



Centre for Environmental Rights

Advancing Environmental Rights in South Africa

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Dear Elizabeth

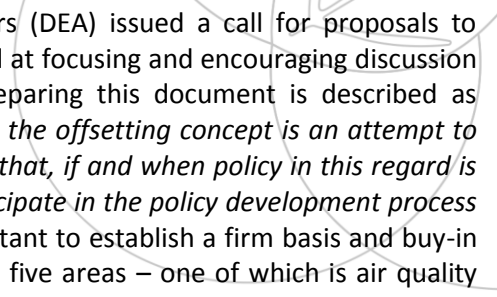
COMMENTS ON THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS' DRAFT AIR QUALITY OFFSET POLICY

1. We act for groundWork, Earthlife Africa Johannesburg, the Vaal Environmental Justice Alliance, the South Durban Community Environmental Alliance. Upfront, we are instructed to state that our clients do not agree, in principle, with the use of offsets as a management tool to avoid compliance with legislation. They believe it is a cheap option to avoid compliance and, once allowed for one corporation, it will be claimed as a right by others on the basis of "equal treatment". Following Eskom, other big polluters are already standing in line to avoid compliance with emission standards. We nevertheless make the submissions below on the draft policy.

2. Introductory remarks

2.1. The draft air quality offset policy ("the draft policy") claims that it was developed in line with the principles of the Constitution of the Republic of South Africa, 1996 and the National Environmental Management Act 107 of 1998 (NEMA), objectives of the National Environmental Management: Air Quality Act 39 of 2004 (AQA), and the aspirations of the National Development Plan (NDP 2030). The draft policy states that it is intended to lay a framework for establishing offset projects, and is aimed at providing guidance to the industry or proponents, government agencies, consultants, the general public and other key stakeholders regarding appropriate methods and procedures to be followed for offsetting "atmospheric emissions". The AQA was fully brought into effect in 2010, with associated ambient air quality standards (2009 and 2012) as well as minimum emission standards (2010).

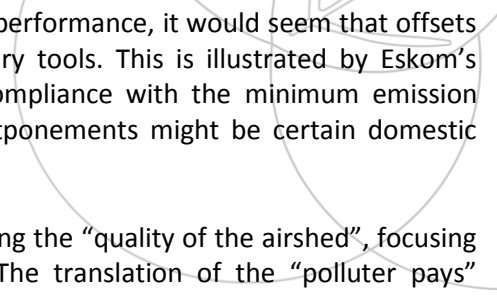
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- 2.2. In November 2013, the Department of Environmental Affairs (DEA) issued a call for proposals to prepare an environmental offsets discussion document¹ aimed at focusing and encouraging discussion and debate around offsetting. Part of the rationale for preparing this document is described as follows: *“in essence, the first step in the process of rolling out the offsetting concept is an attempt to develop a broad stakeholder understanding of the concept so that, if and when policy in this regard is developed, all interested and affected parties are able to participate in the policy development process in an informed manner”*. Our interpretation is that it is important to establish a firm basis and buy-in for the development of future offset policy across potentially five areas – one of which is air quality and emissions reduction, as set out in the call for proposals.
 - 2.3. The publication of a draft policy on Air Quality Offsets prior to any discussion and debate on environmental offsets is contrary to the DEA’s stated intention and prompts questions about the reasons for the particular haste in producing this policy. Given that the term “offset” does not appear in any current legislation in South Africa, the “leapfrogging” of a draft policy on offsets for air quality is of questionable merit. The policy itself does not appear to have followed the required policy-making process.
 - 2.4. It is submitted that the fact that South Africa is a developing country should not be a reason to allow polluting industries to operate outside the ambit of the law. It is essential – at South Africa’s “developing” stage, that industries are held to account, so that the constitutional right to a safe and healthy environment is upheld.
 - 2.5. The draft policy makes reference to a number of publications. It is noted that offsets in other countries, referred to in these publications, are based principally on systems of emission credits of specific pollutants registered by industries and bought or traded by others who cannot meet their legal emission requirements. This literature has little relevance to the type of air quality offset being proposed in South Africa.
 - 2.6. According to recent research favouring offsetting,² the effectiveness of offset policies depends on the political and institutional context in which they are developed. It is noted that most of the countries where offset systems are in place are relatively well-capacitated and resourced to administer, monitor and enforce these offsets. In South Africa, the capacity to monitor and enforce conditions of authorisations, licences and permits is recognised as being poor. Many of these functions lie with municipalities, which have serious capacity constraints and difficulties in fulfilling their current air quality obligations. The additional responsibilities that offsets will entail will exacerbate this situation.
 - 2.7. Air quality offsets in the draft policy deal only with emissions and air quality in the narrow context of human health; impacts of pollutants on ecological infrastructure such as water resources, productive agricultural resources and biodiversity – all of which affect human wellbeing and may affect livelihoods, are not addressed (refer to 4 below). Recent research³ notes that environmental offsets often fail to take adequate account of environmental or ecosystem damages.
 - 2.8. The draft policy states that air quality offsets are *“not intended to replace regulatory and enforcement tools, but are an additional tool that can be used to achieve long-term environmental protection”*. However, offsets appear to be linked to the relaxation of core regulations and would permit non-

¹ 19 November 2013: Appointment of a service provider to assist the Department of Environmental Affairs in implementing the multi-stakeholder participatory development, compilation and publication of a Discussion Document aimed at focusing and encouraging debate around an environmental protection strategy known as Environmental Offsetting. Air quality offsets form part of the scope of this Document. Bid Reference No. SEI/19/11/12/02.

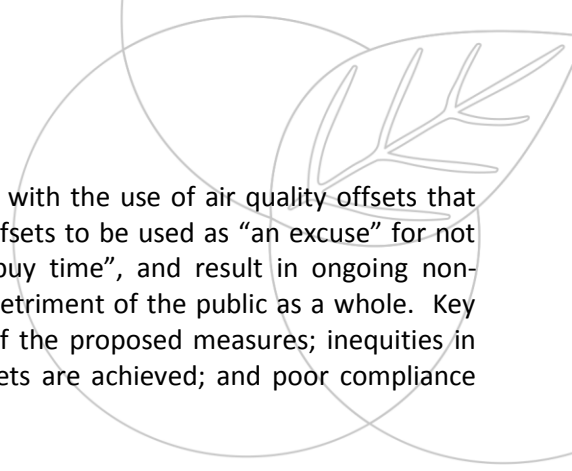
² E.g. Hahn R and K Richards 2013. Understanding the effectiveness of environmental offset policies. *J Regul. Econ.* DOI 10.1007/s11149-013-9211-1

³ See note 2, for eg.

