWT is at a specialist level by an employee who has declared their independence in respect to the proposed project. <i>Rebecca Thomas, SiVEST</i>
Biodiversity Comments		
The concern was raised regarding the Biodiversity Report as it seems that a non-academic study was conducted. There are critical biodiversity areas in the study area and the Report immediately raised a red flag. Statements are made in the Report that are not accurately reflected on the ground. Strongly disagreement was raised in reference to the study being done on national scale and not site specific i.e. minute scale. The power lines will cross sensitive eco system services. The Biodiversity Report is presented as if a positive ROD would be received. It is recommended in the Report that only the tower footprint will have an impact and mitigation measure recommended but no mitigation measures for the study area.	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	<u>Post-meeting note:</u> The biodiversity study included intensive site investigations particularly from a flora perspective. No red data species were observed during the investigation which does not negate their presence. The pure scale of the project does not allow for each and every piece of land along the route to be assessed in detail however the study has ensured that all habitats present have been assessed All the specialist studies conducted assume a worst case scenario and provide mitigation measures should the development go ahead. This provides the authorities with the process that would be followed if the construction were to occur. It must be remembered that more intensive walk downs will take

Alien vegetation can encroach and the Report mentioned that no red-data species were found. However, together with Richard and Shirley Cowling, seven (7) red-data species have been found in the study area. A full report on the shortcomings of the Biodiversity Report will be submitted to SiVEST.		place once a final route alignment is in place (should the development go ahead) and the sensitive areas will be highlighted in more detail and avoided. Each tower position will be assessed by specialists. Liesl Koch, SiVEST
General		
It was stated that there are fatal flaws in the Report, as some of the impacts cannot be mitigated and it was asked whether the project team is satisfied that all impacts have been addressed in the Report.	Thorpe, Hilton Chairman: St Francis Bay Resident's Association Member: Thyspunt Alliances	SiVEST believes that through the EIA process that negative impacts have been successfully addressed. The environmental specialists have been asked to independently look at their particularly areas of expertise and to identify any fatal flaws; the EIA-Team preferred routing has been proposed by taking those sensitive areas into consideration. The attendees were referred to Section 6 (6.4) of the report for the Corridor change register showing the changes made to the corridors since 2008 - these changes were primarily made due to the inputs received from I&APs. SiVEST believes that in terms of the routing of the power lines from the HV yard through to Grassridge/Dedisa that the most optimal EIA route has been identified. Paul da Cruz, SiVEST
4. EIA Process Related Comments		
It was asked whether the team is expecting a favourable ROD (EA) and whether this a foregone conclusion or just lip service.	Thorpe, Hilton Chairman: St Francis Bay Resident's Association Member: Thyspunt Alliances	SiVEST are not under pressure by Eskom or any other party that the EIA process should be wrapped up as soon as possible. The attendees were reminded that this project has stretched over three (3) years already as a result of various issues raised by I&APs and needing to be considered. It needs to be noted that SiVEST's 'client' is the environment and to find a sustainable solution is foremost in our mind. The team is confident that negative impacts identified within the study area have been mitigated. Should the attendees find any other environmental impacts and no mitigation measures have been proposed to please submit it urgently to the project team and the team will go back and reconsider these. Paul da Cruz, SiVEST
5. EIA Team-Preferred Routing Related Comments		
The community are quite happy that the alignment has been moved away from densely populated area.	Leen, Petrus Ward Representative	Comment noted.
It was commented that the power lines were moved away from Thornhill but now the new proposed alignment are closer to Kruisfontein and this will impact the direct need of low cost housing which was identified for	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	SiVEST approached Kouga LM (Planners) as SiVEST took cognisance of the fact that there are huge issues regarding space constraints in the study area to route the power lines. Since the

that area.		<p>EIA started immense amount of changes took place in the study area of which the main constraints were proposed developments, i.e. housing developments, expansion of suburbs, wind farms, etc. The question of whether Kruisfontein would expand to the west was posed to the Planning Department of the Kouga LM. These inputs were taken into consideration during the corridor and EIA-Team preferred routing identification. Everyone can give inputs regarding housing developments planned in the area and this will be taken into account.</p> <p>Kouga LM indicated that their key growth area is to the south east and to the north west of Jeffreys Bay along the R102 'corridor'. The Corridors have been selected and refined by taking human settlement into account.</p> <p>Paul da Cruz, SiVEST</p> <p>Post-meeting note: The attendee will be requested to provide SiVEST with the official information she received from Kouga LM to confirm the IDP/SPF of the Kouga LM.</p> <p>Post-meeting note: In an email dated 25 July 2012 (Appendix 12 C(b), Danie Rautenbachof Kouga Municipality confirmed that there are no plans to extend the Kruisfontein township to the west. He however indicated that the EIA team preferred alignment traverses the Kruisfontein cemetery and suggested that the alignment be to the west of the cemetery.</p> <p>Faith Kalibbala, SiVEST</p>
Appreciation was expressed for the manner in which the tourism and visual aspect in terms of the Kromme River has been addressed.	<p>Thorpe, Hilton Chairman: St Francis Bay Resident's Association Member: Thyspunt Alliances</p>	Comment noted.
6. Corridors Related Comments		
It was commented that the entire project is a fatal flaw as the Corridors go through natural beauty and tourism sensitive areas.	<p>Thorpe, Hilton Chairman: St Francis Bay Resident's Association Member: Thyspunt Alliances</p>	<p>Comment noted. Paul da Cruz, SiVEST</p>
7. Technical Related Comments		
It was asked what is the safety zone for trees to grow in a servitude.	<p>Leen, Petrus Ward Representative</p>	<p>Trees of 4m and higher are not allowed in the registered servitude. Dean Wilson, Eskom</p>

