

GEW35-14

602.2.1, Table 602.2.1

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Revise as follows:

602.2.1 Onsite electricity. Emissions associated with use of electric power shall be based on electric power excluding any renewable or recovered waste energy covered under Section 602.2.1. Emissions shall be calculated by converting the electric power used by the building at the electric utility meter or measured point of delivery, to MWhs, and multiplying by the CO₂e conversion factor in Table 602.2.1 based on the EPA eGRID Sub-region in which the building is located.

**TABLE 602.2.1
ELECTRICITY EMISSION RATE BY EPA eGRID SUB-REGION^a**

eGRID-2007-SUB-REGION ACRONYM	eGRID-2007-SUB-REGION NAME	2005 CO ₂ e RATE AFTER 2015 (lbs/MWh)
AKGD	ASCC-Alaska-Grid All regions of the US	1270 0.0
AKMS	ASCC-Miscellaneous	515
ERCT	ERCOT-All	1417
FRCC	FRCC-All	1416
HIMS	HICC-Miscellaneous	1595
HIOA	HICC-Oahu	18594
MORE	MRO-East	1974
MROW	MRO-West	1957
NYLI	NPCC-Long-Island	1651
NEWE	NPCC-New-England	999
NYCW	NPCC-NYC/Westchester	874
NYUP	NPCC-Upstate-NY	774
RFGE	RFC-East	1224
RFCM	RFC-Michigan	1680
RFCW	RFC-West	1652
SRMW	SERC-Midwest	1966
SRMV	SERC-Mississippi-Valley	1094
SRSO	SERC-South	1601
SRTV	SERC-Tennessee-Valley	1623
SRVC	SERC-Virginia/Carolina	1220
SPNO	SPP-North	2406

eGRID-2007-SUB-REGION ACRONYM	eGRID-2007-SUB-REGION NAME	2005 CO ₂ e RATE AFTER 2015 (lbs/MWh)
SPSO	SPP-South	4780
CAMX	WECC-California	768
NWPP	WECC-Northwest	958
RMPA	WECC-Rockies	1999
AZNM	WECC-Southwest	1391

a. Sources: EPA eGRID2007 Version 1.1, 2005 data; EPA eGrid regional gross-grid loss factor.

Reason: Table 602.2.1 has values that are significantly out of date (2005) and do not reflect the realities of indirect emissions from electricity production that will occur as a result of federal policies.

In terms of the numbers, the US Energy Information Administration has published the Electric Power Annual 2012, which can be accessed at the following web site: <http://www.eia.gov/electricity/annual/>. Table 9.1 of this document shows that between 2005 and 2012, the electric power sector has:

- -Reduced its emissions of CO₂ by 15.2%.
- -Reduced its emissions of SO₂ by 64.2%
- -Reduced its emissions of NO_x by 45.8%

This occurred at the same time that overall net generation was down very slightly (-0.2% from 2005 to 2012). Therefore, the values shown in the table are overstated by at least 15% on a national level, and even more in certain sub-regions of the United States.

In addition, the table does not account for the fact that power plant emissions are capped in CA and in all of the states that are part of the Regional Greenhouse Gas Initiative (RGGI) in the Northeastern part of the US.

Also, in September 2013, the US EPA published a rule that caps the emissions of greenhouse gases from all new fossil-fueled power plants that will be built in the United States. Information on this rule can be found at the following web site: <http://www2.epa.gov/carbon-pollution-standards/regulatory-actions>

EPA is also planning to regulate the emissions from all existing power plants in the United States. This rule is scheduled to be published by June 2014, to take effect in 2015 or 2016.

The impact of all of these regulations and programs is to "decouple" power plant emissions from building electricity use. Where upstream power plant emissions are capped by local, regional, or national laws, there is no impact on emissions as a result of building energy efficiency measures. The US Department of Energy analyzes the impact of appliance efficiency standards on emissions, and for the past several years, uses the following language when discussing the impact of appliance efficiency standards on certain emissions that are capped. For example, in the Furnace Fan Motors Technical Support Document, June 2012 <http://www.regulations.gov/#!documentDetail;D=EERE-2010-BT-STD-0011-0037> it states for Sulfur Dioxide (Chapter 15.2.2), which is capped on a national basis in the United States: "While there remains some uncertainty about the ultimate effects of efficiency standards on SO₂ emissions covered by the existing cap and trade system, the **NEMS-BT modeling system that DOE uses to forecast emissions reductions currently indicates that no physical reductions in power sector emissions would occur for SO₂**." (emphasis added)

It also states for Nitrogen Oxides (Chapter 15.2.3), which is capped on a regional basis in the United States: "Therefore, energy conservation standards for electric motors may have little or no physical effect on these emissions in the 28 eastern states and the D.C."

After EPA finalizes its rules on new and existing power plants, the same logic will apply to greenhouse gases, that any changes to building electric usage as a result of this standard will have no impact on upstream and indirect emissions from power plants.

Therefore, the current table should be removed and replaced with the suggested table.

Cost Impact: Will not increase the cost of construction.

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