

ISIFINYEZO ESIPHEZULU:
UMBIKO WOKUHLOLA UMTHELELA WEZEMVELO
Kuhlongozwa iGesi kuPower Powership Project ePort of Richards Bay,
uMhlatuze Local Municipality, KwaZulu-Natal
DFFE REF CHA: 14/12/16/3/3/2/2007

1. Isingeniso

I-Karpowership SA (Pty) Ltd iphakamisa iGesi kuMandla nge-Powership Project ePort yase Richards Bay, uMhlatuze Local Municipality, KwaZulu-Natal.

I-Triplo4 Sustainable Solutions iqokwe ukuba yenze inqubo ye-Scoping kanye ne-Environmental Impact Reporting (S&EIR, ebizwa nangokuthi i-EIA) edingekayo ngokoMthetho kaZwelonke wokuphathwa kwemvelo 107 ka-1998, njengoba ushintshiwe (NEMA).

I-Gas to Power Powership Project ehlongozwayo e-Port of Richards Bay yakhiwa ngokuphendula i-Request for Proposals (RFP) yobuchwepheshe be-agnostic New Generation Capacity ngaphansi kwe-Risk Mitigation IPP Procurement Programme (RMI4P) ekhishwe nguMnyango Wezinsiza Zamaminerali Namandla (i-DMRE) ukunciphisa ukushoda kwamandla ngokushesha nangesikhathi esizayo kanye nokulinganiselwe, ukuhlinzekwa okungathembeki futhi okuhlukahlukene kabi kobuchwepheshe besimanje bokukhiqiza amandla ngemithelela yayo emibi yemvelo nezomnotho. Uhlelo lwe- "Emergency/Risk Mitigation Power Purchase Procurement Programme (2000MW): National" luphinde lwaqokwa njengesimo seProjekthi Ehlanganisiwe Yamasu (i-SIP) ngaphansi koMthetho Wokuthuthukiswa Kwengqalasizinda, 2014 yiKhomishini Yokudidiyela Inggqalasizinda KaMongameli. Ama-SIP athathwa njengamaprojekthi abaluleke kakhulu kwezomnotho noma kwezenhlalo eNingizimu Afrika iyonke noma esifundeni anika umphumela ohlelweni lwengqalasizinda kazwelonke futhi ngenxa yalesi sizathu, angasetshenziswa ngokushesha ngokusebenzisa izimiso zoMthetho onika amandla.

I-Integrated Resource Plan (IRP) 2019 ihlonza ingxube yesizukulwane esidingekayo sobuchwepheshe ukuphendula isidingo sikagesi. Okungokwemvelo enqubweni yokuhlela ukuzibophezela ekuvikeleni amandla, ukusebenza kahle kwezindleko nokusebenza, kanye nokuzinza kwemvelo. I-RMI4P yaphumelela ukuheha iziphakamiso zephrojekthi ezibonisa izinhlanganisela ezihlukahlukene zobuchwepheshe ukuhlinzeka ngesizukulwane esithunyelwayo. Lezi zinqumo zenza kube lula inqubo yokuthenga amandla kagesi adingekayo. Isimo se-Bidder esikhethiwe ku-RMI4P sanikezwa amaprojekthi ayisishiyagalombili ngo-18 Mashi 2021 kanye namanye amaprojekthi amathathu ku-1st kaJuni 2021, ngokuba:

- ACWA Amandla Projects DAO (Solar PV + BESS + Diesel Generator)
- Oya Energy (Solar PV + BESS + Diesel Generator + Onshore Wind)
- Umoyilanga Energy (Solar PV + BESS + Liquid Petroleum Gas (LPG) Generator + Onshore Wind)
- Amaprojekthi amabili we-Mulilo Total (Reciprocating Gas Engines + Solar PV) kanye (Solar PV + BESS + Diesel Generator)
- Amaprojekthi amathathu we-Karpowership SA (i-Floating Modular Reciprocating Gas Engines nge-Heat Capture Steam Turbines)
- Amaprojekthi amathathu engeziwe we-Preferred Bidder ayengezwa ngo-1 Juni 2021 ku-Scatec (Solar PV + BESS).

I-Gas to Power nge-Powership Project e-Port of Richards Bay iyingxenywe yezixazululo ezinikezwe abathengisi abakhethiwe be-RMI4P abahlinzeka ngokuhlanganiswa kohlu lobuchwepheshe obungaphawulwa ngenhla.

Igesi, njengokwe-DMRE, iye yabonwa njengenywe yezindlela ezingabizi kakhulu futhi ezithembekile zamandla. Kusukela kubabhidi abangu-11 abakhethiwe, iphrojekthi yomthengisi oyedwa kuphela

obenebhidi enezindleko eziphansi, eqinisekisa ukufinyeleleka kwegesi kuphrojekthi yamandla njengobuchwepheshe obuthunyelwa ngokugcwele.

Amaphrojekthi angu-28 angenise amabhidi ngokuphendula i-RMI4P ngo-22 Disemba 2020. Amabhidi ahlolwe ukuhambisana nemigomo yokufaneleka bese ehlolwa ngezindleko eziphansi kakhulu kanye neminikelo yentuthuko yomnotho ezinikele. Iphrojekthi yeKarpowership Port of Richards Bay ngemuva kwalokho yabizwa njengenye yamabhidi angu-11 aphumelelayo amenezelwe yi-DMRE. Isimo sephrojekthi ye-Karpowership, phezu komklomelo njengomthengisi okhethiwe we-RMI4P, sahlukaniswa njenge-Strategic Integrated Project (SIP) futhi kufanele siphathwe ngaphakathi kwezidingo njengoba kubekiwe kuMthetho Wokuthuthukiswa Kwengqalasizinda 23 ka-2014-Isithasiselo 7.1

2. Uhlaka Lokubusa

I-NEMA ivimbela umuntu ukuba aqale umsebenzi ohlwini ngaphandle kwemvume yemvelo. Iphrojekthi ivusa imisebenzi eminingana ebhalwe ku-EIA Regulations Listing Notices 1, 2 no-3 ka-2014 (njengoba ishintshiwe) ("**Izaziso Zohlu**"). Izidingo zenqubo yesicelo esinjalo kanye ne-EIA ehambisana nayo edinga ukwenziwa, zibekwe yiMigomo ye-EIA, 2014 emenezelwe ngaphansi kwe-NEMA (njengoba ishintshiwe) ("**Imithetho ye-EIA**").

Ngaphezu kwalokho, iProjekthi ivusa umsebenzi okleliswe ngaphansi koMthetho KaZwelonke Wokuphathwa Kwemvelo: Ikhwalithi Yomoya 39 ka-2004 (NEMAQA) odinga ilayisense yokukhishwa komkhathi (AEL). Inqubo efanayo ye-EIA ebekwe yiMigomo ye-EIA isetshenziswa esicelweni se-AEL, nezidingo eziningi ezengeziwe ezibekwe ku-NEMAQA kanye neMigomo yayo.

Imithetho ye-EIA, iveza izinqubo ezimbili zokugunyazwa. Ngokuya ngohlobo lomsebenzi ohlongozwayo, kungaba yi-Basic Assessment noma inqubo ye-Scoping and Environmental Impact Assessment edingekayo ukuze kutholakale ukugunyazwa kwemvelo (EA).

I-Triplo4 inqume ukuthi i-Gas to Power ehlongozwayo nge-Powership Project e-Port of Richards Bay yavusa imisebenzi ku-Listing Notice 1-3 ye-EIA Regulations.

Ithebula 0-1: Imisebenzi Efakwe ohlwini

Ums eben zi	Incazelo efingqiwe
Isaziso sokufakwa ohlwini 1	
11	Ukuthuthukiswa kwezakhiwo noma ingqalasizinda yokudluliselwa nokusatshalaliswa kukagesi— (i) ngaphandle kwezindawo zasemadolobheni noma izinkimbinkimbi zezimboni ezinomthamo ongaphezu kuka-33 kodwa ngaphansi kwe-275 kilovolts; noma (ii) ngaphakathi kwezindawo zasemadolobheni noma izinkimbinkimbi zezimboni ezinomthamo we-275 kilovolts noma ngaphezulu.
12	Ukuthuthukiswa kwengqalasizinda noma izakhiwo ezinezinyawo ezibonakalayo ezingamamitha-skwele ayi-100 noma ngaphezulu ngaphakathi kwendawo yamanzi noma ngaphakathi kwe-32m yendawo yamanzi.
15	Ukuthuthukiswa kwezakhiwo endaweni yomphakathi esogwini lapho unyawo lwentuthuko lukhulu kunamamitha-skwele angama-50
17	Ukuthuthukiswa olwandle noma e-estuary noma ngaphakathi kwendawo esebenzayo ye-littoral; maqondana nengqalasizinda noma izakhiwo ezinezinyawo zokuthuthukiswa kwamamitha-skwele angama-50 noma ngaphezulu.
18	Ukutshala izitshalo noma ukubekwa kwanoma iyiphi impahla emadulini noma ezindaweni zesihlabathi eziveziwe ezingaphezu kwamamitha-skwele ayi-10, ngaphakathi kwendawo esebenzayo ye-littoral
19	Ukugcwaliswa noma ukufakwa kwanoma iyiphi impahla engaphezu kwamamitha ayi-10 cubic, noma ukudonsa, ukumbiwa, ukususwa noma ukuhamba komhlabathi, isihlabathi, amagobolondo, igobolondo le-grit, amatshe noma idwala elingaphezu kwamamitha ayi-10 cubic kusuka endaweni yamanzi.
19A	Ukugcwaliswa noma ukufakwa kwanoma iyiphi impahla engaphezu kwamamitha ayi-5 cubic, noma ukudonsa, ukumbiwa, ukususwa noma ukuhamba komhlabathi, isihlabathi, amagobolondo, igobolondo le-

