



British Embassy
Lima



Catalysing SME energy efficiency in priority sectors in Peru

Summary Report from British Embassy Lima (through UK Prosperity Fund) and CDKN funded project: 'Encouraging greater energy efficiency and sustainability in Peruvian Small and Medium-sized Enterprises (SME) in priority sectors in Peru, promoting UK expertise as energy efficiency solutions supplier'

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1 Project overview

This project set out to catalyse the scale-up of SME energy efficiency in priority sectors in Peru through the delivery of a pilot programme with a small number of Peruvian SMEs. Through the pilot it was intended that it would be possible to:

(a) identify key market failures and begin to overcome known barriers around lack of awareness, access to finance and public-private collaboration; and

(b) develop an initial pipeline for investment by finance providers, having increased the capacity of key actors/stakeholders to understand and assess the attractiveness of energy efficiency investment opportunities.

The pilot programme supported a selection of 12 Peruvian SMEs to improve their energy efficiency through the identification of specific energy saving measures in their business premises and operations and by highlighting the financing options available for investing in these measures. The project has included:

- i. Engagement with Peruvian stakeholders from government, public and private sectors to gather relevant insights about known barriers to energy efficiency for SMEs and existing financing initiatives in Peru.
- ii. A rapid market analysis of the SME energy efficiency market system to identify further barriers to SME energy efficiency and to make recommendations for how the project in its current form, and future work, could address these (see 'Market Systems Analysis' paper for further information).
- iii. Selection and engagement with a group of 12 SMEs in Lima from four economic sectors (manufacturing of textiles, manufacturing of plastic products, metal manufacturing, and service providers).
- iv. Deployment of a pilot programme designed to identify and quantify specific, appropriate and cost effective energy efficiency opportunities and improvements in energy management for each business, carried out by a qualified locally-based specialist energy efficiency engineer, supported by UK expertise (see 'Energy Audit reports' for further information).
- v. Identification of financial options available to SMEs from the finance provider market in Peru in order to invest in cost-effective energy efficiency opportunities (see 'Business Cases' for further information)
- vi. Provision of advice and support on technical and financial matters to those businesses interested and ready to move forward with investing in the energy efficiency measures identified.

The purpose of this paper is to summarise the key findings from the projects, particularly recommendations for continuing to improve SME energy efficiency in Peru. This paper sits alongside a number of other documents produced as part of this project which are detailed in the appendix for information.

2 Summary of market barriers to the scale up SME energy efficiency

The project has confirmed that there are numerous barriers to SMEs in Peru carrying out energy efficiency projects. This is despite the evidence gathered from our work with several diverse SMEs in Lima showing that there is a financially attractive business case for them taking action on energy efficiency measures and in improving energy management.

These barriers include:

2.1 Barriers within the SME businesses

- lack of knowledge of the business' energy use and the financial implications of this
- a focus on core production processes typically taking priority over consideration of energy efficiency
- lack of knowledge and skills to carry out effective day-to-day energy management practices
- no responsibility/accountability apportioned to named individual(s) in the business to monitor and manage energy consumption and take action to identify, progress and implement energy saving measures and technical projects
- an associated lack of human resources with the time, knowledge and skills to devote to these activities for energy management and improving energy efficiency

2.2 Barriers in the wider market

- limited connections between SMEs and other key market actors for energy efficiency such as consultants, equipment providers and providers of specialised financing arrangements
- limited demand from the buyers of the SMEs' products for those products to be 'sustainable' (so customer pressure is not driving interest in energy efficiency)
- lack of product labelling standards in Peru for energy saving equipment which could help customers easily identify the appropriate products to select from their choices in the market
- lack of incentive schemes (such as fiscal support from government) to encourage SMEs to invest in energy saving equipment.

