



Corrigendum: Marginal Abatement Cost Curve of Industrial CO₂ Capture and Storage – A Swedish Case Study

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A Corrigendum on

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In the original article, there were two typographical errors in the citations included in the foot notes of Table 5 as published. In foot note 1, the citation to Garðarsdóttir et al. (2018) was incorrectly written as Güleç et al. (2020). In footnote 2, the citation to Kjærstad et al. (2016) was incorrectly written as Skogsindustrierna (2016). The corrected Table 5 appears below.

In the original article, information was missing in the reference for European Environment Agency [EEA] (2016), which was incorrectly written as European Environment Agency [EEA] (2016). *European Pollutant Release and Transfer Register (E-PRTR)*. Copenhagen: European Environment Agency. It should be European Environment Agency [EEA] (2016). *European Pollutant Release and Transfer Register (E-PRTR)*. Copenhagen: European Environment Agency. Available online at: <http://prtr.eea.europa.eu/#/facilitylevels> (accessed September 30, 2018).

In the original article, the reference for Swedish Ministry of the Environment (2017) was incorrectly written as Government Offices of Sweden, and Ministry of the Environment and Energy (2017). *The Swedish Climate Policy Framework*. Stockholm: Ministry of the Environment. It should be Swedish Ministry of the Environment (2017). *The Swedish Climate Policy Framework*. Stockholm: Government Offices of Sweden; Ministry of the Environment.

In the original article, the reference for Skogsindustrierna (2016) was incorrectly written as Skogsindustrierna, (2016). *Skogsindustriernas Miljödatabas (Forest Industries Environmental Database)*. Bentley, WA: Forest Industries Federation. It should be Skogsindustrierna (2016). *Skogsindustriernas Miljödatabas Forest Industries Environmental Database*. Stockholm: Swedish Forest Industries Federation. Available online at: <http://miljodatabas.skogsindustrierna.org/> (accessed August 31, 2018).

In the original article, information was missing in the reference for Swedish Environmental Protection Agency [SEPA] (2016a), which was incorrectly written as Swedish Environmental Protection Agency [SEPA], (2016a). *Statistik och Uppföljning*. Stockholm: Environmental Protection Agency. It should be Swedish Environmental Protection Agency [SEPA], (2016a). *Statistik och Uppföljning*. Stockholm: Swedish Environmental Protection Agency. Available online at: <https://www.naturvardsverket.se/Miljoarbete-i-samhallet/Miljoarbete-i-Sverige/Uppdelat-efter-omrade/Utslappshandel/Resultat-och-uppfoljning> (accessed March 31, 2018).

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Pollutant Release and Transfer Register (PRTR). Stockholm: **Swedish Environmental Protection Agency**. Available online at: <https://utslappisiffror.naturvardsverket.se/Sok/> (accessed March 31, 2018).

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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TABLE 5 | Mapping of potential for implementing carbon capture and storage at Swedish emission sources >500 kt/a.

| ID-#/Heat Potential | CAPEX | OPEX | | TOTAL | Transport Hub ² | Distr. Heat ⁴ | Heat estimate ⁵ |
|---------------------|-------------------|-------------|----------------|---------------------------|----------------------------|--------------------------|----------------------------|
| | M€/a ¹ | Fixed, M€/a | Variable, M€/a | Spec., €/tCO ₂ | | | |
| C-1 ^{6,7} | 13 | 6 | 10 | 61 | #6 | | ChIcaSP Quant. |
| IS-1 ³ | 22 | 9 | 33 | 40 | #1 | yes | ChIcaSP Quant. |
| IS-2 ³ | 13 | 6 | 14 | 42 | #1 | | ChIcaSP Quant. |
| IS-3 | | | | | #4 | | ChIcaSP Desc. |
| St. 1 | 6 | 3 | 6 | 67 | | | |
| St. 2 | 6 | 3 | 6 | 67 | | | |
| St. 3 | 10 | 5 | 8 | 43 | | | |
| MI-1 | 22 | 10 | 30 | 40 | #4 | yes | Other |
| PP-01 | | | | | #4 | yes | ChIcaSP Quant. |
| St. 1 | 20 | 9 | 27 | 45 | | | |
| St. 2 | 5 | 3 | 4 | 76 | | | |
| PP-02 | | | | | #2 | | Other |
| St. 1 | 20 | 9 | 32 | 49 | | | |
| St. 2 | 5 | 3 | 4 | 76 | | | |
| PP-03 | | | | | #2 | | Other |
| St. 1 | 18 | 8 | 27 | 51 | | | |
| St. 2 | 5 | 3 | 4 | 80 | | | |
| PP-04 | | | | | #6 | yes | Other |
| St. 1 | 16 | 7 | 23 | 53 | | | |
| St. 2 | 4 | 3 | 3 | 85 | | | |
| PP-05 | | | | | #2 | yes | Other |
| St. 1 | 16 | 7 | 22 | 53 | | | |
| St. 2 | 4 | 3 | 3 | 86 | | | |
| PP-06 ⁸ | | | | | #2 | yes | ChIcaSP Quant. |
| St. 1 | 15 | 7 | 17 | 50 | | | |
| St. 2 | 4 | 2 | 3 | 89 | | | |
| PP-07 | | | | | #1 | yes | Other |
| St. 1 | 15 | 7 | 20 | 54 | | | |
| St. 2 | 4 | 2 | 3 | 90 | | | |
| PP-08 | | | | | #4 | yes | Other |
| St. 1 | 14 | 6 | 18 | 56 | | | |
| St. 2 | 4 | 2 | 2 | 94 | | | |
| PP-09 | | | | | #5 | yes | Other |
| St. 1 | 13 | 6 | 17 | 56 | | | |
| St. 2 | 4 | 2 | 2 | 95 | | | |
| PP-10 ⁸ | | | | | #6 | yes | ChIcaSP Desc. |
| St. 1 | 13 | 6 | 14 | 52 | | | |
| St. 2 | 4 | 2 | 2 | 95 | | | |
| PP-11 | | | | | #6 | yes | Other |
| St. 1 | 13 | 6 | 17 | 56 | | | |
| St. 2 | 4 | 2 | 2 | 96 | | | |
| PP-12 | | | | | #2 | yes | ChIcaSP Quant. |
| St. 1 | 13 | 6 | 16 | 57 | | | |
| St. 2 | 4 | 2 | 2 | 97 | | | |
| PP-13 | | | | | #1 | | ChIcaSP Desc. |
| St. 1 | 13 | 6 | 16 | 57 | | | |
| St. 2 | 4 | 2 | 2 | 99 | | | |

