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Promoting Public Acceptance of Wind Energy Projects in Kenya: Towards a Wind-Wind Solution

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Promoting Public Acceptance of Wind Energy Projects in Kenya: Towards a Wind-Wind Solution

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1. Introduction

In the famous classic tale, *Alice in Wonderland*, the Cheshire Cat gives Alice sound advice on travelling. According to the Cat, the traveler needs to know where he wants to go, to know which way to go.¹ This advice is relevant to all countries operating under a post-2015 international climate change regime. The necessary transition to a low carbon society is only possible where a country is clear about its goal to reduce its greenhouse gas (GHG) emissions, and chooses a pathway congruent with this goal. Through their Nationally Determined Contributions (NDCs), Parties to the United Nations

Framework Convention on Climate Change (UNFCCC) are increasingly demonstrating this Cheshire Cat wisdom, given their clarity on individual goals aimed at contributing to averting dangerous climate change.

Kenya was among the list of countries that submitted its NDCs following the Warsaw call, joining a total of 147 Parties (75% of all Parties to the UNFCCC) who responded to the invitation to submit NDCs by the 1st October 2015 deadline.² Kenya's NDC covers both mitigation and adaptation, and aims to foster low carbon climate resilient development.³ It seeks to abate the country's GHG emissions by 30% by 2030 relative to the BAU scenario of 143 MtCO₂eq; and in line with its sustainable development agenda.⁴ To achieve this target, the NDC highlights that priority mitigation activities will include expansions in the national production of geothermal, solar, wind and other renewable and clean energy options. Similarly, goal 7 of the Sustainable Development Goal (SDGs) calls for the provision of affordable and clean energy, and 2014-2024 has been declared as the United Nations Decade of Sustainable Energy for All (SE4All),⁵ with the focus of this initiative aimed at *inter alia* doubling the share of renewable energy in the global energy mix by 2030.⁶ Kenya is among the countries that have signed on to the initiative and is the second country in the world to adopt a national

¹ Lewis Carroll, *Alice's Adventures in Wonderland* (BookVirtual 2000) at 89.

² UNFCCC, Synthesis report on the aggregate effect of the intended nationally determined contributions, FCCC/CP/2015/7, 30 October 2015.

³ Republic of Kenya, *Kenya's Intended Nationally Determined Contribution (INDC)*, Ministry of Environment and Natural Resources, 23 July 2015. Available at http://www4.unfccc.int/submissions/INDC/Published%20Documents/Kenya/1/Kenya_INDC_20150723.pdf Accessed 13.09.2016

⁴ Ibid

⁵ United Nations Department of Public Information, 'United Nations General Assembly Declares 2014–24 Decade of Sustainable Energy for All' (Press Release, GA/11333 EN/274, 21 December 2012); See also <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>. Accessed 02.10.2016

⁶ 'Sustainable Energy for All: A Vision Statement by Ban Ki-moon, Secretary-General of the United Nations' (United Nations, November 2011) 4.

action plan to guide its implementation of the initiative, and an investment prospectus to highlight priority projects proposed by stakeholders.⁷

Wind energy is therefore among the key sources of renewable energy which as a component of Kenya's energy mix, has the potential to aid in the attainment of the NDC target as well as lead Kenya to the attainment of the SDGs. However, a challenge to the attainment of these targets through increased wind energy production is that there have been instances of local community opposition to wind energy projects, delaying and in some cases halting the implementation of the projects.⁸ The central question in this essay is what legal mechanisms and incentives should be adopted under Kenya's energy regulatory framework to reduce such opposition. In answering this question, the essay will begin by reviewing developments in energy in the country, with a specific focus on wind. The essay will then turn to a review of the legal measures taken by Denmark to encourage local acceptance of wind power generation projects, and the applicability of these measures in the Kenyan context. The choice of Denmark stems from its pioneering status in wind energy developments.⁹ The essay's central argument is that there are lessons for Kenya from the Danish experience on the creation of a regulatory framework that enhances acceptance of wind projects. However, the socio-economic circumstances and realities of Kenya need to take center stage in the adoption of lessons learned.

