

PROJECT DESCRIPTION

Results-Based Funding for Energy Sector Development

Summary

1. Results-based approaches are receiving increasing interest from client and donor countries, but their deployment in the energy sector is so far limited relative to other sectors such as health and transport. This two year work program running from FY12-13 aims to assess how, and under what circumstances, results-based approaches can be used to improve outcomes and scale up financing for energy sector development. It will support the design, implementation and assessment of results-based funding approaches – with a particular focus on opportunities under the Climate Investment Funds (CIF) and Energy+¹. The work program includes three components: analytical work on results indicators and the economic opportunities for results-based financing, knowledge management to disseminate guidance on designing results-based projects and learn lessons from other sectors, and operational support to the World Bank regional units to develop a pipeline of projects to test out new concepts and ideas.

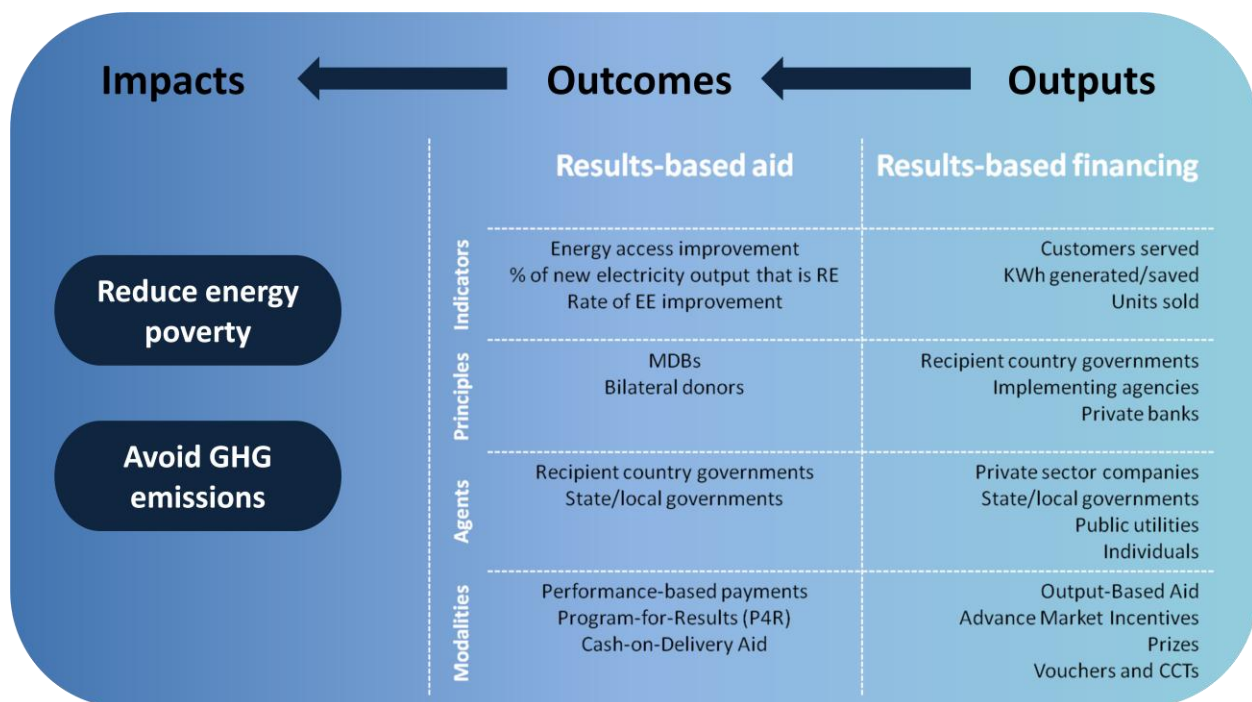
Context and need

2. This work program takes as its starting point the four critical energy sector challenges of increasing **access to modern energy services**, enabling the adoption of **low carbon development pathways**, improving the **reliability of electricity supply**, and **reducing energy intensity**. Delivering simultaneously against all four challenges will support poverty reduction in client countries through improved delivery of basic services, increased opportunities for employment and commerce, improved competitiveness, and sustainable economic growth.
3. Results-based funding is a term used to describe two complementary, although operationally different, concepts: results-based aid and results-based financing¹. **Results-based aid** (RBA) is concerned with incentivizing national-level impacts and outcomes and involves the linking of ODA (e.g. from donors or development institutions to developing country governments) to verifiable results, such as performance against a macro-level indicator, or the successful implementation of a government program. Examples of RBA include Cash-on-Delivery (COD) aid², Program-for-Results (P4R) lending³, and certain forms of climate finance (e.g. payments under REDD+, and those being proposed under Energy+). **Results-based financing** (RBF) includes a range of instruments that target sub-national outputs and can be used by governments or development organizations to provide incentives to the private sector, civil society groups, utilities, or local government entities to carry out deployment, create markets or increase innovation. Examples of RBF include: Output-Based Aid (OBA)⁴, Advance Market Commitments (AMCs)⁵ and Innovation Prizes⁶. A summarized typology of different forms of RBA and RBF instruments is provided in Figure 1.

¹ The International Energy and Climate Initiative, or Energy+, is a partnership launched in Oslo in October 2011 with the aim of supporting efforts to achieve universal access to sustainable energy and the reduction of greenhouse gas emissions in Partner developing countries.

4. There is increasing interest – both within the World Bank and from external stakeholders – in using results-based approaches to support energy sector development. For example, the **Scaling-up Renewable Energy Program (SREP)**, part of the CIF, is actively encouraging results-based financing⁷, the Global Partnership on Output-Based Aid (GPOBA) is broadening its remit to consider a broader range of RBF approaches⁸, and the **Energy+** partnership is proposing the use of both RBF and RBA⁹, the latter in the form of a performance-based incentive for progress against a range of energy indicators. This work program is a direct response to these developments, and aims to **assess how, and under what circumstances, results-based approaches can be used to improve outcomes and scale up financing** to tackle the energy sector challenges previously identified. Because of the different opportunities and challenges that exist for RBA and RBF, they will be dealt with separately in the following discussion.

