

**Joint IEA for EU4 Energy/UNECE/UNESCAP Statistics Workshop**

**Session 3: SEEA Energy, Group Exercise**

**The scenario:**

1. The mining industry extracts 150 PJ of coal.
2. 60 PJ of electricity are generated from solar panels,
3. All the coal is sent for processing to the coal power plant.
  - ☒ However, due to losses during extraction, the coal power plant received 140 PJ of coal.
4. The remaining supply of coal is converted to energy and heat.
  - ☒ The coal power plant produces 75 PJ of electricity and 35 PJ of heat.
  - ☒ Losses during transformation account for the rest of the coal supply.
5. The resulting electricity from solar and coal is used as follows:
  - ☒ Mining 15 PJ, manufacturing 20 PJ, Electricity 32 PJ and with households consuming the rest of the electricity.
6. Households use 26 PJ of heat, electricity sector uses 2 PJ and the rest is used by mining.

**Physical supply table for energy**

	Mining (ISIC B)	Manufacturing (ISIC C)	Electricity (ISIC D)	Households	Flows from the environment	Total
<b>Energy from natural inputs</b>						
Coal						
Solar						
<b>Energy products</b>						
Coal						
Electricity						
Heat						
<b>Energy residuals</b>						
Extraction						
Transformation						
Other						
<b>Total</b>						

**Physical use table for energy**

	Mining (ISIC B)	Manufacturing (ISIC C)	Electricity (ISIC D)	Households	Flows to the environment	Total
<b>Energy from natural inputs</b>						
Coal						
Solar						
<b>Energy products</b>						
Coal (Transformation)						
Electricity (End use)						
Heat (End use)						
<b>Energy residuals</b>						
Extraction						
Transformation						
Other						
<b>Total</b>						

- 1 & 2: Supply of energy from environment to industry (users)
3. Calculate amount of coal supplied & amount lost during extraction
4. Calculate total amount of electricity & heat supplied (coal + solar), losses during transformation
5. Allocate use of electricity to appropriate users.
6. Allocate use of heat to appropriate users
7. Calculate "other" energy residuals (sum of energy products used)
8. Check totals