

# Transforming Energy Demand: Accelerating Business Action through Government Leadership

POLICY BRIEF  
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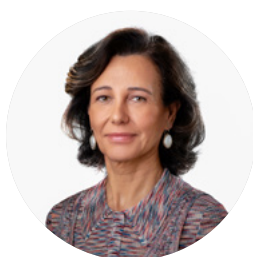
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# Foreword



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Progress towards the Paris Agreement goal of limiting warming to 1.5 degrees is significantly off-track. Indeed, recent estimates by the United Nations Environment Programme suggest our planet is likely to warm by 2.6 degrees compared to pre-industrial levels. As the global energy system undergoes rapid transformation, leaders across sectors must collaborate to accelerate an energy transition, creating positive outcomes for people, society and the planet. The private sector can play a leading role in driving this transformation.

That is why, in 2023, the International Business Council (IBC), a group that together represents 3% of global energy use, decided to focus on energy demand. This is an under-addressed area, action on which will allow us to increase economic output, while reducing greenhouse gas emissions (GHG) and driving up global access to energy.

Our research reveals that there are many tangible actions that all businesses can take today to act on energy demand. The potential of this demand-side action is extraordinary, offering a short-term, cost-efficient reduction of 31% in demand, shared across all economic sectors. These gains are achievable today, offering a practical, scalable and high-impact pathway to get the world on track to meet the Paris Agreement targets. At the same time, it would support delivery of the pledge by over 120 countries at the 28th United Nations Climate Change Conference (COP28) to double the global average annual rate of energy efficiency improvement to over 4%.

However, progress is not fast enough. The annual rate of energy efficiency improvement only reached 1.3% in 2023. At the same time, energy efficiency is at risk of decreasing in prominence on the international stage, having received limited coverage during COP29.

Policy-makers can act to change this across all nations. Government leadership has the potential to empower the private sector to do far more if it can create an enabling environment for action on energy demand. Our research identifies the absence of this government leadership as one of the major barriers to progress.

Working across the IBC and with partner organizations, we have identified the most promising public sector approaches: establishing robust national energy plans that include energy demand, mobilizing finance and driving improvements across industry, buildings and transport. By focusing on these areas, together, public and private actors can work to decarbonize economies, improve energy security and enhance global competitiveness.

We extend our gratitude to the IBC members and all contributors who have enriched this effort with their expertise. This document is both a call to action and a guide, inviting leaders across government to act on demand-side energy solutions. We hope that this will prove valuable in advancing efforts towards a more sustainable, resilient and equitable global future.

# Executive summary

Rising energy demand poses challenges to a smooth energy transition: Global economic growth, combined with the growth of energy-intensive technologies (such as artificial intelligence and other energy intensive sectors), is expected to cause an increase in global energy demand of up to 33% by 2050.<sup>1</sup> This will put additional strain on existing power networks and offset the growth in renewable energy supply, slowing down the decarbonization of the entire system and delaying the energy transition.

Improving energy efficiency is critical for countries to achieve economic growth, development goals and climate targets. Under the UAE Consensus at the 28th United Nations Climate Change Conference (COP28) in Dubai in 2023, countries agreed to collectively double the global average annual rate of energy efficiency improvements from around 2% to over 4% every year until 2030. Reaching this goal would increase the energy efficiency of economic growth, which is important for developing and developed countries alike, as this boosts growth by enabling previously wasted or over-utilized energy to be redirected to more productive activities. As countries prepare transition plans, actions on energy demand and efficiency can be a core part and are among the most cost efficient and growth enhancing. This is particularly important following COP29, where there was a significantly reduced focus on demand in both discussions and the agreed outcome text.

The goal to double energy efficiency can be met, but only through effective public- and private-sector partnership, alongside government leadership. Businesses are working to incorporate demand-side action into their activities, as evidenced by the practical examples of private sector action.<sup>2</sup> However, to reach these goals and unlock investment, policy-makers need to support businesses in acting further and faster in this vital area. A report published by the International Business Council (IBC), whose members represent 3% of global energy demand, shows that \$2 trillion of savings can be achieved on an annual basis.

