Version 16 Aug

SDG7 Energy Compact of World Meteorological Organization
A next Decade Action Agenda to advance SDG7 on sustainable energy for all, in line with the goals of the Paris Agreement on Climate Change

SECTION 1: AMBITION

1.1. Ambitions to achieve SDG7 by 2030.
(Member States targets could be based on their NDCs, energy policies, national five-year plans etc. targets for companies/organizations could be based on their corporate strategy)

☐ 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.	Target(s): Time frame: Context for the ambition(s):
☐ 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix.	Target(s): Time frame: Context for the ambition(s):
☐ 7.3. By 2030, double the global rate of improvement in energy efficiency.	Target(s): Time frame: Context for the ambition(s):
☐ 7.a. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.	Target(s): Time frame: Context for the ambition(s):
☐ 7.b. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programs of support.	Target(s): Time frame: Context for the ambition(s):

1.2. Other ambitions in support of SDG7 by 2030 and net-zero emissions by 2050.

Target(s): Improved estimates of greenhouse gas emissions from the energy sector by upscaling of observations-based WMO methodology.

The advantage of the observations-based methodology is that it ensures the consistency of emission estimates across sectors and scales. The same observations and modelling tools can be used to assess emissions from the oil and gas facility, the forest or the agricultural land providing an opportunity to objectively quantify the fluxes of GHG. Feasibility of IG^{3}IS utilization in support of energy sector, respective guidance materials and pilot and demonstration projects have to be established to support and guide energy sector efforts in reducing its greenhouse gas emissions. As there are some plans developed by the energy sector on achievement of carbon neutrality, atmospheric observations represent the ultimate verification tool for such neutrality. Planned carbon capture and storage facilities or the extension of the forest cover for the uptake would need objective quantification of their potential which can be assessed utilizing IG^{3}IS approach.

Efficient and effective emission reductions are key to reach net-zero emissions. Observations-based emission estimates can both guide their reduction and demonstrate the success of taken measures or reveal the need to adjust the measures. Thereby, the technology can support and accelerate mitigation measures that imply preventing socio-economic impacts that would happen as a result of unabated climate change.
The efficient and effective transition to net-zero emissions supported by observations-based emission estimates, and additional co-benefits related to improved air quality will particularly benefit local communities and most vulnerable groups who are particularly affected by environmental disasters. To achieve this, it is crucial to implement integrated approaches and involve all relevant stakeholders from the beginning of the project design.

SECTION 2: ACTIONS TO ACHIEVE THE AMBITION

2.1. Please add at least one key action for each of the elaborated ambition(s) from section 1.

2.1.1 – Raise awareness of observations-

Number of people trained for the use of observations-based information to quantify energy sector emissions (For action 2.1.2)	
Number of workshops conducted to include energy sector in the IG^{3}IS National & Urban guidelines SDG7 annexes created for each of the guidelines containing specific information for decision makers (For action 2.1.3)	December 2030

SECTION 5: IMPACT

5.1. Countries planned for implementation including number of people potentially impacted.

The tool can be applied at a different scale. While it can be used to quantify GHG emissions from specific facilities, it is recommended that IG^{3}IS methodology is utilized to complement national inventories and is implemented at a national scale, permitting to identify not only major emission sources but also cost-effective mitigation actions and carbon removal opportunities.

5.2. Alignment with the 2030 Agenda for Sustainable Development – Please describe how each of the actions from section 2 impact advancing the SDGs by 2030.

Each of the actions described in the section 2 will promote the use of atmospheric observations to quantify GHG emissions and will allow decision makers to make informed decisions and cost-effectively implement mitigation actions and policies. The use of such methodology will also enhance transparency of inventory reporting and maximize the capabilities to monitor emission trends in a timely manner. Given some GHG are at the same time air pollutants, and the IG^{3}IS methodology can be used for the detection and monitoring of air pollutants, improvement of air quality is a co-benefit that can be leveraged with the adoption of IG^{3}IS methodology.

The use of IG^{3}IS and the implementation of the actions proposed in section 2 would contribute to the advancement of the following SDGs:

SDG 3. Ensure healthy lives and promote well-being for all at all ages
Target: 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all
Target 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Target 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable
Target 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

SDG 13. Take urgent action to combat climate change and its impacts
Target: 13.2 Integrate climate change measures into national policies, strategies and planning

5.3. Alignment with Paris Agreement and net-zero by 2050 - Please describe how each of the actions from section 2 align with the Paris Agreement and national NDCs (if applicable) and support the net-zero emissions by 2050.

SECTION 6: MONITORING AND REPORTING

6.1. Please describe how you intend to track the progress of the proposed outcomes in section 3. Please also describe if you intend to use other existing reporting frameworks to track progress on the proposed outcomes.

IG3IS Steering Committee (SC) meetings are held every 4-6 weeks. All IG^{3}IS endorsed projects must go under the Steering Committee approval. The SC frequently revisits ongoing projects and activities and addresses potential risks that could jeopardize the successful implementation of IG^{3}IS methodology. Additionally, all IG^{3}IS related activities are presented to the Committee, and recorded in video and captured in the minutes after each meeting by the IG^{3}IS Office. The IG^{3}IS Office is normally in charge of monitoring day-to-day advances of each of the IG^{3}IS initiatives and keeps a monitoring framework updated and accessible to members of the SC. Equally, IG^{3}IS projects can be consulted and visited in the IG^{3}IS website (https://ig3is.wmo.int/). Finally, the endorsement criteria of an IG^{3}IS project observes a reporting mechanism to the IG^{3}IS SC, guaranteeing the adequate progress of activities and alignment with the methodology.

SECTION 7: GUIDING PRINCIPLES CHECKLIST

Please use the checklist below to validate that the proposed Energy Compact is aligned with the guiding principles.

I. Stepping up ambition and accelerating action - Increase contribution of and accelerate the implementation of the SDG7 targets in support of the 2030 Agenda for Sustainable Development for Paris Agreement

☒Yes ☐No

☒Yes ☐No

☒Yes ☐No

II. Alignment with the 2030 agenda on Sustainable Development Goals – Ensure coherence and alignment with SDG implementation plans and strategies by 2030 as well as national development plans and priorities.

☒Yes ☐No

☒Yes ☐No

☒Yes ☐No

III. Alignment with Paris Agreement and net-zero by 2050 - Ensure coherence and alignment with the Nationally Determined Contributions, long term net zero emission strategies.

☒Yes ☐No

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SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact

Integrated global greenhouse gas information system (IG^3IS)