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A public investment programme to drive transformation to 100% renewable energy while ensuring universal access to affordable, renewable energy.

The case for establishing a global system of national feed-in tariffs/guarantee prices linked to a global fund

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This document is a contribution to the negotiation process of the UN Conference on Sustainable Development (Rio +20) outcome document, and in particular provides concrete input to the operationalization of the conference theme "A Green economy in the context of sustainable development and poverty eradication". It presents the core elements of a highly interesting approach to simultaneously tackle climate mitigation needs and the need to address development needs, in particular global energy poverty.

This approach has been developed by, among others, the Division for Sustainable Development at the UN Department for Social and Economic Affairs, and is gaining traction among both negotiators, policy makers and civil society organisations – in both developing and developed countries.

The scheme is one of the few mechanisms on the table that has a truly transformative potential, and that speaks clearly to why substantial public funds are needed for climate and development (e.g. through the UNFCCC Green Climate Fund or other new initiatives), and how a mechanism to effectively make use of a significant portion of these funds can be used to simultaneously tackle development and climate. The proposal is practical, doable and has the potential to evolve during the coming few years to become one of the most significant mechanisms to move the world towards sustainable development.

The following document¹ outlines the overall idea which we hope will be picked up by several governments in the lead up to Rio+20. One of the key strengths of the idea is its integrated approach which effectively transforms the current locked in, zero-sum logic of the climate negotiations to a win-win logic where mitigation and increased access to energy are no longer contradictory, but rather mutually reinforcing.

¹ Building on formal submissions to the UNFCCC on market and non-market mechanisms, 21 Feb 2011 and to the UNFCCC Transitional Committee for the Green Climate Fund, 8 June 2011.



Furthermore, it speaks to the kinds and scope of funds that are needed, the potential to crowd in further investments, both public and private, and also shows some significant qualities in relation to governance, transparency and accountability. It provides a highly interesting framework where direct access to resources are ensured, while being output-based and thus ensuring that financial resources are only dispersed upon the delivery of clean, fossil-free and affordable energy. The proposal is framed as a cooperative, win-win effort, which would essentially have MRV built-in. In addition to the substantial transformative scope for both mitigation and provision of energy access for the 1,5 billion people currently lacking basic energy services, a major quality of the idea is its potential to help rebuild much eroded trust between developing and developed countries through true cooperation.

In addition to all of this, the approach would also constitute a true investment with significant returns also for the rich countries providing the public funds. With investments in renewable energy at the significant scale suggested, the actual costs of the technologies would be dramatically cut over a short period of time, thereby making the massive transition to 100% renewable energy also in the north in the decades ahead significantly cheaper. The proposal is a front-loaded public investment programme, which would at its end in 10-15 years time have achieved a radically new and favorable cost situation for renewable energy.

The recent IPCC report on renewable energy clearly shows the almost limitless technical potential for renewable energy, given the right economic context and political will. And as the IPCC report also points out, feed-in tariffs/guarantee prices are among the most effective mechanisms to quickly tap this potential and move the world towards 100% renewables and zero-carbon emissions. We hope the UNCSD process will take this idea into consideration, and clearly acknowledge the need for effective and substantial public investments in renewable energy through a global programme for feed-in tariffs/guarantee prices in the developing countries.



A green energy revolution for climate and development through a global system of feed-in tariffs for renewable energy

The climate crisis requires drastically reduced use of fossil fuels. At the same time at least two billion people need to increase their energy use to satisfy their basic needs.

With drastically increased investments in renewable energy through global feed-in tariffs both these challenges can be met simultaneously – while quickly making renewable energy competitive and reducing costs also in the rich countries.

A Marshall plan for climate and development where both South and North can gain.

Energy access – the need for affordable energy

Increased access to energy is essential in order for many of the world's poor people to improve their living conditions and exercise their right to live well. If poor people's needs are not taken seriously, any prospect for effectively tackling climate change also diminishes.

Two billion people – half the population in the developing countries – still need to rely on bioenergy, agricultural residues and dung for cooking. As many live with incomes of less than 2 dollars per person and day.

Access to energy is a decisive factor for people's well being. For example, countries with a low energy use score very low on the UN index for human development (HDI). For these countries even slightly higher energy use among the poor generally correlates to drastic improvements in HDI.

The double challenge

In order to promote a transition towards renewable energy, industrialized countries tend to favor the idea of increasing the prices of fossil energy relative to renewable alternatives, e.g through carbon trading schemes or taxes. But for poor people the main concern is *cost*, the availability of *affordable* energy – no matter what kind. For developing countries, a key challenge is therefore to make the renewable energy cheap enough.