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- compliance for period(s) of time. That is, depending on their performance, it would seem that offsets have clear potential to undermine or weaken core regulatory tools. This is illustrated by Eskom's stated intention to apply for "rolling postponements" of compliance with the minimum emission standards, and the suggestion that a condition of such postponements might be certain domestic offsets.
- 2.9. The draft policy appears to use offsets as a means of influencing the "quality of the airshed", focusing primarily on particulates and sulphur dioxide pollutants. The translation of the "polluter pays" principle and application to offsets is thus problematic and begs a number of questions regarding the equity of the proposed exchanges: how will other air pollutants be remedied (or would they be allowed to remain non-compliant?); how will the particular exceedances of a specific polluter be "translated" into an equivalent "other pollutant"? Determining a reliable and defensible basis for determining equivalency between the impacts of regulatory relaxation and the offset effort is fundamental to any system of offsets.
- 2.10. The draft policy seems to be largely concerned with fugitive emissions from households, which have never been systematically measured, characterised or documented. Our clients dispute that all low-income communities rely on dirty fuel as their primary energy source. They also dispute that household emissions are the main drivers of exceedances of ambient air quality standards and that compliance can be achieved only by household interventions. It is submitted that there needs to be a better measurement and understanding of the drivers of air pollution so that appropriate interventions can be identified and implemented.
- 2.11. There are a number of equity and distributional issues associated with using air quality offsets that are inadequately addressed in the draft policy (refer to 13 below).
- 2.12. The draft policy does not sufficiently address the intention regarding, and/ or distinction between, the use of air quality offsets to remedy exceedances of *specific pollutants* in terms of emission standards, and the use of air quality offsets to remedy exceedances of ambient air quality standards with regard, potentially, to other pollutants.
- 2.13. Figure 1 of the draft policy indicates that, if a facility which is not in compliance with emission limits/atmospheric emission licence (AEL) conditions has applied for a variation or postponement that is being positively considered, then an offsets programme would have to be developed. Also, if the facility were compliant with emission standards, but ambient air quality standards were exceeded, then an offsets programme would have to be developed. Since the draft policy focuses on the "quality of the airshed", rather than on the offending pollutants, there appears to be latitude in permitting exceedances of some pollutants in relation to emission standards - provided that ambient air quality as a whole is improved. The latter is potentially problematic from an equity perspective (refer to 13 below). The potential for using air quality offsets in situations where neither emission standards nor ambient air quality standards are being met is not – and should be – addressed in the draft policy. Our clients submit that "polluters" should not be permitted to use offsets instead of complying with standards. This would be contrary to the Constitution, NEMA, AQA and the Framework.
- 2.14. The NEMA principles require that a risk-averse and cautious approach is applied, taking into account the limits of current knowledge about the consequences of decisions and actions.⁴ Furthermore, it is explicit that the costs of remedying pollution and environmental degradation, and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.⁵

⁴ S.2(4)(a)(vii) NEMA.

⁵ S.2(4)(p) NEMA.

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- 2.15. There are a number of potentially significant risks associated with the use of air quality offsets that could, amongst others, “let polluters off the hook”, enable offsets to be used as “an excuse” for not reducing specific emissions and/ or allowing polluters to “buy time”, and result in ongoing non-compliance and exceedances of air quality standards to the detriment of the public as a whole. Key risks include: uncertainty about the potential effectiveness of the proposed measures; inequities in the use of offsets (refer to 13 below); time lags before offsets are achieved; and poor compliance monitoring and enforcement (refer to 12 below).

3. Introduction [1 of the draft policy]

- 3.1. The definition of “offsets” in the draft policy (1.2) refers.

3.1.1. It is submitted that the definition is confusing. Environmental offsets are broadly defined as measures that counterbalance, counteract, or compensate for the adverse impacts of an activity on the environment, stating that they are “trade-offs” or “balancing activities” carried out to counterbalance the adverse environmental impacts to achieve a “no net environmental loss” or a “net environmental benefit” outcome. According to the draft policy, “(i)n the air quality context, an offset is an intervention, or interventions, specifically implemented to counterbalance the adverse environmental impact of atmospheric emissions in order to deliver a net ambient air quality benefit within the affected airshed.”

3.1.2. Studies by proponents of offsets insist that they are but one of a hierarchy of interventions implemented to counterbalance negative impacts. International literature on environmental impact and sustainability assessment, written within this framing, argues that offsets or compensation typically constitute the final step in a sequence of measures that can be taken to mitigate negative impacts: the so-called “mitigation hierarchy”. Prior to considering them, it is generally seen to be important first to strive to avoid, then to minimise and repair or rectify harm. Only then would offsets or compensation be considered to remedy the “residual negative impacts”. This sequence of mitigation measures is explicitly reflected in the NEMA principles with regard to pollution and degradation of the environment.

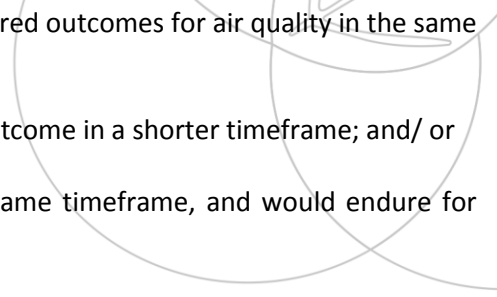
3.1.3. The draft policy sends mixed messages with regard to the mitigation hierarchy: for example:

3.1.3.1. it is stated in 3. that “*the offset should not be seen as a substitute for efforts that can be made to reduce emissions from a facility*”, suggesting a strict application of the mitigation hierarchy; and

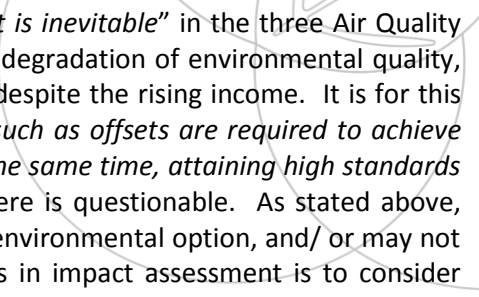
3.1.3.2. “*it is envisaged that offsets will provide the opportunity to remedy the impacts of pollution where it cannot be completely avoided*”, suggesting that there would be no need to minimise emissions prior to considering offsets, and that it would be acceptable to move directly from avoidance to offsets.

