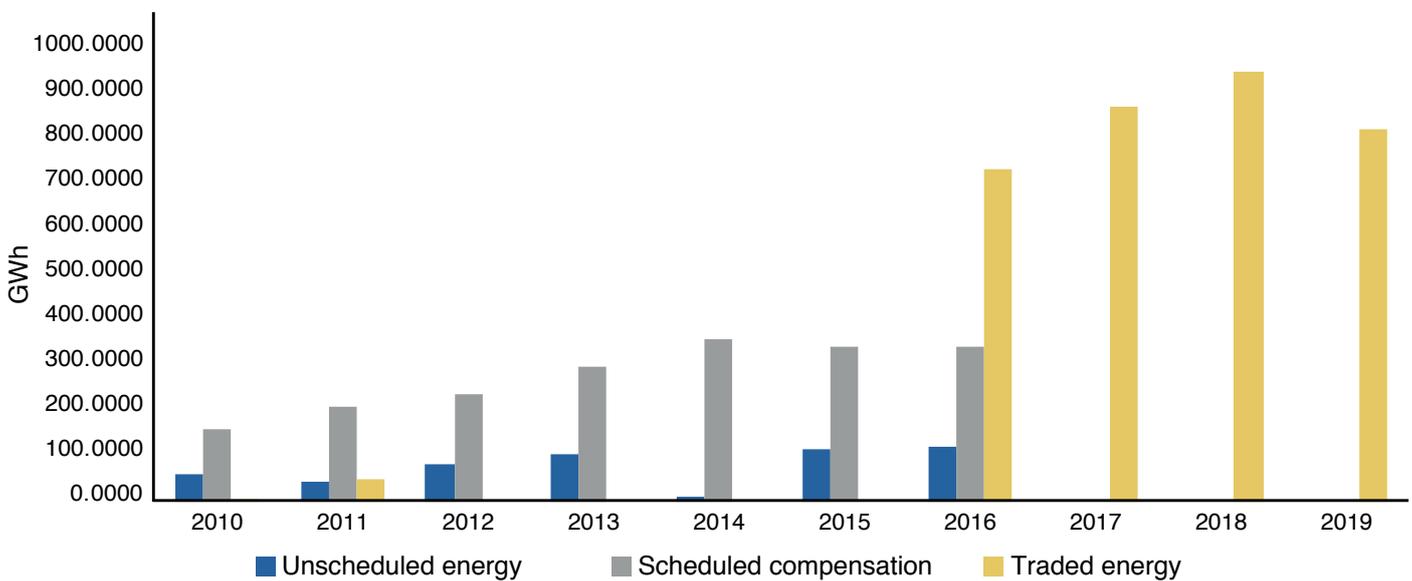


# Data Insight

02/04/2020

## Energy Exchanges on the GCCIA Interconnector

Figure 1. Energy Exchanges on the GCCIA Interconnector.



\*2019 data are up to September.

\*\*Unscheduled energy and scheduled compensation data for 2017-2019 are not publicly available.

- The Gulf Cooperation Council (GCC) interconnection grid has linked the national grids of the six GCC countries since 2011. It is run by the GCC Interconnection Authority (GCCIA). It has been primarily designed to provide GCC member countries with alternative sources of operating reserves to improve the security of the regions' power supply and support the reliability of supply during emergencies such as blackouts and unforeseen contingencies.
- The current design of the electricity markets of GCC member countries only allows bilateral energy exchange and settlements of trade imbalances on an in-kind basis, or in-cash basis, based on the tariff set by the regulators. This design is differentiated for peak and off-peak periods and is based on the volume of energy exchanged. The load dispatch centers of the respective GCC countries manage the exchange schedule, in coordination with the GCCIA.
- The chart above shows the growing trend of energy flows among GCC member countries for events such as emergencies, scheduled compensation and trade. However, the low volume of cross-border energy flows has resulted in the underutilization of the GCC interconnection grid's designed capacity (< 5%). A significant unutilized capacity shows the potential for future trade. The emergence of the GCC cross-border power market will further help improve asset utilization and enhance system reliability across the GCC.

- Unscheduled energy (illustrated in the chart above) is either compensated in kind or in cash. Scheduled compensation refers to the energy scheduled to compensate, in kind, for network losses and any unscheduled energy use. Traded energy refers to the scheduled exchange (import or export) between member countries based on bilateral agreements. The compensation for trade imbalances is based on the tariff set by the regulator and is differentiated between peak and off-peak periods.
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Access the related [dataset](#) from the KAPSARC data portal for further analysis of GCCIA interconnector data. For more information, please refer to KAPSARC workshop brief, electricity market integration in the GCC and MENA.

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#### Sources:

1. The GCC Interconnection Authority. 2019.
  2. John O' Hanlon. 2016. "The Power of Six - a Super Grid in the Gulf."
  3. Ahmad Al-Ebrahim. 2011. "The GCC Smart Transmission Grid Latest Updates." *Smart Energy Middle East*.
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[View this Data Insight online with interactive charts](#)

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