	grit, amatshe noma idwala elingaphezu kwamamitha ayi-5 cubic kusuka— (i) ogwini lolwandle; (ii) indawo esebenzayo ye-littoral, i-estuary noma ibanga elingamamitha ayi-100 ngaphakathi ezweni lophawu lwamanzi aphezulu olwandle noma i-estuary, noma yiliphi ibanga elikhulu; noma (iii) ulwandle
27	Ukuvunyelwa kwendawo engamahektha ayi-1 noma ngaphezulu, kodwa ngaphansi kwamahethare angama-20 ezitshalo zomdabu.
Isaziso sokufakwa ohlwini 2	
2	Ukuthuthukiswa kanye nokusebenza okuhlobene nezikhungo noma ingqalasizinda yokukhiqizwa kukagesi kusuka kumthombo ongavuseleleki lapho umkhiqizo kagesi ungamamegawatts angama-20 noma ngaphezulu.
4	Ukuthuthukiswa nokusebenza okuhlobene nezikhungo noma ingqalasizinda, ukugcinwa, noma ukugcinwa nokuphathwa kokuhle okuyingozi, lapho isitoreji esinjalo senzeka ezitsheni ezinomthamo ohlangene wamamitha angaphezu kuka-500 cubic
6	Ukuthuthukiswa kwezikhungo noma ingqalasizinda yanoma iyiphi inqubo noma umsebenzi odinga imvume noma ilayisense noma imvume eguquliwe noma ilayisense ngokomthetho kazwelonke noma wesifundazwe olawula isizukulwane noma ukukhishwa kokukhishwa, ukungcola noma ukusebenza kahle.
7	Ukuthuthukiswa nokusebenza okuhlobene nezikhungo noma ingqalasizinda yokuthuthwa ngobuningi bezimpahla eziyingozi— (i) ngesimo segesi, ngaphandle kwenkimbinkimbi yezimboni, usebenzisa amapayipi, edlula amamitha angu-1 000 ubude, enomthamo we-throughput wamathani angaphezu kuka-700 ngosuku; (ii) ngesimo se-liquid, ngaphandle kwenkimbinkimbi yezimboni, usebenzisa amapayipi, edlula amamitha angu-1 000 ubude, enomthamo we-throughput ongaphezu kwamamitha angu-50 cubic ngosuku.
14	Ukuthuthukiswa nokusebenza okuhlobene ne—

	(ii) ipulatifomu egxilile; noma (iii) noma yisiphi esinye isakhiwo noma ingqalasizinda — ku, ngezansi noma eceleni kombhede wolwandle.
Isaziso sohlu 3 (KwaZulu-Natal)	
10	Ukuthuthukiswa nokusebenza okuhlobene nezikhungo noma ingqalasizinda yokugcina, noma ukugcinwa nokuphathwa kokuhle okuyingozi, lapho isitoreji esinjalo senzeka ezitsheni ezinomthamo ohlangene we-30 kodwa ongadluli amamitha ayi-80 cubic.
12	Ukuvunyelwa kwendawo engamamitha-skwele angama-300 noma ngaphezulu kwezitshalo zomdabu ngaphakathi kwezindawo zendawo ezihlonziwe.
14	Ukuthuthukiswa kwe— (ii) zingqalasizinda noma izakhiwo ezinezinyawo ezibonakalayo zamamitha-skwele ayi-10 noma ngaphezulu; lapho kwenzeka khona ukuthuthukiswa okunjalo— (a) ngaphakathi kwe-watercourse; (b) phambi kokubuyela emuva kwentuthuko; noma (c) uma kungekho ukubuyela emuva kwentuthuko okuye kwamukelwa, kungakapheli amamitha angu-32 ukusuka emanzini, kulinganiswa kusuka emaphethelweni e-watercourse.

Kudingeka ukugunyazwa kokusetshenziswa kwamanzi ngokweSigaba 21 soMthetho Wamanzi Kazwelonke 36 ka 1998 (NWA) futhi wanikezwa from uMnyango Wezamanzi Nenhlanzeko ngoJulayi 2021.

3. Inqubo Yezemvelo

Imithetho ye-EIA ichaza indlela enemininingwane yenqubo ye-S&EIR, equkethe izigaba ezimbili: iSigaba se-Scoping kanye neSigaba Sokuhlola Umthelela (isigaba samanje).

Inqubo ye-Scoping and Environmental Impact Reporting (S&EIR) yenziwa ngesikhathi se-2020-2021, edingekayo ku-EA, njengokwesikhathi esingezansi:

- Umbiko we-Scoping, kufaka phakathi uHlelo Lokufunda kanye noHlelo Lokubamba Iqhaza Komphakathi oluvunyiwe (i-PP) lwe-EIA, wamukelwa yi-Competent Authority (CA), okuyi-

Department Forestry, Fisheries and the Environment (DFFE), ngomhlaka-06 Januwari 2021.

- Umbiko Wokugcina we-EIA (EIAR) kanye noMbiko Wohlelo Lokuphathwa Kwemvelo (i-EMPr) wathunyelwa ku-CA ngomhlaka-26 Ephreli 2021. I-CA yenza isicelo se-EA futhi yanikeza i-KSA i-Record of Refusal (RoR) ngo-23 Juni 2021.
- Ngo-13 Julayi 2021, i-KSA yafaka isikhalo ngokunqaba kwe-CA. Ngomhlaka-1 Agasti 2022, iSigungu seziPhathimandla zeziKhalo (uNgqongqoshe) sachitha isikhalo futhi sasebenzisa amandla akhe ngokweSigaba 43(6) seNEMA. Isicelo sabuyiselwa emuva ku-CA, ngomyalelo wokubhekana nezikhala ezihlukahlukene ezibonakalayo kanye nokukhubazeka ngokusebenzisa i-EIAR entsha kanye ne-PPP ehambisana nayo, ukuze isicelo sibhekwe yi-CA.

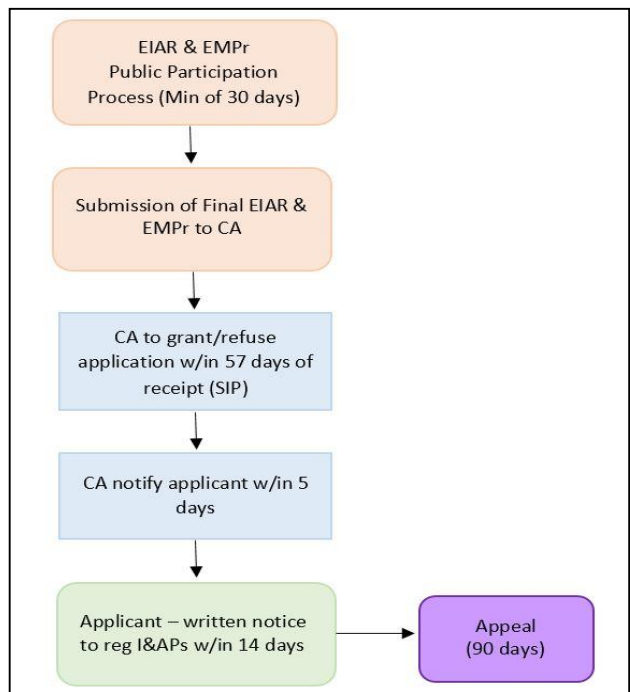
I-CA yeluleke ngokuthi i-EIAR ebuyekeziwe, ebhekana nezikhala ezihlukahlukene ezibonakalayo zolwazi, futhi kuncike ku-Public Participation Process (PPP), kufanele ithunyelwe ku-CA ukuze ibhekwe kabusha.

