Statement of Interest for the acquisition of Vattenfall's German lignite activities



Nicholas Blach-Petersen
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Citigroup Global Markets Limited
Power & Utilities Investment Banking
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20 October 2015

Submission of Statement of Interest

Dear Mr Blach-Petersen,

Greenpeace thanks you for your kind invitation of 6 October 2015 to submit to you a "Statement of Interest" regarding the Vattenfall AB's and its affiliates' (the Seller's) intention to divest their German lignite activities.

Greenpeace Nordic is hereby submitting its "Statement of Interest" for the acquisition of the Seller's German lignite assets in order to be invited to further participate in the process for the potential acquisition of Vattenfall's German lignite assets.

Yours sincerely,

Patrik Eriksson Greenpeace Nordic Annika Jacobson Greenpeace Nordic GREENPEACE 3

1. NAME AND ADDRESS OF THE INTERESTED PARTY AND THE RESPONSIBLE PERSON THAT SHOULD BE CONTACTED IN CASE OF QUESTIONS REGARDING THE STATEMENT **OF INTEREST**

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2. NAME AND ADDRESS OF MANDATED ADVISERS (IF ANY)

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3. WHETHER THE INTERESTED PARTY INTENDS TO ACQUIRE LIGNITE ONLY OR LIGNITE AND HYDRO TOGETHER (THE "TARGET")

Greenpeace Nordic only intends to acquire Vattenfall's German lignite activities; in other words, without Vattenfall's Eastern German hydro activities.

4. A DESCRIPTION OF THE INTERESTED PARTY'S FUTURE STRATEGY FOR THE TARGET

The following sections summarise the vision, the rationale and the legal structure for the future strategy for the Target. The opportunity costs for Greenpeace Nordic's strategy is low for the Seller as under current market conditions the Seller could sell these lignite assets only at a discounted price.

4.1 RATIONALE

The current market value of the Seller's lignite assets is low so the immediate sale would not secure much. The company already accounted for SEK 15.2 bn [EUR 1.6 bn] in impairment costs in 2015 on these assets due to "poorer production margins (clean lignite spreads) and higher business risk" and also "SEK 2.6 billion [EUR 0.3 bn] pertains to higher provisions for the mining operations in Germany, mainly associated with an updated plan for land restoration." (Vattenfall's Interim Report January-June 2015*). The future private owners could potentially further decrease their cash offer if they take into consideration potential new climate and environmental regulations (e.g. CO2 prices, emissions and water regulations), full reclamation and clean-up costs of the mines and power plants, and potential currently externalized costs and liabilities related to the impact of lignite power plants/mines on air pollution/health, and water pollution. The risks of the Seller's lignite assets ("an increasingly disliked and highly CO2-intense part of German energy") were specifically named by HSBC analysts in their recent negative valuation for one of the companies announcing interest in acquiring the assets. (Bloomberg **)

The Seller will probably be able to divest these assets at depressed asset values only. Recently, import thermal coal prices fell to record lows in Europe (see e.g. Platts) and clean dark spreads also decreased. Several recent M&A transactions of coal plants also signal low current values of coal assets, such as the sales of E.ON's Italian coal and gas assets in early 2015 (Reuters). Other relevant benchmarks are:

- In late 2014, EPH bought the 2-GW Eggborough coal-fired plant (Reuters), but ten months later, EPH announced its intention to close the entire plant by March 2016 (company announcement; The Guardian).
- Earlier in 2015, RWE announced that it was offering EUR 1 to buy out the co-owners of the coal-fired Hamm power plant that had only recently been completed for EUR 2.5 2.7 bn (Handelsblatt).
- The recently completed Lünen anthracite power plant generated a loss of over EUR 100 million in 2014 and even higher losses are probable in 2015 (Osnabrücker Zeitung)

^{*} http://corporate.vattenfall.com/globalassets/corporate/investors/interim_reports/2015/q2_report_2015.pdf

^{**} http://www.bloomberg.com/news/articles/2015-10-16/cez-loses-appeal-to-hsbc-as-vattenfall-assets-flash-higher-risk



While these transactions refer to coal plants (with regard to the Seller's lignite assets), the decreasing difference in costs between coal and lignite plants in Germany and their close position in the value chain make them relevant. Another sign of the decreasing value of lignite and coal plants for European utilities is the large relevant utility asset impairments announced during the last few years (Ernst & Young). Both ENEL and Engie (GDF-Suez) recently signalled a significant reduction in their generation of coal-fired power which can directly affect this transaction.