2. Energy Developments in Kenya: Which Way Is the Wind Blowing?

Energy policy in Kenya has evolved through sessional papers, regulations and Acts of Parliament, and renewable energy issues have been encapsulated in these varying documents over time.¹⁰ The focus initially was on the electricity and petroleum sub-sectors,¹¹ and this is not surprising given that renewable energy issues have only gained prominence both nationally and internationally, in the recent past.¹² In Sub-Saharan Africa countries such as Kenya, renewable energy promises a very much desired increase in access to and affordability of electricity.¹³ Less than 30% of the households in Kenya have access to electricity, and majority cannot afford the high cost of electricity.¹⁴ These access and affordability challenges are further compounded by the fact that projections show a variance between current available installed capacity and the anticipated peak load estimated to grow to 15,000 MW by 2030, which means that there is need to accelerate the facilitation of a variety of energy sources to meet the country's electrical supply and consumptions needs.¹⁵

Whereas it may appear that recent oil discoveries in Kenya will see a slowing down of momentum and a diminished role for renewable energy,¹⁶ Kenya has created a relatively robust

⁷ Mosad Elmissiry, *Kenya's Sustainable Energy Goals on Track*, Daily Nation, Thursday March 12, 2015. Available at <http://www.nation.co.ke/oped/Opinion/Kenya-Energy-Economy-National-Action-Plan/-/440808/2650044/-/11g16f8/-/index.html>. Accessed on 19 March 2015.

⁸ For example, see Macharia Mwangi, *SH 13bn Wind Farm Project runs into Headwinds Due to Cash and Politics*, Daily Nation 2nd March 2015. Available at <http://www.nation.co.ke/counties/Sh13bn-wind-farm-project-runs-into-headwinds/-/1107872/2640546/-/39jm6w/-/index.html> Accessed 04.03.2015.

⁹ Paul Gipe, *Wind Energy Comes of Age*, (John Wiley & Sons 1995).

¹⁰ These documents include the Least Cost Power Development Plan (LCPDP), the Scaling Up Renewable Energy Program (SREP) Investment Plan for Kenya, the Energy Act of 2006 and regulations thereunder, the Feed-in Tariff (FiT) Policy, the Kenya National Climate Change Response Strategy and Action Plan, and the Kenya Vision 2030.

¹¹ *A Comprehensive Study and Analysis on Energy Consumption Patterns in Kenya*, Synopsis of the Draft Final Report submitted by KIPPRA to ERC, July 2010, at 15.

Available at http://www.cofek.co.ke/ERCStudy_ExecSummary_02082010.pdf. Accessed 21.02.2015.

¹² Richard L. Ottinger et al, 'Introduction' in Richard L. Ottinger et al (eds) *Compendium of Sustainable Energy Laws*, (Cambridge University Press 2005) at x.

¹³ Republic of Kenya, *Scaling Up Renewable Energy Program (SREP)*. Investment Plan for Kenya, May 2011.

¹⁴ EED Advisory, *Why Policy, Capacity and Governance are Not the Greatest Limitations to the Spread of Grid-Based Electrification in East Africa*, EED Energy Access Review June 2014 14-Q2EA at 1.

¹⁵ Republic of Kenya, *Least Cost Power Development Plan*, (GoK 2010).

¹⁶ Following the discovery of oil and gas deposits in Kenya, there is increased interest in the Kenyan upstream oil and gas sector with a good deal of transactional activity going on involving the Government of Kenya entering into agreements such as Production Sharing Contracts. See Freshfields Bruckhaus Deringer and Kaplan and Stratton, *Kenya: Oil and Gas Developments*, Freshfields Bruckhaus Deringer LLP News Brief, March 2013. Available at <http://www.freshfields.com/uploaded->

regulatory environment for a renewables pathway, and made heavy financial investments for this energy transition. Thus, commitment to sustainable energy is unlikely to waver. This is also likely due to the fact that the country is well endowed with *inter alia* hydro, geothermal, wind and solar sources,¹⁷ and it has been cited that a major factor influencing a government's decision to adopt favorable policies for renewable sources and encourage sustained production is a high endowment of renewable resources in the country.¹⁸ Finally, the current integration of renewable energy in the energy mix of many countries, including Kenya, is largely driven by the need not only for development and energy security, but also climate change concerns, highlighting the important role to be played by renewable energy going forward.¹⁹ Major oil producing countries such as Venezuela and Scotland have demonstrated that oil producing countries can embark on ambitious renewable energy programmes and utilize oil rents to promote such technologies.²⁰ These countries could serve as examples for Kenya on this issue.

Specifically with regards to wind energy, Kenya is among the top seven African countries with large on-shore wind energy potential.²¹ Generally, wind energy markets in the continent remain small, concentrated and nascent in nature,²² and it could be argued that with a current installed capacity for wind power of only 5.1 MW, Kenya epitomizes this small and nascent wind energy market.²³ In the sub-saharan region however, Kenya is a front runner in a slow race, being home to Africa's largest wind farm, the Lake Turkana Wind Power Project (LTWP) whose construction begun in 2015,²⁴ whilst also having a 25.5 MW wind project in Ngong, and the Government's announcement of the receipt of a further 650 MW in wind power proposals.²⁵ This immense wind sector investment interest has been buoyed by renewable energy targets such as the target to raise the generation capacity by 5000MW between the year 2013 and 2016,²⁶ and a national target of providing 2000MW from wind energy by 2030.²⁷ It has been pointed out that setting renewable energy targets is not enough.²⁸ They must be supported by an appro-

[Files/SiteWide/News_Room/Insight/Africa_ENR/Kenya/Kenya%20oil%20and%20gas.pdf](#). Accessed 15.03.2015.

¹⁷ Energy Regulatory Commission, *Renewable Energy Sources*. Information available at http://www.erc.go.ke/index.php?option=com_fsf&view=faq&catid=2&Itemid=649. Accessed 20.03.2015.

¹⁸ Kelly Sims Gallagher, 'Why & How Governments Support Renewable Energy', 142 *DAEDALUS* 59 (2013)

¹⁹ Adrian J. Bradbrook, 'The Development of Renewable Energy Technology and Energy Efficiency Measures through Public International Law', in Donald N Zillman et al. (eds), *Beyond the Carbon Economy: Energy Law in Transition* (New York: Oxford University Press, 2008), at pp. 109-112.

²⁰ German Massabie, 'Why Would Oil Producing Countries be in Renewables? – The Case of Venezuela, 2011 *Renewable Energy L. & Pol'y Rev.* 39; As at 2016, 50% of electricity consumption in Scotland is from renewable energy sources. See <http://www.scottishenergynews.com/renewable-energy-sector-hits-50-of-scottish-electricity-generation-target-12-months-ahead-of-schedule/>. Accessed 09.10.2016.

²¹ The countries include Somalia, Sudan, Libya, Mauritania, Egypt, Madagascar and Chad. See Mukasa A.D et al *Development of Wind Energy in Africa*, Working Paper Series N° 170 (African Development Bank 2013). www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Working%20Paper%20170%20-%20Development%20of%20Wind%20Energy%20in%20Africa.pdf. Accessed 02.03.2015.

²² *Ibid.*

²³ Energy Regulatory Commission, *Renewable Energy Sources*. Information available at http://www.erc.go.ke/index.php?option=com_fsf&view=faq&catid=2&Itemid=649. Accessed 20.03.2015.

This 5.1 MW project is a KenGen demonstration project dating from 2008.

²⁴ Alex Court, *Will Africa's Biggest Wind Power Project Transform Kenya's Growth?* CNN Marketplace Africa, January 29th 2015. Available at <http://edition.cnn.com/2015/01/29/business/ltpw-kenya-windpower/>. Accessed 20.02.2015.

²⁵ Oliver Waissbein et al, *Derisking Renewable Energy Investment: A Framework to Support Policymakers in Selecting Public Instruments to Promote Renewable Energy Investments in Developing Countries*, (UNDP 2013). Available at <http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Strategies/UNDP%20Derisking%20Renewable%20Energy%20Investment%20-%20Full%20Report%20%28April%202013%29.pdf>. Accessed on 21.02.2015.

²⁶ Government of Kenya, MoEP (2013), *5000 + MW by 2016, Power to Transform Kenya – Investment Prospectus 2013-2016*, Ministry of Energy and Petroleum, Nairobi. The 5000MW is to be reached through the production of 1,646 MW of Geothermal and 630 MW of Wind.

²⁷ This target is set out in Government of Kenya, Long Term Energy Strategy 2012-2030, as quoted in Joseph Nganga et al, *Powering Africa Through Feed-in Tariffs: Advancing Renewable Energy to Meet the Continent's Electricity Needs*, (Heinrich Boll 2013).

²⁸ Aileen McHarg and Anita Rønne, 'Reducing Carbon-Based Electricity Generation: Is the Answer Blowing in the Wind?' in Don Zillman et al (eds) *Beyond the Carbon Economy: Energy Law in Transition*, (Oxford 2008).

appropriate framework of laws and policies on renewable energy.²⁹ In the case of wind energy, a Feed-in-Tariffs (FIT) policy was implemented in 2008 and revised first in 2010 and again in 2012,³⁰ and it provides investment security and market stability for investors whilst encouraging private investors to operate their wind power plants prudently and efficiently to maximize returns.³¹ Owino and Morton have however observed that there are still gaps in the FiT framework, with difficulties in signing Power Purchase Agreements (PPAs) being among the challenges faced by investors in renewable energy.³² However there have been recent attempts to ameliorate the situation, with the introduction of developments such as Standardized PPAs.³³