(Continued)

TABLE 5 | Continued

| ID-#/Heat Potential | CAPEX | OPEX | | TOTAL | Transport Hub ² | Distr. Heat ⁴ | Heat estimate ⁵ |
|---------------------|-------------------|-------------|----------------|---------------------------|----------------------------|--------------------------|----------------------------|
| | M€/a ¹ | Fixed, M€/a | Variable, M€/a | Spec., €/tCO ₂ | | | |
| PP-14 | 12 | 5 | 14 | 59 | #5 | yes | Other |
| PP-15 | | | | | #1 | yes | Other |
| St. 1 | 11 | 5 | 12 | 60 | | | |
| St. 2 | 3 | 2 | 2 | 108 | | | |
| PP-16 | | | | | #4 | yes | Other |
| St. 1 | 11 | 5 | 12 | 60 | | | |
| St. 2 | 3 | 2 | 2 | 108 | | | |
| PP-17 | | | | | #2 | | ChICaSP Desc. |
| St. 1 | 10 | 5 | 11 | 61 | | | |
| St. 2 | 3 | 2 | 1 | 112 | | | |
| PP-18 | | | | | #2 | | Other |
| St. 1 | 10 | 5 | 11 | 62 | | | |
| St. 2 | 3 | 2 | 1 | 114 | | | |
| PP-19 | | | | | #6 | | Other |
| St. 1 | 9 | 5 | 10 | 64 | | | |
| St. 2 | 3 | 2 | 1 | 120 | | | |
| PP-20 | 9 | 4 | 9 | 64 | #2 | | Other |
| R-1 ⁷ | | | | | #6 | | ChICaSP Quant. |
| St. 1 | 8 | 4 | 7 | 50 | | | |
| St. 2 | 10 | 5 | 9 | 66 | | | |
| St. 3 | 8 | 4 | 8 | 70 | | | |
| St. 4 | 6 | 3 | 5 | 75 | | | |
| R-2 ⁷ | | | | | #6 | yes | Other |
| St. 1 | 8 | 4 | 5 | 66 | | | |
| St. 2 | 6 | 3 | 5 | 82 | | | |
| R-3 ⁷ | | | | | #6 | yes | ChICaSP Quant. |
| St. 1 | 7 | 4 | 5 | 67 | | | |
| St. 2 | 6 | 3 | 4 | 83 | | | |

Heat availability: Green > 1 MJ/kg CO₂ emitted, Red no significant potential for low-cost steam generation.

¹Adopted from the work by Garðarsdóttir et al. (2018). ²Adopted from the work by Kjærstad et al. (2016). ³IS-1 is a CHP plant integrated with the IS-2 steel mill. ⁴Potential competition with district heating. ⁵Method for excess heat estimation: ChICaSP Quant.) Quantitative estimate based on data available in case study portfolio, ChICaSP Desc.) Descriptive assessment based on information in case study portfolio Other) Estimate based on comparison with models or similar sites. ⁶Part of industrial cluster. Excess heat assumed to be available also from neighboring process plants. ⁷Excess heat potential strongly dependent on temperature requirement. ⁸Mill increased capacity significantly after 2016. Excess heat estimation made for prospective future production levels and site energy system.