

Presentation on behalf of

# WTE in ADB's Energy and Policy Program: Undermining climate mitigation and a circular economy

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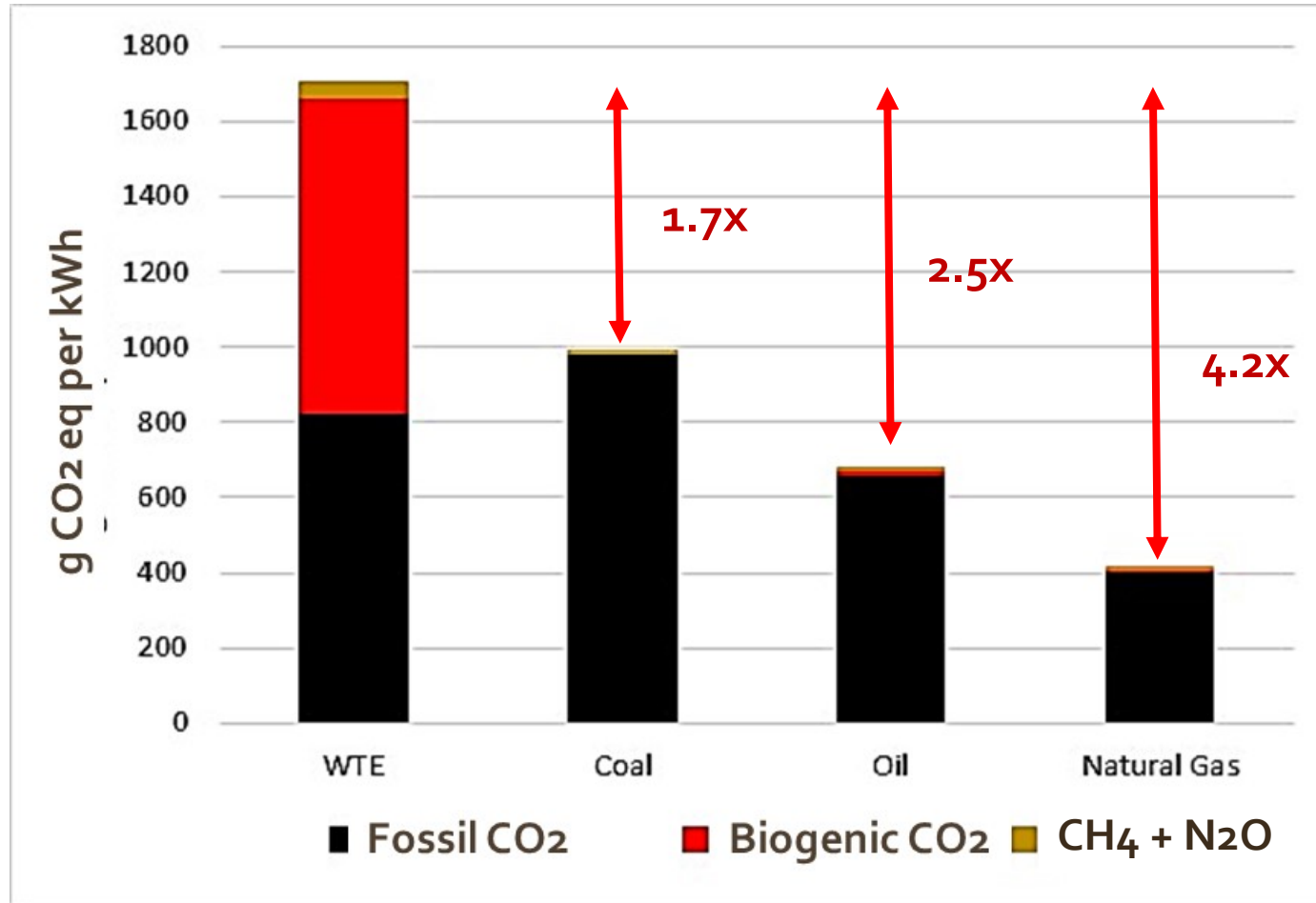
# Comparing Fossil Carbon Intensity of Energy Production, EU