Figure 1: Results-based funding possibilities for the energy sector



Results-based aid

5. There is some development experience with RBA, such as variable or performance-related tranche payments under Development Policy Loans or the Immunization Services Support program of the GAVI Alliance¹, but energy sector experience is very limited. However, with the recent introduction of Program-for-Results (P4R), a new results-based lending instrument being developed by the World Bank, RBA, at least in one form, may become a common instrument for energy sector development. P4R is being proposed as a way of filling an identified gap between Investment Lending and Development Policy Lending and will target government-delivered programs at the sectoral or sub-sectoral level. There is apparently strong demand from client countries for this type of instrument, with 65% requesting some form of programmatic lending or program-based/sector-wide approach.³ Although programmatic lending is not new, previous attempts have been constrained by Investment Lending policies designed for stand-alone projects. P4R will tie disbursements to achievement of

results and performance indicators rather than inputs, and will focus on strengthening the institutional capacity and internal systems necessary to achieve and monitor them.

6. A review of programmatic lending carried out by the P4R team concluded that *“they perform at least as well as the overall IL portfolio; and a more recent analysis of SWAPs, conditional cash transfers, and output-based aid confirms that their project performance indicators compare favorably with those of the overall lending portfolio.”*³ However, P4R is not expected to be appropriate in all circumstances, and the exclusion of ‘high risk activities’ (such as those with a significant environmental impact, including those that may occur within a broader program) is likely to rule out programs that include certain large-scale energy infrastructure investments such as transmission lines or hydroelectric power plants. Nevertheless, the types of programs envisioned under SREP and Energy+ are likely to include decentralized energy provision, meaning P4R could be a logical candidate for support. The low income country focus of SREP and Energy+ may introduce additional challenges, such as concerns over pre-financing and procurement, limited absorptive capacity, and weak results management systems – but also presents a significant opportunity to make headway on energy poverty and other energy policy goals.
7. Possible benefits from the successful introduction of RBA to the energy sector include:
 - Clear agreement on objectives and indicators of progress, which can help to focus minds and secure private investment
 - The ability to support longer term, programmatic interventions that deliver results over a number of years
 - Allows governments room to explore the most appropriate and effective solutions, thereby increasing ownership and incentivizing value-for-money
 - Strengthened local capacity, particularly on results monitoring
8. Considering the lack of experience with RBA in the energy sector, **this work program seeks to draw lessons from other sectors and actively explore opportunities to develop a pipeline of RBA projects**, both within the World Bank and externally (for example, through Energy+).
9. Having a clear set of agreed and easily-understood outcome indicators is essential for the design and implementation of RBA mechanisms. For Energy+ these might cover energy access improvement, the percentage of new electricity output that is renewable, and an increase in the rate of energy efficiency improvement. This work program will therefore consider the robustness and usability of current indicators, and will look to commission new work where there are areas of weakness – for example on energy access, where existing indicators tend to be narrow and very supply focused. It will also consider how various indicators could be combined for the purposes of a possible RBA agreement covering multiple objectives.

