Agent-based energy systems modelling: MUSE

LECTURE 6 QUIZZES

4.1. Sectors in MUSE

1. What is a reason that residential energy demand can change in a country?
   1. Different climates
   2. Levels of development
   3. **Both of the above**
2. What is an impact that technology options could have in the residential sector?
   1. Environment
   2. Health
   3. **Both of the above**

4.2. The transport sector in MUSE

How much of global emissions is the transport sector estimated to be responsible for?

* 1. 1%
  2. **15%**
  3. 70%

1. Why is it difficult to decarbonize the whole transport sector?
   1. **Energy density of lithium-ion technologies**
   2. The technology doesn’t exist
   3. Both of the above

4.3. The industrial and commercial sectors

Why does the commercial sector typically have a lower energy demand than the industrial sector?

* 1. Commercial processes are typically less energy intense
  2. The commercial sector typically doesn’t require heavy machinery
  3. **Both of the above**

1. Can we use an energy balance to estimate industry demands?
   1. **Yes**
   2. Only for some industries
   3. Never

4.4. Sector coupling

1. What is sector coupling?
   1. **Where we connect energy demands and processes across differing sectors**
   2. When we only have two sectors
   3. Both of the above
2. What is not an example of sector coupling?
   1. Production of hydrogen from renewables
   2. Use of electricity in the transport sector
   3. **Both of the above**