Information on Israel

GDP $306 billion; per capita $37,200 (2014)

Greenhouse Gas Emissions

- 76.04 million tons carbon dioxide equivalent ($MtCO_2e$) in 2014
    - Global emissions about 46 $GtCO_2e$
    - Emissions (in Israel) expected to reach 105.5 $MtCO_2e$ in 2030 (from 71 $MtCO_2e$ in 2005)
    - Israel contributes about 0.2% of global emissions
- Per capita emissions in 2014 – 9.26 tCO_2e (expected to be 10 tCO_2e in 2030 in BAU scenario)
- CO_2 is main greenhouse gas emitted, accounting for over 84% of all emissions
- Nearly 9% of emissions are methane; 3% are F gases
- 52% of total emissions are from the energy sector (power generation and refining activities)
- 22% of emissions are from the transport sector

Electricity

- Installed electricity capacity – 17,000 MW
    - Includes private power plants
    - 77% from Israel Electric Corporation (IEC)
- Growth rate of electricity demand is about 3.3% per year
- Electricity consumption expected to grow by 60% in 2030

Some Facts and Figures from the Energy Sector

Fuel mix (end of 2015)

- 45% coal
- 53% natural gas
- 2.6% renewables
    - Under 2030 BAU scenario: 10% renewables, 32% coal, 60% natural gas

Renewable Energy (end of 2015)

- Installed capacity is approximately 818 MW
    - About 2.6% renewables of total electricity generation
- Wind
    - National Scheme for zoning of wind energy approved in 2014
    - Quota for large scale wind farms is 730 MW
    - Wind farms of 28 MW (early 2016)
- Solar Energy
    - Most common technology is PV panels
        - About 780 MW installed capacity (rooftops, solar fields)
        - Total quota for PV approximately 1800 MW
- Biogas
    - 22 MW installed capacity
- Hydroelectric
    - 6.6 MW installed capacity
    - No additional potential under current technology
- Installed capacity predicted for 2020 is approximately 3500 MW

Green taxation

- Vehicle green taxation – purchase tax based on pollution levels
    - Each new vehicle receives a green score based on emission figures according to EU type approval measurements and external cost factors
    - Every two years the formula for calculating the green score is updated based on new weights for the externalities of each pollutant

Government Decisions

- 2008 - 20% reduction in electricity consumption in 2020 compared to 2006
    - Reduction of 16,000 million KWh
- 2009 – 10% of electricity generation will be from renewable sources by 2020
- 2009 – Greening government initiative with quantitative, measureable targets for energy conservation, water savings and waste reduction and recycling
- 2010 – 20% reduction in GHG emissions in 2020 (compared to BAU)
    - Reduction of 21 $MtCO_2e$
    - The National Plan for Reducing Greenhouse Gas Emissions was approved
- 2011 – National Program to Develop Technologies that Reduce the Global Use of Oil in Transportation
    - Reduce share of oil in transportation sector by 30% in 2020
- 2015 – Cancellation of National Plan for Reducing GHG Emissions (2010)
- 2015 – Reduction of GHG Emissions and Energy Efficiency - Reduces per capita greenhouse gas emissions to 7.7 tCO2e by 2030 (BAU 10 tCO_2e) – target submitted to UNFCCC; Sector specific targets include:

- Energy efficiency - 17% reduction in electricity consumption relative to BAU
- Renewable energy – 17% of the electricity generated will be from renewable sources
- Public transport – 20% shift from private to public transportation

- 2016 – National Plan for Implementation of the National Target for Reducing Greenhouse Gas Emissions and Energy Efficiency , includes:
  - Government guarantees over a period of ten years toward investment loans in energy efficiency and in reduction of greenhouse gas emissions;
  - A program awarding grants for investments in energy efficiency based on the cost of reducing a ton of GHG emission and kWh saved;
  - Preparation of a multi-year national plan for energy efficiency in 2030;
  - Identifying specific measures for the reduction of electricity consumption;
  - A detailed plan with means for reducing emissions from existing and new buildings;
  - Recommendations for minimizing obstacles for building electricity generating facilities from renewable energies;
  - Examining alternatives to coal for electricity generation.