



## Template for non-Party stakeholders' inputs for the Talanoa Dialogue

### Question 2 - Where do we want to go?

*This template is meant to guide non-Party stakeholders (organization(s), coalition(s), initiative(s) and/or sector(s) etc.) in providing inputs that are relevant and impactful to the Talanoa Dialogue process. Using such the template is not mandatory, however, the High-level Champions encourage non-Party stakeholders to use such a structure to facilitate capturing and highlighting the key messages across the three questions.*

#### **Where do we want to go?**

*Vision of the future for your organization and/or sector in terms of its possible role in achieving the 1.5/2 degrees' goal and a net-zero emission world by this mid-century [Maximum 300 words]*

IRENA's roadmap for the energy sector transition is consistent with limiting the rise in global mean temperature to well below 2°C by 2100 with a probability of 66%. The roadmap therefore can be characterised as a reflection of "where we want to go". The IRENA's analysis shows that achieving a global energy transition that limits global temperature change to well below 2°C is technically feasible. It would be achieved largely by the accelerated deployment of renewable energy and energy efficiency measures. Under the roadmap, while the total energy demand in 2050 would be similar to today's level, the supply mix would change substantially. The total global primary energy supply in 2050 would reach 635 EJ per year, only marginally higher than today's level. Total non-renewable energy use would be reduced by 67%. The share of renewable energy in the total primary energy supply would grow to about 65% by 2050, from 16% today.

As described in more detail in the section below, the energy transition through the enhanced deployment of renewable energy is also economically beneficial. It can fuel economic growth and create new employment opportunities. Thanks to the growing business case for renewable energy, climate change mitigation and economic growth are no longer an "either-or" choice. This is a significant conclusion in the current context of sluggish economic growth.



*Possible and potential new commitments and pledges of to achieve the 1.5/2 degrees' goal and a net-zero emission world by this mid-century [Maximum 300 words]*

In designing new commitments on renewables in NDCs, IRENA raises some important elements to consider on the basis of its NDC analysis:

- **Keeping up to the current trend of renewables deployment**

At the global level, the capacity added annually (on average) as a result of NDC implementation is actually lower than the recent historical trend. Looking ahead to 2030, implementing current NDCs would lead to an estimated 80 GW of additional capacity globally on average on an annual basis (2015 to 2030). Again, this is far less than the 124 GW that was installed globally on average every year between 2010 and 2016. This suggests that there is substantial scope for the next round of NDCs to be more ambitious if they are to serve as tools for driving accelerated action.

- **Alignment with national energy plans**

Not only does the ambition reflected in NDCs lag behind recent historical trends, it falls short of the effort expressed in national energy plans and policies. While 109 Signatories include quantified targets for renewable electricity generation in their NDCs, 150 countries have ambitious national power sector plans in place. Many Signatories have chosen not to explicitly include their existing national renewable energy policies as part of their international climate commitments.

- **Alignment of cost-effective potential of renewables**

There is a third element to consider when analysing the ambition of renewable energy components of NDCs. As IRENA's analysis shows, renewable energy targets for the power sector in both national policies and current NDCs could, in many cases, be increased significantly before reaching the available potential for cost-effective deployment. The evidence suggests that there is a significant opportunity to adopt higher targets, both in NDCs and in other national plans, including for increased shares of renewables in the total energy supply.

Renewables components of NDCs can also be broadened by including targets on end-use applications such as heating and cooling, as well as targets on adaptation and resilience building.

*Foreseen positive impact of these commitments once they are realized, including contributions to the sustainable development agenda [Maximum 300 words]*

While the traditional view has been that there is a trade-off between economic growth and decarbonisation, there is growing evidence that mitigating climate change through renewable energy could actually bring positive economic impacts, stimulating growth and employment worldwide. Achieving the energy transition in the G20 as outlined by IRENA's roadmap would increase global GDP by 1.1% in 2030 and by 0.8% in 2050 compared to the most likely scenario with existing and planned policy measures (Reference Case). The additional economic activity generated between now and 2050 would be an estimated USD 19 trillion. In 2050 alone, the additional output would be USD 1.6 trillion, similar to the combined GDP of Indonesia and Turkey today. The main driver of the global economic surge is the investment boost from the high capital requirements of renewables and energy efficiency. Overall, IRENA's analysis suggests that it is possible to carry out a fundamental transition in the energy sector without slowing GDP growth. In fact, the rates of GDP growth may increase. However, important changes in the sectoral contributions to GDP can be expected.

The decarbonisation of the energy sector will bring higher employment levels in energy, since the number of new jobs created in renewables and energy efficiency more than offsets job losses in fossil fuels. Global energy sector employment today stands at around 40 million jobs (direct and



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indirect). Of these, IRENA estimates 9.4 million jobs to be in renewables, a number that has been growing consistently in recent years. IRENA's roadmap estimates that global renewable energy jobs (direct and indirect) would reach 15 million by 2030 and 17 million by 2050. The increased employment from renewables alone would offset job losses in the fossil fuel sectors (which would be around 7 million in 2030 and 8 million in 2050).