3.1.4. It is recommended either that the definition in the draft policy be amended to refer to “*residual adverse environmental impacts after steps to avoid and minimise these impacts have first been taken*”, or that the pre-requisites for bypassing the “minimise and repair/rectify” steps in the mitigation hierarchy are made explicit. In our view, the pre-requisites for moving from avoidance straight to offsets should include, at minimum, the following:

3.1.4.1. offsets would be substantially more cost-effective than minimisation and would guarantee the same or better outcomes for air quality in the same timeframe;

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- 3.1.4.2. offsets present a lower risk option to achieving desired outcomes for air quality in the same timeframe;
 - 3.1.4.3. offsets would deliver a more efficient and better outcome in a shorter timeframe; and/ or
 - 3.1.4.4. offsets would deliver the same outcomes in the same timeframe, and would endure for longer.
 - 3.1.5. The definition confuses “trade-offs” with offsets. Although offsets may, in some instances, qualify as trade-offs (e.g. where they are utilised to enhance preferred alternatives once conditions of impact acceptability have been met)⁶, they are not automatically trade-offs. To state that “*tradeoffs such as offsets are required to achieve high and sustainable rates of economic growth and at the same time, attain high standards of environmental quality*” is thus not necessarily correct, nor is it desirable; the acceptability of trade-offs must be seen in relation to sustainability goals, thresholds of change in environmental quality and acceptability of impacts, desired outcomes, as well as such considerations as risk. Of critical importance with regard to air quality offsets is the demarcation of what would – and what would not - be “acceptable”.
 - 3.1.6. The definition fails to link offsets to a particular project or development and its proponent (the “polluter”); individual offsets need to be linked to a particular polluter’s actions and responsibilities.
 - 3.1.7. As elaborated upon below, it is not clear how environmental offsets can be used to measure environmental protection, specifically in the case of air quality, nor how a result of “no net environmental loss” can be achieved between the impacts of a coal-fired power station and the air-quality impacts that result from normal community activities.
- 3.2. The “opportunities for atmospheric emissions offset tool” (1.3 of the draft policy) refer.
- 3.2.1. Our clients submit that the introduction of offsets will increase the challenges mentioned in this section: population growth, migration and industrial development. As companies like Eskom begin to offer free services as offsets (in exchange for non-compliance with the law), it can be expected that more people will move into the areas in which offsets are offered. How will this unintended consequence be mitigated and how will it be determined which households are in need of which kinds of benefits? These are critical elements to consider and have not been mentioned in the draft policy. The provision of services that are protective of health and well-being is a commitment that must be fulfilled by government, not industry.
 - 3.2.2. The need for interventions to reduce non-industrial and domestic emissions is acknowledged, as are the opportunities to involve both the private and public sector polluters in contributing to these interventions. However, the criteria on which exchanges between impacts and offsets are based (i.e. dealing with the type of acceptable exchange in time and space, and levels of risk in terms of outcomes) are of crucial importance in decisions on whether or not to use offsets, and where. Clear criteria are not provided in the draft policy. In any event, regardless of an offsetting policy, industries and government are legally required to reduce ambient environmental exceedances.

⁶ Morrison-Saunders A and J Pope. 2013. Conceptualising and managing trade-offs in sustainability assessment. Environmental Impact Assessment Review 38: 54-63.

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- 3.2.3. According to the draft policy, “...*industrial development is inevitable*” in the three Air Quality Priority Areas declared to date,⁷ and this results in the degradation of environmental quality, and a negative impact on human health and welfare - despite the rising income. It is for this reason, according to the draft policy, that “*trade-offs such as offsets are required to achieve high and sustainable rates of economic growth and at the same time, attaining high standards of environmental quality.*” The rationale for offsets here is questionable. As stated above, offsets may not be appropriate or the best practicable environmental option, and/ or may not constitute tradeoffs. In addition, one of the key tasks in impact assessment is to consider reasonable and feasible alternatives to avoid significant negative impacts; offsets should not be used as leverage or a reason to permit significant negative impacts.
- 3.2.4. The air quality in Priority Areas does not have the “potential” to impact poorly on human health – it does impact poorly on human health. It is submitted that the challenge of unemployment has little relevance to the draft policy.
- 3.2.5. It should be pointed out that, in addition to mentioning the need for economic growth, the National Development Plan also calls for the prudent use of natural resources and stimulating the Green Economy.
- 3.3. The “aims and objectives” (1.4 of the draft policy) refers.
- 3.3.1. The objectives of the draft policy are provided: namely to provide guidance on how offsets are determined; to ensure that they are efficient, relevant, effective, consistent, transparent and reasonable; to ensure that the size and scale of offsets are proportionate to residual impacts; to provide offsets based on the best available scientifically robust information; and to ensure transparent governance.
- 3.3.2. These aims and objectives are somewhat vague. The draft policy does not, for instance, state explicitly what the purpose and desired outcome of offsets should be. It is recommended that a clear statement be included in the policy on this matter.
- 3.3.3. In the South African context, it appears that air quality offsets are intended to be directly linked to a relaxation in the requirements of emission and/ or ambient air quality standards. The draft policy states: “(a) *core objective or desired outcome of any policy should be that offsets provide an environmental benefit at least as large in value as the harm caused by the relaxation of legal requirements within a reasonable timeframe.*” We reiterate that offsets should not be considered when there is non-compliance with standards.
- 3.3.4. With regard to ensuring transparent governance in that offsets should be readily measured, monitored, audited and enforced:
- 3.3.4.1. The draft policy states that “(t)he decision on any proposed offset shall be made by the relevant authorities including the national department, provincial and local authorities, depending on the nature of the application” (our emphasis)’. There is no clarity on the criteria to be used to decide whether or not an offset would or should be considered. These criteria are essential and must be included in the policy. One such criterion should be compliance with ambient air quality standards. (We accept that a policy is not expected to cover all the nuances of the programme as they would be teased out in subsequent planning and implementation documents. However, since these criteria will be core to the use of air quality offsets, it is recommended that they be included in the policy.)