Results-based financing

10. The emphasis being placed on accelerating energy sector development, particularly the provision of modern energy services, is encouraging client country governments to give greater consideration to private sector involvement as a way of leveraging investment and encouraging innovation in service delivery. This is demonstrated in Kenya’s draft SREP investment plan¹⁰, which sees the private sector playing a significant role on three fronts: geothermal electricity generation, provision of new mini-grids, and roll-out of solar hot water systems. RBF instruments are well-suited to encouraging private sector investment and innovation because they offer a predictable source of financing

without prescribing solutions or picking winners. Inevitably there are a number of significant challenges, including the issue of pre-financing, the higher transaction costs that accompany the emphasis on monitoring and verification, and the difficulty of setting incentives at the optimal level to achieve results whilst limiting rent-seeking. Nevertheless, the potential benefits of results-based approaches are arguably great enough for them to be further explored within the energy sector as a complement to conventional approaches.

11. There is already considerable experience of using results-based approaches in the energy sector, primarily in the form of OBA projectsⁱⁱ. The GPOBA estimates there have been at least 50 energy sector OBA projects internationally, representing \$145m of commitments for those funded by the GPOBA and the World Bank⁴. In terms of project type, off-grid provision of electricity (particularly from solar photovoltaic systems) predominates, but there are some limited examples of OBA being used to support mini-grids or grid extension. However, there is significant potential to apply a broader range of results-based approaches than just the OBA model of targeted capital support.
12. With OBA, the primary objective is to improve the efficiency of capital subsidy schemes, often targeting improved access to modern energy services in poor or remote communities. The focus on capital subsidies for solar PV systems may be appropriate considering the higher propensity for such systems to be consumer-owned, but for more capital-intensive interventions such as mini-grids or biogas digesters an energy service model may be more suitable. This will require the development of commercially-viable business models that utilize cost-reflective pricing, ideally leading to the emergence of medium-sized enterprises (or perhaps subsidiaries of large corporations) with sufficient resources to develop new projects. RBF provided as revenue supportⁱⁱⁱ may be particularly relevant in such cases because it goes ‘with the grain’ of commercially-viable business models that are likely to require other sources of revenue (thus increasing the leverage of public funding), while at the same time ensuring a higher degree of project sustainability than capital support (because disbursements are tied to success over a period of time, rather than a one-off payment). Other forms of RBF such as innovation prizes, or instruments such as challenge funds^{iv}, may be of interest to client countries looking to find solutions to particular technical problems or encourage innovative service solutions.
13. As a result, **this work program seeks to develop and operationalize a broader range of RBF mechanisms, with a focus on market expansion, private sector investment, and innovation.** ESMAP will work closely with the GPOBA, the CIF, and Energy+, all of which are keen to support the design and implementation of RBF projects. Possible benefits from the adoption of a broader range of RBF mechanisms include:
 - Applicability to a wider range of opportunities and technologies than OBA alone
 - Revenue support could allow substantial scale-up and increased leverage, particularly where private sector capacity already exists

ⁱⁱ Indeed, FITs are usually implemented by governments through a regulation that requires utility companies to purchase renewable electricity output at a pre-determine price. Although FITs are certainly ‘results-based’, they are unlikely to be a good candidate for RBF

ⁱⁱⁱ A useful parallel is funding provided through the Clean Development Mechanism (CDM), except that RBF incentives can be tailored to the specific technology or barrier that is being targeted, and are likely to be time-limited.