The future value of lignite and coal assets in Europe has already been affected and will be affected even further by the merit order effect of renewables, especially in lower-demand periods; in other words, the increasing share of wind and solar reduces market prices. Increasingly, renewables will not only reduce realized price levels, but also lower utilisation rates for all thermal power plants.

The depressed current cash value of the Seller's lignite assets reduces the opportunity costs for a potential alternative approach which would build on a more participative process and include Vattenfall's owners and all key stakeholders, as well as a gradual transition from current polluting activities to an economically, environmentally and socially more sustainable model.



4.2 A COMPARISON OF POTENTIAL FUTURE STRATEGIES

The following table summarizes the key differences between the Seller's way of operating its German lignite business and a sustainable alternative.

	LIGNITE FUTURE	BEYOND LIGNITE
CORE FUTURE STRATEGY	Continued lignite-fired energy production as long as market conditions (e.g. low and falling wholesale prices) and/or climate and other regulations continue to tolerate such production. New owners will probably be interested in reducing (e.g. employment) costs, exploiting assets to their limits and reducing environmental and social responsibilities.	A gradual, managed transition away from polluting activities to a highly participative exemplary environmentally and socially sustainable business model (in line with the climate, environmental and social objectives of the key stakeholders). One example for a future strategy is described in the Greenpeace report Vattenfall's Opportunity. (Appendix 3)
PROCESS	Negotiations between and decision-making by Vattenfall and a private party without the participation of affected communities, Vattenfall's ultimate owners, etc.	Widely participatory process based on the climate, environmental and social objectives of Sweden, Vattenfall, Germany, Brandenburg, the trade unions and other stakeholders.
BENEFITS FOR VATTENFALL'S OWNERS	Depressed one-off cash from asset sales (driven by below EUR 30 EEX* futures base load prices, increasing operational and environmental costs, potential future health/pollution related litigations, low prices in recent benchmark EU coal M&A activities, etc.). Limited benefits beyond some limited cash flow from assets.	Assets temporarily remain on Vattenfall's books and would then be transferred to a newly created Stiftung (foundation) in which Vattenfall could also participate. Cash flow from the asset's operation would be transferred to the newly created Stiftung (with potential tax and other benefits for Vattenfall) which – with other financial sources – would ultimately fund the transition to a sustainable model (see details under Point 6).
BENEFITS FOR GERMANY, BRANDENBURG, LOCAL COMMUNITIES	Vattenfall may meet its own climate objectives through the sales of its assets. Continued substantial adverse environmental and health impacts. Unmanaged transition may result in fast, sudden fluctuations in revenues, cash flows leading to sudden pressure on employment; and sudden drops in local municipality revenues, etc.	Germany's and Brandenburg's climate objectives will probably be met. Substantial adverse environmental and health impacts will be reduced and ultimately eliminated. Managed transition would reduce unexpected shocks in local employment and in local municipality revenues.

^{*} https://www.eex.com/en/market-data/power/futures/phelix-futures%20-%20!/2015/10/16



4.3 PROPOSED LEGAL STRUCTURE: FOUNDATION

Greenpeace Nordic is a charitable association under Swedish law (förening). It cannot take over a company with the aim of operating lignite mines or coal-fired power plants as this would not be in line with the organisation's purpose which is to expose global environmental problems and to promote solutions, which are essential to a green and peaceful solution.

Greenpeace Nordic believes that in the sale of the German lignite assets, the Seller must ensure that the long term impacts of mining and electricity generation will be managed and financed by the legal entity responsible (the Seller), and in particular that no risks will be transferred to the Federal Republic of Germany and/or its states as was done after German Reunification when mining areas were entrusted to the LBMV (Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft mbH). Greenpeace therefore suggests that ownership of the lignite mines and coal plants owned and operated by the Seller be transferred to a foundation (Stiftung) under German law, with the aim of gradually phasing out mining and coal-fired electricity generation and bringing about the transition to a sustainable future business model to be formulated in a highly participative process with the involvement of all key stakeholders.