⁷ Vaal Triangle Airshed, the Highveld and the Waterberg-Bojanala Priority Areas

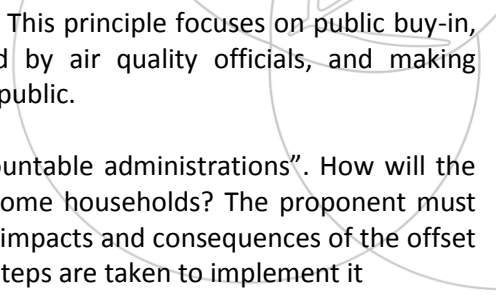
- 3.3.4.2. The draft policy also states that “(a)ny authorisation granted with a condition for offsetting may be revised/withdrawn at any time by the relevant authority should a proponent of the offset project fails to deliver on any of the agreed interventions.” Experience with environmental management programmes points to the need to relate performance not to interventions or actions, but to *explicit performance targets in a defined schedule*: it is the outcomes achieved and not the actions being undertaken to deliver the outcomes that count. We recommend that the policy be revised accordingly. It is highly problematic to establish baselines of non-industrial emissions and measure progress over time. South Africa does not, in any event, have a strong track record of quantification.

4. Legislative context [2 of the draft policy]

- 4.1. It is submitted that offsets which allow non-compliance with ambient air quality standards or minimum emission standards violate the constitutional environmental right. They are also contrary to the mitigation hierarchy in NEMA. Our client submit that air pollution from polluting coal-fired power stations - such as those belonging to Eskom - can be avoided through use of the appropriate technology or through decommissioning ageing power stations and transitioning to alternative energy.
- 4.2. The draft policy states that AQA provides “reasonable measures” for the protection and enhancement of air quality. Despite the reasonableness of these measures, and the fact that the minimum emission standards were negotiated in a multi-stakeholder process that included industries like Sasol, Eskom and Natref, these companies are still proposing offsets as an alternative to legal compliance. This is unacceptable to our clients.
- 4.3. The regulation of air quality aims primarily “to secure an environment that is not harmful to the health and wellbeing of people”. However, the draft policy focuses almost exclusively on human health and fails to address other components of wellbeing, many of which are intricately linked to environmental health.
- 4.4. The fact that air quality impacts affect the biophysical environment and human wellbeing (e.g. agricultural productivity of crops and livestock health, both linked to livelihoods), as well as water resources and aquatic ecosystems (which in turn may be linked to livelihoods and/ or biodiversity issues), appears to be overlooked. In order to satisfy the object of the AQA, the NEMA and the Constitution (providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development, while promoting justifiable economic and social development), this broader spectrum of potential negative impacts that would need to be addressed through air quality offsets must explicitly be taken into account.

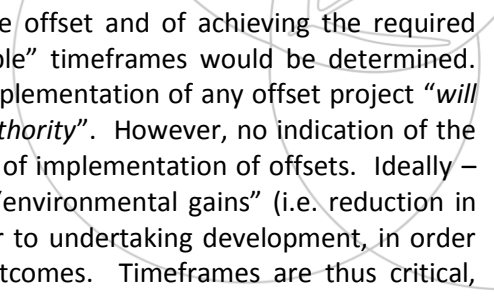
5. Air quality offsetting principles [3 of the draft policy]

- 5.1. The principles are welcomed and are essential in a policy of this nature. However, in a number of cases they are too vague to serve as a robust and adequate framework:
- 5.1.1. The “outcomes based” principle, and reference to “an overall improvement in ambient air quality in the airshed” refers. This outcome is vague and appears not to be tied to the activities and responsibilities of the polluter, or to specific pollutants. It is also not clear how an “airshed” is conceived. It is recommended that a more explicit outcome, for example “improvement in air quality must be commensurate with the gap between the residual impact of the development with regard to pollutants, and the required emissions target and/ or ambient air quality target”, be stated.

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- 5.1.2. The “transparency and acceptability” principle refers. This principle focuses on public buy-in, providing all the necessary documentation required by air quality officials, and making available information on offset implementation to the public.
- 5.1.3. More detail is required as to what is meant by “accountable administrations”. How will the “community” be defined? Will it only include low-income households? The proponent must ensure that communities are well-educated about the impacts and consequences of the offset policy, and that is broad support for the policy before steps are taken to implement it
- 5.1.4. The draft policy indicates that “*authorities must maintain a consistent and transparent process in assessing applications that requires implementation of offsets*”. However, there is no mention of the basis on which decisions will be taken about requiring and/or evaluating a proposed offset, or of criteria to be used. Importantly, in what situation would exceedances be permitted, either of emission licences and/ or ambient air quality and an offset seen as a potentially acceptable solution?
- 5.1.5. Where the primary motivation for air quality offsets relates to financial considerations on the part of the proponent/ polluter, it is essential that the comparative costs and benefits of options (offsets being one option), as well as impacts of these options (taking into account e.g. time lags/ delays in offset implementation and risks of failure of different options e.g. poor performance or high risk of failure of some interventions), are addressed and documented. In this regard, it is recommended that the proponent must be required to provide the public not only with information related to the *implementation* of the offsets programme; information should also be provided on reasonable and feasible alternatives to that offsets programme to meet air quality standards, and their associated costs and benefits both to the public and the proponent (e.g. the public health costs of not reducing emissions promptly, but instead implementing offsets over a long time period, could be far greater than the costs to the proponent of installing appropriate technology), as well as on concept options for offset design.
- 5.1.6. The “additionality” principle, in which reference is made to “*the existence of the incentive provided by the offset programme*”, states that offsets are used “*to compensate for emission reductions*”. This statement is incorrect; offsets are used to compensate for failure to reduce emissions satisfactorily in order to meet prescribed standards.
- 5.1.7. The statement that “*reductions that results from offset projects must demonstrate to be ‘in addition to’ reductions that would have occurred without the incentive provided by the offset*” similarly requires revision for clarity. Offset actions must be “*over and above*” actions that others planned or intended, or the polluter intended - or were legally required in any event - to take anyway; additionality should not be related to “*the incentive provided by the offset*”, but rather to the effect of the offset itself.
- 5.1.8. A corollary of the additionality principle is that there should not be displacement of negative effects to other locations (known as “leakage”) – no mention is made of this principle in the draft policy. It is recommended that this corollary is included in the policy and addressed as a criterion in decision making.
- 5.1.9. It must be made specific which emissions reductions and from which baselines the offsets results be measured. Coal-fired power stations, for example, emit some different pollutants than other sources of poor ambient air quality. If different emissions are being counteracted by the offsets policy, then the end result will not result in “*no net environmental change*”.