2.3 Barriers relating to supporting markets and actors

- *Energy efficiency consultants:* limited capacity in the market for energy efficiency consultancy services. Energy specialists remain unregistered officially, and potential clients can be uncertain about their assessments, technology choices and installations.
- *Providers of energy efficient equipment:* there is uncertainty and lack of confidence among SMEs (and other customers) in the quality and reliability of energy efficient equipment and products, with an absence of independently set or certified minimum performance standards. Providers have limited relationships with and little knowledge of prospective customers in the SME market. This is connected with a lack of 'success stories': case studies of SMEs which have successfully installed energy efficiency measures which can be highlighted as demonstration projects by providers to encourage confidence and action.
- *Finance providers:* bank staff have little knowledge of energy efficiency investments. Financial products have not been developed that match energy efficiency needs. There is a perception of high transaction costs and low profitability for energy efficiency investments. In addition, finance providers have limited connections with other supporting actors for energy efficiency such as consultancies or equipment providers.
- *Business networks:* there is low capacity of business network organisations to provide services to their members related to energy efficiency, leading to a lack of credibility and a missed opportunity to reach out to and influence SMEs and other businesses.
- *Government:* Energy efficiency in the SME sector has not been an area of priority or focus for the government. Energy surplus and subsidies have helped to keep energy prices low (although prices have been increasing in recent years). This reduces the motivation to work on energy efficiency projects. The national government (Ministry of Energy & Mines, MINEM, and its Directorate General for Energy Efficiency, DGEE) has very limited resources available to focus towards the development and implementation of energy efficiency initiatives and regulation

which could create an enabling environment for SME energy efficiency. Recent activity from DGEE has typically focused on large-scale energy intensive industries such as mining and cement, rather than SMEs. There has also been some work on public sector energy efficiency.

It should be noted that many of these barriers are consistent with similar issues often observed in the Carbon Trust's extensive work with SMEs in many markets, whether in highly developed industrialised countries such as the UK or other markets in developing economies such as Mexico or South Africa. Further information on the barriers can be found in the 'Landscape Review' and 'Market Systems Analysis'.

3 Key policy recommendations and actions

In order to address and remove some of these barriers we make a number of recommendations, which have been developed through the project, including the stakeholder workshop held toward the end of the project, which was attended by representatives of SMEs, energy efficiency consultants, equipment providers, and government.

The list of recommendations included below does not aim to be exhaustive; rather it should be interpreted as a list of practical actions required to encourage greater uptake of energy efficiency improvements by SMEs in Peru, with indications of prioritisation. It is acknowledged that these recommendations overlap, and should be addressed in an integrated way through engagement with stakeholders from industry associations, corporates, donors, finance providers and government bodies.

3.1 Develop broader and more robust market insights

This project has only been a small pilot, working with 12 SMEs, all within Lima. Further research and market engagement to expand the insights gained will help to ensure that actions taken by the key actors are well informed. It should be noted, for example, that it was not within the scope of this project to investigate energy pricing and the tariffs available to SMEs in Peru. One observation made to us by a number of stakeholders is that energy prices in Peru, which have been rising in recent years, are still relatively low – some of the lowest in the Americas. This, of course, has an impact on the magnitude of the financial savings which can be achieved from energy efficiency measures, making some measures more marginal and less attractive than they would be in markets where energy prices are higher.

While some actions listed in sections 3.2 to 3.5 below can move forward in the short term (perhaps on a limited scale, e.g. as trials) it is strongly advised that further insight and analysis will be needed to properly inform and guide long-term strategy and facilitate change at scale across the country. Further analysis which we recommend:

- a. Carry out detailed market analysis on SME energy use to determine the potential size and constitution of demand for different energy efficiency services and products. This research should also establish empirically which sectors and sub-sectors have the highest energy use as a percentage of total costs; publishing this information will help inform market actors (such as energy efficiency consultants, equipment providers, finance providers) on where to direct their sales efforts. Insights from this type of research and analysis can guide government policy and strategy and also be used as a tool to help convince private sector providers to move into markets.
- b. Analysis should also identify and publish a mapping of all existing major providers in Peru of energy efficiency services and products, and their current service offer. This would include (but not be limited to) continuation of the work being carried out within the Directorate General for Energy Efficiency (DGEE) in the Ministry of Energy and Mining (MINEM) which has been

developing a registry of energy consultants in Peru. Lessons could also be drawn from experience in similar work carried out by governments in other countries, e.g. Uruguay.

