Soventix Unilever PV Facility

Social Statement

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Prepared for:
Ecoleges

October 2021

Executive Summary

The purpose of this document is to provide a social statement of compliance for the development of a 3.6 MWP solar PV facility on 3.8 ha of Unilever's property that is located in Boksburg East in the City of Ekurhuleni Metropolitan Municipality in the Gauteng Province in South Africa.

The receiving environment is located in an industrial area that borders a residential area. Sensitive receptors in the area are:

- The Boksburg SPCA
- The St Dominic's Catholic School for Girls
- Old railway houses
- A suburban area

Due to the site's location and the nature of the proposed development, very few impacts of a social nature are expected, the most notable being:

- Visual disturbances due to glare from the panels
- Community expectation
- Traffic impacts
- Safety and security

To address these issues, the following measures are recommended:

- Managing the visual nuisance impact (glare) through erecting visual barriers such as trees. This should be done in consultation with the potentially affected parties.
- Implement a grievance mechanism for the development;

- Compile a strategy for road safety that avoid construction traffic during peak traffic and emphasises safe and responsible road use.

- Compile a strategy for community safety during construction, especially taking into consideration the girls' school opposite the road.

- Implement security measures on site to protect construction material and limit access to property.

Given the positive impact the development will have in the sense that it will use renewable energy, avoiding manufacturing delays through the supply of electricity and the reducing dependency on coal, from a social perspective it is recommended that the project proceeds. From a social perspective there is not much differentiation between the sites, although Alternative 2 might be the best option from a visual nuisance and safety perspective. Any of the other sites will also be acceptable should they be indicated as more preferable based on the majority of specialist studies.

Declaration of Independence

Equispectives Research and Consulting Services declare that:

- All work undertaken relating to the proposed project was done as independent consultants;
- They have the necessary required expertise to conduct social impact assessments, including the required knowledge and understanding of any guidelines or policies that are relevant to the proposed activity;
- They have undertaken all the work and associated studies in an objective manner, even if the findings of these studies were not favourable to the project proponent;
- They have no vested interest, financial or otherwise, in the proposed project or the outcome thereof, apart from remuneration for the work undertaken under the auspices of the above-mentioned regulations;
- They have no vested interest, including any conflicts of interest, in either the proposed project or the studies conducted in respect of the proposed project, other than complying with the relevant required regulations; and
- They have disclosed any material factors that may have the potential to influence the competent authority's decision and/or objectivity in terms of any reports, plans or documents related to the proposed project as required by the regulations.

Record of Experience

Ilse Aucamp and San-Marié Aucamp compiled this report.

Ilse Aucamp holds a D Phil degree in Social Work obtained from the University of Pretoria in 2015. She also has Masters' degree in Environmental Management (Cum Laude) from the Potchefstroom University for Christian Higher Education, which she obtained in 2004. Prior to that she completed a BA degree in Social Work at the University of Pretoria. She is frequently a guest lecturer in pre- as well as post-graduate programmes at various tertiary institutions. Her expertise includes social impact assessments, social management plans, social and labour plans, social auditing, training as well as public participation. She is a co-author of the *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* document published by the International Association for Impact Assessment.

San-Marié Aucamp is a registered Research Psychologist with extensive experience in both the practical and theoretical aspects of social research. She has more than 20 years' experience in social research and she occasionally presents guest lectures on social impact assessment. Her experience includes social impact assessments, social and labour plans, training, group facilitation as well as social research. She is a past council member of the Southern African Marketing Research Association (SAMRA).

Table of Contents

List of Figures

List of Tables

GLOSSARY OF TERMS

Livelihood: The ways in which people combine their capabilities, skills and knowledge with the resources at their disposal to create activities that enables them to make a living.

Securitisation: A financial arrangement that consists of issuing securities that are backed by a pool of assets, in most cases debt.

Sense of place: Defining oneself in terms of a given piece of land. It is the manner in which humans relate or feel about the environments in which they live.

Social impact: Something that is experienced or felt by humans. It can be positive or negative. Social impacts can be experienced in a physical or perceptual sense.

Social change process: A discreet, observable, and describable process that changes the characteristics of a society, taking place regardless of the societal context (that is, independent of specific groups, religions etc.). These processes may, in certain circumstances and depending on the context, lead to the experience of social impacts.

Social Impact Assessment: The processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by these interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment.

Social license to operate: The acceptance and belief by society, and specifically local communities, in the value creation of activities.

Social risk: Risk resulting from a social or socio-economic source. Social risk comprises both the objective threat of harm and the subjective perception of risk for harm.

Sustainable livelihood: A livelihood that can carry on in the present and in the future without depleting the resources it depends on and without depriving other people of a livelihood. It can be carried on in spite of shocks or changes like natural disasters or seasonal cycles.

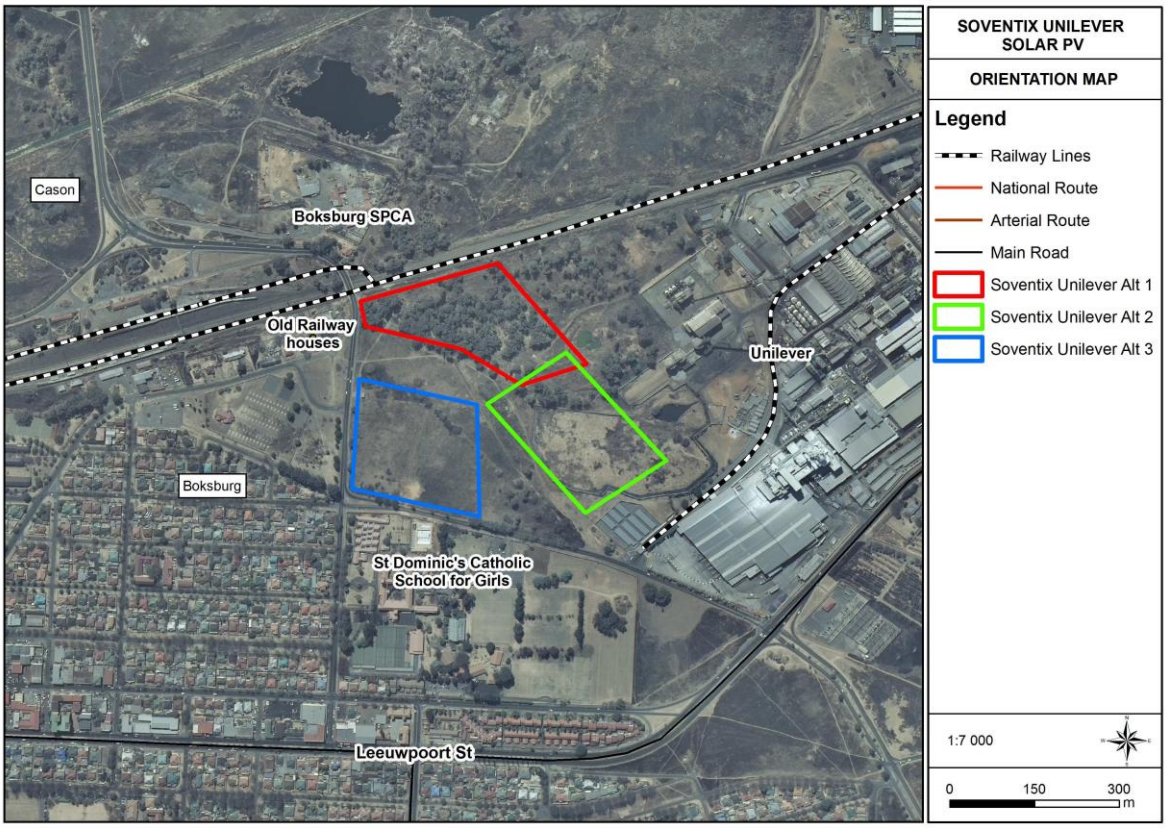
LIST OF ABBREVIATIONS

DM	District Municipality
ESIA	Environmental and Social Impact Assessment
ESMP	Environment & Social Management Plan
EMP	Environmental Management Plan
ESOMAR	European Society for Opinion and Marketing Research
FPL	Food Poverty Line
IDP	Integrated Development Plan
IFC	International Finance Corporation
IHDI	Inequality-adjusted Human Development Index
LBPL	Lower Bound Poverty Line
LED	Local Economic Development
MPI	Multidimensional Poverty Index
NGO	Non-Government Organisation
RAP	Resettlement Action Plan
SAMRA	Southern African Marketing Research Association
SIA	Social Impact Assessment
UBPL	Upper Bound Poverty Line
UNEP	United Nations Environmental Programme

1 Introduction

Soventix South Africa (Pty) Ltd proposes the development of a 3.6 MWP solar PV facility on 3.8 ha of Unilever's property that is located in Boksburg East in the City of Ekurhuleni Metropolitan Municipality in the Gauteng Province in South Africa. Figure 1 shows the location of the proposed project.

Figure 1: Locality of the site for the proposed project.



Ecoleges has appointed Equispectives Research and Consulting Services to compile a statement of compliance in terms of the social environment as input for the Environmental Impact Assessment study for the proposed project. This report represents the findings and recommendations of the social compliance statement.

2 Study approach

The information used in compiling this social compliance statement was based on a brief site visit, a desktop review of available socio-economic data, and professional judgement based on experience gained with similar projects.

2.1 Assumptions and limitations

The following assumptions and limitations were relevant:

- This report is based on a desktop review of available socio-economic data of the area as well as a brief site visit. No stakeholder consultation was conducted.
- The social environment constantly changes and adapts to change, and external factors outside the scope of the project can offset social changes, for example changes in local political leadership, droughts or economic conditions. It is therefore difficult to predict all impacts to a high level of accuracy, although care has been taken to identify and address the most likely impacts in the most appropriate way for the current local context within the limitations. In addition, it is also important to manage social impacts for the life of the project, especially in the light of the changing social environment.
- Social impacts can be felt on an actual or perceptual level, and therefore it is not always straightforward to measure the impacts in a quantitative manner.
- Social impacts commence when the project enters the public domain. Some of these impacts will occur irrespective of whether the project continues or not, and other impacts have already started. These impacts are difficult to mitigate and some would require immediate action to minimise the risk.
- There are different groups with different interests in the community, and what one group may experience as a positive social impact, another group may experience as a negative impact. This duality will be pointed out in the impact assessment section of the report.

- Social impacts are not site-specific, but take place in the communities surrounding the proposed development.

3 Receiving environment

When viewing the environment from a socio-economic perspective the question can be asked what exactly the social environment is. Different definitions for social environment exist, but a clear and comprehensive definition that is widely accepted remains elusive. Barnett & Casper (2001) offers the following definition of human social environment:

> *"Human social environments encompass the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact. Components of the social environment include built infrastructure; industrial and occupational structure; labour markets; social and economic processes; wealth; social, human, and health services; power relations; government; race relations; social inequality; cultural practices; the arts; religious institutions and practices; and beliefs about place and community. The social environment subsumes many aspects of the physical environment, given that contemporary landscapes, water resources, and other natural resources have been at least partially configured by human social processes. Embedded within contemporary social environments are historical social and power relations that have become institutionalized over time. Social environments can be experienced at multiple scales, often simultaneously, including households, kin networks, neighbourhoods, towns and cities, and regions. Social environments are dynamic and change over time as the result of both internal and external forces. There are relationships of dependency among the social environments of different local areas, because these areas are connected through larger regional, national, and international social and economic processes and power relations."*

Environment-behaviour relationships are interrelationships (Bell, Fisher, Baum & Greene, 1996). The environment influences and constrains the behaviour of people, but behaviour also leads to changes in the environment. The impacts of a project on people can only be truly understood if their environmental context is understood. The

baseline description of the social environment will include a description of the area within a provincial, district and local context that will focus on the identity and history of the area as well as a description of the population of the area based on a number of demographic, social and economic variables.

3.1 Description of the area

The proposed project will be located in Ward 32 of the City of Ekurhuleni Metropolitan Municipality in the Gauteng Province.

The **Gauteng Province** borders the provinces of Mpumalanga, Limpopo, North West and the Free State. It is the smallest of South Africa's provinces, covering an area of 18 178 km^2 or approximately 1.4% of the total surface of South Africa. Approximately 24.1% of the population of South Africa lives in Gauteng. The province is responsible for more than 34.8% of the country's GDP, with the most important sectors in terms of GDP being finance; real estate and business services; manufacturing; and general government services.

The population of the province are from all walks of life and the major cities have a reputation for being cosmopolitan. The province has an urbanisation level of about 97% and as such all major activity happens in and around urban centres. Gauteng is South Africa's main manufacturing base with almost half of all factories situated in the province (www.gauteng.net). Although the province is the commercial heartland of the country, the agricultural sector still plays a role. A large area of the province falls within the Maize Triangle and groundnuts, sorghum, cotton, and sunflowers are produced in the province. Gauteng holds the largest number of educational centres in the country. Other large industries are mining, technology, and tourism.

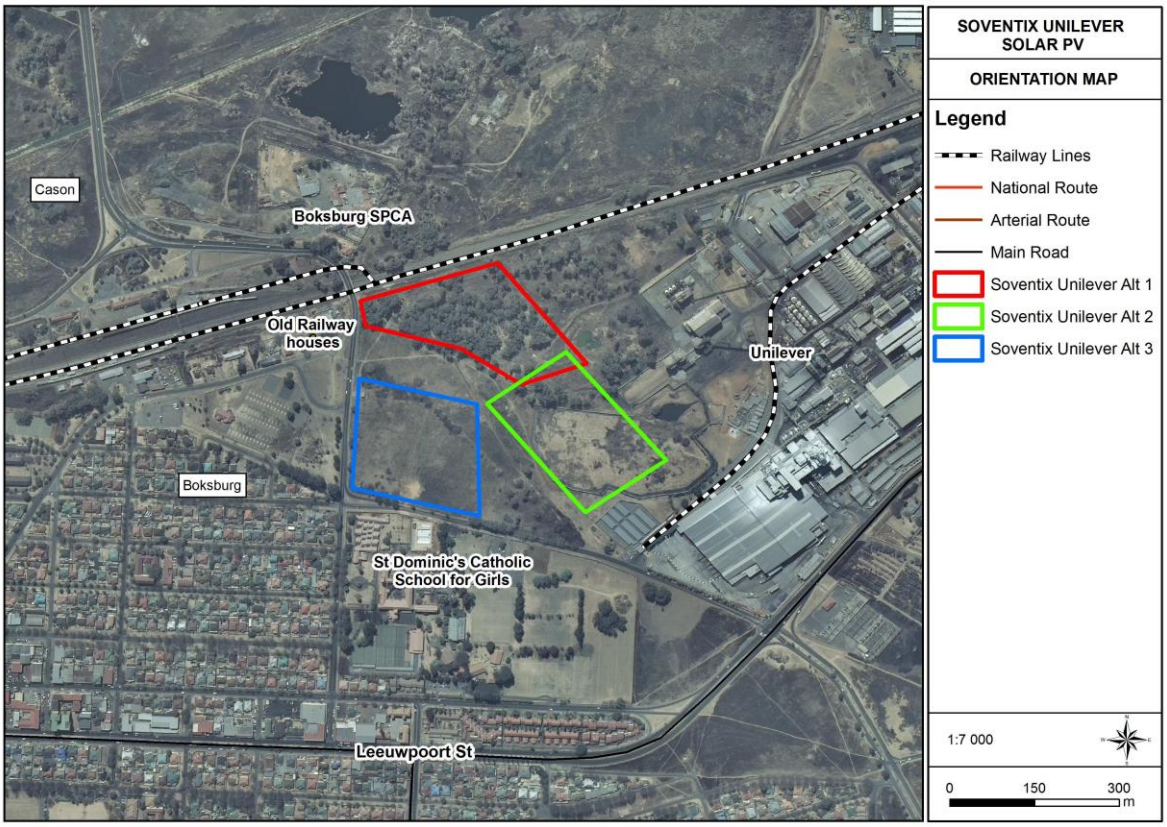
Gauteng is divided into three metropolitan municipalities, namely City of Johannesburg, City of Tshwane, and City of Ekurhuleni, and two district municipalities, namely Sedibeng and West Rand.

The **Ekurhuleni Metropolitan Municipality** covers an extensive area from Germiston in the west and Nigel and Springs in the east. It is one of the most densely populated areas on both the province and the country (www.municipalities.co.za). The area

accounts for nearly a quarter of Gauteng's economy. Cities and towns in the municipal area includes Alberton, Bedfordview, Benoni, Birchleigh, Boksburg, Brakpan, Clayville, Daveyton, Dunnottar, Edenvale, Geduld, Germiston, Kathlehong, Kempton Park, Kwa-Thema, Machenzieville, Nigel, Olifantsfontein, Springs, Tembisa, Tokoza, Vosloorus and Vorsterkroon. The municipality covers an area of 1 975km^2 and the main economic sectors are Manufacturing, Finance and business services, Community services, Trade, Transport, Construction, Electricity, and Mining.

Ward 32 (2016 boundaries) consists of the suburbs of Parkrand, Cinderella, Libradene, Farrar Park, Parkdene, Plantation, Cason, Boksburg, Satmar, Boksburg East Industrial, Boksburg South. The **proposed site** is bordered by the Unilever industrial site, railway tracks, Saint Dominics Street and Kruger Street. The Boksburg SPCA is located opposite the site (north) on the other side of the railway tracks. The St Dominic's Catholic School for Girls is located to the south of the site, on the other side of Saint Dominic's Street. To the west, on the other side of Kruger Street, are a few old railway houses that are in close proximity to the site. The railway houses are dilapidated but inhabited. There are residential areas located to the south and southwest of the site.

Figure 2: Area around the proposed project.



For the baseline description of the area, data from Census 2011, Community Survey 2016, the municipal IDP and relevant websites were used.

3.2 Socio-economic characteristics of the area

The baseline description of the population will take place on municipal and ward level. The data used for the socio-economic description was sourced from Census 2011. Census 2011 was a de facto census (a census in which people are enumerated according to where they stay on census night) where the reference night was 9-10 October 2011. The results should be viewed as indicative of the population characteristics in the area and should not be interpreted as absolute.

In some municipalities the ward boundaries have changed in 2016 and StatsSA made Census 2011 data available that is grouped according to the 2016 boundaries. The ward level data will be shown for the 2016 ward delineations.

The following points regarding Census 2011 must be kept in mind (www.statssa.co.za):

- Comparisons of the results of labour market indicators in the post-apartheid population censuses over time have been a cause for concern. Improvements to key questions over the years mean that the labour market outcomes based on the post-apartheid censuses have to be analysed with caution. The differences in the results over the years may be partly attributable to improvements in the questionnaire since 1996 rather than to actual developments in the labour market. The numbers published for the 1996, 2001, and 2011 censuses are therefore not comparable over time and are higher from those published by Statistics South Africa in the surveys designed specifically for capturing official labour market results.

- For purposes of comparison over the period 1996–2011, certain categories of answers to questions in the censuses of 1996, 2001 and 2011, have either been merged or separated.

- The tenure status question for 1996 has been dropped since the question asked was totally unrelated to that asked thereafter. Comparisons for 2001 and 2011 do however remain.

- All household variables are controlled for housing units only and hence exclude all collective living arrangements as well as transient populations.

- When making comparisons of any indicator it must be taken into account that the time period between the first two censuses is of five years and that between the second and third census is of ten years. Although Census captures information at one given point in time, the period available for an indicator to change is different.

Where available, the Census 2011 data will be supplemented with data from Community Survey 2016.

The socio-economic characteristics of the municipal areas are summarised in **Table 1** below. No ward level data is available for Community Survey 2016:

Table 1: Socio-economic characteristics of the area (source: Census 2011, Community Survey 2016).

Socio-economic profile	City of Ekurhuleni	Ward 32
Population	In 2011 Ekurhuleni had a population of approximately 1 080 646 households and 3 178 470 people. The population of Ekurhuleni showed an increase in population of 6.31% and an increase in 20.25% in households between 2011 and 2016. The increase in population is lower than on provincial level while the increase in households is higher than on provincial level. The average household size has decreased slightly from 2.94 to 2.71. In 2011 the majority of the population (78.7%) belonged to the Black population group. CS 2016 shows that the population composition for Ekurhuleni has changed between 2011 and 2016. The proportion of residents belonging to the Black population group has increased from 78.74% to 81.74% while the proportion for the White population has declined from 15.81% to 13.73%.	In 2011 Ward 32 had a population of approximately 8 377 households and 24 277 people. In 2011 the majority of the population (61.9%) belonged to the White population group while 25.7% belonged to the Black population group.
Sex	In 2011 the area had a slight bias towards males (51.2%). The split between males and females stayed more or less the same between 2011 and 2016. Less than a third of households (31.1%) were headed by females. CS 2016 shows that there has been an increase in female-headed households from 31.09% in 2011 to 32.84% in 2016.	The sex distribution in 2011 was biased towards females (51.2%). Approximately a third of the households (32.9%) were headed by females.
Age	About a quarter of the population (14.3%) was aged 14 years or younger in 2011. The proportion of people in the economically active age group (15 – 64 years) remained more or less the same between 2011 (71.7%) and 2016 (71.2%).	Less than a fifth of the population (19.4%) was aged 14 years or younger in 2011. The proportion of people in the economically active age group (15 – 64 years) was 71.6% with a high proportion of people of retired age (9.1%).
Education levels	In 2011 approximately 35.9% of people (aged 20 years or older) have completed Grade 12 while 14.0% completed education higher than Grade 12. In 2016 38.5% of people 20 years or older have completed Grade 12, while	In 2011 approximately 43.9% of people (aged 20 years or older) have completed Grade 12 while 26.4% completed education higher than Grade 12.

	11.9% completed higher education.	
Employment	In 2011 49.4% of the people in the area were employed while 27.0% of people have indicated that they are not economically active. In 2011 the total dependency ratio (proportion of dependents per 100 working-age population) was 39.4% of which 5.6% consisted of people of retirement age.	In 2011 67.8% of the people in the area were employed while 26.0% of people have indicated that they are not economically active. In 2011 the total dependency ratio (proportion of dependents per 100 working-age population) was 39.8% of which 12.7% consisted of people of retirement age.
Housing	The majority of households (60.2%) has indicated in 2011 that they live in formal dwellings, while 15.1% have indicated that they live in informal dwellings. CS 2016 shows that the number of households living in formal dwellings or houses on a separate stand in Ekurhuleni has increased from 60.16% in 2011 to 63.77% in 2016. The number of households living in a formal dwelling, flat or room in someone's backyard has increased from 5.57% in 2011 to 9.49% in 2016, while the households who live in an informal dwelling in a backyard has remained more or less the same. The proportion of households in informal dwellings that are not in a backyard has also remained more or less the same.	The majority of households (65.2%) has indicated in 2011 that they live in formal dwellings, while 11.6% have indicated that they live a flat or apartment in a block of flats. The incidence of informal dwellings was less that 1%.
Water and sanitation	In 2011 approximately 55.7% of households had access to piped water inside their dwellings, while 30.5% had access to piped water inside their yards. CS 2016 shows that the incidence of households with access to piped water inside the dwelling in Ekurhuleni has increased slightly from 55.74% in 2011 to 56.51% in 2016. Approximately 83.8% of households had access to a flush toilet connected to a sewerage system, while 7.3% had access to pit latrines without ventilation. CS 2016 shows an increase in Ekurhuleni in households with access to flush toilets connected to a sewerage system from 83.84% to 85.43%	In 2011 approximately 92.4% of households had access to piped water inside their dwellings, while 5.4% had access to piped water inside their yards. Approximately 96.5% of households had access to a flush toilet connected to a sewerage system while 0.7% used bucket latrines.
Electricity	The majority of households (81.3%) used electricity as their main source of energy for lighting, while 12.8% used	The majority of households (96.2%) used electricity as their main source of energy for lighting, while 1.9% used

	candles and 4.6% used paraffin. CS 2016 shows that the incidence of households in Ekurhuleni that use electricity for lighting has increased from 81.3% in 2011 to 85.4% in 2016, while the use of paraffin has increased from 4.6% to 6.5% and the use of candles has declined from 12.8% to 6.1%.	candles.

Poverty is a complex issue that manifests itself in economic, social, and political ways and to define poverty by a unidimensional measure such as income or expenditure would be an oversimplification of the matter. Poor people themselves describe their experience of poverty as multidimensional. The South African Multidimensional Poverty Index (SAMPI) (Statistics South Africa, 2014) assess poverty on the dimensions of health, education, standard of living and economic activity using the indicators child mortality, years of schooling, school attendance, fuel for heating, lighting, and cooking, water access, sanitation, dwelling type, asset ownership and unemployment.

CS 2016 (Statistics South Africa, 2016) has reported that the poverty headcount in Ekurhuleni has increased slightly since 2011 (from 6.4% to 6.6%), as did the intensity of the poverty (from 44.5% to 44.7%). The poverty headcount refers to the proportion of households that can be defined as multidimensionally poor by using the poverty cut-offs of the South African Multidimensional Poverty Index (SAMPI) (Statistics South Africa, 2014), while the intensity of poverty experienced refers to the average proportion of indicators in which poor households are deprived. This suggests that in both areas there are slightly more people that are multidimensionally poor and on more dimensions. This suggests a bleaker picture in terms of poverty in the area than in 2011. As the statistics predates the Covid-19 pandemic, the impact of the pandemic as such has not been taken into consideration. It is likely that the area is experiencing increased levels of poverty as a result of the pandemic and the restrictions that were put in place to mitigate the impact of the pandemic.

3.3 Crime

The area under investigation is located in the precinct of the Boksburg Police Station. Table 2 shows the crime statistics for the Boksburg precinct for the past five reporting periods. Crimes that showed a great increase since the 2020/21 period include robbery with aggravating circumstances, malicious damage to property, theft out of or from motor vehicle, all theft not mentioned elsewhere and commercial crime. The category "All theft not mentioned elsewhere" covers anything from stealing kilometres of copper cable or aircraft engines to taking a pen, ashtray, beer glass and/or towel from a hotel/resort as a souvenir. Items most frequently taken during cases of other theft are cellular phones, money, jewellery, and tools (especially garden tools). Many of the crimes that showed an increase have an opportunistic component to them and may be an indication of the current socio-economic climate in the area.

Table 2: Crime statistics for the Boksburg precinct since 2017 (source: SAPS).

CRIME CATEGORY	April to June 2017_18	April to June 2018_19	April to June 2019_20	April to June 2020_21	April to June 2021_22	Change past year	% Change
CONTACT CRIMES (CRIMES AGAINST THE PERSON)							
Murder	14	5	17	3	11	8	266.7%
Sexual Offences	9	16	12	6	11	5	83.3%
Attempted murder	6	1	17	8	4	-4	-50.0%
Assault with the intent to inflict grievous bodily harm	23	41	33	31	29	-2	-6.5%
Common assault	44	47	57	47	54	7	14.9%
Common robbery	21	18	19	16	24	8	50.0%
Robbery with aggravating circumstances	67	64	87	43	64	21	48.8%
Total Contact Crimes (Crimes Against the Person)	**184**	**192**	**242**	**154**	**197**	**43**	**27.9%**
Total Sexual Offences							
Rape	6	14	11	5	5	0	0.0%
Sexual Assault	2	2	1	1	6	5	500.0%
Attempted sexual offences	1	0	0	0	0	0	0 Counts
Contact sexual offences	0	0	0	0	0	0	0 Counts
Total Sexual Offences	**9**	**16**	**12**	**6**	**11**	**5**	**83.3%**
SOME SUBCATEGORIES OF AGGRAVATED ROBBERY							
Carjacking	9	8	4	8	10	2	25.0%
Robbery at residential premises	17	22	23	12	11	-1	-8.3%

CRIME CATEGORY	April to June 2017_18	April to June 2018_19	April to June 2019_20	April to June 2020_21	April to June 2021_22	Change past year	% Change
Robbery at non-residential premises	9	7	15	4	8	4	100.0%
Bank Robbery	0	0	0	0	0	0	0 Counts
Robbery of cash in transit	0	0	0	0	0	0	0 Counts
Truck hijacking	0	2	0	1	5	4	400.0%
CONTACT-RELATED CRIMES							
Arson	0	2	0	2	1	-1	-50.0%
Malicious damage to property	52	54	76	31	59	28	90.3%
Total Contact-related Crimes	**52**	**56**	**76**	**33**	**60**	**27**	**81.8%**
PROPERTY-RELATED CRIMES							
Burglary at non-residential premises	23	30	34	36	17	-19	-52.8%
Burglary at residential premises	73	73	102	57	32	-25	-43.9%
Theft of motor vehicle and motorcycle	51	120	61	45	40	-5	-11.1%
Theft out of or from motor vehicle	89	95	90	49	97	48	98.0%
Stock-theft	0	0	0	0	0	0	0 Counts
Total Property-Related Crimes	**236**	**318**	**287**	**187**	**186**	**-1**	**-0.5%**
OTHER SERIOUS CRIMES							
All theft not mentioned elsewhere	152	132	120	73	99	26	35.6%
Commercial crime	45	61	61	56	70	14	25.0%
Shoplifting	34	25	41	18	16	-2	-11.1%
Total Other Serious Crimes	**231**	**218**	**222**	**147**	**185**	**38**	**25.9%**
Total 17 Community Reported Serious Crimes	**703**	**784**	**827**	**521**	**628**	**107**	**20.5%**
CRIME DETECTED AS A RESULT OF POLICE ACTION							
Illegal possession of firearms and ammunition	3	0	6	1	1	0	0.0%
Drug-related crime	43	79	82	16	13	-3	-18.8%
Driving under the influence of alcohol or drugs	16	22	23	4	6	2	50.0%
Sexual offences detected as a result of police action	1	0	0	0	0	0	0 Counts
Total Crime detected as a Result of Police Action	**63**	**101**	**111**	**21**	**20**	**-1**	**-4.8%**

4 Need and desirability

Government Notice 891 of 2014 is a Guidance Document that deals with the *Need and Desirability* in terms of the EIA regulations. This document presents certain questions to engage with to determine the need and desirability of a proposed project.

The project outcomes align with the national, local, and regional planning objectives in terms of economic development and sustainability. The project will use a natural, renewable resource and assist with decreasing the country's reliance on coal as a source of energy. The project will not affect the environmental rights of any of the affected stakeholder groups and no-one's livelihoods will be affected in a negative manner.

The project will not result in any unfair discrimination or affect the social and environmental rights of any of the stakeholder groups, should the mitigation measures be implemented as suggested. From a social perspective the positive impact that the project will have on the affected environment outweighs the negative impacts by far, and where there are negative impacts, it can be mitigated.

The table below shows the questions posed in Government Notice 891 of 2014 indicate where in the report the questions were addressed and provide responses to the questions where required.

Table 3: Need and desirability of project from social perspective

Question	Response
2.1. What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?: 2.1.1. The IDP and any other strategic plans, frameworks of policies applicable to the area, 2.1.2. Spatial priorities and desired spatial patterns, 2.1.3. Spatial characteristics, and 2.1.4. Municipal Economic Development Strategy ("LED Strategy").	Addressed in Section 3 of the report. The IDP states that the bulk of manufacturing resides in the City of Ekurhuleni and as such the industrial strategic framework should be anchored in the manufacturing sector.
2.2. Considering the socio-economic context, what will the socio-economic impacts be of the development, and specifically also on the socio-economic objectives of the area?	The project will enable Unilever to deal with disruptive impact of load shedding on the manufacturing sector and assist in reducing the country's dependency on coal as source of energy. The project is in support of the manufacturing sector and is aligned with Ekurhuleni's

2.2.1. Will the development complement the local socio-economic initiatives, or skills development programs?	10 Point development plan in terms of manufacturing revitalisation and use of land for strategic development.
2.3. How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	The proposed development is in a semi-industrial area and will assist in maintaining job security for the factory workers of Unilever.
2.4. Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?	The most severe impacts will be in the construction phase, and more positive impacts will continue through the life of the project. Given the nature of the development and the potential long term positive social impacts it can be seen as a sustainable project.
2.5. In terms of location, describe how the placement of the proposed development will: 2.5.1. result in the creation of residential and employment opportunities in close proximity to or integrated with each other, 2.5.2. reduce the need for transport of people and goods, 2.5.3. result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport), 2.5.4. compliment other uses in the area, 2.5.5. be in line with the planning for the area, 2.5.6. for urban related development, make use of underutilised land available with the urban edge, 2.5.7. optimise the use of existing resources and infrastructure, 2.5.8. opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement), 2.5.9. discourage "urban sprawl" and contribute to compaction/densification, 2.5.10. contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs, 2.5.11. encourage environmentally sustainable land development practices and processes, 2.5.12. take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.), 2.5.13. the investment in the settlement or area in question will generate the highest socio-	2.5.1. There will be limited long term residential and employment opportunities. 2.5.2. People and goods will be transported during the construction phase from their place of work to the site. 2.5.3. There will be no impact on public transport. 2.5.4. The development will complement the needs of the manufacturing sector in the area. 2.5.5. It is in line with manufacturing development in the area. 2.5.6. The development is making use of undeveloped land inside the urban area, making the area less fragmented. 2.5.7. Sunlight will be used as natural resource, and the development will enhance the use of existing electricity infrastructure. 2.5.8. N/A 2.5.9. N/A 2.5.10. The development will fill in an unutilised open space in area. 2.5.11. The project will provide renewable energy. 2.5.12. The site for the proposed development has been chosen due to its strategic location close to the Unilever factory. 2.5.13. The investment will decrease the manufacturing sector's vulnerability to external shocks caused by lack of electricity with economic implications. 2.5.14. N/A 2.5.15. The project do have the potential to contribute to a more integrative settlement.

economic returns (i.e. an area with high economic potential), 2.5.14. impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and 2.5.15. in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	
2.6. How were a risk-averse and cautious approach applied in terms of socio-economic impacts?: 2.6.1. What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? 2.6.2. What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge? 2.6.3. Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	2.6.1. See Section 5.2. 2.6.2. See Sections 2.1. 2.6.3. The information used in the SIA is based on the official data received from the municipalities and StatsSA. Given that municipalities are subject to public consultation processes, the assumption is made that the data is correct. A conservative approach was taken to the identification of impacts. Given the nature of the project, no critical social resources should be affected, and once commissioned, there is a relatively low risk for social disruption. It is recommended that sensitive social receptors should be consulted about the social mitigation measures to ensure that the measures suggested are acceptable to the communities affected by the project.
2.7. How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following: 2.7.1. Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? 2.7.2. Positive impacts. What measures were taken to enhance positive impacts?	2.7.1. See Section 5.3 2.7.2. See Section 5.3
2.8. Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?	It is not anticipated that the social impacts resulting from the proposed project will have significant ecological impacts.
2.9. What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	The information provided in the social statement were fed into the other specialist studies and used to ensure that the best practical environmental option was chosen, whilst the social aspects were also considered.
2.10. What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the	Renewable energy is a clean form of energy and benefits the greater society. The DoE requires that local communities must benefit from these kinds of development.

beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	
2.11. What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	The environmental resources affected by the proposed development where not used by local communities. The project aims to provide clean energy to South Africa, therefore it assist with protecting ecosystem services.
2.12. What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	Environmental health and safety are legal requirements and will also be written into the project specifications.
2.13. What measures were taken to: 2.13.1. ensure the participation of all interested and affected parties, 2.13.2. provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, 2.13.3. ensure participation by vulnerable and disadvantaged persons, 2.13.4. promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means, 2.13.5. ensure openness and transparency, and access to information in terms of the process, 2.13.6. ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge, and 2.13.7. ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?	See Ecoleges public participation process
2.14. Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g.. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local	The IDP states that the bulk of manufacturing resides in the City of Ekurhuleni and as such the industrial strategic framework should be anchored in the manufacturing sector.

area (or that is proportional to the needs of an area)?	
2.15. What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	Will form part of the Soventix operational procedures in line with South African legislation
2.16. Describe how the development will impact on job creation in terms of, amongst other aspects: 2.16.1. the number of temporary versus permanent jobs that will be created, 2.16.2. whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area), 2.16.3. the distance from where labourers will have to travel, 2.16.4. the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and 2.16.5. the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.).	It is unlikely that the project will create a significant number (if any) additional jobs during construction. A PV plant only requires a small labour component.
2.17. What measures were taken to ensure: 2.17.1. that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and 2.17.2. that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	No specific intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment took place as a result of this specific project No conflicts of interests have arisen as a result of this project.
2.18. What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest and that the environment will be protected as the people's common heritage?	No specific measures was taken
2.19. Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	The mitigation measures are seen as realistic and the implementation of these will ensure that the social impacts will be managed. There will be no or very little residual impacts over the duration of the project.
2.20. What measures were taken to ensure that he costs of remedying pollution, environmental degradation and consequent adverse health	The applicant is responsible for implementing the Environmental Management Programme.

effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	
2.21. Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	All the specialists identified sensitive areas after the specialist studies were completed. The site boundaries were adapted accordingly. This assisted with selecting the best practicable environmental option.
2.22. Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	See Section 5.3

5 Potential social impacts resulting from the project

5.1 Social risk

An important consideration when looking at possible impacts and risks, whatever their source, is to appreciate that all impacts are social impacts and that people experience the physical environment in human terms (Vanclay, 2003). Another consideration is the way in which public perception is addressed. Perceptions, attitudes, and beliefs must be treated as real with real consequences. While the public's assessment of risk is perceptual in nature, their fears should not be dismissed as irrational and therefore unimportant. Living with the fear and uncertainty is an impact in itself (Burdge, 1998). Social risks can be viewed from different perspectives. As much as a proposed project can pose risk to a community, communities can also pose risk to projects.

It is also important to consider the "social license to operate". In 2003 Pierre Lassonde drew attention to the observation that "Without local community support, your project is going nowhere." He described social license as "…the acceptance and belief by society, and specifically local communities, in the value creation of activities". Social license cannot be obtained by going to a government ministry and making an application or simply paying a fee. It requires far more than money to truly become part of the communities in which a company operates (Lassonde 2003). A primary

objective of gaining a social license is to minimize project risk. “Successful operations require the support of the communities in which they operate now, and in the future, to ensure continued access to land and resources” (Render 2005). The social license to operate can be further described as the degree of match between stakeholders’ individual expectations of corporate behaviour and companies’ actual behaviour.

Earning a social license to operate starts in the planning phase of any given project. First impressions are long lasting, and the company must recognize that community opinion will be conditioned by previous experience, knowledge gained from elsewhere and the approach taken by the company. Conflict can arise very quickly if there is a failure to respect local customs of land use and religious sites, give notice of actions, pay fair market compensation and so on. Knowledge of the community and on-going communications are prerequisites for good relations.

