**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**DIVISION 253**

**OREGON CLEAN FUELS PROGRAM**

**340-253-8010**

**Table 1 — Oregon Clean Fuel Standard for Gasoline and Gasoline Substitutes**

| Oregon Department of Environmental QualityTable 1 – 340-253-8010**Oregon Clean Fuel Standard for Gasoline and Gasoline Substitutes** |
| --- |
| **Calendar Year** | **Oregon Clean Fuel Standard (gCO2e per MJ)** | **Percent Reduction** |
| 2015 | None (Gasoline Baseline is 98.62) |
| 2016\* | 98.37  | 0.25 percent |
| 2017 |  98.13 | 0.50 percent |
| 2018 |  97.63 | 1.00 percent |
| 2019 |  97.14 | 1.50 percent |
| 2020 |  96.15 | 2.50 percent |
| 2021 |  95.17 | 3.50 percent |
| 2022 |  93.69 | 5.00 percent |
| 2023 |  92.21 | 6.50 percent |
| 2024 |  90.73 | 8.00 percent |
| 2025 and beyond |  88.76 | 10.00 percent |

[ED. NOTE: Tables referenced are not included in rule text. [Click here for PDF copy of table(s)](http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/_340_tables/340-253-8010_12-10-15.pdf).]

Stat. Auth.: ORS 468.020, ORS 468A.275
Stats. Implemented: ORS 468A.275
Hist.: DEQ 3-2015, f. 1-8-15, cert. ef. 2-1-15; DEQ 13-2015, f. 12-10-15, cert. ef. 1-1-16

**340-253-8020**

**Table 2 — Oregon Clean Fuel Standard for Diesel Fuel and Diesel Substitutes**

| State of Oregon Department of Environmental QualityTable 2 – 340-253-8020**Oregon Clean Fuel Standard for Diesel Fuel and Diesel Substitutes** |
| --- |
| **Calendar Year** | **Oregon Clean Fuel Standard (gCO2e per MJ)** | **Percent Reduction** |
| 2015 | None (Diesel Baseline is 99.64) |
| 2016\* | 99.39 | 0.25 percent |
| 2017 |  99.14 | 0.50 percent |
| 2018 |  98.64 | 1.00 percent |
| 2019 |  98.15 | 1.50 percent |
| 2020 |  97.15 | 2.50 percent |
| 2021 |  96.15 | 3.50 percent |
| 2022 |  94.66 | 5.00 percent |
| 2023 |  93.16 | 6.50 percent |
| 2024 |  91.67 | 8.00 percent |
| 2025 and beyond |  89.68 | 10.00 percent |

[ED. NOTE: Tables referenced are not included in rule text. [Click here for PDF copy of table(s)](http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/_340_tables/340-253-8020_12-10-15.pdf).]

Stat. Auth.: ORS 468.020, ORS 468A.275
Stats. Implemented: ORS 468A.275
Hist.: DEQ 3-2015, f. 1-8-15, cert. ef. 2-1-15; DEQ 13-2015, f. 12-10-15, cert. ef. 1-1-16

**340-253-8030**

**Table 3 — Oregon Carbon Intensity Lookup Table for Gasoline and Gasoline Substitutes**

| Oregon Department of Environmental QualityTable 3 – 340-253-8030 **Oregon Carbon Intensity Lookup Table for Gasoline and Gasoline Substitutes** |
| --- |
| **Fuel** | **Pathway Identifier** | **Pathway Description** | **Carbon Intensity Values (gCO2e/MJ)** |
| **Direct Lifecycle Emissions** | **Land Use or Other Indirect Effect** | **Total Emissions** |
| Gasoline | ORGAS001 | Clear gasoline - based on a weighted average of gasoline supplied to Oregon | 100.77 | - | 100.77 |
| ORGAS002 | Blended gasoline (E10) - 90% clear gasoline & 10% corn ethanol based on Midwest average  | 98.54 | - | 98.54 |
| Ethanol from Corn | ORETHC001 | Midwest average - MW corn; Dry Mill; NG; MW production | 62.29 | 7.60 | 69.89 |
| ORETHC002 | Oregon average - MW corn; Dry Mill; NG; Oregon production | 57.08 | 7.60 | 64.68 |
| Ethanol from Sugarcane | ORETHS001 | Brazilian sugarcane base case | 39.24 | 11.80 | 51.04 |
| Ethanol from Sorghum | ORETHG001 | Sorghum; average | 66.96 | 19.40 | 86.36 |
| Ethanol from Molasses | ORETHM001 | Molasses; average | 41.03 | 11.80 | 52.83 |
| Compressed Natural Gas | ORCNG001 | North American NG delivered via pipeline; compressed in OR | 79.93 | - | 79.93 |
| ORCNG002 | Landfill gas (biomethane) cleaned up to pipeline quality NG; compressed in OR | 50.26 | - | 50.26 |
| Liquefied Natural Gas | ORLNG001 | North American NG delivered via pipeline; liquefied in OR using liquefaction with 80% efficiency | 94.46 | - | 94.46 |
| ORLNG002 | Landfill Gas (biomethane) to LNG liquefied in OR using liquefaction with 80% efficiency | 65.81 | - | 65.81 |
| Liquefied Petroleum Gas | ORLPG001 | Liquefied petroleum gas | 83.05 | - | 83.05 |
| Electricity | ORELC001 | Oregon average electricity mix | 31.85 | - | 31.85 |

