Lithuania presents a partly unbalanced Trilemma triangle in 2019, ranking 34th globally, with strong performance in the Sustainability dimension driven by sustained improvement in all emissions indicators. Although the score for Security is lower, the historical trend index demonstrates rapid and marked improvements over the last five years, linked to new infrastructure for energy independence and policies for interconnection. Lithuania achieves a balanced grade of CBA.

**Trends and Outlook**

Lithuania is successfully developing waste energy and bio cogeneration plants in the two biggest cities, Vilnius and Kaunas. Start of operation is planned in 2020, and by implementing these CHPs, Lithuania will reach more than 80% district heat production from renewables.

Lithuania will play an essential role in the synchronization together with Latvian and Estonian electricity systems with Continental Europe by 2025. Lithuania opened power links with Poland and Sweden in December 2015. Preparation works are ongoing for another underwater power link to Poland (Harmony Link) for strengthening power connection with Western Europe. The Initial Cooperation Agreement between Lithuanian and Polish TSOs was signed in 2019.

Lithuania is making a significant shift towards increasing electricity consumers up to 30% by 2030 and no less than 50% in 2050. Green generation from renewables shall constitute 45% in electricity production and 60% in heat production by 2030 in Lithuania.

The digitalization of the energy sector and smart-meter installation roll-out has been initiated, but it faces challenges due to strict regulation preventing the increase of energy prices.

Lithuania is a regional LNG leader and is focusing on creating LNG hub in Klaipeda. Security of regional gas supply and competitive gas prices will be ensured after the gas interconnection Poland-Lithuania (GIP) is put into operation in 2021. Growing investments in the gas sector also is a challenge due to increasing infrastructure costs and decreasing gas consumption.

**Key metrics**

- **Energy security**
- **Import dependence**
- **Diversity of electricity generation**
- **Energy storage**
- **Energy equity**
- **Access to electricity**
- **Electricity prices**
- **Gasoline and diesel prices**
- **Environmental sustainability**
- **Final energy intensity**
- **Low carbon electricity generation**
- **CO2 emissions per capita**
- **Country context**
- **Macroeconomic stability**
- **Effectiveness of government**
- **Innovation capability**