The above are actions to take in the short term and are likely to be the responsibility of the national government, most likely led by the DGEE in MINEM.

3.2 Raise awareness among SME businesses of energy consumption and its financial implications

There is a key role for government (both national and subnational) and for business networks/representative organisations, such as the *Sociedad Nacional de Industrias* (SNI), to raise the profile of energy efficiency as a key topic for SMEs, recognising that it can contribute to business competitiveness and help in tackling climate change. Recommended key steps would include:

- a. Encouraging and supporting business networks to focus on energy efficiency as a key topic, giving it profile to SME audiences and developing capacity nationally for broader coordination and communication concerning energy efficiency, including within and between groups of market actors, in both private and public sectors. This should include as a priority both government and business representative organisations working closely with those active at the technical/operational level and also, crucially, at general business management levels (i.e. senior managers, including financial managers and business owners). This would aim to address the current major constraint preventing the establishment and development of energy management and energy efficiency as a priority business issue. There are currently few spaces for actors to come together to develop partnerships, use economies of scale to develop cost-effective research or training, or advocate to government. While short term actions in this area may be driven from government, in the longer term it will be necessary to have stronger business networks focusing on energy efficiency. A project in this area could support the development of capacity for existing business networks (e.g. SNI, Chambers of Commerce, CITEs, trade associations, and others) to take on such roles, looking opportunistically across existing networks which are market-actor based and sector based.
- b. Communications campaigns with SMEs from government and industry leadership bodies on topics such as competitiveness, sustainability, climate change or environmental management should, wherever possible, include energy prominently. The campaigns should make explicit that energy is a key manageable element for all businesses in the drive for improved competitiveness and in minimising the negative environmental impacts of business, including carbon emissions.
- c. Communications campaigns with SMEs from government and industry leadership bodies should also make the explicit links between (i) energy management/energy efficiency; (ii) compliance with environmental legislation and regulation and; (iii) opportunities to achieve sales growth opportunities through aligning production processes and environmental performance with the requirements of national/international customers. This includes accreditations/certifications which demonstrate responsible energy / climate change / environmental policies and practices (e.g. ISO14001, ISO50001, Carbon Trust Standard, and others).
- d. A specific key focus should be the emerging network of specialist energy efficiency consultancies. The DGEE in MINEM has begun work in this area and we recommend that this is continued, with new focus on providing consistent training and technical/operational standards including best practice from international expertise such as the Carbon Trust (e.g. to ensure the appropriate application of ASHRAE Level 1, 2 & 3 procedures for commercial building energy audits¹).

¹ As documented in this publication: <https://www.ashrae.org/resources--publications/bookstore/procedures-for-commercial-building-energy-audits>

- e. Communicate widely the successes from the SME energy audits carried out in this pilot project and elsewhere (and other SME energy audits which take place subsequently). As has been observed, it is important for market development to be able to highlight demonstration case studies and success stories of implementation of energy efficiency measures so that suppliers can use these to reassure clients about the potential savings and suitability of the technologies they are providing in to the Peruvian market.

Most of these are actions which stakeholders have confirmed to us would help in the short term, as well as on an ongoing basis. They are likely to involve the national government – both in MINEM and PRODUCE, the Ministry of Production - working in close partnership with business networks/representative organisations, notably SNI, Chambers of Commerce, and other industry representative bodies and support organisations (e.g. CITEs), and also subnational governments (state and municipal governments).

