Results-based financing in the energy sector: incentives and sustainability

Report prepared for OECD/DIE technical workshop on results-based funding

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ESMAP is a global technical assistance program administered by the World Bank and situated in the World Bank’s Sustainable Energy Department in Washington, DC. ESMAP’s program includes both regional and country-focused activities implemented by the regional units of the World Bank, and global initiatives managed by the ESMAP core program unit. The ESMAP core unit of about 25 staff is responsible for the day-to-day management of the program, following the strategy laid out in ESMAP’s Business Plan as approved by the CG. The unit comprises teams working on energy access, clean energy, energy efficient cities, energy assessments and strategy, results-based approaches for energy sector development, gender, small island developing states, communications, and monitoring and evaluation.
The choice of whether and how to use a results-based approach involves a horizontal (modality) and a vertical (target) question.

These considerations will often intertwine.

*Figure 1. Instruments can be placed on a horizontal and vertical dimension*

<table>
<thead>
<tr>
<th>Funding modality (horizontal)</th>
<th>Conventional</th>
<th>Conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect/programme/government</td>
<td>Budget or programmatic support</td>
<td>RBA</td>
</tr>
<tr>
<td>Direct/project/provider</td>
<td>Upfront project support</td>
<td>RBF</td>
</tr>
<tr>
<td>Principal = agent</td>
<td>Delivery both funded and implemented by principal</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Vivid Economics*
The ‘horizontal’ modality question involves balancing the incentive effects with 2 other considerations

It must be close to impact, easy to measure and provide an appropriate incentive effect

*Figure 2. Three key factors to consider when adopting a conditional approach*

| Proximity to impact | • How closely related is the desired goal to the indicator? |
|                     | • Is the indicator likely to generate perverse incentives or unintended consequences? |
| Ease of measurement | • How easy is it to observe the indicator? |
|                     | • How easy is it to verify observations? |
| Appropriate incentive effect | • Will factors outside of the control of the agent also influence the indicator? |
|                           | • Are measurements precise enough to detect changes over short periods of time? |
|                           | • Can the indicator be easily explained? |

*Source: Vivid Economics*
The ‘appropriate’ incentive requires the balance of stronger incentives with greater risk.

**Figure 3.** Stronger incentives and more risk for agents are two sides of the same coin

Source: Vivid Economics

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Stronger incentives for performance

Greater risk
5 key factors that can influence the risk/incentive trade off

1. the extent to which the agent can control the risks that are shifted onto them
2. the ease with which both parties can observe the relevant results (‘clear line of sight’) 
3. the length of time that the agent needs to bridge with finance until he receives the results-based payments
4. the cost base of the agent varies according to the quantum of results delivered
5. the additional investment required to deliver the results does not entail a significant proportion of the agent’s (potential) resources
Balancing the incentive effect with other considerations: biogas digestors in Ethiopia

Figure 4. **Stronger incentives and more risk for agents are two sides of the same coin**

<table>
<thead>
<tr>
<th>Proximity to impact</th>
<th>Number of installations</th>
<th>Use characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does not measure use; including availability of appliances and application of bio-slurry</td>
<td>Captures appliance and bio-slurry use, possibility of adding incentive for injera mitad</td>
</tr>
<tr>
<td>Ease of measurement</td>
<td>Monitoring framework is in place, independent verification through CSC</td>
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</tr>
<tr>
<td>Appropriate incentive effect</td>
<td>Easy to explain and can be measured at monthly intervals</td>
<td>Measured by CSC within planned extension of the monitoring framework</td>
</tr>
<tr>
<td>Suitable result?</td>
<td>✗</td>
<td>?</td>
</tr>
</tbody>
</table>

Source: Vivid Economics

:vivid economics:
The risk/incentive trade off will also influence the vertical question

But other factors are also important

risk/incentive characteristics

— some agents will have much better access to finance or be able to control the results better

— does risk increase or decrease with greater scale?
  — diversification benefits but less ability for agent to control

other factors

— significant externalities would support RBA approach
  — leakage risk associated with REDD+

— significant economies of scale would support RBA
Company Profile

Vivid Economics is a leading strategic economics consultancy with global reach. We strive to create lasting value for our clients, both in government and the private sector, and for society at large.

We are a premier consultant in the policy-commerce interface and resource and environment-intensive sectors, where we advise on the most critical and complex policy and commercial questions facing clients around the world. The success we bring to our clients reflects a strong partnership culture, solid foundation of skills and analytical assets, and close cooperation with a large network of contacts across key organisations.

Practice areas

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