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Coal significantly contributes to devastating CO<sub>2</sub> emissions and stands as a primary source of global environmental pollution. This destructive energy source presents several severe issues:

Coal primarily comprises carbon, and when combusted, it releases vast amounts of carbon dioxide (CO<sub>2</sub>) into the atmosphere. In fact, coal has the highest carbon content among fossil fuels, thus substantially contributing to global warming and climate change.

Coal-fired power plants are responsible for air pollution and harm to human health. They also emit toxic pollutants such as sulfur dioxide, nitrogen oxides, and particulate matter, causing severe respiratory problems and environmental damage.

The inefficient combustion of coal in power plants results in a lower energy efficiency ratio compared to modern, eco-friendly energy sources. This implies that more coal must be burned to meet the same energy demand, leading to even higher CO<sub>2</sub> emissions.

Moreover, coal-fired power plants often lack effective carbon capture and storage (CCS) technologies, allowing significant amounts of CO<sub>2</sub> to escape freely into the atmosphere.

Furthermore, coal power plants tend to be outdated and prolong their operational lifespans for decades, ensuring a continuous emission of CO<sub>2</sub> and environmental pollution.

The availability and low cost of coal still make it an appealing energy source in many regions, despite its undeniable adverse effects on climate and the environment.

"Coal-fired power plants annually produce **13.1 billion tons of CO<sub>2</sub>**, making them one of the largest contributors to environmental issues of our time."





In many South African states, the persistent dependence on coal as the primary energy source remains a deeply concerning issue. This dependence can be attributed to a complex interplay of factors, primarily economic challenges, that hinder the much-needed transition to alternative energy sources such as solar power.

The financial constraints within these regions have effectively trapped them in a cycle of coal dependency, resulting in several detrimental outcomes: Insufficient financial resources have hampered significant investments in renewable energy, particularly solar power. The substantial upfront costs associated with solar infrastructure and technology pose seemingly insurmountable barriers for governments and communities already grappling with tight budgets.

The absence of a robust solar energy infrastructure further entrenches coal's dominance. The existing energy systems are heavily geared toward coal-based power generation, making the shift to solar energy a complex and costly endeavor. Economic fragility leaves South African states vulnerable to the unpredictable coal market, which is susceptible to price fluctuations and supply disruptions, exacerbating their energy insecurity.

The relentless reliance on coal takes a toll on the environment, leading to elevated levels of air pollution, contributing to health problems, and causing environmental degradation. Despite the abundant solar potential in these regions, the lack of investment in solar energy deprives them of the opportunity to harness clean, sustainable, and economically viable energy sources.

Furthermore, this continued reliance on coal significantly adds to global CO2 emissions, exacerbating the challenges posed by climate change and disproportionately affecting economically vulnerable communities.

„The only issue is that **nobody wants to invest** in these parts of the world. It's just too risky for the investor.“





When coal is replaced with solar energy, there is a significant reduction in CO<sub>2</sub> emissions per generated kilowatt-hour (kWh) of electricity. On average, the savings amount to approximately 900 to 1,500 grams of CO<sub>2</sub> per generated kWh. This substantial decrease in emissions results from the fact that solar energy is an emissions-free energy source, whereas coal combustion releases large amounts of CO<sub>2</sub> into the atmosphere. Transitioning to solar power, therefore, contributes significantly to reducing greenhouse gas emissions and combating climate change.

When burning one kilogram of coal, approximately 2.2 kilograms of carbon dioxide (CO<sub>2</sub>) are generated on average. This value may slightly vary depending on the type of coal and specific combustion conditions.