3.3 Develop the skills base in SMEs for energy management and taking action on energy efficiency

In addition to raising awareness of the opportunities in energy efficiency for SMEs, it is also recognised by many stakeholders that knowledge and skills will need to be raised in many quarters. The following recommendations are therefore provided in this domain:

- a. Provide free basic training for SME businesses in Peru to upskill key operational personnel in energy awareness and energy management. The focus here should be on the following:
 - key practical actions in energy management, e.g. assigning management responsibility and identify human resources
 - consistent gathering and monitoring of consumption/cost data
 - understanding the relationship between consumption and costs, and therefore energy efficiency and competitiveness
 - basic guidelines on good practice and energy efficient technologies

Based on stakeholder feedback and our own experience in other markets, it is likely to be necessary for such training to be made available for free if it is to be attractive and accessible to the target audience. This raises the question, which needs further consideration, as to how such a programme of free energy efficiency training for SMEs in Peru could be funded. Possibilities include direct funding of the programme by the Peruvian government; accessing appropriate funding from international governments and/or multilateral donors; and raising funding through a levy on energy companies. The development and delivery of such a programme of training will require close coordination and collaboration between government and private sector stakeholders, including business representative organisations.

- b. Provide free technical training to larger/higher energy consuming SMEs, e.g. businesses in metal-mechanic and other energy intensive sectors, to provide them with technical skills on energy management, common energy efficient technology solutions, developing the business case for investment, accessing finance. Given the larger energy, cost and carbon emissions savings possible with businesses of this type, stakeholders have confirmed that they believe it would make sense to provide more in-depth technical training to key operational staff and management from these businesses. Again, the question arises of how such a programme of free training could be funded, with similar possibilities to those outlined in the point above.

These are actions which should commence in the short term, with commitment that they will need to continue over the longer term in order to reach across and have impact with many thousands of SMEs

across the country. These actions are likely to involve the national government (MINEM DGEE and PRODUCE) working in close coordination and collaboration with business networks/representative organisations, including SNI, Chambers of Commerce, and other industry representative bodies and support organisations (e.g. CITEs). There may also be a role for subnational governments to support at local level.

3.4 Support the development and expansion of specialist consultancy expertise in Peru for the provision of energy efficiency advice to businesses

The pilot project has demonstrated that SMEs in Peru benefit from the technical assistance and expert insights on specific energy efficiency practices and technologies which can be implemented in their premises and operations. To scale up the provision of such technical assistance to many more Peruvian SMEs will require focus on developing appropriate consultancy capabilities, capacity and delivery models which are as cost-effective as possible. Recommendations in this area are as follows:

- a. Support the development and delivery of energy efficiency '*diagnostico*' surveys/audits which are cost-effective and well-suited for the needs and scale of SMEs in Peru. Provide training to consultancies on international best practice, based on ASHRAE Level 2 Energy Auditing for Commercial Buildings. Highlight the need for consultants to be able to provide 'lighter touch', lower cost, yet high quality and value-adding on-site assessments (with less than one day spent on site by consultants), supported by off-site analysis of data (e.g. from utility billing), desk research and technical advice, provided in timely fashion in report formats which are readily accessible and understandable for SMEs (including non-technical managers). Ensure focus is kept on consultants highlighting key evidence of the prospects for financial savings and the costs and benefits of prioritised investments for improving energy efficiency. To achieve this we recommend DGEE at MINEM (and potentially other stakeholders, such as PRODUCE and SNI) continue to work with Efizity, who worked on the pilot project under Carbon Trust guidance and support, and also begin work with other consultancies to embed this approach across the market in Peru. Future energy audits could potentially be offered to SMEs under a government (or internationally funded) subsidy scheme, to encourage take up.
- b. We suggest that DGEE have an opportunity to take forward some aspects of what is outlined in point a above in their current work which will mandate public bodies to carry out energy audits of their buildings. We strongly believe that these audits of public buildings are an opportunity to set standards for the consultancy market in Peru and drive the delivery of cost-effective energy audits, as outlined in point a above. This approach, once established through the public sector initiative, could be rapidly rolled out for delivery with SMEs, with further efficiencies and quality improvements potentially to be found in delivering SME energy audits. Consultancies which have worked in the public sector programme (and with SMEs) in this way will then have acquired skills and methods which mean they can in future sell this as a commercial offering to larger SMEs and other businesses.
- c. For smaller businesses (low energy consumers), the most cost-effective solutions could also include self-assessment tools, e.g. online questionnaire-based and remote assessments, where consultants provide advice by telephone/email. We recommend that in the medium term DGEE (and/or PRODUCE) explore the potential for such lower cost solutions for smaller and less energy intensive SME businesses.
- d. Develop and make available training for energy efficiency consultancy services to achieve professional qualifications in energy management / accreditation. These should be based on existing internationally recognised qualifications and standards, with localisation appropriate for Peru as required.
- e. Support and guide energy efficiency consultancies in Peru to provide additional services, potentially including:

- link-ups with equipment provider
- procurement and project management for implementation of new energy efficient equipment
- offering savings guarantees, where consultants' fees are paid as a 'gain share' from savings from energy bills.

Opportunities include capacity building to improve commercial / business management skills, and supporting consultancies to develop relationships with finance providers and equipment providers.

Some of these – notably points a and especially b - are actions to commence in the short term, with recognition and commitment that these and the other points will also need to continue over the longer term, with close coordination and collaboration between public and private sector to continue to nurture the development and availability of high calibre energy efficiency specialist advice to businesses in Peru. The actions listed above are likely to involve the national government (DGEE in MINEM and potentially also PRODUCE) working in close partnership with energy efficiency consultancies and international partners who can provide expertise and accreditation.

3.5 Support the development of the market in Peru for energy efficiency equipment and finance providers

From our engagement with stakeholders in the wider market, including providers of energy efficient equipment and finance providers, and with SMEs who would be their prospective customers, we have identified and validated some recommendations to address how these market players could be more successfully connected to accelerate the uptake of their services, leading to more widespread and rapid implementation of energy efficiency measures by SMEs in Peru:

- a. Encourage equipment providers to provide more 'embedded' services: internationally (and to some extent in Peru), some equipment providers have more advanced business models, providing access to, *inter alia*: credit, extended product guarantees, initial on-site assessments and energy audits. These are the exceptions, however, and it is suggested that a project in the future could work with leading equipment suppliers in Peru to support them in developing their existing business models further to help them increase sales with SMEs and other customers (examples could include to offer free initial audits; improving communication strategies; developing finance schemes that allow payments based on energy savings). Such a project could focus on demonstrating the market, providing support in developing capacity, and, potentially, in buying down some of the risk in investing in new business models.
- b. A specific focus could be to carry out research in to the market for energy controls/software in Peru, which may be valuable to larger/higher energy consuming SMEs (e.g. businesses in metal-mechanic and other energy intensive sectors). It is likely that this would also need to involve the equipment/software suppliers in providing SMEs with training and support in technical skills for energy management, in order for the SMEs to gain full benefit from investing in / adopting such control technologies.
- c. Over the medium / longer term, support finance providers to develop and offer products and systems which specifically support energy efficiency investment. From the small scale pilot carried out, it is unclear the degree to which access to finance is a fundamental challenge, given all the other barriers identified. It is clear that some SMEs struggle to access finance to invest in larger equipment, though many do already have credit lines with banks. While energy audit recommendations often recommend changes in processes, procedures and/or small equipment purchases, these are unlikely to require external credit. Where larger capital projects are recommended in order to deliver energy efficiency savings, finance providers typically face standard market constraints in providing finance to SMEs, exacerbated in the case of energy

efficiency by additional factors (whether perceived or real) such as inappropriate products and weak links to other market actors. It has also been observed through our work on this project that finance providers seem to have little incentive at present for developing specialist product offerings for energy efficiency investments and are happy to continue to offer their standard lending products. Further work will be needed in conjunction with finance providers to understand what could help break this apparent 'cycle of inaction'. It may require more evidence of significant growth in the energy efficiency market (and therefore market opportunity for which finance providers are willing to make changes in order to achieve competitive advantage), which in turn will require other interventions/removal of some of the other barriers referenced above before the finance sector will be motivated to move.