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- 5.1.10. The “sustainability” principle refers, in which it is stated that “*short-term solutions should not be considered*”. Broadly speaking, offsets should secure outcomes that last at least as long as the project’s impacts, and preferably in perpetuity. It is recommended that the duration of the offset and the proponent’s responsibility be made explicit.
- 5.1.11. Our clients submit that the most appropriate way to achieve long-term sustainability would be to enforce air pollution regulation. All offsets can be considered short-term solutions in comparison. Reducing domestic fuel burning is a “*short-term solution*”.
- 5.1.12. With reference to not undermining or preventing achievement of other environmental/ socioeconomic objectives, it is crucial that air quality impacts are interpreted, assessed and evaluated – and mitigation, including offsets, planned – to include all potentially significant impacts on e.g. biodiversity, water resources and livelihoods, and not simply on human health.
- 5.1.13. The “measurable and scientifically robust” principle refers. Offsets should not amount to “greenwashing”. It is crucial (as stated) that offsets have real, quantifiable and verifiable outcomes, that they should represent the actual reduction of emissions from various sources, that emission sources are well understood and that reliable baselines representing forecasted emission levels in the absence of the project should be established (i.e. the scenario without offsets). Currently, accurate baselines do not exist. Existing air quality monitoring is inadequate and the equipment often unreliable.
- 5.1.14. An offset involves an exchange in type, time and space. The draft policy makes repeated reference to “*an overall improvement in ambient air quality within the airshed*”; however, this principle fails to address the mechanisms for determining the quantum of offset required and is silent on the following related issues:
- 5.1.14.1. whether or not the offset must be “*like for like*” (i.e. PM10 reduction for PM10 exceedance, or SO₂ reduction for SO₂ exceedance). From a presentation given by the DEA at a meeting on 6 February 2014, it would appear that the offsets would not need to be “*like for like*”, and that “*improvement in the airshed*” is the sole yardstick to be used. If this is the case, then it is crucial for the regulator to provide defensible reasons and explicit criteria for determining “out of kind” offsets or exchanges between pollutants that would be deemed acceptable (e.g. SO₂ reduction for PM10 exceedance, or *vice versa*);
- 5.1.14.2. taking cognisance of an objective of the draft policy, namely that the size and scale of offsets “*must be proportionate to the residual impacts*”, how the size of offset is to be determined (presumably the gap between projected standards and pollution levels as a result of the specific polluting activity, over x years);
- 5.1.14.3. the boundaries of the affected environment/ communities in which the exceedance would need to be remedied/ offset (i.e. an acceptable location for the offset), as well as specific sensitive recipients who/ that should be targeted by the offset;
- 5.1.14.4. how forecasted emission levels in the absence of the project would be accurately determined (setting a reliable baseline or counterfactual against which to set offsets is extremely challenging: it is frequently difficult to identify what a facility’s emissions might have been in the absence of the offset programme)⁸;

⁸ Hahn R and K Richards 2013. Understanding the effectiveness of environmental offset policies. *J Regul. Econ.* DOI 10.1007/s11149-013-9211-1

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- 5.1.14.5. the timeframes for starting implementation of the offset and of achieving the required offset, and on what basis “suitable” or “acceptable” timeframes would be determined. According to the draft policy, the timeframe for implementation of any offset project “*will be agreed in writing with the relevant approval authority*”. However, no indication of the basis or criteria is given for deciding on the timing of implementation of offsets. Ideally – and as now required in some jurisdictions – the “environmental gains” (i.e. reduction in pollution) should be demonstrated/ achieved prior to undertaking development, in order to avoid associated risks and uncertainties of outcomes. Timeframes are thus critical, particularly where harm to environment/ people is potentially severe;
 - 5.1.14.6. some offset policies explicitly recognise that there are limits to what can be offset; thresholds beyond which offsets would not be considered because of the level of harm, irreversibility of the impact and/ or loss of irreplaceable resources. It is recommended that the policy include a principle on limits/ thresholds to guide decision making on when an offset would or would not be appropriate, for the benefit of decision-makers, developers (polluters) and for interested and affected parties; and
 - 5.1.14.7. the distributional effects of both air quality impacts and offsets must be taken into account in considering, designing and implementing offsets. Please refer to 13 below.

5.12 In relation to statutory requirements, the draft policy is supported in noting that offsets must meet all planning, statutory and regulatory requirements, and that they should not be seen “*as an alternative to the law*”. That is, offsets should only be considered where they would, with a high degree of confidence, contribute to achieving full compliance with air quality standards, and there is broad stakeholder agreement and buy-in.