A foundation under German civil law is to be constituted, with the possible name of *Beyond Lignite Foundation*. The general principles and founding statutes can be modelled based on the relevant documents of the RAG-Stiftung*. Other elements can be taken from the founding statute of the Alfried Krupp von Bohlen und Halbach Stiftungi**, which is the largest owner of shares of the Thyssen Krupp AG.

Setting up a foundation also opens possibilities for helping transition towards a socially, environmentally and economically sustainable model in the Lusatia region. This would also support the energy transition and help to create new jobs. To reach this aim, additional legal structures could be established designed to allow workers and local residents to participate and benefit.

Greenpeace Nordic therefore proposes to act in the sale of the Seller's lignite operations in Germany as an intermediary between the Seller and a foundation under German law to be created with the aim of ensuring that most of the lignite resources in the mining fields of Lusatia remain in the ground, and that operations in both the mining areas and fields as well as the coal-fired electricity plants are terminated as soon as practically feasible, while ensuring security of supply and a socially sustainable transformation for workers. In terms of operations, this means phasing out lignite mining and lignite-fired electricity generation from the Seller's assets at the latest by 2030. The following chart shows closure dates based on our report Vattenfall's Opportunity:

^{*} http://www.rag-stiftung.de/

^{**} http://www.krupp-stiftung.de/





We would like to finalise the concept for a sustainable future for the Lusatia region where Greenpeace has been working with local communities for many years. In early 2015, we worked with the Institute für Ökologische Wirtschaftsforschung (lÖW) to define a potential transformation plan for the region:

- 1. It shows that a future with continued lignite operations will lead to major job losses and retirements within that industry in any case. There is consensus among experts that regardless whether lignite operation is continued beyond 2030 or not, not more than 4,500 jobs will remain out of the 8,000 that exist today.
- 2. It details the potential for renewable energies in the region and outlines a way to phase-out lignite operations and replace them with renewable energies without the loss of jobs. The potential for renewable energies in Brandenburg and Saxony is substantial, and Lusatia is the sunniest region in all of Germany.
- 3. A transparent and gradual phase-out schedule forms the basis for best possible co-operation between the German federal government and the regional governments of Brandenburg and Saxony to facilitate a rapid and socially responsible transition towards renewable energy sources and achieve a sustainable and socially fair structural change in the job sector.

This is in line with Greenpeace Nordic's statutes, which state that the association is to protect nature and the environment globally, including the global climate system.



4.4 VISION FOR A STRUCTURAL CHANGE

Our recent past has been dominated by fossil fuels, but our future will be different. Climate science has made it clear that it is no longer possible to base the world's economy and development on dependence on fossil fuels and increasing resource extraction. In order to avoid catastrophic climate change, coal power plants throughout the world need to be closed and replaced by renewable power generation. It is the urgency of climate change which dictates the need for a rapid transition away from fossil fuels and Greenpeace sees great opportunities in this transformation. What the world is facing is a necessary industry transformation like numerous ones that have taken place before. Such a transformation will take place on its own, but in a situation in which the operators of these industries fail to live up to their social and environmental responsibility to lead this transformation, the process needs to be accelerated by civil society. Therefore it is Greenpeace Nordic's vision to turn Lusatia into an iconic region for a successful energy transition. On our way to an energy system based on 100 percent renewable energies, one of the biggest challenges is to manage structural change in an ecologically and socially sustainable and economically sound way. The **Beyond Lignite Foundation** could be the role model for a vehicle driving structural change in this spirit.

A transparent phase-out schedule forms the basis for best possible co-operation between the German federal government, the regional governments of Brandenburg and Saxony and the crucial trade unions (e.g. IG BCE, the miners' union) to facilitate a rapid and socially responsible transition towards the use of renewable energy sources and lead to a sustainable and socially fair structural change in the job sector. Germany shows that the renewable energy industry is still an engine for jobs and economic growth. Transforming the degraded lands now badly affected by lignite mining offers us the opportunity to develop innovative methods of land restoration and highly valuable key competencies for the energy transition to come.

