

Emission (Baseline) = emissions from fuel combustion for heat + emissions from electricity use

Emission (Project) = emissions from fuel combustion for heat + emissions from electricity use

Emission reduction = Emission (Baseline) – Emission (Project)

Households:

- Three households in a ger, grid-connected, uses fossil fuel for heating (1)
- One household in a house, off-grid, combined mix of electric heater and fossil fuel for heating (2)
- One household in a house, grid-connected, uses electric heater for heating (3)

Households (1)

Reference methods:

- Tool 03. Methodological tool. Tool to calculate project or leakage CO2 emissions from fossil fuel combustion, Ver 3.0 ([To calculate CO2 emissions from fossil fuel combustion](#))
- AMS-I.A.: Small-scale methodology: Electricity generation by the user, Ver 18.0 ([To calculate carbon emissions reductions from transition into renewables](#))

### **Emissions from heating**

$$PE_{FC,j,y} = \sum FC \times COEF_{i,j,y} i,y$$

FC – quantity of fuel combusted (mass or volume unit/yr)

$COEF_{i,j,y} i,y$  – CO2 emission coefficient of fuel (tCO<sub>2</sub>/mass or volume unit)

$$COEF_{i,j,y} i,y = w_{c,l,y} \times 44/12$$

### **Data requirements:**

- Annual combusted fuel amount, t

Emission factor of coal briquette:

- Calorie – 6400
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### **Emissions from electricity**

$$BE = E_{BL,y} \times EF_{CO2,y}$$

Where:

$BE_y$  = Baseline emissions in year y (tCO<sub>2</sub>)

$E_{BL,y}$  = Energy baseline in year y (kWh)

$EF_{CO2,y}$  = Emission factor (tCO<sub>2</sub>/kWh)

### Хүснэгт 27 Улаанбаатар хотын ТЭЦ-үүдийн хүлэмжийн хийн ялгарал

Үзүүлэлт	нэгж	ТЭЦ-2	ТЭЦ-3	ТЭЦ-4	УБ хот
Нүүрсний жилийн хэрэглээ	мян.тонн	254	1305.4	3495.5	5055.0
ЦЭХ-ний үйлдвэрлэл.нүүрсний хэрэглээ	мян.тн	201.9	676.3	2315.5	3193.7
ДЭХ-ний үйлдвэрлэл.нүүрсний хэрэглээ	мян.тн	52.1	629.1	1180.0	1861.2
ТЭЦ,ЦЭХ-ний үйлдвэрлэл, CO2-ын ялгарал	мян.тн CO2	236.2	791.2	2709.2	3736.6
ТЭЦ, ДЭХ-ний үйлдвэрлэл, CO2-ын ялгарал	мян.тн CO2	61.0	736.1	1380.6	2177.6
ТЭЦ-ийн CO2-ын ялгарал	мян.тн CO2	297.2	1527.3	4089.7	5914.2
Нэг кВт.ц ЦЭХ-ний үйлдэрлэлд ногдох CO2-ын ялгарал,	кг CO2/кВт.ц	1.49	0.75	0.68	0.75
Түгээсэн ГДж дулааны CO2-ын ялгарал	кг CO2/ГДж	98.6	85.7	84.3	87.0

#### Household (2)

Reference methods:

- Tool 03. Methodological tool. Tool to calculate project or leakage CO2 emissions from fossil fuel combustion, Ver 3.0 ([To calculate CO2 emissions from fossil fuel combustion](#))
- AMS-I.L.: Small-scale methodology: Electrification of rural communities using renewable energy, Ver 03.0 ([To calculate carbon emissions reductions from electricity](#))

#### Household (3)

Reference methods:

- AMS-I.A.: Small-scale methodology: Electricity generation by the user, Ver 18.0 ([To calculate carbon emissions reductions from transition into renewables](#))

2 tulshnii emission factor olson. Used tool 03.

Default emission factor for solar panel, 0.8. I.L tool.

Electricity-gees garah g olohin tuld 4r tsahilgan stantsiig ashiglasan: