



# VIENNA ENERGY FORUM-THE VEF VIRTUAL SERIES

## Sustainable Energy and Industry Integration- Session 2



### COVID-19 RECOVERY WITH FOCUS ON SMES & LOCAL VALUE CHAINS

#### 1. OVERVIEW OF KEYNOTE & PLENARY ADDRESS

The session was opened by Nilgun Tas from UNIDO, outlining the crucial role that SME's play in industry and that whilst some SMEs have suffered as a result of COVID-19, others have done well. SMEs must be considered in COVID-19 recovery and industrial SMEs provide untapped potential for incorporating renewable energy and energy efficiency options.

#### *SETTING THE SCENE PRESENTATION*

*A scene-setting keynote address were given by: Mr Girish Sethi from TERI India.*

The focus of keynote was on the case of industrial SMEs in India, where SMEs contribute 1/3 (28%) of GDP in 2019. There are 64 million Micro and Small Medium Enterprises (MSMEs) operating in India, providing employment to approximately 110 million people.

Currently MSMEs generally use obsolete and inefficient technology. Yet it is estimated that approximately 200 MSMEs have potential for using cleaner technologies, and energy accounts for about 15-35% of total production costs in energy intensive MSMEs. COVID-19 has caused disruption in value chains, stagnation in cash flows and non-payment in wages. In May 2020 a 'Self Reliant India' programme was launched to support MSMEs. Mr Sethi outlined two sectors who are leading the way in COVID recovery – the automobile sector and the pharmaceutical industry. In fact many MSMEs have ventured into new products during lockdown, for example India is now the 2nd largest producer of PPE.

This is now the right time for SMEs to invest in greener technology options, and electrification of heat offers a huge opportunity for SMEs to reduce GHG emissions. Potential electrification options in SMEs in India was undertaken by TERI together with the Shakti Foundation, including:

SECTOR	PRESENT-TECHNOLOGY	ELECTRIFICATION
Foundry	Coke fired cupola	Induction furnace
Aluminium Extrusion	Oil fired crucible furnace	Electrical melting furnace
Tea processing	Coal fired hot air generator	Electrical resistance heater
Material handling	Diesel operated forklift	Electrical forklift

## 2. SUMMARY OF BREAKOUT DISCUSSIONS

### 2.1 GLOBAL PERSPECTIVES

**Sub-question 1: How can sustainable energy-industry integration enable SMEs to contribute to COVID-19 recovery and low carbon industrialisation, particularly in the global South?**

**SMEs are often the foundation of the supply chain for larger companies**, without getting SMES on board we won't be able to support climate goals. Whilst we talk about hydrogen and biomass as decarbonisation options for hard-to-abate sectors, for SMEs interventions in renewable energy or energy efficiency are far more relevant.

**SMEs must stay economically healthy**, so that as the economy grows they are quick to recover.

**Financing** remains challenging for SMEs, and lack of clarity still exists for third party finance, particularly for on-site renewable energy generation. Providing on-site Power Purchase Agreements to enable SMEs to pay for power or encouraging green banks to provide low cost loans could help the uptake of renewables for SMEs. To increase energy efficiency in SMEs, we need to see cash for replacement of outdated technology. Potentially revenue from carbon pricing could be used for SMEs who are supporting a green transition.

Often investments into green transitions are very large, we need to offer smaller sums of investment at a scale that would be applicable to SMEs. After the 2008 financial crisis, many focused on the recovery of large companies, be careful not to do the same.

**Recognition should be given to SMES** who are being innovative, through for example initiatives such as the SME Climate Hub [1] Race to Zero Campaign.

**Sub-question 2: Are there examples of sub-sectors where SMEs have been most effective in responding to the impacts of COVID-19? And how could SMEs best be included in low carbon COVID-19 recovery options?**

SMEs can often account for over half of national GDP and employment and we need to make sure that **job creation is considered in any COVID response**.

**Large companies vs SMES:** SMEs remain vulnerable during COVID-19, and rely on the demand from larger companies. However we have to be careful not to assume that best practice decarbonization solutions for large industry apply to SMEs, for example focusing on hydrogen or electrification. Rather focus on alternative thermal energy solutions (e.g. heat pumps, geothermal energy) that may be more suitable for SMEs to pursue. Similarly policy responses need to be different for large companies and SMES.

**Energy efficiency offers a win-win opportunity** as it is job intensive, cuts energy bills, improves business competitiveness and offers more business opportunities. Example: yet whilst industrial motors are very important for SMEs , when replacing motors SMEs will often go with cheaper alternatives (which can be of less quality/longevity), we need policy measures to avoid this. The Global Commission for Urgent Action on Energy Efficiency and IEA published a list of 10 actionable recommendations for implementing energy efficiency measures. [2]

**In the global south, SMES are often very small**, with low heat/energy demand. Often these players can't make the shift themselves, and need more support. And similarly purely pursuing more (cleaner) electrification, may not provide the best socio-economic value-add.

[1] <https://smeclimatehub.org/>

[2] <https://www.iea.org/reports/recommendations-of-the-global-commission-for-urgent-action-on-energy-efficiency>

The **green energy transition in Chile** with a significant move to more renewable energy and energy efficiency, is very attractive to industry and business players.

SMEs have been critical for supporting strategies for e.g. increasing hydrogen. **A move towards industrial** hubs where hydrogen producers and users, such as steel manufactures, are grouped together, could be beneficial.

## 2.1 COUNTRY VOICES

**Sub-question 1: Given different country contexts and capabilities, how can sustainable energy-industry integration enable SMEs to contribute to COVID-19 recovery and low carbon industrialisation?**

Small and Medium Enterprises (SMEs) are the backbone of national economies and are a large driver of job creation, but they are also the least resilient during times of crisis and often rely on outdated technology. In this session, inputs were given by representatives from China, India and South Africa.

**Challenges:** The lack of cashflow experienced due to COVID-19 has been a threat to the resilience of SMEs in these countries. It is important to link the SMEs with the support that they need, which is difficult as many countries do not have detailed SME databases. For example, in India 90% of SMEs are informal and data is just not there to connect them with the funding. This means that in order to take advantage of the opportunities that exist, countries need better information flows for the formalisation and regulation of SMEs.

**Opportunities and recommendations:** Several opportunities and recommendations emerged from the discussions, with examples of successes in certain countries. The main message was that in order for SMEs to integrate sustainable energy-industry opportunities, they need to be thinking about the importance of capacity building, financial support, and innovation in technology.

**Sub-question 2: How are various countries addressing this and are there success stories from different countries?**

Some examples and success stories presented by the speakers, include:

- **Capacity building (skills)** - skills and labour force need to be adjusted to the new situation (reskilling/upskilling), e.g. in India, the government has distributed energy conservation guidelines for SMEs in the form of webinars and the general promotion of energy conservation. Hands on training has also been provided in order to aid SMEs on how to adapt to green operations, this has consisted of 3-4 hour informal sessions on weekends or evenings. This ground level interaction has been important in that many SMEs struggle with e-literacy, which widens the digital divide.
- **Capacity building (general management)** - e.g. in South Africa, a manufacturing company has introduced an online KPI dashboard which resulted in an 85% reduction of scrap in production.
- **Financial mechanisms** brought on board by government for green growth of SMEs - grants and subsidies such as in China where SMEs were provided with financial support by government.
- **Utilising technologies** - the green technology selector tool [3] in China is used to mitigate risks for investors.
- **Role of innovation**, importance of bringing on board innovative technologies - in particular digital tools and solutions to ensure survival.
- **Sector specific measures** - e.g. India's government supported scheme of introducing solar rooftop for productive users of industry (decentralised energy provision).

## 2.1 ENABLERS FOR PROGRESS

**Sub-question 1: What are the opportunities and enablers to increase energy efficiency and renewable energy in SMEs? Are there effective examples of interventions to achieve this?**

There are ample financial resources to invest in capacity building and new technology, but the challenge lies with the country context - an enabling environment is needed for the increase of energy efficiency and renewable energy in SMEs, this includes:

- Focusing on start-up SMEs as they are often more open to embracing new tech and models;

[3] <https://www.carbontrust.com/news-and-events/news/the-carbon-trust-helps-launch-the-ebuds-green-technology-selector-in-china>

- Providing uncomplicated and inexpensive access to the relevant finance;
- Offering a blend in finance options to accommodate local idiosyncrasies;
- Understanding competitiveness as a driver and its conflict with creditworthiness - SMEs have limited capacity for borrowing. Scale is part of the challenge, as well as technical capacity. As an alternative innovative business model, consider aggregation to deal with scale and technical capacity issue (e.g. energy as a service);
- Supporting strong demonstration programmes to overcome the lack of understanding pertaining to certain 'green' technologies;
- Disseminating information on the specific technologies that can help - e.g. solar PV or bioenergy. Increase awareness and capacity building needed to deliver new technologies and business models;
- Focusing on a given sector and the technology associated with it in order to bundle a specific product and recognising that each industry is different and there is a need to tailor support accordingly.

**Sub-question 2: What are the industrial growth opportunities for SMEs to participate in energy efficiency and renewable energy value chains? Are there good examples of this?**

Some examples were provided:

**Relevant Financial Support:** USD 10m grant to China to mobilise more than USD 90m additional support to finance Chinese rural industries (mostly SMEs), with the aim to enable industries to invest in zero carbon energy and energy efficiency. Another example of access to financial opportunities is in Tunisia, where tax incentives are available for start-ups that integrate renewable energy and energy efficiency into their businesses.

**Awareness and Capacity Building:** There are companies that supply a service e.g. Lighting Africa programme which identifies all market barriers that companies face, and engage in comprehensive market research programmes. They have started developing quality standards for products, help companies with finance, educate consumers, and working with governments to create an enabling environment. SMEs that provide this service make up a USD 1bn industry (largely SMEs).