With the aim of turning Lusatia's rapid transition away from its lignite dependence to an inspirational example for the global transition towards renewable energies, the *Beyond Lignite Foundation* will have the unique opportunity of making use of impulses provided by civil society and the global environmental movement to bring new potential and vitality to the region. It is important for such an inclusive process to be transparent, and as a consequence, we should not be bound by confidentiality clauses.

Greenpeace assumes that for legal reasons and to protect the global climate and communities affected by pollution, lignite operations must be gradually phased out. It would be realistic to adopt a model for ownership and operation which resembles the model employed in the anthracite mining regions of Germany, especially in North Rhine-Westphalia. There, all assets of the former coal company Rheinbraun AG were transferred to a foundation (RAG Stiftung), which sets out in its statutes timelines for the closure of specific mines, and timelines for the recovery and restoration of the environment in mining regions as well as long-term water management. Under the foundation, legal entities remain operative, and shares of such entities are held by the foundation.



Such a model would require capital stock to be dedicated to this aim, in addition to any profits still realized by the current operative plants and mines, and the sale of assets such as land/acreage.

In contrast to this, the former mining areas of Eastern Germany were entrusted to the state-owned company LMBV (Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft mbH) – the difference being that it was assumed that the obligations and legacy of former East German (GDR-German Democratic Republic) mining operations must be borne and managed by the Federal Republic of Germany entirely, while active mining operations and plants were sold to private companies. The German government (federal and states) currently projects spending on LMBV activities at EUR 11.1 bn from 1991 to 2017, which will be borne by German society and shows the magnitude of the task of environmental restoration, water management, etc. (all details are in Appendix 2)

4.5 ORGANISATIONAL STRUCTURE

The law does not require a specific initial amount to form a foundation, but requires that permanent and sustainable promotion of the *Beyond Lignite Foundation's* purpose must appear to be assured. The appropriate sum will have to be determined in a highly participative and transparent process not bound by confidentiality clauses and supported by expert opinions. Nevertheless, in accordance with the polluter pays principle, Greenpeace Nordic envisages that a fall-back clause would have to be inserted in the sales agreement in such a way as to ensure that the real costs of shutting down mines and plants are borne by the original polluter.

The former Vattenfall companies (Betriebsgesellschaften) could be renamed or held under a new legal entity (e.g. Abwicklungsgesellschaft) to underline the change in aim and structure. In addition, a new legal entity would be set up, with the specific aim of economic diversion and development in the region (Aufbaugesellschaft). (Appendix 6)

Greenpeace has been working with communities in Lusatia for many years and has worked out a possible transition scenario with the help of IÖW. (Appendix 3)



5 CONFIRMATION OF GREENPEACE NORDIC'S BOARD APPROVAL TO PARTICIPATE IN THE PROCESS AS INTERESTED PARTY; OVERVIEW OF OTHER POTENTIAL APPROVAL REQUIREMENTS IN CONNECTION WITH THE TRANSACTION

Patrik Eriksson, as Interim Executive Director of Greenpeace Nordic, holds the Authority to sign for the Association Greenpeace Nordic. Final approval in connection with the Transaction is required by the Board of Directors of the Association of Greenpeace Nordic.

See attached:

- 1 Approval by board chair authorising Greenpeace Nordic's ED to act as signee (Appendix 4)
- 2 Greenpeace Nordic by-laws specifying approval requirements (Appendix 5)

6 EVIDENCE OF THE FINANCIAL CAPABILITY AND STRENGTH TO ACQUIRE THE TARGET / (7.) EVIDENCE OF ANY DEMONSTRATED TRACK RECORD IN CONSUMMATING TRANSACTIONS OF A SIMILAR SIZE

Greenpeace's evaluation of the Target's value is not positive, which makes the question of our financial capability of acquiring the assets irrelevant. The more important question is the potential sources which can help in the transition of the current polluting activities (which completely destroy the Target's value for the Seller's ultimate owners and the affected communities) to a new economically, environmentally and socially sustainable model.