Despite these initiatives, the number of wind power plants commencing operations remains low, and among the causes of delayed operations is public opposition to proposed wind projects. Thus, there is need for a win-win solution, as whereas government and investors are raring to go, communities in certain instances have had their reservations on wind power projects. Local communities have used both litigation and non-litigation strategies to oppose these projects, and examples include the 60 MW Kinangop Wind Farm, where a section of local farmers pro-

tested lack of consultation, inadequate compensation and devaluation of property and quality of life.³⁴ They used both violent protests³⁵ as well as court action³⁶ to seek remedies for their grievances, and the project was abandoned due to the hostile investment environment. In the case of the Lake Turkana Wind Project (LTWP), aggrieved landowners in the project location alleged illegal land acquisition by the project company and sought assistance from the court. The court allowed LTWP to use 87.5 of the 150ha of the contested land until the matter is concluded, in essence slowing the project.³⁷ The following section of the essay thus reviews Denmark, an advanced wind energy market, in order to reflect on lessons for Kenya in increasing public acceptance of such projects.

3. Developments in Wind Energy in Denmark: Any Lessons for Kenya?

Denmark occupies top position as the nation with the world's highest percentage of wind power contributing to national electricity generation.³⁸ The country also bears an ambitious sustainable energy target to generate 50% of its

²⁹ Ibid.

³⁰ The current tariff for wind is US \$ 0.11/ kWh. See Ministry of Energy, Feed-in-Tariffs policy for wind, biomass, small hydros, geothermal, biogas and solar, 2nd revision, December 2012. Available at <http://www.energy.go.ke/downloads/FIT%20Policy,%202012.pdf>. Accessed 20.03.2015; Joseph Nganga et al, *Powering Africa Through Feed-in Tariffs: Advancing Renewable Energy To Meet the Continent's Electricity Needs*, (Heinrich Boll 2013).

³¹ Republic of Kenya, Wind Sector Prospectus-Kenya, September 2013. Available at http://www.renewableenergy.go.ke/asset_uplds/files/Wind%20Sector%20Prospectus%20Kenya.pdf. Accessed 20.03.2015.

³² Tom Owino and Tom Morton, 'The Impact of Energy Sector Reforms on Clean Development Mechanism Renewable Energy Projects in Kenya', 2010 *Carbon & Climate L.Rev* 345 2010.

³³ Standardized Power Purchase Agreements for Small Scale Renewable Energy Generators of Less than and Including 10MW. Available at http://www.renewableenergy.go.ke/asset_uplds/Standardized_PPA_for_Small_Scale_Generators_less_than_10%20MW.pdf. Accessed on 21.03.2015.

³⁴ For example, see Macharia Mwangi, *SH 13bn Wind Farm Project runs into Headwinds Due to Cash and Politics*, Daily Nation 2nd March 2015. Available at

<http://www.nation.co.ke/counties/Sh13bn-wind-farm-project-runs-into-headwinds/-/1107872/2640546/-/39jm6w/-/index.html>. Accessed 04.03.2015.

³⁵ Macharia Mwangi, *Man Shot Dead as Kinangop Residents Protest Over Wind Power Plant*, Daily Nation, February 25, 2015. Available at <http://www.nation.co.ke/counties/Kinangop-power-project-conflict/-/1107872/2635236/-/mk75oh/-/index.html>. Accessed 20.03.2015; Macharia Mwangi, *Man's Property Burnt as Villagers in Kinangop Protest over Wind Power Project*, Daily Nation, February 24, 2015. Available at <http://www.nation.co.ke/counties/Magumu-Nyandarua-Kinangop-Wind-Power-Project/-/1107872/2633470/-/10rxq7a/-/index.html>. Accessed 20.03.2015.

³⁶ Moffat Kamau & 9 others v Aelous Kenya Limited & 9 others [2016] eKLR.

³⁷ Mohamud Iltarakwa Kochale & 5 others v Lake Turkana Wind Power Ltd & 9 others [2015] eKLR; See also <https://www.danwatch.dk/en/undersogelseskapitel/storm-ahead-for-vestas-as-giant-kenyan-wind-power-project-is-in-court/>; <http://www.nation.co.ke/counties/meru/Lake-Turkana-wind-power-project-row/-/1183302/2810876/-/59jy01z/-/index.html>. Accessed 15.10.2016.

