

Israel's long-term low emissions development strategy (LT-LEDS): a unique challenge and opportunity

The development of Israel's long-term low emissions development strategy (LT-LEDS), a process led by the Ministry of Environmental Protection in Israel and supported by the OECD's Environment Directorate, provides a unique opportunity to align efforts across the government to create a low-emissions future. So far, 17 countries have submitted LT-LEDS to the UNFCCC¹. Insights from a number of these were drawn on by Israel in the development of its strategy².

A first recommendation is for Israel to enshrine the vision and targets of its LT-LEDS in national legislation, once developed and agreed.

Israel's greenhouse gas (GHG) emissions are small in global terms but have been rising in recent years. Carbon dioxide emissions in particular need to fall to zero on a net basis in the second half of this century, if Israel is to do its fair share in international efforts to reduce climate change risks. On present trends, emissions would rise from $80.18 \text{ MtCO}_2\text{e}$ in $2015 \text{ to nearly } 99.1 \text{ MtCO}_2\text{e}$ by 2030^3 , an increase of 23.6%. Electricity and transport would be the biggest emitting sectors with shares of 53% and 21% respectively.

Adopting a well-being lens: a road-map towards sustainability

To achieve the transformations required, Israel will need to put in place **policy packages to catalyse deep emission reductions**, including pricing to reflect social and not just private costs. This report by the OECD's Environment Directorate is one input to whole of government discussions for the development of a roadmap to support Israel's LT-LEDS. It sets out recommendations and supporting analysis to help the Ministry of Environmental Protection to identify the actions necessary in the near-term to reduce GHG emissions in the **electricity**, **residential** and **transport** sectors. While written before the COVID-19 crisis, this report can also inform decisions on Israel's recovery from the crisis; ensuring that these foster transformation in the sectors rather than lock them into "inferior" carbon-intensive paradigms that also entrench inequalities and reduce life quality more broadly.

Pricing carbon is a priority; embedding it in a well-being approach can increase its effectiveness and acceptability.

Tackling climate change is just one of Israel's policy priorities and climate action must be fully integrated into other societal agendas – income, jobs, affordable housing, reliable energy, improved accessibility, good air quality, health, life quality in cities, and biodiversity. These objectives cannot be pursued separately, either financially or substantively. The way in which societal challenges are tackled will have major implications for Israel's future GHG emissions and its resilience to increasingly severe and frequent climate impacts. The recommendations of this report build on the framework and analysis developed in the OECD report *Accelerating Climate Action: Refocusing Policies through a Well-being Lens*, which argued that the adoption of a "well-being lens" will help decision-makers to manage synergies and trade-offs between climate and broader goals; thus making climate policies more feasible to implement, politically, economically and socially. Embedding this approach into Israel's roadmap will facilitate the low-emissions transition.

¹UNFCCC (2020): Communication of long-term strategies

² Aguilar Jaber et al. (2020): Long-term low emissions development strategies: Cross-country experience

³ Ministry of Environmental Protection (2018): Israel's third national communication on climate change

Key recommendations

1. Electricity: Delivering sustainable electricity for all

Prioritise renewable energy over fossil fuel generation

- Natural gas can reduce GHG emissions in the near term, but jeopardises deep decarbonisation and broader wellbeing goals due to GHG emissions, NOx and other air pollutants.
- Electricity from solar PV is cheaper than that from gas and delivers multiple other benefits, e.g. improved health, rural development, job creation and export opportunities.
- Natural gas resources can be used in some industrial sectors or for export to countries with fewer renewable resources, generating valuable external revenues.

Align energy prices with social costs and address energy poverty

- Price fossil fuels according to their carbon content and external damages from extraction and use, including fugitive emissions in the gas supply chain, which should be measured and monitored.
- Improve incentives for energy efficiency and rooftop solar PV deployment by adjusting the (residential) electricity price to reflect its social costs. These will improve incentives for energy efficiency and rooftop solar PV deployment.
- Address the impacts of energy price reform on energy-poor households and energy-intensive firms, for example through targeted income transfers or dedicated programmes (e.g. deploy rooftop solar PV on social housing units).

Scale-up renewable electricity deployment

- Support distributed solar PV in a cost-effective way (e.g. incentives for self-consumption of solar generation).
- Remove administrative barriers (e.g. streamlining the permit procedure) and integrate other well-being objectives (e.g. development of industrial clusters to promote jobs in rural areas) into competitive tenders for utility-scale solar PV.
- Identify bottlenecks for new solar capacity in the sites for large-scale solar PV and invest in the transmission network accordingly.

Improve power system flexibility to support grid integration of renewables

- Create electricity markets to improve operational efficiency and enable new business models, improving power system flexibility (storage and demand response).
- Tap the potential of demand-side response in the residential sector (e.g. from air conditioners, refrigerators or heat pumps) through dynamic or time-of-use pricing.
- Incentivise renewable energy developers to provide electricity at times when it is most valuable, e.g. by investing in on-site storage for solar generation.