6.1 VALUE OF THE SELLER'S LIGNITE ASSETS (TARGETS)

The Appendices include the details of these calculations. The following is a short summary:

Citi and ING name value maximization as one of the key criteria in assessing offers for the Seller's assets. Greenpeace Nordic believes that there must be value maximization for the ultimate owners of the Seller (the Swedish people) and for the affected communities in Germany, other neighbouring countries and globally. In that interpretation, the assets' value is influenced by at least three sets of factors:



- 1 NPV of annual contribution margins: Greenpeace contracted Energy Brainpool to prepare a quick estimate of the financial value of the Vattenfall lignite assets under one possible set of optimistic assumptions.
- 2 Closure costs: Greenpeace coal experts using benchmarks estimated some of the power plant and mine closing costs which could affect the value of the assets including the full cost of land recultivation, the cost of decommissioning the power plants, and job-related indemnity costs.
- 3 Costs of externalities: Greenpeace experts also prepared another set of analyses of cost factors which may influence the value in the case of policy or regulatory changes. These include health costs related to air pollution, additional costs of neutralising the negative impacts of Vattenfall's lignite assets on Berlin's water supply, the harm incurred by additional CO2 emissions from now until closure, and currently unpaid mineral royalties.

The overall results of these calculations signal a limited purely financial value (which is also supported by the considerations in Point 4.1. regarding the depressed current market value of the lignite assets) and very significant closure liabilities, especially concerning the costs of externalities:

- 1 The NPV of estimated annual cash flows is based on a gradual phaseout by 2030, a range of accepted assumptions by IEA and others, and includes a very optimistic market price development (e.g. 50 percent above current relevant futures prices). It still resulted in a value of less than half a billion euros (all details are in Appendix 1).
- 2 Total additional costs of closure could be about two billion euros, with the largest part probably coming from so far unfulfilled land recultivation costs (all details are in Appendix 2).
- 3 The seller currently externalizes very large costs in the form of health costs, unpaid mineral royalties, and uncompensated harm caused by greenhouse gas emissions. These come to tens of billions of Euros (all details are in Appendix 2).



6.2 POTENTIAL SOURCES TO FUND TRANSITION TO NEW MODEL

The RAG Stiftung and other international examples of funding the transition of coal mining areas to more sustainable models offer substantial information and knowledge on funding opportunities.

A significant difference from the RAG Stiftung model is that the RAG Stiftung must ensure financing for "Ewigkeitskosten" (perpetual mining obligations), for example in principle RAG is required to continue pit water management and groundwater purification in perpetuity after closing the underground mines. This requires very large accumulated financial resources for an indefinite time. In the case of Vattenfall's surface mines and coal power plants, most of these closure clean-up activities but not all of them have a limited time frame which can also be reduced if some of the areas concerned are transformed into renewable energy production sites, for example.

The **Beyond Lignite Foundation's** structures and operation model would be formulated on a participatory model, and as such the below considerations are only preliminary suggestions.

The **Beyond Lignite Foundation** would assume capital stock and would also have a range of other potential cash flows. Initial capital stock may temporarily include some of the related lignite assets and a certain amount from the Seller based on the past (for the period the Seller owned the assets) health and other environmental/social impacts and the uncovered future closure costs (Appendix 2) In this regard it must be avoided, that Vattenfall AB as well as the Swedish state disposes of its liabilities due to lignite mining and excavation operations.

Additional potential cash flows may include:

- annual earnings realised from the remaining lifetime of the relevant lignite assets (in Greenpeace's gradual phase-out plan until 2030); for example, 2014 EBITDA was EUR 647 million;
- additional earnings from relevant lignite assets from a reduction in lignite-related capital expenditures (e.g. no mine expansion is necessary); the maintenance programme can be adjusted to the shorter expected lifetime of assets,
- Increased cash flow based on a modified depreciation process given the shorter lifetime of the concerned assets.
- as some of the mining areas may be transformed and used for renewable energy production or other sustainable economic activities, they may not require full-scale land recultivation which could result in savings (mining provisions were at EUR 1.6 billion as of H1 2015);
- the contribution from potential new investors planning to participate in the transition to new sustainable activities, who would benefit from a foundation-based structure
- etc

^{*} http://www.rag-stiftung.de/ewigkeitsaufgaben/