³⁸ REN21, *Renewables 2014: Global Status Report*, (REN21 2014) at 14. Available at http://www.ren21.net/portals/0/documents/re-sources/gsr/2014/gsr2014_full%20report_low%20res.pdf. Accessed on 21.03.2015. Throughout 2013, wind power

electricity through wind power by 2020.³⁹ This interest in wind energy was influenced by the country's desire to make full use of its wind power potential and also in a bid to ensure security of energy supply given the oil crisis of the 1970s.⁴⁰ Denmark began a series of policy and legislative initiatives to promote wind energy, beginning with economic incentives for wind power investors. Wind projects at this time were small projects owned by individuals or collective groups of individuals, due to the regulations that encouraged local investments.⁴¹ Later, a shift in development focus emerged whereby policy preference favoured larger wind farms over small community developments, leading on to the current policy shift to offshore wind farm development.⁴²

It has been argued that a number of unique social, technological, economic and political factors influenced Denmark's ascent as a wind energy power house, and therefore replication of Denmark's policy model will not guarantee similar levels of success in other nations seeking to emulate Denmark's achievements by replicating the Danish wind policies.⁴³ It is however acknowledged that if countries wish to learn anything from Denmark in terms of effective wind power policy design, Denmark's initiatives for reducing public opposition represent areas of best practice.⁴⁴ The not in my backyard syndrome (NIMBYism) is a common form of opposition to wind power projects,⁴⁵ and over the last ten years some sections of the local communities in

Denmark have been protesting against any further building of onshore wind turbines across the country.⁴⁶ This is despite the historical affinity for the presence of wind turbines which have traditionally been viewed as okay given the presence of wind development in the country as early as the 1900s.⁴⁷ However, in the midst of this disquiet, Denmark has managed to increase wind energy production and it has been propounded that the establishment of socially sensitive patterns of ownership for wind farms is among the factors that has led to Denmark's success.⁴⁸

The Danish Renewable Energy Act which embraces these sensitive patterns of ownership, entered into force on 1 January 2009 has introduced specific legal measures to enhance public acceptance of wind projects.⁴⁹ The Act contains four new instruments for ensuring greater involvement of local citizens and promoting the acceptance by local communities of new and bigger wind farm developments.⁵⁰ These instruments include a fund to support the financing of preliminary investigations by local wind turbine owners' associations or groups; a mandatory auctioning of a minimum 20 per cent of the shares in a wind turbine to neighbors living within a 4.5 km limit of the wind farm project; a right of property owners to full compensation for loss of value to real property due to the siting of wind turbines in their vicinity; and a fund to enhance local scenic and recreational values, such as nature restoration projects or the installation of renewable energy sources in public buildings.⁵¹ Whereas it would seem that Kenya has no need

met 33.2% of electricity demand in Denmark and 20.9% in Spain, which came in second.

³⁹ Danish Energy Agency, *Accelerating Green Energy Towards 2020*, (Danish Energy Agency 2012).

⁴⁰ IRENA, *Denmark: Wind Report*, in IRENA-GWEC: 30 Years of Policies for Wind Energy at 54. Available at https://www.irena.org/DocumentDownloads/Publications/IRENA_GWEC_WindReport_Denmark.pdf. Accessed 20.03.2015.

⁴¹ Ibid at 55.

⁴² Peter Kelly-Detweiler, *Denmark: 1000 Megawatts of Offshore Wind, and No Signs of Slowing Down*. Forbes News Brief 26 March 2013. Available at <http://www.forbes.com/sites/peterdetweiler/2013/03/26/denmark-1000-megawatts-of-offshore-wind-and-no-signs-of-slowing-down/>. Accessed 15.03.2015.

⁴³ Scott Victor Valentine, *Wind Power Politics and Policy* (Oxford University Press 2015) at 81.

⁴⁴ Ibid at 113.

⁴⁵ See [Birgitte Egelund Olsen, 'Wind Energy and Local Acceptance: How to Get Beyond the Nimby Effect' \(2010\) 19 European Energy and Environmental Law Review, Issue 5, pp. 239–251](#); and Douglas C. Eltham et al, 'Change

in public attitudes towards a Cornish wind farm: Implications for planning', in *Energy Policy* 36 (2008).

⁴⁶ IRENA, *Denmark: Wind Report*, in IRENA-GWEC: 30 Years of Policies for Wind Energy at 59. Available at https://www.irena.org/DocumentDownloads/Publications/IRENA_GWEC_WindReport_Denmark.pdf. Accessed 20.03.2015.

⁴⁷ Scott Victor Valentine, *Wind Power Politics and Policy* (Oxford University Press 2015) at 81.

⁴⁸ J. McLaren Loring, 'Wind energy planning in England, Wales and Denmark: Factors influencing project success', *Energy Policy* 35, 2007, pp. 2648-2660. Local ownership was encouraged through subsidies, tax credits and ownership criteria that encouraged cooperative ownership of wind turbines.

⁴⁹ Act on the promotion of renewable energy (No. 1392 of 2008) (Hereinafter Renewable Energy Act).

⁵⁰ Birgitte Egelund Olsen, 'Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects' in Schomerus, T. Peeters, M. *Renewable Energy Law in the EU* (Edward Elgar 2015).