Izinhlalo ezisemqoka ze-EIA kufanele:

- Yazise Amaqembu Anentshisekelo Nathintekayo (I&APs) mayelana neProjekthi ehlongozwayo kanye nenqubo ye-EIA elandelwayo;
- Kutholakale imibono evela kuma-IP (kufaka phakathi iziphathimandla ezifanele kanye nomphakathi) futhi uqinisekise ukuthi zonke izindaba, ukukhathazeka kanye nemibuzo ephakanyisiwe ibhalwe ngokugcwele futhi ibhekisiswe kuMbiko we-EIA;
- Ukuhlonza nokuhlola imithelela ebalulekile engaba khona ehambisana nentuthuko ehlongozwayo;
- Ukwakha izinyathelo zokunciphisa ukugwema kanye / noma ukunciphisa imithelela nokuthuthukisa izinzuzo zeProjekthi; futhi
- Khiqiza Umbiko Wokugcina we-EIA ozonikeza yonke imininingwane edingekayo yeSigungu seziPhathimandla ezinekhono ukunquma ukuthi (futhi ngaphansi kweziphil izimo) ukugunyaza iProjekthi ehlongozwayo.



Umdwebo 0-1: Uhlolajikelele lweTheku laseRichards Bay



Umdwebo 0-2: Inqubo ye-EIR

4. Incazelo yeSayithi & Imvelo

Le phrojekthi itholakala ePort of Richards Bay. Itholakala ngaphakathi eduze kweRichard's Bay Industrial Development Zone (RBIDZ) kuMasipala weNdawo yaseMhlatuze esiFundazweni saKwaZulu-Natal ITheku laseRichards Bay, elingaphakathi kukaWard 2 kuMasipala weNdawo yaseMhlatuze, liphethwe nguhulumeni futhi liphethwe yiTransnet National Ports Authority (TNPA) endaweni yomnikazi wendawo.

Ithehu laseRichards Bay eliseduze neRichards Bay Industrial Development Zone (RBIDZ) – Special Economic Zones (SEZ), eyenzelwe ngokukhethekile

ukuvumela ukuthi izimboni ezihlobene zisekelwe e-Industrial Zone.

I-Powerships ehlongozwayo, i-FSRU, umugqa wesikhashana we-LNGC negesi, uzotholakala ePort of Richards Bay ngaphansi komthetho we-TNPA. Ngenkathi umugqa wokudlulisa ungaphesheya kwezakhiwo zeTransnet kanye nezakhiwo ze-UMhlatuze Local Municipality, futhi isiteshi sokushintsha esihlongozwayo siuated kancane ngaphakathi kwempahla ye-South32 Aluminium Pty Ltd (eceleni kwe-substation ekhona yaseBayside).

Ama-Powerships kanye ne-FSRU kufanele aboshwe emanzini avikelekile ngaphakathi kweTheku laseRichards Bay. Ama-Powerships abekwe ngaphakathi kwe-basin efile eduze kwe-break bulk quay / multi-purpose terminal.



Umdwebo 0-3: Uhlolajikelele Lwe- Indawo Yechweba



Umdwebo 0-4: Uhlolajikelele Lwendlela Yokudlulisa

Ukuthuthukiswa kwezimboni okwamanje okuthuthukiswe eduze kwesigaba seTheku lapho iphrojekthi ehlongozwayo ikhona kufaka phakathi indawo enkulu yokuncibilikisa i-aluminium (Bayside) kanye nesitshalo samakhemikhali esine-phosphorous

(Foscor). I-Bidvest Terminals itholakala ngaphakathi kwemingcele yeTheku, eMpumalanga yephrojekthi ehlongozwayo.

Iningi lokusetshenziswa kokuzijabulisa kweTheku ngokuvamile litholakala ohlangothini lwaseNyakatho yeTheku Ukudoba ukuzijabulisa kanye nokunye ukudoba okusemthethweni nokungekho emthethweni kwenzeka emlonyeni wechweba, okungaphezulukwe-4 km kude nendawo ehlongozwayo ye-Powerships ne-FSRU.

Indawo yocwaningo iwela ngaphakathi kwe-Critical Biodiversity Area ebhalwe njengengenakushintshwa. I-Richards Bay Game Reserve, nayo eyi-Important Bird Area (IBA) ilele ngaphansi kuka-1km eningizimuntshonalanga yendawo, kanti i-Enseleni Nature Reserve itholakala cishe ku-10km enyakatho yendawo. Sekukonke, umugqa ohlongozwayo wokudlulisa umhlaba (umzila okhethiwe) utholakala ezindaweni eziphansi zokuzwela, ikakhulukazi ngenxa yendawo yayo ezindaweni eziguquliwe noma ezindaweni ezidelekile kakhulu eziseduze nezindawo eziguquliwe.

I-UMhlatuze LM inabantu abangaba ngu-351 531 futhi ibonakala ngamazinga aphezulu okufinyelela kwezemfundo.

5. Ukukhuthaza i-Projekthi

Umklamo we-Karpowership usuqhamuke ekuphenduleni isidingo sokubhekana nenkinga yamanje kagesi etholakala eNingizimu Afrika. Kuphendulwa isicelo esikhishwe yi-DMRE njengengxenywe ye-RMI4P. Inhloso ye-RMI4P ukwanelisa igebe lokuphakelwa kukagesi wesikhashana, ukudambisa izingqinamba zamanje zokuphakelwa kukagesi kanye nokunciphisa ukusetshenziswa kwezininga elibanzi lamajeneretha kagesi aphezulu asuselwa kudizili kusetshenziswa obunye ubuchwepheshe bamandla ((Steenkamp & Weaver, 2022; DMRE, 2021a) Amandla akhiqizwa ngephrojekthi ye-Karpowership azofaka isandla ekwehliseni umthwalo wokucisha umthwalo kanye nemithelela engemihle yenhlalo-mnotho ngokuhlinzeka ngamandla adingeka kakhulu athunyelwayo,

angahlinzekwa ekulayishweni okuyisisekelo, okufanelekile kanye nokukhuphuka okuphezulu.

I-RMI4P, imenyezelwe njengeProjekthi Edidiyelwe Yamasu, iyimpendulo ebalulekile enkingeni kagesi, futhi ehambisana negunya loMbuso lokuhlinzeka ngezinsizakalo eziqinisekisa ukukhula komnotho kanye nokuphila kahle ukuze kuzuze wonke umphakathi. Iphrojekthi ehlongozwayo ye-Karpowership ihambisana ne-IRP 2019 lapho kwenziwe khona ukuhlinzekwa kwegesi ekuxubeni kwamandla. Imikhumbi yamandla akumele ithathwe njengokuthatha indawo yamandla avuselekayo, kodwa kunalokho ubuchwepheshe obuhambisanayo kumandla avuselekayo, obusekela uguquko kude namalahle nodizili, kanye nokuncipha kwemithelela engemihle kwezemvelo ehambisana namalahle nodizili. Ngokuhambisana nesidingo esiphuthumayo sokusabela enkingeni yamandla iphrojekthi ye-Karpowership iletha isisombululo lapho ugesi ungathunyelwa khona ngokuyalelwa lapho ukunikezwa kwamandla kungaphansi kobunzima (okungukuthi uyathunyelwa).

Ukwengeza, le phrojekthi izoba nemithelela emihle ephindaphindekayo emnothweni wendawo phakathi nesigaba sokwakha nesokusebenza. I-Karpowership izodlala indima enhle emnothweni wendawo ngokusebenzisa amakhono, amabhizinisi kanye nezinhlelo zokuthuthukisa abahlinzeki. Imithelela yezomnotho eqondile, engaqondile, kanye nebangwayo yephrojekthi ekuqashweni, ekukhiqizeni imali, ekukhiqizeni okusha kanye nenani lezomnotho kuzoba kuhle. Lokhu kuzobandakanya ukuthuthukiswa kwamakhono kanye nokuthuthukiswa kwamakhono ekufezekiseni uguquko olunobulungiswa eNingizimu Afrika. Ngakho-ke kulindeleke ukuthi iphrojekthi ye-Karpowership izoholela kumthelela omuhle wenhlalo-mnotho uma kucutshungulwa imithelela eminingi yezomnotho neyemvelo.

Kuhle ukugcizelela ukuthi iphrojekthi ye-Karpowership ingaphakathi kwechweba elisebenzayo, futhi eduze ne-Richards Bay Industrial Development Zone (Indawo Ekhethekile Yomnotho), ethathwa njengendawo esemqoka yokukhula ebhekelela ngqo imboni yezamandla nezasolwandle.