What can governments do to accelerate business investment in energy demand? In the menu of policy options for governments to support the doubling of energy efficiency, based on the IBC consultative process, the most promising approaches that can best promote business investment are:

- **Acting on five key building blocks of public-private collaboration:** At the IEA 9th Annual Global Conference on Energy Efficiency in June

2024, business leaders, supported by the IBC, proposed the Nairobi Business Leaders Action Plan<sup>3</sup> for public-private collaboration to double energy efficiency by 2030.

Further consultation has built on the five points outlined in the action plan, to suggest five key building blocks:

1. Include energy demand in national planning through Nationally Determined Commitments (NDCs) and market-based approaches.
2. Mobilize public and private finance.
3. Improve energy productivity of industry.
4. Enhance energy efficiency in the built environment.
5. Support fuel-efficient transport.

- **Focusing on standards and incentives:**

Across the five areas, IBC members have highlighted the primary importance of setting standards – aligned with regional or global approaches – to provide clarity to businesses on what type of investments they need to make. In parallel, providing appropriate incentives will accelerate investments by improving the business case for key interventions.

- **Supporting emerging markets and developing economics (EMDEs) and small and medium enterprises (SMEs):**

For EMDEs with fiscal constraints, multilateral development banks (MDBs), development finance institutions (DFIs) and other climate-related funds can play a key role in supporting the implementation of appropriate policies and in providing finance. Governments can also put in place enabling measures for SMEs, which may face higher barriers to financing or technical capacity than larger companies.

Over the course of 2025, the IBC will engage with key policy-makers around the world to create better understanding of these enablers of accelerated action.

Private-sector companies are invited to replicate these actions based on their contexts in the buildings, industrial and transportation sectors through various initiatives such as the First Movers Coalition, Transitioning Industrial Clusters and Mission Efficiency to advance voluntary action.

# Introduction

## The case for demand-side action

This document complements the International Business Council (IBC) “Statement of Urgent Actions to Transform Energy Demand and Double Energy Efficiency Progress by 2030”. It provides more detail on the recommendations for governments that will accelerate investment and actions to transform energy demand and double energy efficiency. The recommendations are based on consultations and surveys with members of the IBC, which is a group of nearly 120 multinational companies that represent about 3% of global energy demand from their direct operations. The findings also build on the “Transforming Energy Demand” white paper,<sup>4</sup> which pointed out that future global demand could be reduced by over 30% with no loss of output, using current technology. If achieved by 2030, this could unlock savings of up to \$2 trillion annually for the global economy.

The energy transition poses a challenge for governments: How to manage the tension between the imperatives of energy security and affordability while delivering sustainability goals as well as economic growth.

Currently, businesses, and the world, are lagging behind on decarbonization goals to the extent that the 1.5 degree scenario seems increasingly out of reach. Most of the debate and action is on energy supply, with effort focused on developing a new, low-carbon energy system while phasing out higher-carbon sources of supply. This supply focus has reduced the attention given to energy demand and efficiency, while failing to deliver change fast enough to meet the trajectory required for the energy transition. It also means that the burden has been on the supply side, that is, public and private energy companies, to deliver the energy transition, without enough emphasis on what the wider economy – that is, the consumption side of the equation – can do.

Accountability for delivering net-zero goals needs to shift from the supply side to an interconnected network on the supply as well as demand sides, including through action on the existing grid network. While the IBC acknowledges that the energy transition requires equal efforts on energy supply and demand, along with grid infrastructure, this primer will focus on demand-side action.

Demand-side action represents a significant opportunity for the global community and individual countries. By promoting increased efficiency and optimization of energy use, for example by directing previously wasted energy to more productive activities, reducing energy intensity can boost economic growth and help meet development goals in all economies. Energy efficiency should be “the first fuel” – it is very often the most cost-effective means to reduce greenhouse gas (GHG) emissions, and to meet energy needs with less impact on nature and local communities compared to the buildout of new energy supply infrastructure.