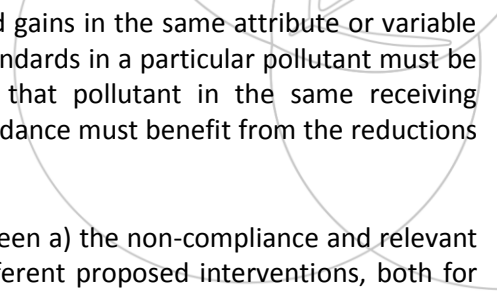
6. Applications [4 of the draft policy]

- 6.1. For the reasons set out in these submissions, the “provisions” of the draft policy are vague in material respects. This must be rectified.
- 6.2. The draft policy states that air quality offsets may be applied “*at any time*” by the licensing authority during the licensing process. It is not clear if it is the intention to use offsets as remedies or penalties in instances where polluters are non-compliant (with the law or an offset condition) as a form of retroactive remedy – it is submitted that this would not be permissible.
- 6.3. The draft policy states that three authorisation processes, namely s21 postponements, AEL variations and AEL applications in Priority Areas, “*shall have*” offsetting conditions “*in line with*” the principles. However, offsets may not always be appropriate in every case; it is recommended that the wording of the policy be changed to “*could have offsetting conditions where appropriate*”. It is reiterated that offsets cannot be an alternative to compliance.
- 6.4. The principles in the draft policy currently lack clarity on the criteria to be used to decide whether: postponement should be granted; variation applications should succeed; when activities in Priority Areas should receive AELs; and how offsets would fit in.

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- 6.4.1. It is not clear from the draft policy how it will be decided whether or not extensions or postponements would be allowed (the draft policy gives mainly procedural and technical criteria, rather than impact significance/substantive criteria. For example, the draft policy states that s21 postponements (4(a)) “*will be positively considered*” subject to a “*complete impact assessment with an atmospheric impact report*” submitted at least a year before the compliance date. It is recommended that this wording be changed to “*will be considered*”, to avoid expectations of automatic authorisation. It is also stated that offsets “*shall be included as a condition*” where there is no abatement technology available; the plant is to be decommissioned in 10 years; and/ or investment cannot be made in new abatement technology / techniques “*due to restrictions by national strategic and legislative requirements*”.
- 6.4.2. It is recommended that such parameters as the likely significance of impacts (in relation to air quality, livelihoods, biodiversity, water resources), irreversibility of impacts, and/ or consideration of all reasonable and feasible options to achieve reduction (i.e. best practicable environmental option) be explicitly considered prior to authorising a postponement.
- 6.4.3. The statement that “*investment in abatement technology/techniques cannot be made due to restrictions by other national strategic and legislative requirements*” is not clear and needs better explanation.
- 6.4.4. The draft policy creates the impression that postponements will always succeed in these circumstances with offsets as a condition. This is not acceptable to our clients.
- 6.4.5. In relation to s46(1) variation (4(b)), it is noted that an offset “*could be considered to counter the impacts of increased emissions*”. While it may be appropriate to use offsets to counter the impacts of increased emissions, there may conceivably be other better interventions (e.g. technology available) to bring emissions in line with standards.
- 6.4.6. In relation to a national or provincial Priority Area, in our view, many activities earmarked within such areas could be located out of these areas, with the obvious exception of mining. The due consideration of reasonable and feasible alternatives is often poorly addressed in the EIA/ environmental authorisation process, and is of paramount importance to avoiding further deterioration in air quality within Priority Areas. For this reason, the consideration of alternative locations should be a key criterion in evaluating applications, with the likely costs of location within the Priority Area, including emission abatement to meet ambient air quality standards, compared to costs of location outside the Priority Areas.
- 6.4.7. The draft policy talks about conditions for offsetting “*over and above recommended emission limits*” or “*stringent emission standards*”. No explicit information is given as to how these more stringent standards or limits will be determined. Since any air quality offsets would have to achieve these more stringent limits/ standards, it is important that clarity is provided on their determination.

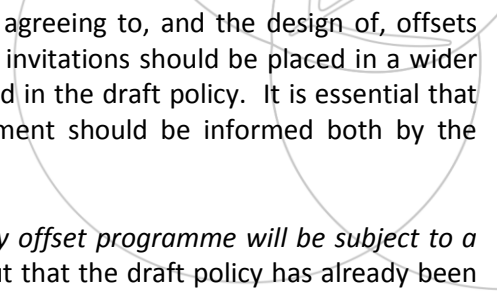
7. Offsets design [5 of the draft policy]

- 7.1. The draft policy lists certain generic considerations. Offsets must be considered more carefully in relation to the political and social context of South Africa.

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- 7.2. Offsets, simply stated, must result in a balancing of losses and gains in the same attribute or variable of concern. For emissions, exceedance of local or regional standards in a particular pollutant must be counterbalanced by equivalent reductions in emissions of that pollutant in the same receiving environment. The parties/ environment affected by the exceedance must benefit from the reductions so that they are left at least no worse off.
- 7.3. It is thus of the utmost importance to show the linkages between a) the non-compliance and relevant parameters of air quality involved, b) the gains from the different proposed interventions, both for households (indoors) and for ambient air quality in relation to the offending parameters, and c) monitoring and evaluation, with adaptive/ corrective actions clearly set out and made public.
- 7.4. The “scope” [5.1 of the draft policy] refers.
- 7.4.1. The draft policy focuses on particulates (PM) and Sulphur Dioxide (SO₂) emissions; H₂S is also mentioned in Table 1. Other pollutants (e.g. NO₂, lead, benzene in ambient air quality standards; e.g. H₂S, fluorides, methane, mercury and other heavy metals, dioxins and furans, Chlorine/ HCl, cyanide in emission standards) are not addressed.
- 7.4.2. It is thus not clear if, under what circumstances, and how these pollutants would be dealt with by air quality offsets. Moreover, it is not clear whether or not air quality offsets would be an option for all emitting industries. Exposure to air pollution is also affected by factors like wind direction. These issues must be addressed in the policy.
- 7.4.3. In designing an offset, it is stated that the scope, areas of intervention, public participation, authority approval, implementation, and monitoring and evaluation must be taken into account, and that the offset design must be SMART. All of these aspects are supported in principle as a form of good governance, although we have made comments on specific areas throughout this document pertaining to their content.
- 7.5. The “areas of intervention” [5.2 of the draft policy] refer.
- 7.4.1. The draft policy states that they would be ‘primarily residential areas’, but would depend on the pollutant of concern. How will the areas of intervention be determined? How will political issues be resolved as one residential area receives benefits that another does not?
- 7.4.2. With reference to our comments in 13 with regard to equity of offsets, the areas of intervention should primarily depend on the pollutants of concern and the areas affected.
- 7.4.3. It must be noted that some suggested areas of intervention may work against other environmental or sustainable development objectives (e.g. fire in some vegetation types is necessary to the viability and persistence of that habitat and species diversity). It is thus important for potential interventions to be systematically evaluated against bigger picture objectives.