^{iv} For example, the Renewable Energy and Adaptation to Climate Technologies (REACT) window under the Africa Enterprise Challenge Fund (AECF): <http://www.aecfafrica.org/react/>

- A stronger focus on technological and business model innovations by leaving these decisions to the private sector

Objective, scope and description

14. The objective of this work program is to **assess how, and under what circumstances, results-based approaches can be used to improve outcomes and scale up financing for energy sector development**. It will support the design, implementation and assessment of results-based funding approaches – with a particular focus on opportunities under the CIF and Energy+.
15. The geographic scope of this work program is global, although the work under the CIF and Energy+ is likely to focus initially on countries with low rates of energy access. The audience for this work will include internal and external stakeholders, and all the approaches identified in Figure 1 will be considered. As a result, outreach and stakeholder engagement will be a crucial component.
16. The work program will include **analytical work, knowledge management** activities, and **operational support** to the World Bank regions, with the aim of assessing opportunities, providing guidance on definitions, design, and results monitoring issues, learning lessons from other sectors, and supporting the development of pilot projects to test out new approaches.

Outputs and results

17. **Expected outputs** from this work over FY12-13 (ending June 2013) include:

Component	Outputs
<i>Analytical work</i>	OUTPUT 1: IMPROVED INDICATORS Assessment of current impact and outcome indicators, development of methodologies for their use in RBA instruments, and commissioning of new work to improve them where necessary.
	OUTPUT 2: ECONOMIC OPPORTUNITIES FOR RBF Analytical study and report on the economic opportunities for RBF approaches in improving energy access.
<i>Knowledge management</i>	OUTPUT 3: GUIDANCE AND OUTREACH Series of briefing paper and outreach activities that will help to define and operationalize results-based approaches.
	OUTPUT 4: LESSON-LEARNING CONFERENCE Organization of an internal knowledge exchange conference to learn lessons from RBF implementation in other sectors
<i>Operational support</i>	OUTPUT 5: SUPPORT TO THE REGIONS Support for the design of results-based mechanisms by World Bank regional energy units

18. **Expected outcomes** from this work include:

- Improved understanding of results-based funding and its implications for the energy sector
- Piloting of a broader range of results-based approaches, in particular under the CIF and Energy+

- Consensus on the situations in which results-based approaches may be effective and appropriate

19. In terms of **impact**, this work will have been successful if it can be determined whether, and in what circumstances, results-based approaches are more effective or offer better value-for-money than conventional approaches in tackling a range of energy sector challenges. This could be assessed by comparing the effectiveness of a results-based lending instrument (P4R) against a development policy loan, or by comparing the effectiveness of a results-based revenue incentive to an upfront capital grant. Due to the nature of this work program, and the length of time needed to obtain such data, such an evaluation is outside the scope of this PCN but is an important consideration for future work.

Resources

20. This is a cross-cutting work program involving a number of staff within ESMAP and outside, with some work likely to be carried out by external consultants. The work program will be led by Oliver Knight and Almudena Mateos in ESMAP.
21. This is a two year work program running from FY12-13. The budget for this work is currently proposed at \$600,000 in each year, although more resources may be allocated pending donor funding allocations.

References

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- ² Birdsall, N. and Savedoff, W. (2011). *Cash On Delivery: A new approach to foreign aid*. Center For Global Development
- ³ World Bank (2011). *A New Instrument to Advance Development Effectiveness: Program-for-Results Lending*. Revised Concept Note. Available at: http://siteresources.worldbank.org/EXTRESLENDING/Resources/P4R_CN_2-23-2011_SECPO.final.pdf
- ⁴ GPOBA (2010). *Output-Based Aid: Lessons Learned and Best Practices*. Available at: <http://www.gpoba.org/gpoba/ebook>
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- ⁷ Climate Investment Funds (2010). *SREP Financing Modalities*. Available at: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Financing%20Modalities%20on%202010_110810_key_document.pdf
- ⁸ GPOBA (2011). *Output-Based Aid in the Results-Based Financing Universe*. Available at: http://www.gpoba.org/gpoba/sites/gpoba.org/files/Output-Based%20Aid%20in%20the%20Results-Based%20Financing%20Universe_0.pdf
- ⁹ Reed, D. and Gutman, P. (2011). *ENERGY+: Opportunities, Challenges and Options*. Available at: www.climateregistryoption.org/uploads/download?fileid=10
- ¹⁰ Republic of Kenya (2011). *Scaling-up Renewable Energy Program: Investment Plan for Kenya*. Available at: <http://www.energy.go.ke/wp-content/uploads/2010/08/Updated%20%20SREP%20Draft%20Investment%20Plan-May%202011.pdf>