Possible actions with finance providers could include encouraging and supporting:

- Partnerships between finance providers, consultants and equipment providers, starting with consultants and equipment providers to provide technical training and out-sourced technical advice services to finance providers (e.g. technical advice/assessments relating to the business case for investments).
- Working with leading interested finance providers to support them in developing specific financing products tailored for energy efficiency investments, and to develop internal processes to support these product/service offerings
- Developing a financing programme that would allow repayments to be collected through utility providers (i.e. retention by the utilities of the energy efficiency savings, rather than them reducing the SMEs' energy bills, with those savings then being paid directly to the lender). This is a similar model to the successful COFIGAS² programme run in Peru for adapting/upgrading machinery and vehicles such as taxis and buses to run on compressed natural gas (CNG), rather than more polluting fuels. Such a model has the potential attraction that it could avoid the need for guarantees from SMEs.

The actions in this section above are ones which could potentially commence in the short term, given the right backing, with recognition and commitment that they will need to continue over the longer term, with close public-private coordination to develop approaches and apply interventions as appropriate as the energy efficiency market in Peru develops and matures. Such actions are likely to involve the national government working in close partnership with suppliers of energy efficient equipment and with finance providers in the market in Peru (potentially including international suppliers/providers who are not yet established in Peru). Within government this is likely to involve the DGEE in MINEM working closely alongside PRODUCE and also the Ministry of Finance and Economics, and potentially COFIDE, the national development bank. There may also be a role for subnational governments to support at local level. Projects such as those outlined above may also require the involvement of international donors/lenders and associated technical expertise through projects they may fund and support.

Market opportunities for international/UK companies to provide their expertise and solutions

An additional aspect of this project has been to consider how, over time, the development of the market for energy efficiency in Peru's SMEs could lead to greater trade, including opportunities for international companies, such as those from the UK, to provide their expertise and solutions.

As the market in Peru develops, including through recommended actions and measures identified in the section above, we believe there will be greater trade opportunities. International manufacturers and distributors are likely to find growing opportunities to sell their energy efficient technology solutions to Peruvian SMEs, with the strongest opportunities likely to come through partnerships with local suppliers and distributors who have existing customer networks and routes in to the SME market in Peru.

In line with some of the points already highlighted above, there could be a particular role for specialist international (including UK) expertise in energy efficiency where proven track records in other countries

² See <http://www.infogas.com.pe/cofigas.aspx>

in delivering advice - and successful installations of reliable, high efficiency technologies - could be influential with Peruvian clients. Initial (and more economically attractive) market opportunities for international companies, including those from the UK, are more likely to be found with larger clients (as opposed to SMEs), with the Peruvian presence of multi-national client companies an obvious start point, given that they are more likely to have experience in working with an international supply chain in order to access innovative solutions. As the market matures there will be further opportunities for those who have established a presence (or perhaps more likely a route to market via local partners) to trade with larger SMEs, such as those featured in this project.

The Carbon Trust has raised awareness of this Peruvian SME energy efficiency project among a unique database of 115 UK energy efficiency companies. These companies feature in the Carbon Trust *Green Business Directory*, a UK registry of suppliers/installers accredited by the Carbon Trust for their provision of energy efficient solutions for businesses. We promoted this and other projects through electronic communications to these accredited suppliers, and then in more detail to a gathering of selected Green Business Directory suppliers who chose to attend an event in March 2017 in London. These included suppliers/installers of: energy efficient lighting systems (including LED lighting); solar photovoltaic energy systems; thermal efficiency building fabric technologies; industrial heat recovery systems and steam traps; co-generation and tri-generation systems (i.e. combined heat and power – CHP); and voltage power optimisation technology. It was acknowledged by suppliers attending this event that opportunities for them in Peru may not be immediate, though may emerge in the future as the energy efficiency market in Peru becomes more established.