- Fossil Carbon Intensity of **Thermal WTE** in the EU 28  
**580 g CO<sub>2</sub> eq per kWh**
- Fossil Carbon Intensity of the **Average EU Electricity Grid**  
**296 g CO<sub>2</sub> eq per kWh**

Source: Janek Vähk, “The impact of Waste-to-Energy incineration on climate: Policy Brief,” Zero Waste Europe, September 2019

# Comparing *Total* CO<sub>2</sub> from WTE Incineration, USA

## Generation-Weighted Mean National GHG Emissions Intensity, United States



“Waste incinerators stand out as the only generation source that emits large quantities of both fossil and biogenic emissions for each unit of electricity produced.”

Source: Tangri, N.V. In review at Energy Policy. "Waste Incinerators Undermine Clean Energy Goals." doi: 10.31223/X5VK5X

# Why We Should Not Ignore Biogenic CO<sub>2</sub>

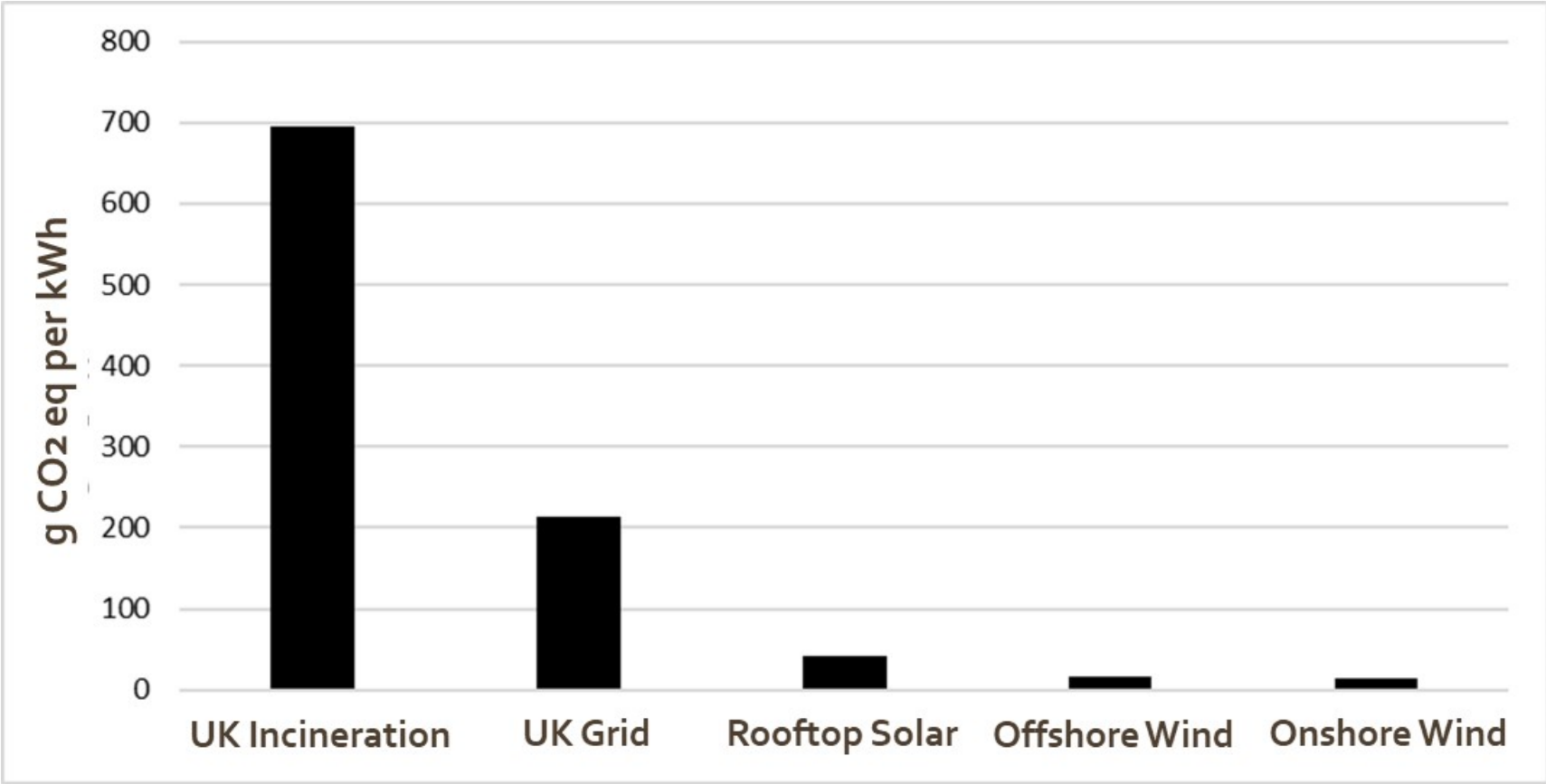
- Climate change is time-critical: Immediate reductions in GHG emissions are essential.
- Biogenic CO<sub>2</sub> is emitted almost instantaneously from thermal WTE but it takes years to decades to re-capture the equivalent CO<sub>2</sub> through plant growth.
- Ignoring biogenic CO<sub>2</sub> assumes biogenic waste was obtained sustainably yet most paper, wood and agricultural waste were not derived sustainably, will not be renewed, and will lead to long-term declines in carbon storage.

