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Getting Down to it: Policy of the G8+5 in the Immediate Future to Make Energy Efficiency and Renewables the Norm

Emily Quinton

EXECUTIVE SUMMARY

Escalating recognition of the need for improving global energy efficiency and developing a renewable energy economy is driving an increased focus to develop options for addressing energy issues. Discussion about energy efficiency and renewables is no longer limited to developed countries where technological innovation has made new advances in energy feasible. Emerging players as well as other under-developed nations understand that diversifying the world energy portfolio also requires making the most of each unit of energy produced. Despite this world-wide recognition, an effective world market for renewable energy is lacking and attempts to improve efficiency have fallen short. Implementation on the local and national level is often fraught with funding issues. Any universal attempt to tackle this issue meets endless administrative roadblocks. Numerous agencies created to deal with these issues have lacked the decision making capacity and the required will-power necessary to make hard policy initiatives and changes. The G8 (Canada, France, Germany, Italy, Japan, Russia, UK, US and EU representation) +5 (China, India, Brazil, Mexico and South Africa) group encompasses the most influential nations in the world (Lesage *et al.*, 2009). As of 2007, all 13 states of the G8+5 ranked within the top 15 in the world in carbon emissions (Bradford, 2007). Maximizing the potential of this group to produce change, encompass large shares of carbon emissions, and spur funding is crucial to the renewable energy future. Strict targets and realistic means to meet these targets need to be developed and enforced within this group, setting the world stage and encouraging policy transfer.

THE CHALLENGE OF IMPLEMENTING EFFICIENCY AND RENEWABLES

The focus of the energy future has, for some time now, included energy efficiency and renewable energy. Before launching into why policy aimed at increasing energy efficiency and increasing renewable energy resources has been slow, a brief explanation on why these changes are needed is useful. Traditionally, biomass, biofuels, and nuclear energy have received the most

attention and funding, as these alternative forms of energy are generally easier to implement into the existing power grid and transportation fleet. In 2006, the world received 13% of its energy from renewable sources, but less than 2% of this came from sources other than biomass and hydropower, largely excluding renewable forms that require more advanced technological innovations (Lesage *et al.*, 2009). Today, the knowledge and technology is present for a shift to a renewable energy global economy.

There are many reasons to increase the percentage of energy produced from renewable resources. Diversifying energy sources has become necessary for countries wishing to improve energy security. Other reasons for this shift are climate change and global warming as well as the growing demand for energy due to the expanding world population and per capita energy use in many nations. The International Energy Agency (IEA) World Energy Outlook (2009) predicts that without changes in policy, world energy demand will be 40% higher by 2030 compared to 2007 with 53% of this increase expected to come from China and India. Likewise, 77% of this new energy is expected to be generated from fossil fuels. The report also notes that investment in energy has declined in the last few years, an issue exacerbated by the financial crisis of 2008 (IEA, 2009).

Passions aside, this policy brief accepts the need for change in energy sources and argues that this needs to happen in the immediate future. Improving energy efficiency should be a first and always priority. Unfortunately, until now, any attempts at making local, regional, national and international policies to address these issues have been greatly lacking in their thrust. Hard policy arrangements have been given up for soft ones and funds have been limited. Also, hesitation or no commitment by the most important players including the US, China and India have created a gap in both knowledge and implementation. It should be noted that subsidies continue to benefit biofuels and nuclear energy (Hirschl, 2009). The G8+5 has been a fairly effective group for addressing issues that cut across economic and social lines and for making initial steps at dealing with energy (see Appendix A) and there is an increased belief that this group has the greatest potential for dealing with energy issues (Lesage *et al.*, 2009). A review of the group's policies and actions shows that its efforts beyond making initial plans have been insufficient thus far and that stricter policy and enforcement is needed.

FOCUSING ON G8+5 TARGETS OR ENCOMPASSING OTHER GROUPS? POSSIBLE SOLUTIONS

The energy issues dealt with in this policy brief are well-known, but solutions have been elusive. Two solutions for the G8+5's consideration as it pursues renewable energy and energy efficiency will be presented in this section. The first involves an inward focus for the group, setting strict targets and sticking to those targets. A second solution involves harmonizing

work with other organizations that are fully or partially aimed at addressing renewables. Both of these solutions require the development of G8+5's overall goals and responsibilities in the realm of energy.