Kodwa-ke, indlela enomthwalo wemfanelo neqhubekayo yephrojekthi ehlongozwayo isadingeka, ngokuhambisana nezidingo ze-NEMA kanye neMithetho, Izinqubomgomo kanye Nezinkombandlela zokuphathwa kwemvelo. Umsebenzi wokunakekela (njengoba kunqunywe eSigabeni sama-28 se-NEMA) kufanele ubhekwe. Ngakho-ke, ukuhlolwa komthelela kochwepheshe abaningi bemikhakha ehlukeni kwenziwe njengengxenyane yenqubo ye-EIA, ukuhlanganiswa kokutholwe kochwepheshe kwaqinisekiswa futhi kwasetshenziswa umbono we-polycentric ekuhloleni umthelela. Imithelela emibi nemihle ikhonjiwe, futhi ngokusemandleni yonke imithelela emibi iye yagwenywa noma yancishiswa ukuze kuncishiswe umthelela, kanye nezinye izincomo zokuphatha ezihlinzekwe njengokusho kwe-EMPr. Bonke Ochwepheshe basekele iphrojekthi futhi awekho amaphutha abulalayo ahlonziwe kwezinye izinto ezikhethwayo. Indlela ye-EIA egxile ezintweni eziningi icabangele zonke izici ezifanele, okuhlanganisa nemithelela engaba khona iphrojekthi ehlongozwayo engaba nayo endaweni kanye nasemphakathini wonkana. Kukhona elinye ithuba locwaningo lwesayensi kanye nezinhlelo zokuqapha ukwazisa ukuphathwa okuguququkayo kumjikelezo wempilo wale phrojekthi, kanye namaphrojekthi afanayo asekelwe echwebeni. I-Sustainability Specialist, esekelwe emiphumeleni yochwepheshe, ihlole ngokuzimela isimo sendawo, esingokomzimba, sebhayoloji, senhlalo, ezomnotho kanye namasiko sendawo ezungezile ngokusebenzisa izindlela ezintathu ezisize ekuhlanganiseni nasekuhlanganiseni ulwazi lwezobuchwepheshe ngezinjongo zokwenza izinqumo. Kwafinyelelwa esiphethweni esilandelayo: “Ngenxa yokuthi ochwepheshe abenze ucwaningo lobungcweti bakweseka ukugunyazwa kwezemvelo, nezidingo ezahlukahlukeni zokunciphisa nokuphatha, ngisekela le phrojekthi ukuthi inikezwe igunya lezemvelo, inqobo nje uma ukuncishiswa okudingekayo kanye nezincomo zokuphatha. ziyasekelwa. Izincomo ezihlinzekwe kulo mbiko zinikeza elinye ithuba lokunciphisa umthelela ongemuhle wale phrojekthi kwezemvelo kanye nokuthuthukisa igalelo elihle kanye nefa iKarpowership SA engaba neqhaza kulo mphakathi.”

6. Incazelo yeprojekthi

Le Phrojekthi ihlela ukukhiqizwa kukagesi ngama-Powerships amabili aboshwe ePort of Richards Bay, ondliwa ngegese yemvelo evela emkhunjini wesithathu, i-Floating Storage & Regasification Unit (FSRU). Le mikhumbi emithathu izoboshelwa echwebeni le-Project elindelwe iminyaka engu-20 yokuphila. I-Liquefied Natural Gas Carrier (LNGC) izoletha igesi yemvelo e-liquefied (LNG) bese iyikhipha ku-FSRU cishe kanye ezinsukwini ezingama-20 kuya kwezi-30, incike ekufuneni ugesi okunqunywa ngumthengi, i-ESKOM. I-FSRU igcina i-LNG ebhodini futhi iguqula ifomu le-liquid libe ifomu le-gaseous (Natural Gas) lapho lifunwa yi-Powership (Regassification). Igesi yemvelo izodluliselwa kusuka ku-FSRU kuya ku-Powerships ngepayipi legesi le-subsea. Umthamo wokuklama weProjekthi ngu-540MW. Ugesi uzokhiqizwa ku-Powerships ngezinjini ze-27 reciprocating, ngasinye sinokufaka ukushisa okungaphezulu kwe-10MW (umthamo wokuklama we-18.32MW ngamunye ngomthamo ogcwele). Ukushisa okwenziwe ukusebenza kwezinjini zokubuyisela kubanjwe, nokuthi amandla asetshenziselwa ukudala umusi ukushayela ama-turbines amathathu we-steam ukuthi ngamunye abe nokufakwa kokushisa kwe-circa 15.45MW. Umthamo wesivumelwano we-450MW, ongeke udlulwe ngaphansi kwemigomo ye-RMIPPPP, uzokhishwa ngomugqa wokudlulisa i-132kV ngaphezu kwebanga elingaba ngu-3.6km. Ugesi uzokhishwa ku-Powership kuya esiteshini esingaphansi kwe-Impala, nge-connection point (okwenza kube nesidingo sesiteshi esisha sokushintsha) eduze kwe-Bayside Substation ekhona, edla ugesi kugridi kazwelonke.

7. Ezinye izindlela

Imithetho ye-EIA, i-2014 (njengoba ishintshiwe) idinga ukuthi zonke izinqubo ze-S&EIR kumele zikhombe futhi zichaze ezinye izindlela ezingenzeka nezinengqondo. Ezinye izindlela eziningi zabonwa futhi zabhekwa kuze kube manje.

Ithebula 0-2: Ezinye izindlela ezihloliwe

Enye indlela	Isizathu Esihloliwe
Layout Alternative: Powership -	Lokhu kungenye indlela engenzeka, noma kunjalo kubhekwa
I-2 Powerships itholakala eduze kwebhange lesihlabathi elibucayi futhi kude kakhulu nolwandle,	njengento engafanelekile kakhulu ngemibono yobunjiniyela neyemvelo.

okuzodinga umugqa omude wokudlulisa kanye nombhoshongo ophakeme.	
Layout Alternative: Transmission Lines -	Kubhekwa njengephutha elibulalayo futhi ngakho-ke alisekelwa
Umzila utholakala ngezininga elikhulu lobude bawo ngaphakathi kwezindawo ezimanzi, futhi uwela izinhlobo ezimbili zezitshalo ezisengozini ebucayi: i-Mangrove Forest ne-Swamp Forest.	

Ezinye izindlela ezilandelayo zabhekwa ku-EIA:

7.1. Ezinye Izakhiwo

Ulwandle:

I-Powership ekhethiwe kanye ne-Gas Pipeline Alternative 1: I-Powerships ibekwe ngaphakathi kwe-basin efile, futhi itholakala eduze kombhoshongo wokuqala womugqa wokudlulisa. Imikhumbi yamandla ebekwe emhlabeni omkhulu 'promontory' eduze nokuma okukhulu kwe-mangrove, futhi ibekwe kude kakhulu kunenye i-2 evela ebhange lesihlabathi elibucayi. Lesi sikhundla esinye savunywa yi-TNPA futhi sihambisana nokuhlela kwabo ichweba.

I-Powership ne-Gas Pipeline Alternative 2: ibhekwa njengengafanelekile kakhulu kusuka kubunjiniyela kanye nemibono yemvelo, njengoba ama-Powerships kanye nezinhlelo zokubopha zibekwa eduze kwebhange lesihlabathi elibucayi futhi kude kakhulu nolwandle, okuzodinga umugqa omude wokudlulisa kanye nombhoshongo ophakeme.

Ukudluliswa Okunye 1 (Okukhethiwe): Iningi lomzila litholakala ezindaweni zokuzwela okuphansi kuya kokulinganisela kwemvelo, futhi izobe iwela indawo emanzi ebucayi kakhulu kanye nehlathi le-swamp, futhi ingxenye enkulu yale ndlela ilandela umzila wokugqilazwa kwe-powerline ekhona. Le ndlela inikeza umzila omfushane oya endaweni yokugcina.

Ukudluliswa Okunye 2: lo mzila unqamula izindawo eziye zaguqulwa ngokomlando, noma kunjalo lezi zindawo zigulakakhulu zibhekwa njengezibucayi

kakhulu. Ngaphezu kwalokho, lo mzila ohlongozwayo womugqa wokudlulisa utholakala ngezanga elikhulu lobude bawo ngaphakathi kwezindawo ezimanzi, futhi unqamula izinhlobo ezimbili zezitshalo ezisengozini ebucayi: i-Mangrove Forest ne-Swamp Forest. Lezi zinozwelo oluphezulu kakhulu futhi njengoba kunjalo, zingabhekwa njengephutha elibulalayo futhi ngakho-ke le ndlela ehlukile ayisekelwa.

7.2. Ukuklama Okuhlukile

Umugqa wokudlulisa okuhlongozwayo ungakhiwa noma ukwakhiwa kwensimbi ye-monopole noma i-lattice, ngokusekelwe ezidingweni zokugcina zokuklama ubunjiniyela, imiphumela yocwaningo lwe-topography ne-geotechnical. Njengoba ubukhulu bonyawo lwe-lattices bukhulu kakhulu futhi budinga imvume eminingi yezitshalo kune-monopoles, ama-monopoles ayizinketho ezikhethiwe.

7.3. Ubuchwepheshe Alternatives: Okokhelekayo

I Powerships ukuthunyelwa kuzokhiqiza ugesi usebenzisa Wärtsilä izinjini egijima kuphela igesi yemvelo. I-Wärtsilä yenza ucwaningo olunzulu ngokusetshenziswa kwemithombo ehlukeneyamafutha ngaphakathi kwezinjini zayo, ukuthuthukisa nokwenza ngcono ubuchwepheshe babo esikhathini esizayo-ubufakazi futhi ulethe ukusebenza kahle okuholela. Wärtsilä baye benza intuthuko ebonakalayo kungenzeka ukusebenzisa igesi hydrogen amandla nge ubuchwepheshe babo injini; ngenkathi sekuvele kungenzeka ngobuchwepheshe ukusebenzisa ingxube ye-hydrogen ngegisi yemvelo, lobu buchwepheshe busemncane futhi bubhekene nocwaningo oluqinile nokuthuthukiswa kwemisebenzi ehlanzekile ye-hydrogen, futhi imiphumela yalolo cwaningo nentuthuko (R & D) kulindeleke eminyakeni ezayo.