This is the departure point for a UN proposal that has been called both "A Green Energy Revolution" and "A Global Green New Deal", launched in the 2009 UN report *Promoting Development – Saving the Planet.*²

The Swedish Society for Nature Conservation sees this proposal as highly promising, and believes it has the potential to create a breakthrough in the climate negotiations. If the plan would be implemented, major positive changes to tackle the double challenge of tackling poverty while effectively reducing emissions would be achieved in a relatively short time, something which would rebuild some of the much eroded trust between developing and rich countries.

Global feed-in tariffs

The core idea in the proposal is to create a boom in demand for sustainable, renewable energy in developing countries. The key tool is to introduce guaranteed prices, or feed-in tariffs, for sustainable

² See http://www.un.org/en/development/desa/news/policy/wess-2009.shtml and http://www.un.org/esa/dsd/resources/res pdfs/publications/sdt cc/cc global green new deal.pdf



renewable energy. Feed-in tariffs have already been introduced in approximately 50 countries, and have contributed to significant increases in renewable energy in e.g. Germany and Spain. Many analysts have concluded that feed-in tariffs are by far the most effective policy tool/system for crowding in investments for renewable energy (see for example several Deutsche Bank reports³)

The core principle is that those who invest in renewable energy are guaranteed to sell the energy at agreed prices that allows for a small margin. The price for consumers are then decided with consideration to what poor people can afford. The cost difference are covered by a subsidy financed by the rich countries though a global climate fund. According to the UN estimation, about USD 100 billion would be needed annually during 10-15 years – the time period needed in order to cut the production costs to a level where the subsidies are no longer needed and renewables have become cheaper than fossil fuels.

Financing and the Green Climate Fund

In the UN Framework Convention on Climate Change (UNFCCC), all industrialized countries have made a binding commitment to support poor countries through financing both a transition to low or zero-carbon societies and adaptation to the impacts of climate change. However, so far there have been very limited concrete contributions.

The proposal for subsidized feed-in tariffs have several qualities which speaks in favor of an ambitious global investment plan that could also gain traction among the industrialised countries.

- The system is output based, i.e payment (the subsidy) is only provided when the new, renewable energy is delivered. The energy will be metered in any case when it is sold, and the subsidy is then instantly provided through the national feed-in system, which in turn is coupled to the global climate fund. No money is dispersed for the actual construction of renewable energy projects it is up to the investor to ensure that production costs are kept within the budget. There is thus little risk for corruption and misuse of funds.
- There is a time-limit for the program. The quicker the costs for new investments decreases, the quicker the need for the subsidies also diminishes. The program will not go on forever, but will last 10-15 years to take the world over the threshold to a renewable future.
- Diminishing costs and increased demand will create jobs, benefit progressive companies and facilitate/lower the costs for the necessary energy transition in both developing and industrialized countries.
- The proposal is fully compatible with the developing countries' demand for public financing through the creation of the Green Climate Fund, while at the same time tackling the rich countries' reluctance to provide funds with direct access. The proposal builds on mutual, cooperative agreements on how to use and disperse a substantial part of the money to meet clearly defined goals (promotion of renewable energy and improved access to affordable energy for the poor).
- The proposal breaks away from the climate negotiations current zero-sum logic to a positive-sum, win-win approach where total energy availability increases, while emissions are cut—and energy access is tackled. The proposal can in a more general sense become an important stepping stone for rebuilding trust between north and south.

³ http://www.dbcca.com/dbcca/EN/ media/GET FiT Program.pdf



This proposal would have several direct implications on the way any financing body (e.g the new Green Climate Fund) would need to be set up.

- There is a need for real money. The feed-in tariff subsidies would be delivered on a continuous basis as renewable energy under the scheme is sold, i.e. the feed-in subsidy would be claimed by the producer from the national authority in charge of the feed-in tariff system at the very moment consumers pay their (affordably priced) energy bill. The national authority would in turn claim the subsidy from the specially established energy/feed-in tariff window of the global fund.
- This means that e.g. already existing aid flows, carbon credits or private investments, can not constitute sources of the Green Climate Fund contributions must be new, additional and disbursable public money. However, the scheme will actively crowd in and enable both public and private investments in renewable energy that are manifold larger than the subsidies under the fund.
- There is a strong argument for front-loaded investments: early investments will drive the costs of renewable energy down quicker and thus reduce overall costs.
- A full fledged system involving most developing countries would require approximately USD 100 annually over at 10-15 year period, according to UN DESA. This clearly shows the need to significantly adjust upwards the Cancun figure for the Green Climate Fund of USD 100 billion and ensure this is public funding.
- It is also essential that the climate fund be governed in a way that guarantees participation and influence for both poor countries and civil society over how the money is allocated and that there is transparency in their spending.