		<p>Post meeting: Trees planted within the servitude that could reach a height that would affect the conductors is not allowed nor trees alongside a line where branches could grow into the conductors. This is a safety precaution to prevent outages. Dean Wilson, Eskom</p>
It was requested that the width of the servitude be explained.	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	<p>The registered servitude per 400kV Tx power line will be 55m Paul da Cruz, SiVEST</p>
As a follow-up it was said that the distance calculated for the five (5) Tx power lines are not correct as the distance between the lines have not been calculated and this fact is not included in the DEIR.		<p>The five (5) power lines will not run parallel and in the section where it runs close to one another i.e. 3 x 400kV Tx power lines will have a registered servitude 165m wide. A detailed calculation will be provided in the draft minutes. Dean Wilson, Eskom</p> <p>Post-meeting note:</p> <ol style="list-style-type: none"> 1) Average cost per km for 400kV = R2 million 2) Approximate length Northern Corridor = 140 km 3) Approximate length Southern Corridor = 130km 4) Average cost per bend tower for 400kV = R800,000 <p>Please note that the above are average estimates as it was during the year: 2010. Alwyn Marais, Eskom</p>
The concern regarding corrosion impact on the power lines (conductors and insulators), especially in this marine environment. This impact was not identified and was not addressed or included in the DEIR. It was mentioned that MTN towers has to be moved due to corrosion problems.		<p>This impact has not been considered at this is the first time that this issue is raised and it is a very well made point. This matter will be looked at and included in the FEIR. It needs to be noted that the FEIR will be made available to I&APs for review to ensure that I&APs comments have been included and consider. Paul da Cruz, SiVEST</p> <p>Post-meeting note: Eskom's approach in mitigating against corrosion, especially in marine environments, is to apply the appropriate level of corrosion protection hot dip galvanising to towers and hardware. Corrosion rate maps are utilised to estimate the rate of reduction of zinc coating thickness, as a result of corrosion, and then a zinc coating thickness is specified which will aim to achieve the design life of the asset. Where the design life of the tower or hardware cannot be achieved with what is practically possible in terms of zinc coating thickness, or where the lifespan of the asset needs to be</p>

		<p>extended, a strategy or maintenance program, which may include painting of the towers and hardware with corrosion resistant paint amongst other measures, may be implemented.</p> <p>Conductors will typically be grease coated in marine or high corrosion environments to protect the conductor against corrosion. While greased Aluminium Conductors with steel reinforcement (ACSR) are generally used in corrosive environments, other technologies such as All Aluminium Alloy Conductors (AACC) may also be considered for application during the detailed design stage.</p> <p>A full analysis of the level of corrosion of the environment and corrosion protection level to be applied to equipment will be conducted during the detailed design phase of the project.</p> <p>It must be noted that Eskom has successfully designed and built powerlines in far more corrosive areas such as the Cape Peninsula area. Eskom has its own corrosion test station (KIPS) in the Koeberg area and indoor corrosion laboratory (Rosherville) which it uses to evaluate corrosion performance of equipment and coatings. Knowledge and experience gained from this research is used in the design of powerlines and other assets to protect them against corrosion.</p> <p>Ravi Singh, Eskom</p>
8. Project Related Comments		
It was asked whether Eskom has provided SiVEST with reasons as to why the nuclear power station is proposed at the specific site and if so, are there a paper trail where the public can view this input.	Barrat, Chris Chairman: St Francis Kromme Trust	<p>Eskom's motivation was included in the FSR but if required it could be included in the FEIR.</p> <p>Paul da Cruz, SiVEST</p> <p>Post-meeting note: Eskom requires power stations on the coast for a number of reasons, including the stabilisation of the transmission network and the improvement in the reliability and security of supply at the coastal area and particularly the coastal areas of high growth (e.g. the Eastern Cape) in the demand for electricity, and the reduction in transmission line losses. Apart from these objectives, there are also other advantages of locating a power station on the coast, the primary one being the use of seawater for cooling of the turbine exhaust steam and condensing it back to water.</p>