7.4. Ayikho enye indlela

Inketho yokungawusebenzisi umsebenzi, okungukuthi enye indlela "yokungahambi", yacatshangelwa. Mayelana neProjekthi, kuyosho ukuthi isimo esikhona sizoba njalo. Nakuba inzuzo yalolu khetho iwukuthi ngeke kube khona imithelela engemihle kwezemvelo noma kwezenhlalo, ngeke kube khona izinzuzo ezinhle zezemvelo noma zezenzhlalo-mnotho kanye nokusatshalaliswa kobuchwepheshe bamandla ashintshashintshayo obuhlanzekile ngokuhambisana nezinjongo zeNingizimu Afrika Zokuguquguquka Kwamandla Okufanelekile.

Ngokusekelwe kokutholwe ocwaningweni lochwepheshe abazimele, iphrojekthi ehlongozwayo ngeke ibangele imithelela emibi kakhulu yezemvelo noma yezenzhlalo inqobo nje uma izinyathelo zokunciphisa ezituswe yi-EAP kanye nochwepheshe, njengoba kuqukethwe eSigabeni 8 sombiko owuhlaka we-EIA kanye ne-EMPr sezisetshenziswa.

Eqinisweni, iphrojekthi ehlongozwayo izoba nomthelela omuhle kwezemvelo ngenxa yezinyathelo zokunciphisa ezibandakanya ucwaningo lwezemvelo kanye nentuthuko yesikhathi eside eyalandela ngenxa yolwazi oluthuthukisiwe. Imithelela engemihle kwezemvelo ngenxa yokucishwa kukagesi, ukunciphisa kwamandla noma ukusetshenziswa kweminye imithombo eyingozi kaphethiloli engokwemvelo.

Imithelela emihle kakhulu yezenzhlalo nezomnotho ngeke ibonakale esimweni sokungahambi. Uguquko olunobulungiswa emphakathini lwabasebenzi abampofu nabangenawo amakhono kanye nabantu ababencishwe amathuba kanye nomgomo kaHulumeni wokuhlanganisa ugesi esimeme nawo ngeke kwenzeka ngokwePhrojekthi ye-Karpowership ePort of Richards Bay. Inzuzo elahlekile yokuba nogesi otholakala kagesi yemvelo, inciphisa ukuzinza kanye nokuqina kwamagridi kagesi, ngaleyo ndlela kunciphisa ukushintshwa kwamandla kuya ekusizeni ukuthunyelwa ngokushesha kwemithombo yamandla avuselelekayo. Amandla athunyelwa kugridi kazwelonke ukuze ahlangebezane nesidingo sikagesi esikhona kanye nesenyukayo esizayo ezweni ngeke abe khona ukuze kuvinjwe ukwehla komnotho okuyinhlekelele nokulimazayo okuhambisana nokucishwa kukagesi okubangelwa ukushoda kukagesi okwandayo njalo. Ukuqhubeka nokuncibilika kukagesi kuzoba nomthelela omubi enhlalakahleni yabantu abaningi baseNingizimu Afrika, emnothweni wonkana kanye nasemizweni yabatshalizimali bakuleli nabakwamanye amazwe. Amathuba okufukula umnotho ngokuqashwa, izinhlelo zokuthuthukisa umphakathi, imifundaze yezemfundo, ezinye izinhlelo zemfundo, izinhlelo zokuthuthukisa amakhono kanye nokuthengwa kwabahlizeki bempahla bakuleli kanti imikhakha yezomnotho ebanzi njengezimboni, ezokuvakasha, nezokuzijabulisa izobhekana nezingqinamba zokukhula. Ngaphezu kwalokho, abantu, ikakhulukazi ababencishwe amathuba kanye nabancishwe amathuba, kuzodingeka babhekane nezinguzi ezikhulayo ezindleleni zabo zokuziphilisa kanye nokunciphisa kwamathuba ezomnotho.

Lapho ubungozi obuncane obungaba khona bezemvelo kanye nenhlalo-mnotho ngokuncishiswa kukalwa ngokuqhathaniswa nezinzuzo ezingaba khona zezemvelo kanye nenhlalanhle-yomnotho, akukho ukuqhudelana. Izinzuzo zemvelo zibalulekile futhi izinzuzo zezenhlalakahle nezomnotho zidlula kakhulu imithelela encishisiwe yezemvelo kanye nenhlalo-mnotho.

Ngakho-ke inketho yokungahambeki ayihambisani nemigomo yentuthuko esimeme maqondana nokuhlizekwa kukagesi okungaphansi kwe-SDG 7: Amandla Athengekayo Nahlanzekile kanye ne-SDG 8: Umsebenzi Ohloniphekile Nokukhula Komnotho. Ngakho-ke kuwubono ocatshangelwe we-EAP ukuthi iProjekthi Ehlangozwayo Yegesi Eya Kumandla Kagesi engu-540MW, kufanele igunyazwe ngaphansi kwemibandela ehlongozwe eSigabeni 9.2, ehlanganisa ukuhambisana ne-EMPr. Ngakho-ke enye indlela "yokungahambi" ayinconywa.

8. Ukuzibandakanya Kwababambiqhaza

Ukuzibandakanya kwababambiqhaza kuyingxenywe esemqoka yenqubo ye-S&EIR futhi kwenziwa ngokuhambisana nezidingo zeMigomo ye-EIA. Izinkathi zokuzibandakanya kwababambiqhaza zihlanganisa okulandelayo:

- Isaziso sokuqala nokuhanjiswa kwe-BID;
- Isikhathi sokuphawula komphakathi esisemthethweni ngombiko we-EIA ohleliwe Imisebenzi esemqoka yokuzibandakanya kwababambiqhaza ngesikhathi sezinqubo ze-EIA ifingqwe kuThebula 0-3 ngezansi.

Ithebula 0-3: Isifinyezo Semisebenzi Yokuzibandakanya Kwababambiqhaza

Umsebenzi	Usuku
Isaziso sokuqala	
Isikhangiso, i-BID, Izaziso zesayithi, ama-Flyers, amapheshana, izimemezelo zomsakazo	24 -28 Okthoba 2022
Imihlangano Yangaphambi Kokubonisana	12 Okthoba - 09 Novemba 2022
Ukuhlolwa Komthelela	
Draft EIAR Comment Period	10 Novemba - 13 Disemba 2022
Umhlangano Womphakathi > Virtual	23 ovemba 2022

9. Ukuhlolwa Kwemithelela Engaba Khona

9.1. Izifundo zochwepheshe > Imibiko yezobuchwepheshe

Kwenziwa izifundo zochwepheshe ukuphenya imithelela esemqoka engaba khona eqondile, engaqondile futhi ehlanganisiwe:

- I-Hydrology > Ukuhlolwa kwe-1: 100 Year Floodline
- Ukuhlolwa Kwamanzi
- Ukuhlolwa kwe-Hydropedology
- Ukuhlolwa kwe-Geohydrology
- Ukuhlolwa Kwebhalansi Yamanzi
- I-Wetland Delineation > Ukuhlolwa kokusebenza
- Heritage & Palaeontology Assessment
- Ukuhlolwa kwezinto eziphilayo zomhlaba
- Ukuhlolwa kwe-Avifauna
- Baseline Underwater Noise Report
- Umbiko Wokuhlola Umsindo Ngaphansi Kwamanzi
- Umbiko wefa elingaphansi kwamanzi
- Umbiko we-Marine Ecology Assessment & Fisheries Impact
- Ukuhlolwa kwe-Marine Avifaunal
- Ukuhlolwa kwe-Estuarine ne-Coastal
- Traffic incl. Marine Assessment
- Umbiko we-Thermal Plume Modelling
- Air Quality Impact Assessment
- Ambient Noise Impact Assessment
- Ukuhlolwa Komthelela Wokushintsha Kwesimo Sezulu
- Ukuhlolwa Komthelela Wezenhlalo Nezomnotho
- Umbiko Wokuzibandakanya Kwe-Small Scale Fishers Specialist
- Umbiko Wokusimama
- Ukuhlolwa Komthelela Wezokuvakasha
- Ukuhlolwa Komthelela Obonakalayo
- Ukufakwa Kwengozi Enkulu
- Indima Yegesi Ekuguqukeni Nje
- Imiphumela yezindleko Gas vs Izinhlobo ezivuselelekayo zamandla

Kuyo yonke imithelela engase ibe yinto ebalulekile, ukubaluleka komthelela olindelwe kwalinganiswa ngaphandle nangezinyathelo zokunciphisa ezinconyiwe .