⁵¹ Ibid.

for such legal mechanisms given the assertion that in Kenyan wind projects investors observe a positive attitude and limited resistance to wind energy because- “Kenyans generally embrace new technology; that wind is lower-cost than current energy supply; that sites of wind farms are often in less populated areas; and finally that local communities are attracted to possible benefits such as electrification, clean water, roads and employment,”⁵² the documented public opposition of the LTWP and the Kinangop wind power project puts to question this observation.⁵³ Thus it is apt to review whether the four Danish legal instruments offer an example of a legislative framework that could diminish the likelihood of costly opposition to wind projects in Kenya.

Two of the Danish instruments are compensatory in nature.⁵⁴ The first is a compensation scheme whereby the impact of the wind turbines on property values is compensated,⁵⁵ and the other is the setting up of a Green Fund whereby subsidies are granted to local initiatives for the enhancement of local scenic and recreational values in areas where wind parks have been constructed.⁵⁶ These mechanisms are aimed to compensate residents for the degradation of their environment, caused by the turbines.⁵⁷ Currently in Kenya, such compensatory require-

ments are non-existent in the regulatory framework.⁵⁸ Wind developers have however voluntarily undertaken to implement Corporate Social Responsibility projects in the areas where their wind farms are located, as a way of giving back to the communities’ resident in the project area. For example in the case of the Kinangop Wind Power Project, Kenya Shillings 270 Million had been set aside for social CSR programmes,⁵⁹ whereas in the case of the Lake Turkana Wind Power Project, located in one of the poorest counties in Kenya, the project which is registered under the CDM, has set out to use a combination of revenue from carbon credits and profit to form and fund a trust which will set up projects that ensure local livelihoods are improved over the 20 years of the investment.⁶⁰ These initiatives are laudable, however they are voluntary and do not have the force of law behind them. There is therefore the risk of these commitments being left unfulfilled.⁶¹ Thus, a legal framework that stipulates the requirements for compensation as has been set out in the Danish case would ensure that minimum standards on compensation are set out, guaranteeing that local residents are adequately compensated. The challenge would likely be as experienced in the Denmark case, difficulties in determining the exact compensation required.⁶²

⁵² Oliver Waissbein et al, *Derisking Renewable Energy Investment: A Framework to Support Policymakers in Selecting Public Instruments to Promote Renewable Energy Investments in Developing Countries*, (UNDP 2013). Available at <http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Strategies/UNDP%20Derisking%20Renewable%20Energy%20Investment%20-%20Full%20Report%20%28April%202013%29.pdf>. Accessed on 21.02.2015.

⁵³ For example, see Macharia Mwangi, *SH 13bn Wind Farm Project runs into Headwinds Due to Cash and Politics*, Daily Nation 2nd March 2015. Available at <http://www.nation.co.ke/counties/Sh13bn-wind-farm-project-runs-into-headwinds-/-/1107872/2640546/-/39jm6w/-/index.html>. Accessed 04.03.2015.

⁵⁴ Birgitte Egelund Olsen, ‘Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects’ in Schomerus, T. Peeters, M. *Renewable Energy Law in the EU* (Edward Elgar 2015).

⁵⁵ Renewable Energy Act Section 6.

⁵⁶ Renewable Energy Act Section 18.

⁵⁷ Birgitte Egelund Olsen, ‘Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects’ in Schomerus, T. Peeters, M. *Renewable Energy Law in the EU* (Edward Elgar 2015).

⁵⁸ The laws that come close in Kenya are the recent Community Land Act, 2016, The Natural Resources (Benefit

Sharing) Bill 2014 and the Energy Bill 2015 which contain provisions on benefit sharing that have the potential to ensure communities receive clearer benefits from renewable energy developments on their land. The land laws also provide for compensation in cases of compulsory land acquisition. However, there is no compensation for the reduction in property’s Id farm near on value, due to the construction of a wind farm near one’s land.

⁵⁹ Antony Gitonga, *Sh13b Kinangop Wind Park Project Back on Course*. The Standard, February 6 2015. Available at <http://www.standardmedia.co.ke/the-counties/article/2000150725/sh13b-kinangop-wind-park-project-back-on-course>. Accessed 20.03.2015.

⁶⁰ Lake Turkana Wind Power, *Project Profile*, (LTWP August 2014). Available at <http://ltwp.co.ke/the-project/project-profile>. Accessed 20.03.2015.

⁶¹ Institute of Human Rights and Business & KNHRC, *State of Human Rights in the Kenyan Extractive Sector: Executive Summary*, March 2016. Available at <https://www.ihrb.org/focus-areas/commodities/report-state-of-human-rights-kenyan-extractive-sector-executive-summary>. Accessed 09.10.2016.