4 Next steps to overcome market barriers to scale up SME energy efficiency

To move forward with implementing recommendations outlined in section 3 above, we believe the priority next steps will be as follows.

4.1 Convening of key ministries/directorates to assign responsibility for leading recommendations

Key ministries/directorates of the Peruvian government should convene to review and discuss the findings and recommendations documented here and to decide who is taking responsibility for moving forward with which recommendations. It should also be agreed in this forum how the different government stakeholders will organise and communicate to ensure coordinated approaches which maintain momentum and progress.

Key actors in this should be DGEE (MINEM), the appropriate persons from PRODUCE, and key contacts in other relevant ministries, notably the Ministry of Finance and Economics, and the Ministry of the Environment (MINAM). Involvement of appropriate contacts in subnational governments (state and municipal governments) should also be considered. At an early stage it would be wise also to bring key non-government stakeholders in to these conversations, such as SNI.

4.2 Explore national and international funding opportunities

The Peruvian government, with activity likely to be led by the DGEE in MINEM, should explore national and international funding opportunities (including climate finance) to which proposed policy actions and programmes could be well aligned. Enquiries and applications for suitable funding for projects and programmes should be progressed.

4.3 Mandate public bodies to carry out energy audits following MINEM established standards

DGEE in MINEM should immediately seize the opportunity outlined in point b of section 3.4 above, to align the current work which will mandate public bodies to carry out energy audits of their buildings with the work carried out in the pilot project with SMEs. The objective here should be to ensure that in setting standards and norms for the mandatory audits of public buildings these are aligned to the wider opportunity to develop and encourage the energy efficiency consultancy market in Peru. The objective should also be to ensure focus is closely on delivering practical, cost-effective energy audits which are fit for the purpose required (based on the ASHRAE Level 2 approach), and present clear, well-evidenced and accessible reports, focused on encouraging implementation of practical and affordable energy efficiency measures, with clear and realistic costings and outline business cases provided.

4.4 Work with business networks to raise awareness of energy efficiency as a means to improve business performance and societal impacts

Develop an approach with SNI and other business representative organisations and networks, and with subnational governments across Peru, which begins to raise the profile for SMEs of energy efficiency as a means to improve business competitiveness, minimise negative environmental impact, and contribute to the fight against climate change.

4.5 Promote success stories of SMEs implanting energy efficiency measures

Using the channels of SNI, other business organisations and networks, and subnational governments across Peru, early action should be taken to promote success stories of SMEs implementing energy efficiency measures. Such demonstration case studies are needed as soon as possible to illustrate as widely as possible the potential savings which businesses can achieve, and also to give confidence that energy efficient equipment is effective and to demonstrate how switching to new energy efficiency technologies has been successfully achieved by Peruvian businesses.

Appendix – List of key documents produced during the project

1. *Landscape Review*: Summary of the initial understanding of the challenges and opportunities for energy efficiency in the SME sector in Peru
2. *Sector and SME prioritisation*: Summary of the results of the prioritisation and validation process to select SMEs and sectors to focus on during the pilot programme
3. *Energy audit reports*: Reports with findings from energy audits of the 12 selected SMEs which were carried out by Efizity with support from Carbon Trust
4. *Business cases*: Detailed energy audit reports which presents the financial considerations for implementing the recommendations to improve energy efficiency
5. *Market analysis*: Review of key market barriers limiting the uptake of energy efficiency projects informed by desktop research and interviews with key actors in the market
6. *Initial recommendations paper*: Initial recommendations to improve energy efficiency uptake by SMEs based on findings from the market systems analysis and the SME pilot programme
7. *CDKN Inside Story*: Summary of key project findings and lessons learned

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