Prior to discussing these solutions, a brief history of the G8+5 will be provided to offer policy context. While the majority of the group's actions and decisions involving energy have been carried out by the original G8, the other five states have been included in this process at many points. At a G7 (G8 without Russia) conference in 2000, an initial task force was developed to deal with renewable energy. At that stage no specific measures were given. At the 2003 Evian G8 summit, energy efficiency was recognized as a priority for the group which led to more specific plans being set in 2005 in Gleneagles. At that summit, the G8 encouraged dialogue with the IEA in the hope that the IEA could provide effective advice and measures for the G8 to pursue. Since 2005, action plans and targets for future projects have been supported. In 2009 the International Partnership for Energy Efficiency Cooperation (IPEEC) was launched, aimed at fostering policy and technology exchange both internally and externally (Lesage *et al.*, 2009).

Targets

Despite taking several steps in addressing energy so far, it is clear that specific goals, targets and mechanisms with enforcement potential have been lacking in the decisions of the G8+5. With the current organizational structure, inclusion of major and emerging players and increased political willpower (with the new administration in the U.S., at least), now is the time for the G8+5 to develop specific targets. While some may argue for the development of market mechanisms and carbon pricing (Bradford, 2007) with the belief that these would deliver desirable results, this policy brief does not favor such mechanisms due the limited success of the Kyoto Protocol and hesitancy in the creation of carbon taxes and carbon markets by all members of the G8+5 (besides the EU). Alternatively, this policy brief supports targets for percentage energy from renewables and requirements for energy efficiency as solutions the G8+5 may choose in the immediate future.

Key components of this solution involve the creation of realistic and meaningful requirements to increase the amount of energy each member state uses from renewable resources. Classic roadblocks to renewables will be overcome if funding commitments and political willpower is great enough. While the G8+5's successful implementation of a renewables plan requires short, medium and long-term processes, the most important first step must be the immediate implementation of targets for energy efficiency. Again, some form of enforcement would be necessary and a proactive approach, in the form of a task force, would be needed. In creating these policies, the G8+5 will likely require continued dialogue with the IEA for suggestions and recommendations (Bradford, 2007). The inspiration for implementing these

targets for both renewable energy and energy efficiency could be the desire to meet the emissions reduction goal of at least 50% by 2050, which was the reduction target for emissions that was “endorsed” at the 2008 Summit in Hokkaido Toyako. Developing these targets could provide the specific mechanism under which the G8+5 will achieve this emissions target, elevating it from a general goal to a specific requirement.

External Harmonization

The interaction between the G8+5 and IEA thus far in dealing with energy has demonstrated that the IEA will be a valuable source of knowledge for the group. Beyond the IEA, however, there are many other existing groups that the G8+5 could choose to work or combine with moving forward. The most obvious group would be the United Nations (UN), as this would provide the largest, most universal platform at which to address energy. Under the umbrella of the UN there are several groups considered to be in agreement with the G8+5’s goals (Hirschl, 2009). A few of these groups include the United Nations Framework Convention on Climate Change (most well-known for the Kyoto Protocol), the Renewable Energy Policy Network for the 21st Century (which has yet to set specific goals or targets), and the International Atomic Energy Agency (which focuses on nuclear energy as a way to reduce carbon emissions) (Gupta and Ivanova, 2009).

The final important organization to mention is the International Renewable Energy Agency (IRENA), which was launched in 2009. With strong support from the German government and recognition that political changes in the U.S. have had a positive impact on its development, IRENA aims to foster the spread of renewable energy. IRENA is open to any country and to date, 142 states as well as the EU have signed the Statute of the Agency. The organization is still in the preliminary stages of working under a Preparatory Commission, and sees itself as staying independent from the UN for now (IRENA, 2010). Other policy suggestions regarding the future of the G8+5 have, at most, mentioned the existence of IRENA. Although it is still in its preparatory phase, the organization cannot be ignored by the G8+5. Many of the G8+5 members have signed IRENA’s statute, and so there is a strong potential that harmonization between the two agencies will be fostered through common members.