5.2 Social changes versus Social impacts

It is important to understand the difference between a social change process and a social impact. For the purpose of the SIA report both these categories will be investigated. For the purpose of this report, only possible social impacts will be mentioned.

Social change processes are set in motion by project activities or policies. Social change processes can be measured objectively, independent of the local context. Examples of a social change process are increase in the population, relocation or presence of temporary workers. Under certain circumstances these processes may result in social impacts, but if managed properly these changes may not create impacts. Whether impacts are caused will depend on the characteristics and history of the host community, and the extent of mitigation measures that are put in place (Vanclay, 2003).

The following categories of social change processes should be investigated in a SIA:

- Demographic processes
- Economic processes

- Geographic processes
- Institutional and legal processes
- Emancipatory and empowerment processes
- Sociocultural processes

A social impact is something that is experienced or felt by humans. It can be positive or negative. Social impacts can be experienced in a physical or perceptual sense. Therefore, two types of social impacts can be distinguished:

- **Objective** social impacts – i.e. impacts that can be quantified and verified by independent observers in the local context, such as changes in employment patterns, in standard of living or in health and safety.
- **Subjective** social impacts – i.e. impacts that occur "in the heads" or emotions of people, such as negative public attitudes, psychological stress or reduced quality of life.

It is important to include subjective social impacts, as these can have far-reaching consequences in the form of opposition to, and social mobilisation against the project (Du Preez & Perold, 2005). The following categories of social impacts will be investigated:

- Health and social well-being
- Quality of the living environment
- Economic impacts and material well-being
- Cultural impacts
- Family and community impacts
- Institutional, legal, political and equity impacts
- Gender impacts

In conclusion, it is very likely that a number of social changes processes will be set in motion by the project. Whether these processes cause social impacts will depend on the successful implementation of suggested mitigation measures. Having said that, it must be considered that the social environment is dynamic and constantly changing, making it difficult to predict exact impacts. External processes not related to the project, like political changes or global economic changes can alter the social environment in a short period of time, and therefore alter the predicted impacts.

5.3 Potential social impacts

The proposed development is located in an industrial area, in close proximity to a residential area. Labour is available in the municipal area, avoiding additional pressure on infrastructure due to an additional need for housing, electricity, water and sanitation services. The site is uninhabited and as such there is no need to relocate people. The closest sensitive receptors from a social perspective are:

- The Boksburg SPCA, that is separated from the site by a railway line and some open space;
- The St Dominic's Catholic School for Girls, consisting of a pre-school, primary school and senior school, that is separated from the site by a road and some open space;
- Old railway houses that are dilapidated but inhabited, that is separated from the site by a road;
- A suburban area that is a bit further away, but still within sight of the proposed site.

From a social perspective, the proposed development would not have many impacts, most of which would be negligible. The following impacts that may result from the project should be addressed:

- Visual disturbances

  The solar panels may cause a glare at certain times of the day which may be

very disruptive for people in the area, such as the Boksburg SPCA and the St Dominic's School for Girls. Although the school has a wall around it, it may be an issue for facilities that are not on the ground floor. To mitigate this potential nuisance factor, tall trees can be planted to form a barrier or a screen between the receptors and the source of the nuisance. The trees should be planted a distance away from the panels as to not interfere with their working. Furthermore, the proponent should enter in consultation with the school and the SPCA to determine the nuisance potential and whether any other measures may be suitable. The houses in the immediate area may also be affected.

- Community expectations

  The community may have certain expectation around the project, such as job creation or other economic opportunities. The proponent should manage these expectations and there should be a central place, such as the entrance of the Unilever factory, where people can submit their applications, or an e-mail address or WhatsApp number where people could submit their queries to. This could form part of a grievance mechanism where people could submit any issues regarding the development, especially in the construction phase.

- Traffic impacts

  During the construction phase there may be an increase in construction vehicles to the area, which may cause congestion and an unsafe traffic environment around the school. The proponent should adopt a policy where deliveries of construction material take place outside peak traffic times, and times when the school start or closes for the day.

- Safety and security

  Safety and security are a concern from two sources. The site is opposite a school for a girls, with the girls ranging from toddlers to adolescents. Although unlikely, the proponent should be aware that this may create an opportunity

for crime against women or children during the construction phase, which may be real or perceived (in the eyes of the parents). To enhance their social license to operate, the proponent should consult with the school to compile a safety strategy for the learners during the construction phase.

Crime statistics in the area show an increase in certain crime categories in the area. As such criminals may target the construction material during the construction phase and the solar panels during the construction and operational phases. To avoid losses, the proponent must ensure that the necessary security arrangements are in place to protect their property and avoid criminals getting access to the site.

6 Conclusion and recommendations

The site for proposed PV facility is in an urban area. Very few impacts from a social nature are expected resulting from the construction and operation of a solar facility on the site. The following measures should be considered:

- Managing the visual nuisance impact (glare) through erecting visual barriers such as trees. This should be done in consultation with the potentially affected parties.
- Implement a grievance mechanism for the development;
- Compile a strategy for road safety that avoid construction traffic during peak traffic and emphasises safe and responsible road use.
- Compile a strategy for community safety during construction, especially taking into consideration the girls' school opposite the road.
- Implement security measures on site to protect construction material and limit access to property.

Given the positive impact the development will have in the sense that it will use renewable energy, avoiding manufacturing delays through the supply of electricity and the reducing dependency on coal, from a social perspective it is recommended that the project proceeds. From a social perspective there is not much differentiation between the sites, although Alternative 2 might be the best option from a visual nuisance and safety perspective. Any of the other sites will also be acceptable should they be indicated as more preferable based on the majority of specialist studies.

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