# Impact of Lock-In on More Effective, Sustainable Options

“The lock-in effect generally refers to ... the requirement of a fixed amount of waste for incineration over the plant’s life. The lock-in effect could lead to **undermining waste prevention, reuse and recycling policies and programmes** due to lack of funds to develop those systems, or “put or pay” contracts that mandate municipalities provide a fixed amount of waste to the incinerator or pay a fine. These conditions pose a risk to the waste management hierarchy, and can **hamper waste reduction**, and in turn **dampen the potential boost that local economies often get through reduction, reuse, recycling and composting.**”

United Nations Environment Program (UNEP): “Waste-to-Energy: Considerations for Informed Decision-Making,” 2019

# Thermal WTE Undermines Real Renewable Energy



**Notes:** Fossil CO<sub>2</sub> shown: UK incineration based on averages, UK grid is generation-based average (BEIS), Rooftop solar and wind *include* infrastructure and supply chain emissions from life-cycle analysis

Source: “Evaluation of the climate change impacts of waste incineration in the United Kingdom,” UK wIn, revised April 2019.

# Thermal WTE is *NOT* Sustainable Finance

- Consensus of the EU Technical Expert Group on Sustainable Finance, EU Taxonomy
  - “Sustainable finance” activities contribute to **climate change mitigation** without impacting a transition to a **circular economy**
  - **EU Taxonomy report excludes thermal WTE**

➤ **Thermal WTE has no place in a circular economy.**

Sources: “Taxonomy: Final report of the Technical Expert Group on Sustainable Finance,” EU Technical Expert Group on Sustainable Finance, March 2020; “Taxonomy Report: Technical Annex,” EU Technical Expert Group on Sustainable Finance, March 2020.

# Conflicts with Environment and Social Safeguards: Philippines, Maldives and Thailand cases

- Lack of national regulations, technical capacity, financial resources, and enforcement mechanisms to conduct continuous monitoring of dioxins and furans, as well as monitoring of air and water quality, and management of toxic wastes from WTE
- Lack of meaningful consultations and information disclosure
  - Sidelineing of CSOs in formal consultations despite well-publicized CSO concerns
  - No consultation with the informal waste sector that may be displaced
- Sidelineing safeguards principles on community health, information disclosure, pollution, among others
- Undermining the Philippines' incineration ban under the Clean Air Act