⁶² Birgitte Egelund Olsen, ‘Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects’ in Schomerus, T. Peeters, M. *Renewable Energy Law in the EU* (Edward Elgar 2015).

The other two of the Danish instruments promote local ownership of the project. One through a fund to support the financing of preliminary investigations by local wind turbine owners' associations or groups (Guarantee Fund),⁶³ and the other a mandatory auctioning of a minimum 20 per cent of the shares in a wind turbine to local residents living within a 4.5 km limit of the wind farm project.⁶⁴ Through these mechanisms, locals not only have an opportunity to investigate the feasibility of the proposed wind project, but also have an opportunity to become shareholders in the project. These initiatives are based on the Danish experience that there is less opposition to wind projects when local residents are part of the wind project development, than when external investors are solely involved.⁶⁵ In considering the applicability of these mechanisms to promote local ownership in Kenya, it emerges that the Guarantee Fund would be difficult to implement as currently set up in Denmark, given the lack of local wind turbine owners associations or other similar specialized groups of residents, in different parts of the country. Save for the Kenya Renewable Energy Association (KEREAA), whose membership is drawn from organizations working in the renewable energy field, (but which is however not decentralized),⁶⁶ such highly specialized energy associations do not exist at the counties. Though these could be initiated in the different counties, sites of wind farms are often in less populated areas, and it is unlikely that these areas in Kenya would have an adequate number of local residents sufficiently skilled and knowledgeable in wind power devel-

opment to form such an association. This highlights a clear gap for capacity building in this area.

On the requirement for wind developers to offer a minimum of 20 per cent ownership to locals, investors (wind farm developers) are likely to resist such a proposition as it would necessitate considerable time input and would have an effect on their profitability.⁶⁷ This model however has potential for immense project support from local residents, especially where the project shows sustainability and potential for good returns.⁶⁸ As such, the government may offer an extra price supplement or other incentive to wind developers who demonstrate that the criteria of ownership to locals has been met as happens in the Danish experience.⁶⁹ Nonetheless, the Kenyan reality would prove a challenge. Few individual residents would afford such shares without external financing, given that 42 percent of Kenya's population of 44 million lives below the poverty line.⁷⁰ In this aspect, innovative financing models would be called for. Further, gender considerations would be necessary to ensure that the available shares are taken up in a gender balanced manner, without perpetuating the discrimination of women.⁷¹ Finally, prior to purchase of shares by local residents, thorough capacity building would be required to increase local knowledge and awareness on wind technologies and the running of the proposed wind project, so as to offset local residents misconceptions in such projects.⁷²

⁶³ Renewable Energy Act Section 21. The Guarantee Fund supports the preliminary investigations performed by local wind turbine owners' groups or associations of the economic, environmental, regulatory and political feasibility of the proposed wind energy project in a specific site.

⁶⁴ Renewable Energy Act Section 13-15.

⁶⁵ Per Christensen & Henrik Lund, 'Conflicting view of sustainability: the case of wind power and nature conservation in Denmark', in *European Environment* Vol. 8 Issue 1, 1998, pp. 1-6.

⁶⁶ For more details about the organization see <http://kerea.org/about-us/>. Accessed 20.03.2015.

⁶⁷ Birgitte Egelund Olsen, 'Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects' in Schomerus, T. Peeters, M. *Renewable Energy Law in the EU* (Edward Elgar 2015) at 200.

⁶⁸ *Ibid* at 201.

⁶⁹ *Ibid* at 200.

⁷⁰ UNICEF, *Kenya at a Glance*, Information available at http://www.unicef.org/kenya/overview_4616.html. Accessed 20.03.2015.

⁷¹ Gender mainstreaming is important in all aspects of life given the predominance of patriarchy in Kenyan society. See for example, Patricia Kameri-Mbote, *Gender Issues in Land Tenure Under Customary Law*. Policy Brief Available at http://www.capri.cgiar.org/pdf/brief_land-05.pdf. Accessed 23.03.2015.

⁷² Such misconceptions are exemplified in the Kinangop wind project which faced claims that it would lead to unprecedented miscarriages in the area and fears that local resident titles have been used by the project developer to secure loans for the project. See Macharia Mwangi, *SH 13bn Wind Farm Project runs into Headwinds Due to Cash and Politics*, Daily Nation 2nd March 2015. Available at <http://www.nation.co.ke/counties/Sh13bn-wind-farm-project-runs-into-headwinds-/1107872/2640546/-/39jm6w/-/index.html>. Accessed 04.03.2015.