By combining forces with either the UN, one of its charter groups, and/or IRENA, the G8+5 would be able to work with renewable energy and energy efficiency on a near-global level. Another advantage would be the knowledge transfer that could occur between the groups. Increased access to information and transparency would be difficult due to the large number of players involved. Undoubtedly, funding sources could also be greater, but the number of recipients of funding would inevitably be much greater as well. Overall, the goal of combining or working with other organizations aimed at addressing renewable energy would result in focusing on the most effective policy tools and best practices.

ENSURING SUCCESS – HOW TO PICK A SOLUTION

The successful implementation of a G8+5 (or global) energy plan relies on the establishment of specific criteria that should be met by the possible solutions discussed above. These criteria have internal and external implications for the group, which will add legitimacy, accountability and transparency—while also securing the group’s position as an effective, true-to-its-colors organization. Increased legitimacy will allow the G8+5 to emerge as a useful resource partner for other organizations addressing renewable energy. Raising the awareness in the international community of the G8+5’s criteria, policies and intentions regarding its energy goals should reduce the potential for another group’s confusion, competition or resentment. Often competition works to raise the bar by encouraging other groups to reach higher standards.

Presently, the G8+5 has a unique opportunity to move forward with the world’s most stringent energy standards while providing a platform for policy exchange among dynamic, proactive groups seeking a common goal. Therefore, in choosing the best solution for the future, the group must consider what will produce realistic, attainable changes. This first criterion for success means that each country in the group needs to step up and reach its potential, not cite financial and administrative worries that have been slowing this process for decades. Each individual member must be made accountable, and when goals are not met the group must develop a system of enforcement to encourage members to get back on track with the implementation of policy changes. Whether this means achieving strict internal targets, or negotiating with other countries and organizations, the G8+5 must unite in its goals.

A second, and possibly more important criteria, is inclusion of all major players. The G8+5 by definition includes major emitters like the US, and important emerging economies like India and China. Therefore, the opportunity is already there for the group to implement changes that will affect significant amounts of global emissions (Bradford, 2007). What is important, however, is that just because changes may be easier to implement and achieve in the lower emitting countries of the group (some of the European members) does not mean that their success should deduct from what the rest of the group needs to do. These criteria would apply to external relations and other organizations in requiring the G8+5 to make smart decisions about who to include and assist in future policy transfers.

In considering these criteria, this issue of time must be addressed. Potential for immediate changes must be considered in choosing the best possible solution for the G8+5’s direct future. Will the solution allow for fast and effective changes? Does it give room for significant improvements in energy efficiency – the fastest, most uncontested way to address energy problems?

Lastly, how will the implementation of this energy plan impact the administrative capacity of the G8+5? The G8+5 must keep in perspective that it is a multifaceted organization that is constantly working around the globe

on many types of initiatives (not just energy). Those initiatives also require the organization to set goals and commit resources while also preserving its image. The future choice of how to effectively address energy issues will have to consider the possible internal hold-ups that will occur due to the scope of intended changes. While there is always the risk of taking on too much and watering down its overall goals, the G8+5 must also protect against doing too little and taking the “business as usual” approach to organizational goals and achievements. Ultimately, the group’s potential must not be undermined.

STRONG TARGETS, MEANINGFUL CHANGES

The G8+5’s immediate future involving the two solutions presented – 1) an internal focus, based on target setting and 2) an external focus seeking to work and combine with other organizations – will be weighed against the criteria as discussed in the previous section. What will emerge is support for the first option, which stresses targets to increase renewable energy in G8+5 member states as well as mandate energy efficiency.

In terms of renewable energy and energy efficiency, bringing the G8+5 into an internal focus is crucial to ensuring that the group is seen as legitimate as well as an organization that can produce tangible changes at a local, national and international level. By setting targets to increase energy produced by renewable sources and improving energy efficiency, the group will take a realistic approach to its energy-related goals. If the group were to look towards working with or combining with other organizations, a watering down of goals would occur. Enforcing standards would also be difficult due to the sheer scope of a global attempt. Likewise, funding can be used to pursue specific policy and technological objectives and organizational autonomy can be maintained due to the group’s reasonable size with an internal focus.