		The report that provides the rational for the Thyspunt site can be obtained on the Nuclear 1 EIA website: www.eskom.co.za/eia Under List of Assessments, click on the Nuclear 1 Generation in Section 14 the attached report/s is/are published.
It was asked that how can the TTLIP be so accurately with the power lines if the EIA for the power station project has not been approved yet.		Eskom provided SiVEST with the layout plan for the proposed HV yard and that was the point of departure for the proposed Tx power lines. SiVEST's scope does not include the Tx power lines between the nuclear power station and the HV yard as this forms part of Arcus GIBB's scope of work. Paul da Cruz, SiVEST
It was asked as to what percentage of the project cost for environmental specialists has come to local environmental specialists in the Eastern Cape. There are local environmental specialists available to do the job.	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	The environmental specialists are all well qualified in their respective fields of expertise. SiVEST does not believe that the outcome of the studies would have been different if local specialists have been used. Local information has been sourced by the specialists and used in their assessments. If the attendees have a problem with studies undertaken, they have been requested to please raise it in writing to SiVEST. Paul da Cruz, SiVEST
It was mentioned, in no uncertain terms, that the Thyspunt site is wrong and that the I&APs are fed up with the fact that the Eskom Tx power lines project has been separated from the main EIA (reference to Nuclear-1 Project). It was reiterated that the Nuclear-1 site is totally wrong as none of the associated infrastructures i.e Tx lines, roads, etc, have been taken into account. It was also asked whether this project will be sustainable.	Thorpe, Hilton Chairman: St Francis Bay Resident's Association Member: Thyspunt Alliances	The attendee is not the first person and will not be the last to express this concern. Unfortunately SiVEST are in the situation where the two EIAs were put out to tender as two separate EIAs. It is SiVEST's understanding that the decision was taken by DEA to allow and proceed with it. SiVEST has addressed the need and desirability of the proposed TTLIP in the DEIR. SiVEST as EAPs cannot change the scope of the terms of reference of the study, and as such have been appointed to find the most environmentally sustainable corridors to connect to the proposed nuclear power station. Paul da Cruz, SiVEST
9. General Comments		
It was stated that everyone present have the right to give inputs and they must not influence one another. The information received is for his own sake and it is his right to make a decision and request those present to please give them an opportunity to give one's own opinion in order so that by tomorrow he makes wrong choice, he is responsible for it.	Leen, Petrus Ward Representative	Request noted
It was commented that Eskom must not say EMF is a small little thing. There are proven incidents that children living in the vicinity of 400kV and 765kV power lines are affected. The EMF document in the DEIR is an Eskom document. Just because there is not sufficient data available it must not be said that the EMF impact is small. People are getting the	Malan, Trudi Chairman: Thyspunt Alliance & Cape St Francis Civics	There is no Law in South Africa that say one cannot stay under a power line. It is Eskom's standards that to ensure that people are not affected negatively that no dwellings are allowed under the power lines. Instrumental measures have been taken and it is found that EMF under the power lines are high and as you moved

incorrect information on which an informed decision needs to be made.		<p>to the outer edge of the servitude it tapers down. Dean Wilson, Eskom</p> <p>Post-note meeting: The report was prepared by an independent scientist, Dr PH Pretorius. In addition further information regarding EMFs is included in the Revised Draft EIR - Appendix 15 Electric and Magnetic Fields. Lerato Mokgwatlheng, Eskom</p>
10. Nuclear 1 (Proposed Thyspunt Nuclear Power Station) Related Comments		
It was mentioned that during a field trip to Koeberg by Community Members, it was noted that people who are living close to Koeberg are still alive and healthy and if that is the situation, what is going to kill them here. People need jobs and we are going to die still waiting.	Leen, Petrus Ward Representative	Comment forwarded to Arcus GIBB
It was asked what the distance of the Tx power line is between the nuclear power station and the HV yard.	Rautenbach, Peter Property Owner: Farms Grassmere & Santuli	<p>The distance is not known to the SiVEST team. As previously mentioned the TX HV yard forms part of the Nuclear-1 EIA project. There was a lot of confusion previously, but this matter has been clarified by Eskom that this section of Tx power lines forms part of the Nuclear-1 Project EIA. This question will be forwarded to Arcus GIBB for a response. Paul da Cruz, SiVEST</p>
Irritation was expressed that the site investigation for the Nuclear-1 project has never been finished. The site was selected in the old apartheid regime and things have changed. It was commented that who in his right mind would want to put a nuclear power station in the area.	Thorpe, Hilton Chairman: St Francis Bay Resident's Association Member: Thyspunt Alliances	Comment forwarded to Arcus GIBB.

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