4. Conclusions

In Alice in Wonderland, Alice clarifies to the Cheshire Cat that she is asking which way to go as she just wants to get 'somewhere'. The Cat responds that in that case, she is sure to do that if she just walks long enough.⁷³ In the context of climate change and the transition towards a low carbon society, countries that have submitted their NDCs have made it clear that they do not just want to get 'somewhere', but are interested in reducing their GHG emissions and ensuring warming remains well below 2 degrees celsius.⁷⁴ Kenya is already on track having embarked on a low carbon development pathway in its energy sector. The country has shown great commitment in meeting its renewable energy targets through the creation of an enabling policy and regulatory framework. Though it has been argued that other barriers to wind power implementation such as institutional factors have a greater impact on wind energy facility siting than public opposition issues,⁷⁵ this essay has demonstrated that issues of opposition are still significant as they cause delays to project implementation and in some cases halt what may have been viable projects.

The review of the Danish regulatory framework offers great lessons for Kenya on options for a regulatory framework that enhances public support of wind energy projects. Currently, the legal framework for achieving increased renewable energy production in Kenya encourages support by allowing for community participation through the Environmental Impact Assessment (EIA) process. The Environmental Management and Co-ordination Act and the EIA regulations thereunder provide for public participation at various

stages of the process, and community members have an opportunity to be heard at these instances.⁷⁶ However, generally public involvement and consultation during EIA process' does not always result in meeting the interests of local communities, especially where the process is viewed as opaque and undemocratic.⁷⁷ Further, specifically in Kenya, communities may be disenchanted with the implementation of EIA regulations, given that both the National Environment Policy (2013) and National Environment Management Authority have identified poor implementation of laws as a major key obstacle to environmental protection.⁷⁸ Thus, Kenya needs a regulatory framework that goes beyond EIAs to adopt further incentives for enhancing local acceptance of renewable energy projects as demonstrated by the case of Denmark. As set out in the essay, in the adoption of lessons learned, the socio-economic circumstances and realities of the Kenya people should take center stage, as there are *inter alia*, economic and cultural factors which affect the appropriateness of energy regulatory interventions.⁷⁹

Finally, wind energy in Kenya is being developed to complement electricity generation from other sources such as geothermal and solar which are viable alternative sources of renewable energy.⁸⁰ Communities may oppose either of these technologies depending on their understanding of the project, their expectations of it, and its adverse impacts on them. In the case of geothermal energy for example, the Maasai community which has experienced expansion of the geothermal industry in the rift valley, has protested inadequate compensation and being resettled in ways that damage their livelihoods and cultural practices.⁸¹ This essay has proposed what it has

⁷³ Lewis Carroll, *Alice's Adventures in Wonderland* (BookVirtual 2000) at 90.

⁷⁴ UNFCCC, *Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius*, Dec. 12, 2015, Available at <http://newsroom.unfccc.int/unfccc-newsroom/finale-cop21/>. Accessed 02. 10.2016; Paris Agreement Preamble, 7 FCCC/CP/2015/L.9/Rev.1, Dec. 12, 2015,

⁷⁵ Maarten Wolsink, 'Wind power and the NIMBY-myth: institutional capacity and the limited significance of public support', in *Renewable Energy* 21 (2000)

⁷⁶ Environmental Management and Co-ordination Act, 1999; Environmental (Impact Assessment and Audit) Regulations, 2003.

⁷⁷ Birgitte Egelund Olsen, 'Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects' in Schomerus, T. Peeters, M. Renewable Energy Law in the EU (Edward Elgar 2015).

⁷⁸ Section 2.4 (a), Government of Kenya, *National Environmental Policy 2013*; Government of Kenya, *NEMA Annual Report 2013-2014* at 5.

⁷⁹ Temilade Sesan, 'Navigating the Limitations of Energy Poverty: Lessons from the Promotion of Improved Cooking Technologies in Kenya', 47 *Energy Policy* 202 (2012).

⁸⁰ Rob Byrne et al., *Sustainable Energy for whom? Governing pro-poor, low carbon pathways to development: Lessons from solar PV in Kenya*, STEPS Centre Working Paper 61 (2014).

⁸¹ Shiloh Fetzek, *Geothermal expansion and Maasai land conflicts in Kenya*, International Alert, A New Climate for

termed a 'wind-wind' solution in which government, wind farm developers and local communities have their interests met in such a manner as to ensure a concerted approach to supporting a wind project. A preliminary observation indicates that an equally robust compensatory model together with a well- thought out local ownership scheme set out in law is likely reduce opposition in projects dealing with other renewable energy sources. There is therefore need for further thought on whether and how the framework proposed can be adopted for these other forms of renewable energy, to ensure a 'win-win' solution in the development of such projects.