The criterion regarding inclusion of main players is perhaps the most compelling for choosing a path for the G8+5’s energy future. This group does contain the most important players in terms of historical emissions (U.S.) and in terms of increasing demand (China and India). In order to make a world-wide difference, these are the most important countries in which changes should to be made. By including fairly low-emitting members, like some nations in the EU, the G8+5 also has the internal makeup to give incentive to the countries where changes will face the most resistance. Therefore, keeping these target initiatives within the 13 members of the G8+5, the group can address a significant percentage of carbon emissions as well as find endless opportunities for improving energy efficiency by utilizing the technological innovations of its members. This is a favorable solution over expanding to include other organizations because on a global scale - making significant changes in the world energy picture does not require every country; it really only requires the major players.

Energy efficiency improvements can be done now. The G8+5 has the means to mandate significant improvements in efficiency amongst its members.

Increasing production from renewables will require policy and technology transfer, and incentives will necessitate some compromise. If achieving these goals was attempted on a global basis with the UN or IRENA, the G8+5 would inevitably be waiting a long time for a specific policy to come on board. The administrative complications would also push back the introduction of these targets. Therefore, in addressing the issue of time, the G8+5 can immediately begin to develop specific targets, especially in addressing its states' goal of achieving an emissions reduction target of 50% or more by 2050.

CONCLUSION: MUTUAL EXCLUSION DOES NOT APPLY

In this policy brief, the G8+5 has been urged to develop specific targets aimed at increasing the production of energy from renewable resources and improving energy efficiency amongst its members. This suggestion has won favor over having the group work or combine with other existing organizations on renewables like the UN or IRENA. The issues of administrative hassle and time, as well as the status of the G8+5 in encompassing the major and emerging players have been cited for reasons supporting why these targets should be set in the immediate future. A last point to make is that these two options for the G8+5's future are not mutually exclusive; in fact, by setting internal targets and enforcing these changes amongst its members, the G8+5 will be better suited to be an important contributor to groups like IRENA. The G8+5 can use its potential, resources and political clout to be a positive influence on other attempts to improve energy efficiency and move the world towards a renewable energy economy.

RESOURCES

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APPENDIX A

Table 1. The G8's main actions on energy (efficiency) since 2003.

Year	Host	Meeting	Venue	Main outcomes with regard to energy (efficiency)
2003	France	Summit	Évian	<ul style="list-style-type: none"> • Science and Technology for Sustainable Development: A G8 Action Plan
2004	U.S.	Summit	Sea Island	<ul style="list-style-type: none"> • Science and Technology for Sustainable Development: "3r" Action Plan and Progress on Implementation
2005	U.K.	Summit	Gleneagles	<ul style="list-style-type: none"> • The IEA is asked to "advise on alternative energy scenarios and strategies aimed at a clean, clever and competitive energy future," while the World Bank is asked to create a "new framework for clean energy and development, including investment and financing" • Plan of Action on Climate Change, Clean Energy and Sustainable Development • Launch of the Gleneagles Dialogue on Climate Change, Clean Energy and Sustainable Development
2006	Russia	Summit	St. Petersburg	<ul style="list-style-type: none"> • St. Petersburg Plan of Action on Global Energy Security • The G8 agree to a set of Global Energy Security Principles that should guide national energy policies
2007	Germany	Summit	Heiligendamm	<ul style="list-style-type: none"> • Launch of the Heiligendamm Process
2008	Japan	Ministerial	Aomori	<ul style="list-style-type: none"> • The G8+3 decide to establish the International Partnership for Energy Efficiency Cooperation (IPEEC)
		Summit	Hokkaido/ Toyako	<ul style="list-style-type: none"> • The G8 endorse a global CO2 emission reduction target of at least 50 percent by 2050 • G8 leaders pledge to "maximize implementation of the IEA's 25 recommendations on energy efficiency" • The G8 countries present self-assessment reports on their progress in meeting the Global Energy Security Principles
2009	Italy	Ministerial	Rome	<ul style="list-style-type: none"> • G8 ministers propose to establish a "low carbon energy technology global platform" Signing ceremony and operational launch of IPEEC
		Summit	L'Aquila	<ul style="list-style-type: none"> • The G8 leaders ask IPEEC to develop a Global Energy Efficiency Action Initiative, to incorporate the Sustainable Buildings Network and to report its findings to the G8 summit in France in 2011 • The G8 leaders invite the IEA to further define its proposal for an international low-carbon energy technology platform