Moreover, it can improve countries’ energy security, reduce their energy import bills and save centralized energy costs for companies and individual consumers. Energy efficiency projects also directly support renewable energy goals by managing load sharing and facilitating on-site renewable energy generation, reducing the required investment in new energy infrastructure.

At COP28, over 120 countries recognized this and pledged to double the pace of energy efficiency improvement.<sup>5</sup>

Governments now need to develop policies to deliver these goals, and to seek ways of unlocking private-sector action to accelerate the changes required. The benefits for governments of acting now are clear.

## Barriers preventing further investment

Businesses account for more than half of global final energy consumption. They deliver energy services and supply energy-consuming products to consumers.

Businesses thereby represent a key vector for change. All companies can tap into existing affordable technologies to reduce their own

energy intensity and that of their products, helping to reduce energy bills, improve resilience and achieve net-zero goals – and, in the process, improve their competitiveness in the marketplace. The 2024 IBC report on transforming energy demand shows that it represents a \$2 trillion annual savings opportunity.<sup>6</sup>

Businesses are already taking action. For example, 125 companies as part of the Climate Group’s EP100 have committed to double energy productivity in 25 years, and implement an energy management system in 10 years.<sup>7</sup>

Leaders in other industry sectors are using cogeneration and digitization to increase energy efficiency and operating efficiencies. Energy efficiency standards for products in many markets are helping consumers save energy through informed choices as businesses add value to more energy efficient products.

However, businesses face several key barriers to action, including low awareness of need and solutions, and lack of a supportive policy environment.

Alongside this, businesses sometimes struggle to access finance, given the uncertainty over the size and timing of financial benefits, which also hampers the growth of a market for energy efficiency-related assets. Government action can help to overcome these barriers.

Finally, the Organisation for Economic Co-operation and Development (OECD) expects 1 in 4 workers to be impacted by the green transition. This creates a talent bottleneck for sustainable production overall, and for increased energy efficiency specifically. New, more energy efficient technologies require new skill sets. And yet, the incentives to impart these new skills are lagging, notably in sectors with high levels of GHG emissions.

## Tailoring policies to EMDEs and small businesses

While these recommendations are relevant to all economies, the specific policies that will have the greatest impact will vary depending on the local political, industrial and socio-economic context. They should therefore be taken as a starting point, making local variations depending on the context.

In general, in developed economies with large, diverse sources of upstream energy supply, governments can focus on implementing energy efficiency policies to support profitability, competitiveness and emission goals. This is also true in emerging and developing markets, whose limited access to energy combined with higher forecast of economic growth means that a focus on installing the most energy efficient solutions will allow them to deliver economic growth efficiently, while leapfrogging older technologies.

Examples of where this has already been done include India, which drove a dramatic uptick in the use of LED (light-emitting diode) lightbulbs

through a combination of innovative procurement and financing incentives to both foster demand for a new technology and increase energy access for rural households.<sup>8</sup> Mexico used awareness campaigns and training to enhance the competitiveness of SMEs with the adoption of energy management systems (EnMS).

Developed countries should also consider the impact of their domestic policies on energy efficiency efforts in EMDEs. For example, robust and transparent standards in developed countries can support the flow of products and technology to EMDEs. Value chain-related policies in developed countries can also have a large impact on the adoption of energy efficient technology and processes in EMDEs.

Table 1 shows the key barriers in EMDEs and the suggested policy priorities.

TABLE 1 **Key barriers to investment in energy efficiency**

	EMDEs	SMEs
<b>Key barriers for private-sector investment in energy efficiency</b>	Smaller domestic private market hampers uptake of key technologies. Nascent markets (e.g. for electric vehicles) require public sector leadership	Lack capacity, awareness and financing for energy efficiency interventions.
<b>Policy priorities</b>	Government procurement to drive adoption of key technologies. Incentives tailored to driving job creation in growth sectors (e.g. climate tech) and support for domestic energy efficiency-related services. Selective regulation and incentives given fiscal constraints, focused on creating energy efficient growth. Support for import of goods that adhere to international energy efficiency standards.	