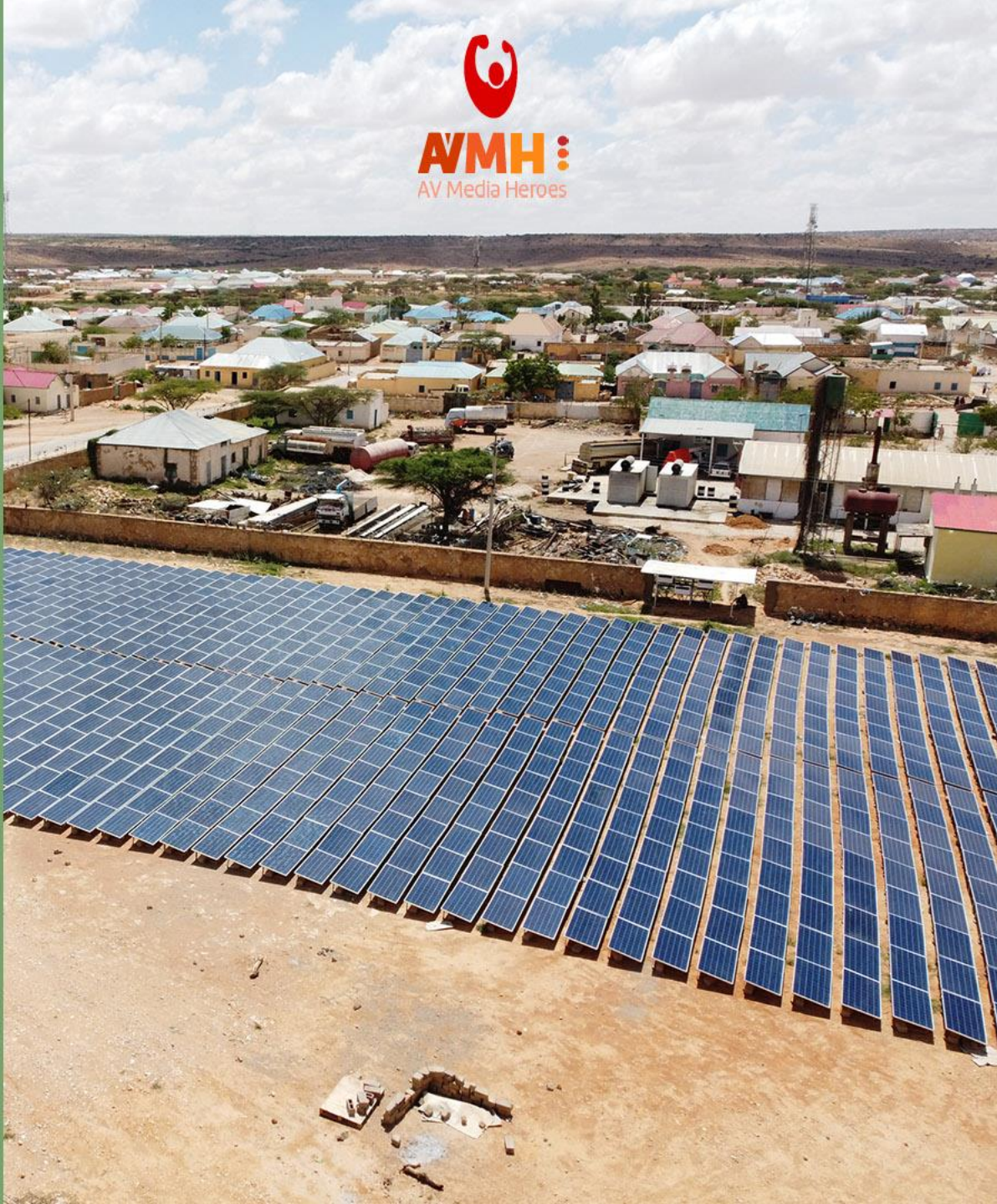
However, it's essential to emphasize that coal emissions not only include CO<sub>2</sub> but also other harmful pollutants such as sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and particulates, which can have significant environmental and human health impacts. Therefore, reducing the use of coal for energy generation is a crucial step in mitigating environmental effects and combating climate change.

CO<sub>2</sub> consumption of one m<sup>2</sup> of forest per year: 20 kg

CO<sub>2</sub> reduction with the invest of 10€ in solar energy per year: 23 kg

"Investments in solar energy can **save 50% of the CO<sub>2</sub>** consumption. Investments in energy-efficient appliances save only a fraction of that."





With our south-african partners we created a program of progressive investments in solar power in the regions of the world, where nobody else wants to invest in solar power. And we want to integrate it to our euopean Eco-Programs for our customers.

Its called  
SIC Programme

[Check out your benefits!](#)





Absen Absenicon 238" LED Screen  
**72,0 SIC**

When you buy our products, we reinvest a part of our earnings to new solar panels in south africa. These panels are documented and connected to your project, to your company and your CO2 reduction.

Every year you get a official track record of power (kWh) fed into the power grid from your solar panels. We approximate one system running for 20 years, but it may be even longer.

To measure the amount of our reinvest all our products are connected to Solar Invest Coins (SICs). You earn those coins by buying our products. One SIC is equal to 1 ton of CO2 saved in an approximated running time of 20 years – and may be even higher.

*for example*  
An Absen Absenicon LED Screen (138", FullHD)  
creates 72 SICs.

Our solar panels are calculated for 20 years duration.  
In those 20 years your 72 SICs save **72 tons of CO2**.

„If you would sell 72 tons of CO2 in a certificate,  
you would earn like 288,00€ a year or 5.760,00 €  
in the running time of a solar panel.“