8. Public participation [6 of the draft policy]

- 8.1. It is stated – and supported - that a public participation process should be undertaken to ensure public buy-in of offset projects. The focus of public participation seems to be on “the community”, apparently being the local community.

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- 8.2. In some cases, it is likely that exceedance/ non-compliance, agreeing to, and the design of, offsets would be in the national or provincial interest; in such cases, invitations should be placed in a wider spread of media than *“at least one local newspaper”*, as stated in the draft policy. It is essential that the range of public (interested and affected party) involvement should be informed both by the boundaries of the affected area and of proposed offsets.
 - 8.3. In the context of the statement that the *“development of any offset programme will be subject to a detailed public participation programme”*, our clients point out that the draft policy has already been released without adequate input from communities, especially from those communities that live within Priority Areas. The development of the policy must be accompanied by an extensive education programme so that communities understand the consequences and trade-offs of offsets. It is not acceptable to our clients that that public participation will only occur at the implementation phase of the policy and not in its design.

9. Roles and responsibility [7 of the draft policy]

- 9.1. The mentioned parties should be involved in the development of the offsets policy and not in the implementation phase only. To develop the offsets policy without adequate participation is contrary to the requirements of cooperative governance.
- 9.2. According to the draft policy (7.1), the applicant would be responsible for identifying, securing and managing the offsets programme, and would need to demonstrate financial capability/ approval for project implementation over a specified time. According to Table 2, the applicant would also be responsible for monitoring and reporting on offsets - this responsibility should be added to the text for clarity.
- 9.3. The relevant licensing authorities and the National Air Quality Officer (7.2, 7.3) would be responsible for *“monitoring and reviewing”* offsets and ensuring that conditions of authorisation were clear, measurable and implementable.
- 9.4. In view of the fact that air quality offsets would be new in the country, and for the purposes of validation of offset design, it is recommended that a technical air quality offset committee independent of both the authority/ies and the proponent/ applicant be established to evaluate and (where appropriate) validate proposed offsets. The function of this committee would add credibility and objectivity to offset proposals.

10. Monitoring, evaluation and reporting [8 of the draft policy]

- 10.1. According to Table 2 in the draft policy, the proponent would be responsible for monitoring and reporting on the offsets programme. It is recommended that reporting on offsets must be done strictly in terms of performance in relation to explicit targets and timelines set out in the offset programme.
- 10.2. Reliance on ambient air quality monitoring within the offset implementation area as an indicator of offset performance is a major concern and does not suffice. For an offset to be shown to be successful, a reliable measure of its effect is essential. There are complex challenges to measuring diffuse, non-industrial sources of pollution rather than point sources. There are numerous and, it is suggested, too many variables affecting ambient air quality to tie changes with confidence to any one proponent’s offset, and thus uncertainty around the total level of emissions reductions may be considerable. Should there be multiple offset programmes running in an area, it would be difficult, if not impossible, to attribute changes in pollution levels unequivocally to one proponent. It is

important that these scenarios and challenges, and ways to resolve them, be explicitly covered in the policy.

- 10.3. Monitoring, evaluation and reporting should be more holistic than just from air quality monitoring stations. A holistic monitoring and evaluation system would, for example, include human health and ecological impacts of the offsets. If, for instance, it can be proved that respiratory disease decreases after the implementation of the offsets policy, then the policy can be considered to have made some improvements.
- 10.4. Although our clients do not support emissions trading, it is worth noting that, according to recent research, comparing an offset program to a well-functioning “*cap-and-trade*” would very likely lead to the finding that the offset programme is more costly to administer and quite possibly worse in environmental terms.⁹
- 10.5. As with offsets globally, it is recommended that provision be made for an offset liaison committee comprising key interested and affected parties to assist in monitoring the performance of offsets and to provide a forum to raise and address issues and concerns.

11. Withdrawal [9 of the draft policy]

- 11.1. The draft policy states that any authorisation granted with a condition for offsetting may be revised or withdrawn if the proponent fails to deliver on agreed interventions. However, Table 2 allows only for withdrawal in the case of postponement. This discrepancy must be clarified.

12. Capacity of competent authorities [not addressed in the draft policy]

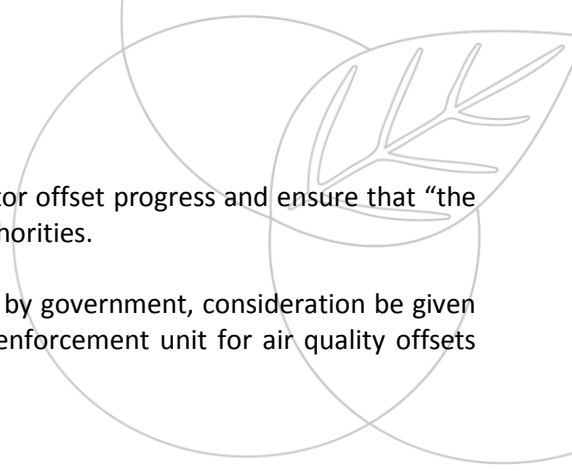
- 12.1. Many of the models of offsets that are used around the world to assess costs savings and environmental impacts assume, for simplicity, that they will be implemented effectively; yet, this does not appear to be the case. Experience with offset programmes internationally suggests that the administration of these programmes has been challenging in practice - that offsets could easily give rise to inefficiencies and reduce rather than improve environmental quality.¹⁰ For air quality offsets to be effective, therefore, it is crucial that there is sufficient capacity within the competent authorities to determine whether or not offsets would be appropriate and what form of offset would be appropriate, to evaluate and validate offset proposals, and to carry out rigorous compliance monitoring and enforcement of offset programmes being implemented.
- 12.2. The track record of the Environmental Management Inspectorate (EMI) has, to date, been poor with regard to rectifying and enforcing air quality transgressions. In the 2011-2012 period, EMI activities were predominantly in response to complaints rather than being proactive in nature, there was a ‘dramatic increase’ in complaints in the air pollution category, a 45% decline in proactive inspections, a decrease in follow-up inspections, and a 122% increase in non-compliances compared to the previous year.¹¹ In the 2012-2013 period,¹² there was a further decline of 45% in the number of proactive inspections, the number of non-compliances again increased by 122%, and there has been a decrease in follow-up inspections compared to the previous year. The proposal to use air quality offsets appears complex and, given the probable diffuse nature of emissions to be targeted by offsets,