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# Include energy demand in national planning through NDCs and market-based approaches

**National planning objectives:** By building energy transition plans that focus as much on managing energy demand as expanding clean energy supply, governments can create an enabling environment for investments into energy demand and efficiency-related projects. Decreasing energy intensity also helps countries build resilience to climate-related physical and transition risks, as it reduces the amount of energy supply that must be substituted as part of the energy transition, reducing costs for governments. In addition, many decarbonization technologies will use energy in their operation; to the extent that traditional “demand-side” energy can be optimized, it aids in minimizing the buildout of capacity required to meet total future energy demand.

*Including energy demand as part of the Nationally Determined Contributions (NDCs) and other country-level planning approaches:*

As all countries under the Paris Agreement are required to submit NDCs in early 2025, this offers a starting point for countries to then develop demand-side management and energy efficiency pathways for each major sector of their economies. Effective plans should clearly address the demand side, setting direction and removing frictions (for businesses and consumers) to make more energy efficient choices. For example, governments can establish an energy efficiency and decarbonization plan for the steel sector, while supporting this with standards for the use of this new generation of steel on the consumption side of the economy.

The IEA Policy Toolkit<sup>9</sup> provides a menu of policy options for encouraging energy efficiency. Including energy demand policies in national plans will also support businesses in complying with disclosure and regulatory requirements on planning the energy transition (e.g. the Corporate Sustainability Responsibility Directive of the European Commission). Smart demand-focused policies will also help domestic businesses become more efficient and competitive, supporting economic and development goals (such as job creation, pollution reduction, adoption of net-zero pathways and improved energy access).

Additionally, a people-centred approach towards investment in reskilling and upskilling the workforce is needed to accelerate demand-side projects including energy management, grid infrastructure and renewable energy generation in a way that works for people and the planet. This is particularly important for energy intensive activities and industries that are vital to the energy transition.

For businesses to deploy new and more efficient means of production, they need a labour market framework that promotes and incentivizes workforce transitions. The inherent challenge prompts public-private alignment and investment to ensure it pays to move into new and more sustainable jobs.

*Prioritizing market-based and technology-neutral approaches:*

IBC members have emphasized the effectiveness of a market-led approach to delivering on climate goals, and believe that this should be integral to delivering on NDCs and national energy transition plans.

Specifically, a market-led approach is based on setting quantified goals and then allowing the market (i.e. private- and public-sector actors) to find solutions that will drive progress towards those goals.

For example, governments could set targets for energy or carbon intensity by sector or industry in their energy transition plans. These targets could then increase in stringency over time. Businesses could work to align to those goals through a combination of new and existing technologies and approaches, without limitations or prescription of the “correct” way to proceed.

This has been proven to work previously, for example, through the reduction in sulphur oxide emissions from marine fuel oil. Regulation was passed to mandate the reduction in the upper limit of sulphur content from 3.5% to 0.5%, without prescribing the way that this reduction had to be achieved.<sup>10</sup> This allowed the market to find the route to meet the goal most efficiently, and delivered the desired result.

Delivering this kind of change will require assured, trustworthy measurement of metrics tied to overall targets. IBC members therefore also highlight the need to ensure that GHG and energy measurement and intensity is as accurate as possible in order to identify the best options to drive change.

Another useful market-based tool governments could implement is demand-side bidding, in which regulators set energy efficiency targets and utilities invite firms to bid in their demand reduction schemes and pricing.

## Key policy elements of a national plan

IBC members have identified the following as the three most important government actions:

- i. **Setting incentives for energy efficiency interventions, particularly for SMEs.**
- ii. **Providing minimum energy efficiency standards (including energy performance standards).**
- iii. **Conveying sector-specific targets and ambitions.**

Governments should also focus on driving progress in specific sectors including building, transport and industry,<sup>11</sup> which together constitute nearly 94% of energy use.

Table 2 contains a full list of policy enablers recommended by IBC members. It is important to note that this should be seen as a menu of options and each country will need to find the options best suited to its context and tailor them to its situation. Each country will need its own energy transition plan, to allow stakeholders to make investment decisions appropriate to their local context.