Technology

The public investment proposal does not require new, uncertain technological breakthroughs. On contrary, the core idea is to mainly promote the refinement of and increase demand and cut costs for the kind of renewable energy solutions that already exist.

Steady demand is a very important driver for technological development and reduction of costs. The more ambitiously the world focuses on providing people with renewable energy, the quicker will the costs decrease.

But, there are more hurdles than high energy costs. The proposal also suggests actions to adapt both policy and the technologies to varying national and local conditions, and to support the developing countries with training and technological support.

It is also important to deal with the issue of patents, which enables companies to charge more for their technologies and leads to complicated procedures that often limits the availability of the desired technologies. These barriers must be effectively dealt with and removed.

A system of feed-in tariffs means that society are actively picking the winners, i.e actively promoting the kinds of energy solutions that are desirable. It is therefore essential that a system and procedures are designed, from the very beginning, that guarantees that technologies are assessed and scrutinized in a reliable and thorough manner, with participation of civil society and affected groups. Society



must ensure that the technologies which are promoted do not lead to undesired, negative effects for people and the environment (i.e. no large hydro, biochar, biofuels, or nuclear energy should be eligible for feed-in tariffs). Assessments must be made at several levels, from the local to the global. It is particularly important to analyze how different technologies impact on the poorest and most vulnerable groups in society.

Energy efficiency and systems approaches

It is essential that any feed-in tariff system is designed so that they simultaneously promote energy efficiency and energy development that is appropriate for the local context. Requirements and support for energy efficiency should be integrated in the design of the scheme, so that the maximum amount of energy services is obtained from each invested kilowatt-hour. It is not appropriate to only promote the maximum amount of installed capacity – this would constitute a waste of public resources, weaken the benefits, and promote mega-projects at the expense of more appropriate, local and small-scale solutions. It is also important to ensure ways to promote and subsidize non-electricity energy solutions where more appropriate.

Bottom-up energy revolution

A global system of feed-in tariffs could and should encourage and enable a bottom-up, people-driven transition to renewable energy. For example, a cooperative, a municipality, or a group of communities could come together and decide they should construct their own solar energy system and set up a small, local grid. With a feed-in tariff law in place, they would be able to take a commercial loan, or obtain state grants to begin the construction process almost immediately, knowing they are guaranteed the feed-in subsidy over the whole 10-15 year period. The proposal thus has a potential to spur a massive true small-scale, bottom-up renewable energy revolution across the world.

At the same time, the scheme may allow for commercial actors to make investments with a guaranteed, modest profit margin. It is, however, essential that the various national feed-in laws and systems become promoters of local, people-based solutions and that measures are designed from the beginning to avoid crowding out and dominance by e.g. large, foreign corporations. A substantial share of the feed-in subsidies should be oriented to off-grid solutions (i.e. small, local grids rather than large national grids).

Part of the solution

A global action plan for climate must reach beyond the transition to renewable energy. And it must be clear that the quest is not about a copying of Western high energy use and overconsuming notion of development. Yet, there are unquestionable needs for much more energy among the poorer segments of society in developing countries.

The main message in this proposal is thus to take an integrated approach to climate and development and recognize the critical/essential need for major, front-loaded public investments to enable the necessary structural transformations that are needed. Responses to climate change and poverty must be bold, ambitious and visionary, and must manage to integrate the double challenges of climate and development. There is a need for ambitious public investments also in energy efficiency, new and efficient public transport systems, a transition to organic agriculture and ways to tackle deforestation. In addition, public investment must increase many times in order to deal with adaptation for those who are the poorest and most vulnerable.

Climate change is at the core an issue of climate and justice/equity.

The ideas for a global system of feed-in tariffs for renewable energy presented here is gaining major traction among a broad range of actors, including Parties, civil society organizations, social movements, researchers and others. The Swedish Society for Nature Conservation is working with partners to ensure that this promising scheme will be firmly placed on the agenda of both the



UNFCCC and Rio ± 20 negotiations, and that simultaneously a constellation of countrues from both the north and the south come together to set up an initial pilot scheme that can, as a following step, be scaled up as a formal UN structure. We strongly encourage the UNCSD to seriously consider this proposal.

An 92-page compilation of fact-sheets, reports, articles and other material from both SSNC, the UN, Deutsche Bank and other institutions speaking in favour of this idea can be downloaded at http://www.naturskyddsforeningen.se/upload/Foreningsdokument/Klimat/Knackfragor/GER_feed-intariff compilation.pdf