9.2. Ukubaluleka Komthelela

- Akukho mthelela omkhulu noma onganaki noma ubungozi obuhlonziwe ocwaningweni lochwepheshe olwenziwe mayelana

namagugu, ukuhamba kwezimoto, ukuhamba kwamanzi olwandle, ukufakwa kwezingozi ezinkulu, i-hydrology, i-geohydrology, i-hydropedology, ezokuvakasha kanye nezici ezibonakalayo.

- Imithelela engemihle kanye nobungozi obuphansi kakhulu kanye/noma obuphansi buhlonzwe ezindaweni ezingamaxhaphozi, i-Terrestrial Biodiversity, ukungcoliswa komoya komoya kanye nomsindo wasemhlabeni. Imithelela engemihle kwezenhlalo-mnotho yayisukela kokuphansi kuya kokuphakathi.
- Umthelela jikelele weProjekthi Echwebeni LaseRichards Bay kanye nemvelo yasogwini ngemva kokuncishiswa kuyoba maphakathi kuya phansi,
- Umthelela jikelele weProjekthi kwi-Avifauna yase-Richards Bay ngemva kokunciphisa uzoba maphakathi kuya phansi kakhulu.
- Imithelela emihle ephansi iye phezulu kakhulu ikhonjiswe ezicini eziphatelene nembali yezokuvakasha, kanti ukuhlolwa kwenhlalo-mnotho kukhombise imithelela eminingi emihle kusukela kokuphansi, okuphakathi kuya kokuphezulu okuhle.

Indlela yokuhlanganisa iphrojekthi ehlongozwayo idinga ukucatshangelwa okuphelele kwazo zonke izici ezifanele, okuhlanganisa nemithelela engaba khona iphrojekthi ehlongozwayo engaba nayo endaweni kanye nasemphakathini obanzi. Isigaba 2(4)(b) se-NEMA sithi ukuphathwa kwemvelo kumele kudidiyelwe, kuvume ukuthi zonke izingxenyane zemvelo zixhumene futhi zihlobene, futhi kufanele kubhekwe imiphumela yezinqumo kuzo zonke izici zemvelo kanye nabo bonke abantu imvelo ngokuphishekela ukukhethwa kwenketho yemvelo engcono kakhulu engenzeka. Intuthuko esimeme ngokwe-NEMA idinga ukuhlanganiswa kwezici zezenhlalo, ezomnotho, nezemvelo ekuhloleni, ekusetshenzisweni nasekuhlolweni kwamaphrojekthi ahlongozwayo, ukuze kuqinisekise ukuthi intuthuko ihlangabezana nezidingo zesizukulwane samanje nesesikhathi esizayo.

Ngakho-ke ukuhlola okuzimele kochwepheshe bokusimama kucabange kokubili imithelela emihle nemibi yemithelela yangempela kanye nengase ibe khona endaweni, ngokomzimba, ngokwebhayoloji, ezicini zezenhlalo, ezomnotho, nezamasiko zemvelo ngendlela ye-polycentric nephelele:

- Iyavuma ukuthi le ndawo iwuhlelo oluyinkimbinkimbi futhi oluguquguqukayo
- Yazisa ubudlelwano obuhlobene benhlalompilo kanye nenhlalo-mnotho
- Ihlonza ubungozi nemiphumela yezinye izindlela nezinketho zokunciphisa imisebenzi, ukunciphisa imithelela engemihle, kwandiswe izinzuzo, futhi kugququzelwe ukuthotshelwa kwezimiso zokulawulwa kwemvelo njengoba kubekwe eSigabeni 2 se-NEMA.

Ithebula elingezansi lifingqa imithelela ehlole ku-EIA, okuhlanganisa nokubaluleka kwayo ngaphambi nangemva kokuqaliswa kwezinyathelo ezibalulekile zokunciphisa.

Ithebula 0-4: Isifinyezo Semithelela

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambi li	Ngemva kokunciphisa
Imithelela Ye-Hydrology (Isigaba 7.5.1)		
Indawo ye-vadose ephazamisayo ngesikhathi sokumba inhlabathi / imisebenzi yokugcwalisa	Imaphakathi/ Ayinakwa	Imaphakathi/ Ayinakwa
Ukuvezwa kwenhlabathi, okuholela ekwenyukeni kokugeleza kwamanzi ezindaweni ezisusiwe kanye nokuguguleka kwemigudu yamanzi	Phansi	Imaphakathi/ Ayinakwa

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Ukungcoliswa kwamanzi angaphezulu kanye ne-sedimentation	Phansi	Imaphakathi/Ayinakwa
Ukuphazamiseka kwenhlabathi nokuguguleka kanye nokuchithwa kwemiseleyamanzi eseduze (isigaba sokusebenza)	Imaphakathi/Ayinakwa	Imaphakathi/Ayinakwa
Ukushintsha ukuchitheka kwesiteshi (izigameko kuphela; isigaba sokusebenza)	Imaphakathi/Ayinakwa	Imaphakathi/Ayinakwa
Ukuvuza ezimotweni ezenzeka ngesikhathi sokulungiswa kolayini wokudlulisa (isigaba sokusebenza)	Imaphakathi/Ayinakwa	Imaphakathi/Ayinakwa
Imithelela Yasemanzini (Isigaba 7.5.2)		
Ukususwa kwezimila	Maphakathi	Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
ezingasogwini kanye nendawo yokuhlala okunomthelela ekuzinzeni kwamabhange; Ukuphazamiseka kwephrofayili yenhlabathi yemvelo okuholela ekwandeni kwezitshalo zangaphandle ezihlaselayo; Ukulahlekelwa uhlaza lwasemanzini nendawo yokuhlala.		
Ushintsho emigqeni yemvelo yokugeleza kwamanzi okungase kuholele ekuzibeni noma ekukhuleni kwamaphethini okugeleza.	Maphakathi	Phansi
Ukuvuza ezimotweni	Maphakathi	Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
nasemishinini . Ukuchitheka kukawoyela nophethiloli ezimotweni (Isigaba sokwakha)		
Ukuvuza ezimotweni nasemishinini . Ukuchitheka kukawoyela nophethiloli ezimotweni (Isigaba sokusebenza)	Phansi	Phansi
Ushintsho ekubunjweni kwezinhlobo zezilwane ngenxa yokulahlekelwa indawo ehlala emanzini, ukushintsha kwezinga lamanzi.	Phansi	Phansi
Imithelela Ye-Hydropedology (Isigaba 7.5.3)		
Ukulungiswa kwendawo kuba nomthelela ezinhlelweni zokugeleza komhlabathi, izinga	Imaphakathi/ Ayinakwa	Imaphakathi/ Ayinakwa

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
lenhlabathi, ukwakheka kwenhlabathi namandla omhlaba		
Indawo ye-vadose ephazamisayo ngesikhathi sokumba inhlabathi / imisebenzi yokugcwalisa	Phansi	Imaphakathi/ Ayinakwa
Ukubekwa endaweni emisha kwenhlabathi emisha, okushintsha izinqubo ezikhona zokugeleza kwenhlabathi ezinomthelela ezinqubweni zokugeleza komhlabathi, ikhwalithi yomhlabathi, ukwakheka kwenhlabathi namandla omhlaba.	Phansi	Imaphakathi/ Ayinakwa
Ukucocwa kwezitshalo nokugcinwa kwenhlabathi	Phansi	Imaphakathi/ Ayinakwa

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
okunomthelela ezinqubweni zokugeleza kwenhlabathi, izinga lenhlabathi, ukwakheka kwenhlabathi namandla omhlaba		
Ikhwalithi yamanzi angaphezulu (amaxhaphoz i).	Phansi	Imaphakathi/ Ayinakwa
Ikhwalithi yomhlabathi	Phansi	Imaphakathi/ Ayinakwa
Ukumba kuzophazami sa izinqubo zokugeleza komhlabathi	Phansi	Imaphakathi/ Ayinakwa
Ukuchitheka kukawoyela nophethiloli kunomthelela kwikhwalithi yomhlabathi	Phansi	Imaphakathi/ Ayinakwa
Imithelela ye-Geohydrology (Isigaba 7.5.4)		
Indawo yevadose ephazamisayo ngesikhathi sokumba inhlabathi / imisebenzi yokwakha	Phansi	Imaphakathi/ Ayinakwa

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Ukungcoliswa kwe-Hydrocarbon yendawo yevadose (isigaba sokwakha)	Phansi	Imaphakathi/ Ayinakwa
Ukungcoliswa kwamanzi angaphezulu kanye nokuchithwa kwenhlabathi kusuka kule misebenzi elandelayo yokwakha	Phansi	Imaphakathi/ Ayinakwa
Imithelela kubasebenzisi bamanzi angaphansi komhlaba	Imaphakathi/ Ayinakwa	Imaphakathi/ Ayinakwa
Ukuchithwa kwamanzi okwesikhashana kwamanzi angaphansi komhlaba (uma kwenzeka)	Phansi	Imaphakathi/ Ayinakwa
Ukungcoliswa kwe-Hydrocarbon yendawo yevadose (isigaba	Imaphakathi/ Ayinakwa	Imaphakathi/ Ayinakwa

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
sokusebenza)		
Imithelela kubasebenzisi bamanzi angaphansi komhlaba (isigaba sokusebenza)	Imaphakathi/Ayinakwa	Imaphakathi/Ayinakwa
Imithelela Yezindawo Ezizimanzi (Isigaba 7.5.5)		
Ukuguqulwa kwendawo yokuhlala okuqondile - Umthelela oqondile	Maphakathi - Phansi	Phansi
Ikhwalithi Yamanzi (Ukungcola) - umthelela oqondile	Maphakathi - Phansi	Phansi
Ukulungiswa kwemigodi (ikhava yomhlaba kanye nokugeleza kwamanzi) - umthelela ongaqondile	Phansi	Phansi Kakhulu
Ikhwalithi Yamanzi (Ukungcola) - umthelela ongaqondile	Phansi	Phansi Kakhulu
Imithelela ye-Archeology kanye ne-Palaeontology (Isigaba 7.5.6)		

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Ayikho Imithelela		
Imithelela Yezinto Ezihlukahlukene Zezinto Eziphilayo (Isigaba 7.5.7)		
Ukulahleka kwendawo yokuhlala elungisiwe (Isigaba Sokwakha)	Okumaphakathi -Phansi	Phansi
Ukulahleka kwemibhede yomhlaba (Isigaba Sokwakha)	Maphakathi	Phansi
Ukulahleka kwemibhede yomhlaba (Isigaba Sokwakha)	Okumaphakathi -Phansi	Phansi
Ukulahleka kwezitshalo Izinhlobo Zezinto Ezikhathazayo Zokongiwa (SCC) (Isigaba Sokwakha)	Maphakathi	Phansi
Ukulahleka kwezilwane SCC (Isigaba Sokwakha)	Maphakathi	Phansi
Ukulahleka kwezinhlobonhlobo zezinto eziphilayo ngokujwayele	Okumaphakathi -Phansi	Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambi li	Ngemuva kokunciphisa
kile (Isigaba Sokwakha)		
Ukuhlukanis wa (Isigaba Sokwakha)	Okumaphakathi -Phansi	Phansi
Ukuhlasela kwezinhlobo zangaphandl e (Isigaba Sokwakha)	Phezulu	Phansi
Ukulahleka kwendawo yokuhlala egquuliwe (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi
Ukulahleka kwemibhede yomhlanga (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi
Ukulahlekew a kwehlathi (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi
Ukulahlekew a kweflora SCC (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi
Ukulahlekew a kwefauna SCC (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambi li	Ngemuva kokunciphisa
Ukulahleka kwezinhlobon hlobo zezinto eziphilayo ngokujwayele kile (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi
Ukuhlukanis wa (Isigaba Sokusebenza)	Okumaphakathi -Phansi	Phansi
Ukuhlasela kwezinhlobo zangaphandl e (Isigaba sokuSebenza)	Phezulu	Phansi
Imithelela ye-Avifauna (Isigaba 7.5.8)		
Amandla: Ukulahleka Kwendawo yokuhlala (Isigaba Sokwakha)	Okumaphakathi -Phansi	Okumaphakathi -Phansi
Amandla: ukuphazamis eka kwabantu (Isigaba Sokwakha)	Maphakathi	Okumaphakathi -Phansi
Ulayini Wokudlulisa: Ukulahleka Kwendawo yokuhlala (Isigaba Sokwakha)	Okumaphakathi -Phansi	Phansi Kakhulu

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Inggalasizinda: ukuphazamis eka kwabantu (Isigaba Sokwakha)	Maphakathi	Okumaphakathi -Phansi
Ukulahleka kwendawo yokuhlala: Inggalasizinda (Isigaba sokuSebenza)	Maphakathi - Phansi	Phansi Kakhulu
Inggalasizinda yeprojekthi: ukushayisana (Isigaba sokuSebenza)	Okuphakathi-Phezulu	Okumaphakathi -Phansi
Inggalasizinda yeprojekthi: ugesi (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Okumaphakathi -Phansi
Amandla: ukungcoliswa kokukhanya (Isigaba sokuSebenza)	Phansi	Phansi
Amandla: imithelela yomsindo nokudlidiza (Isigaba	Maphakathi	Maphakathi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Sokusebenza)		
Amandla: ukuphazamis eka komuntu (Isigaba sokuSebenza)	Okumaphakathi -Phansi	Phansi Kakhulu
Imithelela yomsindo wangaphansi kwamanzi (Isigaba 7.5.9)		
Ayikho imithelela		
Imithelela Yemivubukulo Yangaphansi kwamanzi (Isigaba 7.5.10)		
Amathuba aphansi kakhulu ezisetshenziswa Zamagugu Zasolwandle Nezamasiko Angaphansi Kwamanzi	Imaphakathi/ Ayinakwa	Imaphakathi/ Ayinakwa
Imithelela Yasogwini, Ichweba Lomfula kanye Nemvelo Yasolwandle (Isigaba 7.5.11)		
Ukuphazamis eka noma ukulahleka kwe-estuarine nezilwane zasolwandle (Isigaba sokwakha)	Okumaphakathi -Phansi	Phansi
Izinguquko ezingeni	Maphakathi	Okumaphakathi -Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambi li	Ngemuva kokunciphisa
lamanzi ngexa yomsebenzi wokwakha osekelwe emanzini		
Ukuphazamis eka kwemvelo ezungezile ye-estuarine, nezokudoba kanye ne- mariculture, ngexa yokwanda kwamazinga omsindo	Okumaphakathi -Phansi	Okumaphakathi -Phansi
Imithelela ye- Avifauna (Amandla nolayini Wokudlulisel a)	Maphakathi	Okumaphakathi -Phansi
Ukulahlekelw a Kwezilwane Izinhlobo Ezikhathazay o Zokongiwa Kwemvelo (Isigaba Sokwakha)	Maphakathi	Phansi
Ukungcolisw a kwemfucuz eqinile (Isigaba	Okumaphakathi -Phansi	Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambi li	Ngemuva kokunciphisa
sokuSebenza)		
Ukunukubeze ka kwamakhemi khali okuvela ekuchithekeni kwezinto eziyingozi (Isigaba Sokwakha)	Okuphakathi- Phezulu	Okumaphakathi -Phansi
Ukungena kwamanzi okupholisa ezintweni eziphila olwandle emanzini azungezile (Isigaba sokuSebenza)	Maphakathi	Okumaphakathi -Phansi
Ukukhishwa kwamanzi okupholisa ku- estuarine/mar ine ecology (Isigaba sokuSebenza)	Okuphakathi- Phezulu	Maphakathi
Imithelela endaweni ezungezile ye- estuarine/mar ine ecology ngexa	Okuphakathi- Phezulu	Maphakathi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
yomsindo owandayo wangaphansi kwamanzi nokudlidliza (Isigaba Sokusebenza)		
Imithelela endaweni ezungezile ye-estuarine/marine ecology ngenxa yokwanda kokungcoliswa kokukhanya (Isigaba sokuSebenza)	Okuphakathi-Phezulu	Okumaphakathi-Phansi
Imithelela yemithelela ehlanganisiwe yokusebenza kwezinsiza ze-ecosystem (ukudoba kanye ne-mariculture)	Maphakathi	Maphakathi
Ukungcoliswa kwamakhemi khali okuvela ekuchithekeni okuhlobene	Phezulu	Okumaphakathi-Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
nokwakhiwa kwezinto eziyingozi nemisebenzi yokuthumela ngemikhumbi (Isigaba sokuSebenza)		
Imithelela yezingozi eziyinhlekelele ku-estuarine/marine ecology, avifauna kanye nezinsiza ze-ecosystem (Isigaba sokuSebenza)	Phansi	Phansi
Imithelela Yomkhathi Nezingozi (Isigaba 7.5.12)		
SO ₂ ; NO ₂ and PM ₁₀	Phansi	Phansi
Imithelela kanye Nezingozi Zomsindo Wasemhlabeni (Isigaba 7.5.13)		
Umthelela womsindo ovela emisebenzini yokwakha	Okumaphakathi-Phansi	Phansi
Umsindo unomthelela ovela emisebenzini yokusebenza	Okumaphakathi-Phansi	Phansi