TABLE 2 **Energy transition planning: What governments can do**

<b>Lead</b>	<p><b>Convey a clear ambition, path and targets for energy intensity for key sectors (e.g. buildings, industry and transport), prioritizing market-based and technology-neutral approaches to reach these targets. Ensure centralized coordination on the energy efficiency agenda that cuts across sectors, including but not limited to ensuring that the grid has sufficient capacity for the electrification of the key sectors.</b></p> <p>Develop implementation pathways for digital technologies that help companies better manage demand and collaborate with the grid, including policy frameworks, interoperability, data management and cyber resilience. Ensure energy security for all stakeholders, by improving grid resilience and creating an adequate framework around grid strengthening, market design and pricing mechanisms.</p> <p>Publish national benchmarks for efficiency in buildings, industry and transport to increase transparency, and integrate these into national planning and policy-making. Showing best practices will highlight underperformance, increase awareness and knowledge sharing, and drive action.</p> <p>Engage with municipalities to localize demand planning and build-in spatial energy planning (e.g. through industrial clusters).</p> <p>Engage with businesses to co-develop policies and solutions. This can include catalysing investment for industrial hubs, ensuring demand through innovative offtake or procurement schemes, or gathering information on emerging risks and opportunities (e.g. collecting risk data from insurance companies).</p> <p>Support training and skill-building for energy efficiency-related service providers in order to create green jobs.</p> <p>Lead by example (e.g. using government procurement as a lever, promoting efficiency in government buildings).</p>
<b>Inform</b>	<p>Establish standardized energy efficiency metrics for different industries and make data transparent to enable benchmarking and establishment of expected and delivered savings.</p> <p>Promote energy efficiency across the entire value chain; this includes designing products with lower material needs, enhancing circularity, streamlining transport, and reducing waste – broadening impact beyond traditional energy efficiency measures.</p> <p>Focus on improving awareness and performance of energy demand in industry and society, including through life-cycle analysis approaches.</p> <p>Promote simplicity of regulation and messaging to encourage action.</p> <p>Build case studies and create a centralized repository; promote campaigns to drive awareness, including of case studies geared for EMDEs or SMEs.</p> <p>Promote national and community-based awareness campaigns.</p> <p>Ensure existing Labour Market Information about Green Jobs, Skills and Wages is properly distributed.</p>

TABLE 2 **Energy transition planning: What governments can do** (continued)

<p><b>Regulate</b></p>	<p><b>Provide clear guidelines through minimum standards, mandated energy audits and inclusion of energy efficiency into green certification programmes.</b></p> <p>Provide clear guidance for monitoring, reporting and measuring against energy intensity standards.</p> <p>Promote standardized labelling at the product level to expand the green product market, harmonized within or across regions, and promote competition.</p> <p>Reform labour market frameworks to ensure businesses can easily transform the workforce to achieve goals in a more energy efficient manner.</p>
<p><b>Incentivize</b></p>	<p><b>Pair tax and incentive mechanisms in the key sectors (buildings, industry and transport), including support for SMEs.</b></p> <p>Within EMDEs, support incentives for building up domestic capacity for energy efficiency-related light manufacturing and service providers.</p> <p>Remove negative subsidies/incentives that hamper business's energy efficiency efforts.</p> <p>All incentive schemes (e.g. certification and finance) should be broad and linked to outcomes. The goal is to create a level playing field for all approaches.</p> <p>Incentivize targeted reskilling initiatives to ensure that companies have the critical talent they need to implement their sustainability plans and unlock the potential for transitioning mature sectors as well as new growth sectors.</p> <p><b>Note:</b> Top enablers chosen by IBC in bold</p>

