Energy Supply Chain and Energy Security

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In general, supply chain security is a prominent part of energy security, which is defined as "uninterrupted availability of energy sources at an affordable price" by International Energy Agency (IEA). In more detail, energy security can be separated into two sub-definitions as short and longterm energy security. Short term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supplydemand balance. Here, sudden changes refer to level of readiness to any kind of shock interruption at energy supply because of terrorist attacks, wars, hurricane and so on. On the other hand, long term energy security mostly focuses on timely investments to supply energy in line with economic developments and environmental needs. Energy systems are essentially a supply chain comprising of multiple and interrelated subchains based around different fuels, different technologies in line with the type of fuels, infrastructures and actors, operating at different scales and locations from extraction, exports/imports and delivery to the end users. Therefore, management of this complex system is a key challenge for countries which import energy at different levels by means of different sources from single and/or multiple countries. From this point of view, this paper analyzes supply chain management at energy sector in the world and focuses on the potential risks for energy security of countries that are dependent to energy import like Turkey.

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