Greening Firms in Georgia

Executive summary

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Georgia has growing emissions with a large contribution from businesses. Georgian emissions have significantly increased in the last 15 years, albeit from a low level. Businesses (that is, industry, transport services, construction, and commerce) are among the entities responsible for the most emissions in Georgia. Unless urgent actions are taken, industry emissions could increase by 90 percent between 2015 and 2030.

Despite recent progress, the institutional and regulatory framework requires significant strengthening. In the last few years, Georgia has made progress in aligning its institutional and regulatory framework to EU legislation and standards (for example, the Law on Energy Efficiency, the Law on Industrial Emissions, and the National Climate Change Plan). However, this is an unfinished agenda because Georgia still lags in translating this legal framework into concrete incentives and opportunities for business investments, as shown by its low ranking among regional peers in the Regulatory Indicators for Sustainable Energy (RISE).

Georgia has relatively low energy prices. Despite the electricity price increase for commercial consumers in January 2021, energy prices (gas and electricity) are lower in Georgia than in various regional peer countries, reducing incentives for investments in energy efficiency and renewables.

Decomposing drivers of energy consumption growth indicates that expansion of the economy and specialization in more energy-intensive sectors are driving this increase. In the last 17 years, energy consumption grew by 155 percent, mainly because of the expansion of the economy and its specialization towards more energy-intensive sectors, while improvement in average firm energy efficiency, shrinking of more inefficient firms, and expansion of more efficient ones were insufficient to compensate for this growth.

There are large and persistent efficiency gaps between firms. Firms in the same sector and of similar size can be extremely different in their levels of energy efficiency (the output produced per unit of energy consumed), with more efficient firms capable of producing more than sixfold more output with the same energy than the inefficient ones.

Modest energy efficiency improvement can deliver big gains. These large gaps in energy efficiency suggest there are ample opportunities for improvement. If inefficient firms became as efficient as the median firm in their sector (with a similar size), Georgia could reduce overall emissions from businesses. However, because energy costs only represent a small share of total costs for the average business, the average reduction in costs that these energy efficiency improvements would generate is modest (just 7 percent), which may explain why firms do not prioritize these investments. Finally, it is important to note that 8 of the 52 sectors analyzed (construction, non-metallic minerals, mining of metal ores, water and auxiliary transport activities, manu-

“Approach the problem of promoting energy efficiency with a modular portfolio approach and appl support programs to clusters to potentiate spillovers.”

80%

of firms will likely require new investments to improve energy efficiency

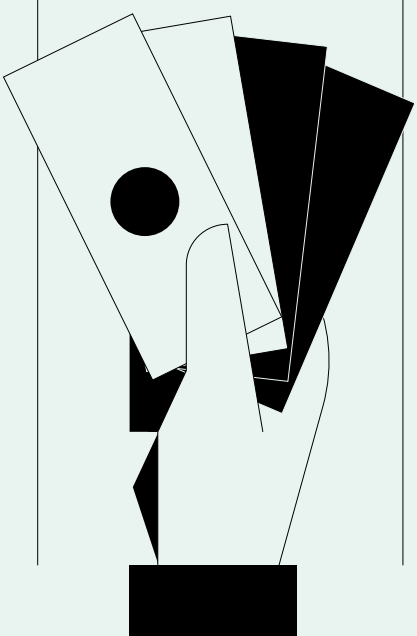
facturing of food and beverages, wholesale trade, and basic metals) would account for more than three-quarters of the total reduction in emissions.

Financial needs are key, but not for all firms. For 80 percent of firms, improving efficiency will likely require new investments. However, for two out of 10 firms, capital is not necessary for improving efficiency. These firms account for about one-third of the total potential reduction in emissions that could be achieved by improved energy efficiency.

Productivity and spillovers matter. The single strongest predictor of energy efficiency at the firm level is the firm's overall productivity, suggesting that the agenda of greening businesses and that of growth can go hand in hand. Spillovers also appear important—firms surrounded (in the same sector and location) by more energy-efficient firms tend to be, on average, more energy efficient.

Management and technology adoption are two key lacking ingredients. Good quality green management practices and good general managerial practices are significant shortcomings among Georgian firms. Georgia ranks in the bottom three countries across the different dimensions of green management amongst nine benchmark countries (Azerbaijan, Bulgaria, Czech Republic, Hungary, North Macedonia, Poland, Serbia and Slovenia). Green technology adoption is very limited among firms in Georgia. Instead, many firms maintain generators, which leads to significant inefficiencies, because of the high frequency of power outages. However, reinforcing the point that the green agenda can go hand in hand with a growth-oriented agenda is the result that overall levels of technology sophistication, mainly measured by the adoption of digital technologies (for example, ERP), are strongly associated with energy efficiency.

Higher energy prices lead to higher efficiency. We provide preliminary evidence that higher electricity prices are associated with higher efficiency. However, they also increase costs, and part of this increase is passed through to consumers. There is no evidence that it negatively affects employment or profits.



A comprehensive policy package of reforms and programs is required. Recommendations to support green transitions include horizontal economy-wide policies and recommendations that target firms and sectors (see figure below). First, the horizontal recommendations focus on developing a conducive enabling business environment centered around the appropriate price signals and regulations, as well as improvements to the grid infrastructure and reliability of electricity services. Second, the horizontal recommendations are complemented by firm- and sector-specific recommendations that are grouped around three pillars: (1) information, (2) capabilities—management, technology and skills and (3) finance. Specific recommendations and policy instruments, along with examples of existing international good practices, are discussed. Finally, policy recommendations are grouped in terms of their 'priority' (short-term, mid-term, or long-term) and their

"complexity," which refers both to the technical feasibility and to the political economy feasibility of these actions. Finally, beyond the specific policy solutions, the report emphasizes the importance of targeting by using appropriate diagnostic and benchmarking tools to assess specific needs and readiness of businesses to upgrade and invest in energy efficiency.

SUMMARY OF POLICY RECOMMENDATIONS

1 Information

- Awareness
- Information about suppliers of solutions
- Energy audits
- Understanding about solutions

2 Capabilities

- Management and organization
- Technology adoption
- Skills for workers, and managers

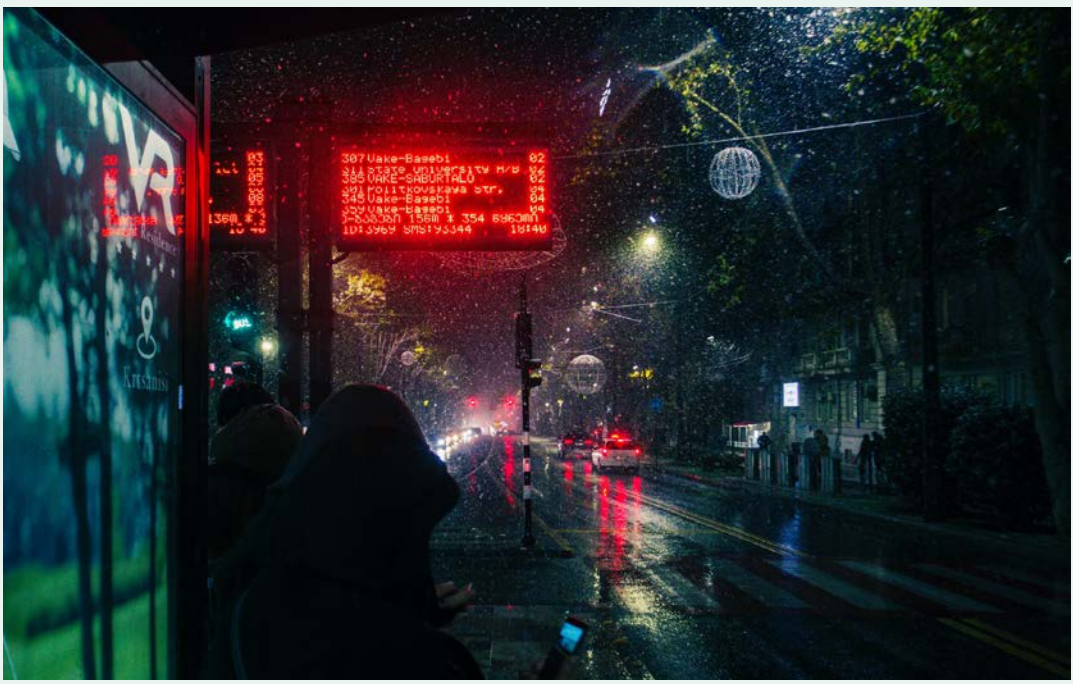
3 Finance

- Guarantees
- Blended finance and credit lines
- Grants and tax incentives
- ESCOs
- Utility on-bill financing
- Leasing
- Energy savings insurance

Conducive enabling business environment

INSTITUTIONS + REGULATIONS + PRICES

Source: World Bank elaboration.

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