⁹ Hahn R and K Richards 2013. Understanding the effectiveness of environmental offset policies. *J Regul. Econ.* DOI 10.1007/s11149-013-9211-1

¹⁰ Hahn R and K Richards 2013. Understanding the effectiveness of environmental offset policies. *J Regul. Econ.* DOI 10.1007/s11149-013-9211-1

¹¹ DEA: National Environmental Compliance and Enforcement Report 2011-2012.

¹² DEA: National Environmental Compliance and Enforcement Report 2011-2012.



as well as the challenges of using ambient air quality to monitor offset progress and ensure that “the polluter pays”, is likely to add a significant burden to these authorities.

- 12.3. It is recommended that, should air quality offsets be adopted by government, consideration be given both to establishing a specialist compliance monitoring and enforcement unit for air quality offsets and to significantly increasing EMIs at local authority level.

13. Equity and distributional effects [not addressed in the draft policy]

- 13.1. S2 of the NEMA states that environmental management must serve people’s long term physical, psychological, developmental, cultural and social interests equitably, and pursue equitable access to environmental resources, benefits and services to ensure wellbeing. It notes that special measures may be taken to ensure access by categories of persons disadvantaged by unfair discrimination.
- 13.2. According to Section 3 of the draft policy, the proponent must provide evidence that the community is in support of the interventions. No definition of “*the community*” is provided, however. In most cases, the beneficiaries of offsets are likely to support the interventions, while the wider community may not support them for a number of reasons.
- 13.3. Most offset policies require offsets to be designed and implemented in an equitable manner, which means sharing the rights and responsibilities, risks and rewards in a fair and balanced way. The draft policy lacks direction in this regard, and fails to address a number of potentially significant equity issues:
 - 13.3.1. In some cases, allowing exceedances/ non-compliance and use of offsets over time as a means to reduce pollution may place an unfair burden on other activities/ parties wishing to develop (e.g. where ambient air quality standards are exceeded because of non-compliance with emission standards by one party, thus preventing new activities and/ or resulting in increasingly onerous conditions being imposed on new entrants.) In addition, to the extent that offsets represent a subsidy to pollution-generating activities, they could encourage inefficient entry into particular industries.¹³ Our clients do not support the idea of using offsets to further the industrialisation of Priority Areas.
 - 13.3.2. Offset activities may unfairly favour some communities at the expense of others (e.g. where electricity or gas subsidies are provided, or improvements/ retrofits to houses are made). The selection of target communities for offsets may kindle resentment and lead to political or legal challenges, particularly where neighbouring communities are similarly exposed to air pollutants but do not benefit from offsets. In effect, it could be concluded that air quality offsets provide for some communities to become worse off and effectively to subsidise improvements in others. Our clients emphasise that government should have serious programmes to reduce and eliminate household emissions from dirty fuel in all areas where such programmes are needed. This should not depend on offsets for corporate pollution.
 - 13.3.3. Ultimately, the responsibility for tackling the problems of domestic air pollution would best be placed at the local authority and/ or community health level, supported by national policy and support, to ensure that roll-out of interventions aimed at improving such non-industrial pollution sources would be equitable rather than selective, as offsets are likely to be.

¹³ Hahn R and K Richards 2013. Understanding the effectiveness of environmental offset policies. *J Regul. Econ.* DOI 10.1007/s11149-013-9211-1

- 13.3.4. Emissions from stacks at different heights are likely to adversely affect a range of different areas, from local to regional or potentially trans-boundary airsheds, depending on circulation patterns at different levels/ altitudes. The effect of domestic emissions – and of offsets targeting these emissions, by contrast, is likely to be relatively limited in extent. From an equity perspective, offsets should be designed and implemented to ensure a fair exchange between parties and areas impacted and parties and areas that would benefit from the offset.
- 13.3.5. While some proposed interventions at domestic level would be beneficial (e.g. better insulation reducing the need to heat houses using solid fuels), the reach of those benefits would be limited. In effect, therefore, the offsets could endorse higher levels of regional pollution, while reducing pollutants at a localised level, implying that areas and parties at a regional level would be worse off and effectively subsidising improvements in a specific area only.
- 13.3.6. Air quality offsets should not be permitted where they perpetuate past inequities, namely the pattern of deteriorating or degrading environmental quality (i.e. public goods) for the proponent's benefit. For example, the implications of offsets for public health will be affected by the timeframes permitted for implementing offsets and attaining required air quality standards. Negative externalities associated with any failure to meet these standards would be borne by the wider public, and associated costs would need to be borne by the State, while the proponent would, in all likelihood, benefit from additional time, reduced costs and/ or leniency in compliance.

14. In conclusion, our clients do not agree, in principle, with the use of offsets as a management tool to avoid compliance with legislation. It is submitted that, if the decision is made to consider offsets in the suite of options for managing the environment, this must be done using the correct process. There is currently no overarching legislative or policy framework regarding offsets, and the draft policy seems to have been prepared without following the appropriate policy-making procedure. In addition, both compliance with and enforcement of legislation leave much to be desired, and there is, in general, a lack of accountability for polluting industries. It is submitted that government should first demonstrate their ability to manage and give meaning to the existing governance and enforcement systems – before offsets can be considered.

15. In the circumstances, it is submitted that it would be premature to conclude the draft policy.

Yours faithfully

CENTRE FOR ENVIRONMENTAL RIGHTS

per:



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