CASE STUDY I

**Public sector action in National Planning (minimum standards)**

Economies such as the European Union, the United States, Canada and Japan have introduced minimum energy performance standards (MEPS) for industrial electric motors. These require that all motors are switched to IE3 or higher in the international efficiency (IE) standards. This was supported by a dedicated finance window, which was developed to

target the replacement of older and inefficient motors by supporting the initial upfront cost. This drove an increase in penetration of high-efficiency motors from 5% in 1995 to over 70% in 2015, contributing to an approximate 20% reduction in energy consumption in the Japanese manufacturing sector between 2000 and 2012.<sup>12</sup>



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# Mobilize public and private finance

**Sector objective:** The International Renewable Energy Agency (IRENA) has estimated that it will cost \$14.2 trillion by 2030<sup>13</sup> to achieve the target of doubling energy efficiency. Governments are encouraged to work with the private sector, particularly financial institutions, to increase access to financing appropriate for energy efficiency-related investments. In order to support the tripling of investment, financial institutions will need to scale up existing financial modalities (e.g. aggregation), target EMDEs and SMEs, and develop new ways to monetize the financial benefits of energy efficiency to create more investable assets.

The mix of public and private financing will differ depending on industry and region. This is already happening to some degree, as shown by efforts such as nearly 200 countries at COP29 reaching a breakthrough agreement to triple financing in EMDEs from the previous goal, and to secure efforts of all actors to work together to scale up finance to EMDEs, from both public and private sources, to the amount of \$1.3 trillion per year by 2035 as per the United Nations Framework Convention on Climate Change (UNFCCC).

**Key barriers and policy enablers:** Financing for energy efficiency typically requires a different approach than financing large-scale, concentrated efforts such as renewable energy supply and grid infrastructure projects, given the different nature of energy efficiency investments compared to the typical project finance approach for large renewable energy projects. For example, some energy savings investments (e.g. in software and processes) can be financed out of operational expenses with a short-term payback. Companies also typically invest in energy savings programmes and efficiency projects (e.g. building retrofits) where the benefits for an individual project or investment are difficult to separate out from the larger programme or one individual asset.

IBC financial institution members have noted that risk and pricing are the key barriers they face in increasing their level of financing, with some adding that the benefits are difficult to predict or verify. They cite the most important enabler as positive incentives for energy efficiency-related financing, particularly for SMEs. A full list of policy enablers recommended by IBC members is included in Table 3.

TABLE 3 Finance

<b>Inform</b>	Support efforts to better finance energy efficiency through transparent, standardized energy saving metrics for defined interventions.
<b>Regulate</b>	Support standardized energy efficiency-related guidelines as part of broader climate or sustainable finance approaches. Promote international harmonization of energy performance contracting to enable comparability across countries.
<b>Incentivize</b>	<b>Offer incentives for energy efficiency-related financing (e.g. tax credits), particularly for SMEs.</b> Provide concessional financing to energy service companies to reduce the cost of doing business and improve returns on investment, with an emphasis on EMDEs. Support sustainable finance mechanisms by providing concessional or blended finance, including through MDBs, to targeted credit lines, specialized funds or risk-mitigating mechanisms such as guarantees and insurance. Develop financing for energy efficient cooking appliances, particularly for EMDEs.

**Note:** Top enablers chosen by IBC in bold

## CASE STUDY II

### Public sector action in finance (financing retrofits)

In 2010, the California Public Utility Commission launched a zero-interest financing programme to fund energy efficiency investment and assist non-residential energy customers to retrofit buildings. Since August 2023, the programme has also

supported purchase of water heat pumps and EV charging infrastructure. Customers pay back the loans (ranging from \$5,000 to \$4 million) through monthly instalments on their energy bills with a maximum payback period of five years.<sup>14</sup>

# Boost energy productivity of industry

**Sector objective:** According to the IEA, annual energy productivity in industry will need to grow by 2.3% per year, and electricity would account for 30% of energy use by 2030 to achieve the goal of doubling energy efficiency.<sup>15</sup>

Industry accounts for around 38% of global energy demand and 21% of GHG emissions.<sup>16</sup> In this report, it is defined as encompassing the production of commercial products, including “heavy” industry (steel, cement, chemicals, aluminium and extractives) and light industry (all others).