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Imithelela kanye Nezingozi Zokuguquguquka Kwesimo Sezulu (Isigaba 7.5.14)		
Contribution to climate change Igalelo ekuguquguqukeni kwesimo sezulu	Phansi (Kuyathembisa)	Phansi(Kuyathembisa)
Imithelela Yezenhlalo Nezomnotho Nezingozi (Isigaba 7.5.15)		
Izinguquko ezinhlobonhlobo zemvelo nesimo sezulu ezimpilweni zemiphakathi	Phansi	Phansi (Kuyathembisa)
Ezomnotho, kanye nempilo yabadobi bendawo esifundeni (hhayi nje abadobi endaweni yechweba)	Maphakathi	Okumaphakathi (Okuhle)
Ukunciphisa ezokuvakashakanye nemisebenzi ehlobene nayo endaweni kaMasipala nasesifundeni ngokubanzi.	Maphakathi	Phansi (Kuyathembisa)

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Ukwenyuka kwesidingo sengqalasizinda kamasipala, izinsiza zezenhlalaka hle kanye nobugebengu obuhlobene nabasebenzi bokwakha nabafuna umsebenzi (Isigaba Sokwakha)	Phansi	Phansi
Ukwenyuka kwesidingo sengqalasizinda kamasipala, izinsiza zezenhlalaka hle kanye nobugebengu obuhlobene nabasebenzi bokwakha nabafuna umsebenzi (Isigaba sokusebenza)	Maphakathi	Maphakathi
Ukudluliswa nokuthuthukiswa kwamakhono	Phansi (Kuyathembisa)	Okumaphakathi (Kuyathembisa)

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
(Isigaba Sokwakha)		
Ukudluliswa nokuthuthuki swa kwamakhono (Isigaba sokuSebenza)	Phansi (kuyathembisa)	Phansi (Kuyathembisa)
Umuzwa wendawo ngenxa yemiphumela ebonakalayo nomsindo	Phansi	Phansi
Ukwenyuka kokukhiqizwa komnotho, inani, imali engenayo kanye nokuqashwa ngesikhathi sokwakha nokusebenza	Phezulu (Kuyathembisa)	Phezulu (Kuyathembisa)
Imithelela Nezingozi Zokuvakasha (Isigaba 7.5.16)		
Umthelela omubi ongase ube khona echwebeni lase-Richards Bay emisebenzini yezokuvakasha olwandle	Phansi	N/A

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambili	Ngemuva kokunciphisa
Imithelela engemihle engaba khona ebonwayo kanye nomsindo kwezokuvakasha echwebeni lase-Richards Bay	Phansi	N/A
Imithelela emihle engaba khona yokuhlinzekwa kukagesi kwe-Karpowerships embonini yezivakasha e-Richards Bay	Phezulu kakhulu(Kuyathembisa)	Phezulu kakhulu(Kuyathembisa)
Imithelela Engaba Khona Enhle Ezamandla Nezokuvakasha Kwezimbongi e-Richards Bay	Phansi (Okuhle)	Phansi (Okuhle)
Imithelela Yethrafikhi (Isigaba 7.5.17)		
Ayikho Imithelela		
Imithelela Ebonakalayo (Isigaba 7.5.18)		

Umthelela Ongaba Khona kanye Nengozi	Ukubaluleka	
	Ukunciphisa kwangaphambi li	Ngemuva kokunciphisa
Ayikho imithelela		
Ingozi Enkulu Yokufaka Izingozi (Isigaba 7.5.19)		
Imithelela eyamukeleka yo.		
Imithelela Yethrafikhi Yasolwandle Nengozi (Isigaba 7.5.20)		
Ayikho imithelela		

9.3. Izinyathelo Ezibalulekile Zokunciphisa

Isigaba sokunciphisa (gwema, nciphisa, buyisela kabusha futhi sisuse) sisetshenzisiwe. Ukuncishiswa komklamo oyinhloko okuhlongozwayo ukuze kubhekwane nemithelela ye-bypass kufinyezwa ngezansi:

Gwema

Izinyathelo ezibalulekile ezilandelayo zihloselwe ukugwema imithelela ethile:

- Ukuhlola enye indlela 2 yolayini wokudlulisa njengoba lo mzila unqamula izinhlobo ezimbili zezitshalo Ezisengozini Kakhulu: Ihlathi Lommango kanye Nehlathi Lexhaphozi. Lezi zinokuzwela okuphezulu kakhulu futhi ngenxa yalokho, zingathathwa njengephutha elibulalayo okufanele ligwenywe. Ukubekwa kwemikhumbi emi-2 eduze kosebe lwesihlabathi oluzwelayo futhi kude nogu, okuzodinga umzila omude kagesi kanye nombhoshongo ophakeme. Lokhu okunye okungenziwa kwahlungwa njengoba kwakubhekwa njengokungafaneleki kangako kwezobunjiniyela kanye nemibono yezemvelo.
- Ukuqondanisa ulayini wokudlulisa eduze nezindawo eziguquliwe noma eziphazamisekile, kanye nezinsiza ezikhona.
- Ukusetshenziswa kwezinhlelo zamanzi ezisondelene ezingabandakanyi ukusetshenziswa kwe-biocides

chlorine kanjalo nanoma yikuphi ukungcola okungaba khona endaweni yasolwandle.

Nciphisa

- Idizayini Yemikhumbi Yamandla ihlinzeka ngokunciphisa umsindo owakhelwe ngaphakathi isb. i-double hull kanye ne-anti-vibration mounts.
- Ukulawulwa kwesivinini samanzi angaguquki kanye nokubekwa kwawo amanzi ngaphandle kwendawo ekahle ukuze kuncishiswe imithelela endaweni yemvelo yasolwandle.
- Ukulingisa olwandle kanye nezivumelwano ze-TNPA mayelana ne-FSRU kanye nokuma kwe-Powership kwaqinisekisa indawo ekahle yemikhumbi ukuze kugwenywe ukushayisana kwezimoto zasolwandle futhi kuhambisane nokuhlela kwe-TNPA Port.
- Izinyathelo ezehlukene zabekwa ngokwe-EMPr yesigaba sokwakha nesokusebenza ukuze kuncishiswe imithelela.

Ukuvuselelwa

kubaluliwe kunoma yiziphi izindawo eziphazamisekile ngesikhathi sokwakhiwa ngokwezinyathelo ezihlinzekwe ku-EMPr kanye nohlelo lokuvuselela. Isibonelo, mayelana nokuvuselelwa kwezindawo ezingamakhaphozi, uma izinyathelo zokuvuselela seziqaliswe ngempumelelo, cishe. Amahektha angama-23.3 alingana namakhaphozi azothuthukiswa uma kuqhathaniswa nesimo samanje. Ukwengeza, i-EMPr kanye nohlelo lokuvuselela luphinde luhlinzekele ukunakekelwa kwezindawo ukuvimbela ukucekelwa phansi ngesikhathi sesigaba sokusebenza.

10. Isiphetho > Indlela Eya Phambili

Lolu hlaka lombiko we-EIAR luhlonze futhi lwahlola imithelela engaba khona kwezemvelo neyehlalo-mnotho ehlotshaniwa Nomklamo Ohlongozwayo Wokuthwala Ugesi Wamandla Echwebeni LaseRichards Bay.

Kungumbono wethimba lephrojekthi ye-EIA, okuhlanganisa nabasayina ngezansi, ukuthi zonke izingxenye zalesi sicelo, kuhlanganisa ne-EIR enemibiko enamathiselwe yochwepheshe abazimele, i-EMPr, inqubo yokubamba iqhaza komphakathi kanye nemibhalo esekelayo, ihambisane neziqondiso ezifanele futhi iqukethe konke okudingekayo. ulwazi ngokwemigomo ye-GN 982 ye-EIA Regulations ukuze sikwazi ukwenza isinqumo esinolwazi ngesiphathimandla esinekhono.

Kungumbono ocatshangelwe we-EAP wokuthi iphrojekthi ye-Gas to Power Powership yamukelekile, ngeke idale imithelela engamukeleki kwezemvelo futhi ingagunyazwa ngokunengqondo kuncike ekusetshenzisweni kwezinyathelo zokunciphisa nokuphatha ezibekwe ku-EMPr. Lo mbono ufinyelelwe ngokucutshungulwa okufanele:

- ucwaningo lochwepheshe oluzimele, lapho uchwepheshe ngamunye ephetha ukuhlola kwakhe ngesitatimende esisekela intuthuko ehlongozwayo (okungukuthi, awakho amaphutha abulalayo ahlonziwe kwezinye izinto ezikhethwayo);
- amagalelo azimele esidingweni nasekuhloleni okufiselekayo;
- imithelela ehlonzwe ngokombono omkhulu, omncane, wokuqongelela kanye nowe-polycentric (ohlangene) ngokwendawo, ngokomzimba, ngokwebhayoloji, kwezenhlalo, kwezomnotho nangokwesiko kwemvelo; futhi
- amandla okugwema noma okunciphisa imithelela engemihle futhi kwandiswe imithelela emihle phakathi kokunye ngohlelo lokuthuthukisa inhlalakahle yezomnotho kanye nokunciphisa ukucisha kukagesi.



Umfanekiso 0-5: Uhlolajikelele Lwendawo yeProjekthi- Gas kuya-Power Nge-Powership kwiSiqhingi sase-Richards Bay