**NOTE**: DEQ recognizes that indirect effects, including indirect land use change, are real. However the methodologies to quantify these effects are still in development. DEQ intends to monitor the science of indirect effect and will adjust carbon intensity values through future rulemaking as methodologies improve.

[ED. NOTE: Tables referenced are not included in rule text. [Click here for PDF copy of table(s)](http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/_340_tables/340-253-8030_12-10-15.pdf).]

Stat. Auth.: ORS 468.020, ORS 468A.275
Stats. Implemented: ORS 468A.275
Hist.: DEQ 8-2012, f. & cert. ef. 12-11-12; DEQ 15-2013(Temp), f. 12-20-13, cert. ef. 1-1-14 thru 6-30-14; DEQ 8-2014, f. & cert. ef. 6-26-14; Renumbered from 340-253-3010 by DEQ 3-2015, f. 1-8-15, cert. ef. 2-1-15; DEQ 13-2015, f. 12-10-15, cert. ef. 1-1-16

**340-253-8040**

**Table 4 — Oregon Carbon Intensity Lookup Table for Diesel and Diesel Substitutes**

| Oregon Department of Environmental QualityTable 4 – 340-253-8040**Oregon Carbon Intensity Lookup Table for Diesel and Diesel Substitutes** |
| --- |
| **Fuel** | **Pathway Identifier** | **Pathway Description** | **Carbon Intensity Values (gCO2e/MJ)** |
| **Direct Lifecycle Emissions** | **Land Use or Other Indirect Effect** | **Total Emissions** |
| Diesel | ORULSD001 | Clear diesel, based on a weighted average of diesel fuel supplied to Oregon | 101.65 | - | 101.65 |
| ORULSD002 | Blended diesel (B5) - 95% clear diesel & 5% soybean biodiesel | 99.64 | - | 99.64 |
| Biodiesel | ORBIOD001 | Conversion of Midwest soybeans to biodiesel | 29.15 | 29.10 | 58.25 |
| ORBIOD002 | Conversion of Used Cooking Oil to biodiesel where "cooking" is required; NW UCO; Oregon production | 18.12 | - | 18.12 |
| ORBIOD003 | Conversion of tallow to biodiesel; MW tallow; MW production | 37.93 | - | 37.93 |
| ORBIOD004 | Conversion of canola oil to biodiesel | 43.34 | 14.50 | 57.84 |
| ORBIOD005 | Conversion of corn oil to biodiesel | 36.89 | - | 36.89 |
| Renewable Diesel | ORRNWD001 | Conversion of soybeans to renewable diesel | 23.15 | 29.10 | 52.25 |
| ORRNWD002 | Conversion of Used Cooking Oil to renewable diesel | 19.25 | - | 19.25 |
| ORRNWD003 | Conversion of tallow to renewable diesel | 29.96 | - | 29.96 |
| ORRNWD004 | Conversion of canola oil to renewable diesel | 35.48 | 14.50 | 49.98 |
| ORRNWD005 | Conversion of corn oil to renewable diesel | 33.64 | - | 33.64 |
| Compressed Natural Gas | ORCNG001 | North American NG delivered via pipeline; compressed in OR | 79.93 | - | 79.93 |
| ORCNG002 | Landfill gas (biomethane) cleaned up to pipeline quality NG; compressed in OR | 50.26 | - | 50.26 |
| Liquefied Natural Gas | ORLNG001 | North American NG delivered via pipeline; liquefied in OR using liquefaction with 80% efficiency | 94.46 | - | 94.46 |
| ORLNG002 | Landfill Gas (bio-methane) to LNG liquefied in OR using liquefaction with 80% efficiency | 65.81 | - | 65.81 |
| Liquefied Petroleum Gas | ORLPG001 | Liquefied petroleum gas, crude and natural gas mix | 83.05 | - | 83.05 |

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Stat. Auth.: ORS 468.020, ORS 468A.275
Stats. Implemented: ORS 468A.275
Hist.: DEQ 8-2012, f. & cert. ef. 12-11-12; DEQ 15-2013(Temp), f. 12-20-13, cert. ef. 1-1-14 thru 6-30-14; DEQ 8-2014, f. & cert. ef. 6-26-14; Renumbered from 340-253-3020 by DEQ 3-2015, f. 1-8-15, cert. ef. 2-1-155; DEQ 13-2015, f. 12-10-15, cert. ef. 1-1-16