**Key policy enablers:** The top three government actions that IBC members in industry have cited are:

- i. Building-in tax relief for investments in energy efficiency (e.g. faster equipment amortization);
- ii. Introducing minimum energy performance standards (MEPS) across industries.
- iii. Supporting collaboration between industry players.

A full list of policy enablers recommended by IBC members is listed in Table 4.

TABLE 4 **Industry**

## Inform

Introduce energy efficiency labelling for machinery and processes.

Create public benchmarks of expected energy efficiency levels by industry, to allow companies to gauge progress relative to peers, driving industry-wide action and awareness.

Drive behaviour change by launching industry information campaigns on available technology and best practice.

Invest in industry-specific upskilling and reskilling to help people adapt their skills for greener jobs, particularly for energy intensity reduction activities that are imperative for ensuring that the green transition creates prosperity for all.

## Regulate

**Introduce minimum energy performance standards (MEPS) across industries.**

Ensure economic and sustainability benefits are incorporated into the cost-benefit analysis for energy efficiency-related policies.

Promote the uptake of energy management systems (EnMS), and energy measurement and management frameworks (e.g. ISO 50001).

Mandate energy audits.

Streamline permitting for energy efficiency projects.

Support standards and regulatory changes on data-sharing between grids and industry.

## Incentivize

**Build-in tax relief on investments in energy efficiency – e.g. faster equipment amortization.**

**Foster collaboration between industry players by providing targeted subsidies, grants or other market support mechanisms (e.g. offtake agreements).**

**Support electrification of industrial processes/equipment such as motors and heat sources for low-heat processes, which is closely tied with an increase in renewable energy supply.**

Support sharing of infrastructure and district energy approaches.

Support digital technologies and regulatory changes linking grids to industry that also reduce transmission losses.

Promote procurement of lower-energy materials and products in government procurement processes – e.g. through carbon contracts for difference.

**Note:** Top enablers chosen by IBC in bold

## CASE STUDY III

### Public sector action in industry (energy management systems)

From 2015-2017, the Mexican government undertook the CONUEE programme to promote energy management systems (EnMSs) among SMEs. This involved the dissemination of information and training of workers on EnMS.

The outcomes of these initiatives were annual energy savings of 57.7 gigawatt hours (GWh), 14.8 kilotonnes (kt) of CO<sub>2</sub> reduction in emissions, \$5 million saved in energy costs, and improvements in product quality and overall productivity.<sup>17</sup>



4

Key building blocks

# Enhance energy efficiency in the built environment

**Sector objective:** According to the IEA, retrofit rates for buildings should more than double to 2.5% per year to align with the doubling target by 2030.<sup>18</sup> Energy-consuming products, such as appliances including air conditioners and refrigerators, would also require 30-40% less energy to do the same job, with all markets mainly selling LED lighting by 2030.

This sector represents about 30% of global energy demand and approximately one-third of global GHG emissions.<sup>19</sup> This energy is used in construction, heating and cooling, lighting, and operating appliances and equipment installed in them.

**Key policy enablers:** IBC members have identified the three most important government actions as:

- i. Providing direct tax credits/incentives to support retrofitting and electrification efforts.
- ii. Creating minimum building efficiency codes for houses and commercial buildings that become more stringent over time.
- iii. Shortening administrative procedures, including permitting, for retrofit-related modifications.

**Table 5** lists the full list of policy enablers that IBC members have recommended.

TABLE 5 **Buildings**

<b>Inform</b>	<p>Facilitate access to key data such as energy performance certificates and risk-related data points.</p> <p>Provide digital public tools to track energy consumption.</p> <p>Launch public awareness campaigns.</p>
<b>Regulate</b>	<p><b>Create minimum efficiency standards for buildings, and related equipment inside buildings, that become more stringent over time, and harmonize these standards across industries and regions.</b></p> <p><b>Shorten administrative procedures, including permitting, for retrofit-related modifications.</b></p> <p>Strengthen testing and enforcement mechanisms for standards.</p> <p>Legislate to require green building design across new construction to align with a “net-zero” world. Align with leading international building standards on measurement of energy.</p>
<b>Incentivize</b>	<p><b>Implement programmes and allocate dedicated funding for widespread retrofitting interventions and electrification.</b></p> <p>Provide support for the creation and provision of green mortgages to fund retrofitting through tax incentives or insurance.</p> <p>Support digitalization of building management systems.</p> <p>Provide incentives for retrofitting to meet minimum standards.</p> <p>Invest in local energy communities to generate jobs and economic growth, as well as in critical material and recycling hubs.</p>