Enhance energy efficiency

- Implement and strengthen minimum energy performance standards, energy labels and marketbased instruments, including obligations for the Israel Electric Corporation (IEC).
- Strengthen energy efficiency policies targeted to energy-poor households (e.g. to replace old appliances).
- Promote electrification and map electrification pathways to estimate future power infrastructure needs (generation as well as network assets).





2. Residential: Delivering sustainable homes in compact and resilient cities

Action at the household level

- Green and circular public procurement for new houses can stimulate a sustainable construction and buildings industry, e.g. under the Strategic Housing Programme.
- Extend existing green building codes and establish emissions limits for existing and new dwellings.
- Catalyse deep retrofits through innovative financial mechanisms, e.g. soft loans, and the provision of information, e.g. on green leases to property owners and tenants.

Action beyond the household level

- Steer smart growth both in existing urban cores and in peripheral areas through: minimum density regulations, urban infill, and brownfield redevelopments.
- Use land value capture mechanisms, land assembly mechanisms and split-rate property taxation to help make cities more compact and sustainable.
- Promote the uptake of eco-neighbourhoods by making adequate funding available and linking it to standards that are
 more ambitious.
- Ensure the liveability of denser, more compact urban areas through adequate infrastructure and services, e.g. green space, water and waste management systems, and connections to accessible and frequent transport services and options.
- Simplify and enhance existing affordable housing assistance schemes to align climate and equity agendas, e.g. by widening the range of beneficiaries, determining assistance by need (i.e. backed by affordability analysis), and increasing rental supply, e.g. better enforcement of taxation on empty homes.



Devolve responsibility and increase the financial capacity of local governments

- Reform current property tax regulations that have created distortionary dependence on commercial and industrial properties taxes.
- Greater devolution of power, funding and responsibilities to local governments is necessary. Building on good practice
 across OECD, Israel can embark on a decentralisation process, providing greater autonomy and capacity to
 municipalities while ensuring coherence in planning and investment. The creation of metropolitan bodies
 could be part of this new institutional framework.
- In addition to the enhanced financial capacity of municipalities from larger governmental transfers that would arise from decentralisation, Israeli municipalities could look at innovative ways to promote cooperation of a range of public and private actors (e.g. inter-ministerial pool funding or Business Improvement Districts).

xx

3. Transport: decarbonising the sector through improved accessibility

Focus on accessibility (the ease to reach opportunities) instead of mobility to unlock important opportunities

- Use accessibility indicators to plan mobility systems and explicitly link land-use and housing decisions with public and active transport accessibility criteria.
- Develop appraisal methodologies that mainstream accessibility criteria. This will accelerate the implementation of the Strategic Plan for the Development of Public Transportation, allocating efficiently dedicated funds and steering more investment for public and active modes.

Manage road space and prioritise public and active transport modes

- Re-allocate and re-design roads to create a new user hierarchy where sustainable (i.e. low carbon, low space intensive modes) are prioritised over individual cars.
- Improve the use and management of road space through the use of:
 - o Parking fees and regulations aligned with the new user hierarchy (e.g. zoning indexed to public transport availability and city area). Liberated parking space can facilitate active transport (e.g. larger sidewalks and bicycle lanes).
 - o Congestion charging to reduce traffic in major cities. Distance and time differentiated schemes target more precisely the social costs of driving and bring better opportunities for the population to adapt.
- Promote alternatives to cars and consider targeted compensatory measures for populations disproportionally
 affected by new policies. A focus on revenue recycling can enhance public support for policy changes.

Better align fuel and car taxation with GHG emissions, environmental and social damages

- Phase out the tax benefits for diesel consumption (worth 0.28% of GDP in 2018).
- Regularly update the car purchase tax (already aligned with external costs), to maintain environmental benefits and limit erosion of the tax base.
- Consider the long-term replacement of fuel tax by distance and place based taxation, which can vary depending on vehicle characteristics.

Devolve responsibility, develop capacity and improve coherence

- Shift funding and responsibility to the local level within a framework that enables (or requires) the creation of Metropolitan Transport Authorities (MTAs) to provide responsiveness while avoiding overfragmentation of responsibilities. This will enhance public sector planning and regulatory capacity, a limitation of the current model.
- Develop fully functioning MTAs that have: defined responsibilities
 and formal authority with legal backing; secure financial and technical
 capacity; strategic level planning responsibilities; and predominant
 municipal representation in their governance structure (e.g. board of
 directors); and responsibilities beyond public transport (e.g. active
 modes, road management, road safety).
- Create a national policy for metropolitan and urban transport to: guide local policy and investment towards climate and well-being goals, standardise local planning tools, and bridge technical capacity gaps across territories.