**Note:** Top enablers chosen by IBC in bold

## Public sector action in buildings (widespread retrofit)

In 2015, India recognized significant levels of wasted energy and cost in domestic lighting, which represented 27% of domestic energy due in part to the fact that only 0.4% of the installed lighting base comprised LEDs. Uptake was prevented by the high cost of LED bulbs, even though they use 75% less energy and last around 25 times longer than incandescent bulbs. The government overcame this barrier in four ways through its UJALA programme:

- Created a tender for large-scale LED bulb procurement.
- Signed offtake value chain agreements with state governments and utilities to distribute bulbs.

- Provided two payment options: upfront and on-bill repayments through electricity bills.
- Built swap schemes for rural households where one LED bulb could be swapped for a working incandescent bulb.

Creating economies of scale for LED bulbs lowered upfront costs per bulb to as low as \$0.8. This drove the uptake of more than 1.15 billion LED light bulbs by 2020, resulting in annual savings of over \$2.5 billion and around 47 billion kilowatt hours (kWh).<sup>20</sup>



5

# Support fuel-efficient transport

**Sectoral objective:** According to the IEA, cars will need to become 5% more efficient each year,<sup>21</sup> largely through electrification and a switch to smaller vehicles, to achieve the goal of doubling energy efficiency. Vehicles that use sustainable fuels also help to reduce emissions.

Transport constitutes the movement of goods and people (excluding off-road industrial vehicles). As a sector, it is responsible for 26% of global energy demand and 21% of GHG emissions.<sup>22</sup>

**Key policy enablers:** IBC members highlighted the following as the top three government actions that could increase their investment in energy efficient fleets or logistics networks:

- i. Incentives that support the uptake of zero- and low-emission vehicles
- ii. Policy action that ensures sufficient capacity and charging points for electric vehicles (EVs)
- iii. Adoption of international standards for energy efficiency.

TABLE 6 **Transport**

<b>Inform</b>	<p>Publish anonymous aggregate statistics on industry benchmarks.</p> <p>Set government travel policies to support lower carbon-intensity transport.</p>
<b>Regulate</b>	<p><b>Adopt international standards related to energy efficiency.</b></p> <p><b>Review grid infrastructure planning to ensure sufficient electrical capacity and connection points for EVs.</b></p> <p>Review planning legislation to ensure charging points are a priority focus and consider creating low-emission zones in cities.</p> <p>Use demand-based signals for phase-out of higher-emission vehicles, timed in collaboration with private actors.</p>
<b>Incentivize</b>	<p><b>Support positive incentives to encourage uptake of zero- and low-emission vehicles.</b></p> <p><b>Support incentives towards a modal shift, increased efficiency of internal combustion engines (ICEs) and hybridization.</b></p> <p>Support diversified, optimized route planning and infrastructure for multiple types of low- or zero-carbon fuels such as biodiesel, hydrogen and renewable natural gas (RNG), as well as electric charging.</p> <p>Adopt market-based mechanisms that incentivize efficiency and lower-carbon energy in a technology-neutral way.</p>

**Note:** Top enablers chosen by IBC in bold

## CASE STUDY V

### Public sector action in transport (EVs)

The shift from ICEs to EVs in Belgium – now around 50% of the new vehicles market – was accelerated using tax incentives for company cars. The programme included the gradual phasing out of the tax deductibility for ICEs by 2028

in favour of EVs (which maintain 100% deductibility) as well as providing 200% tax deductibility for charging points in the first years.<sup>23</sup>

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# Endnotes

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