

SOLAR'S MOST TRUSTED



# TAKING A BIG STEP IN MAKING SOLAR INDUSTRY CIRCULAR

Public

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REC Integrated Production Facility  
Tuas, Singapore  
REC TwinPeak 72 Series

# A global company with 2,000 employees



San Mateo, CA, USA

Herøya, Norway  
Kristiansand, Norway

Munich, Germany

New Delhi, India

Tokyo, Japan

Singapore

Melbourne, Australia

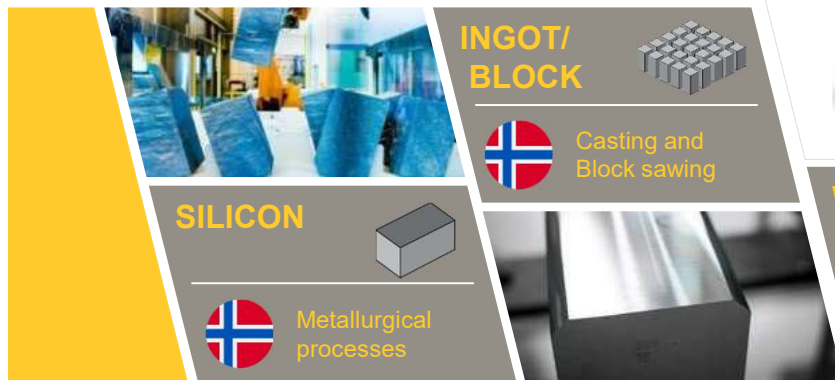
● Corporate Headquarters   ● Operational Headquarters   ● REC office   ● Production facilities



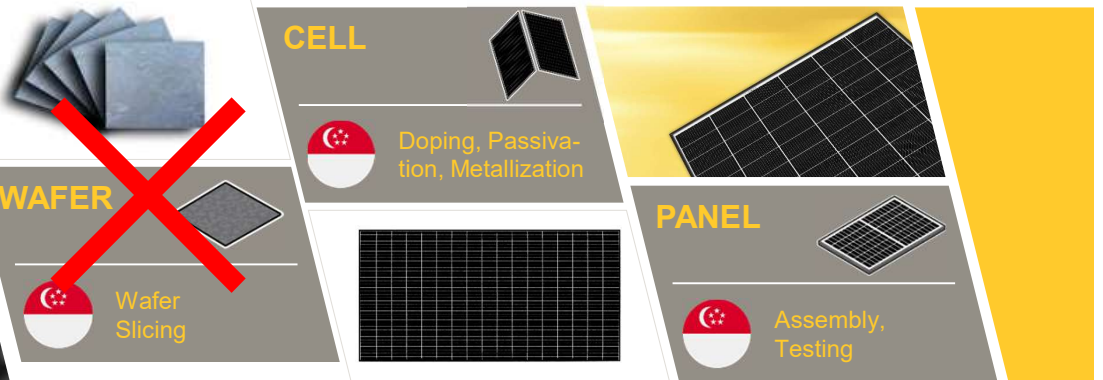
# Strength throughout the value chain



## REC Solar Norway AS

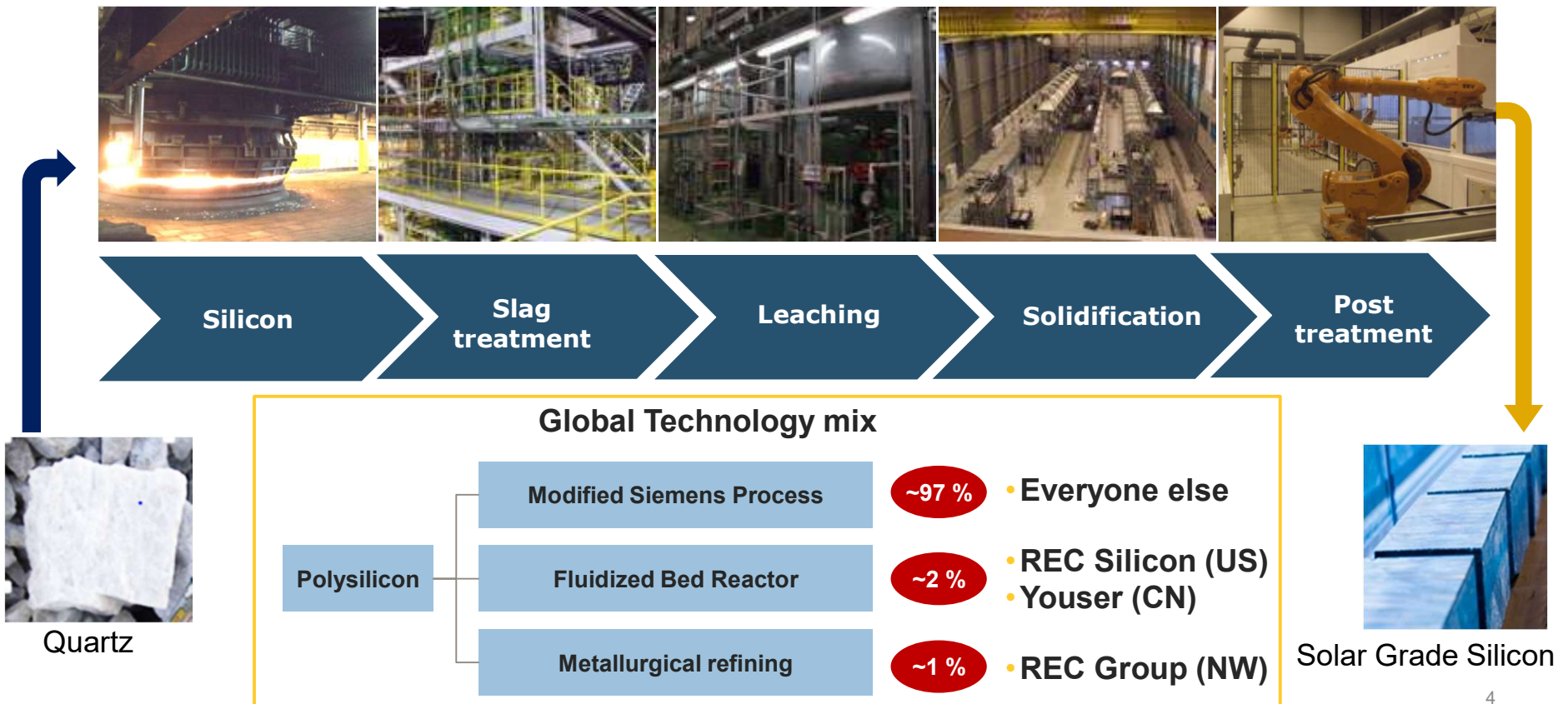


## REC Solar Pte



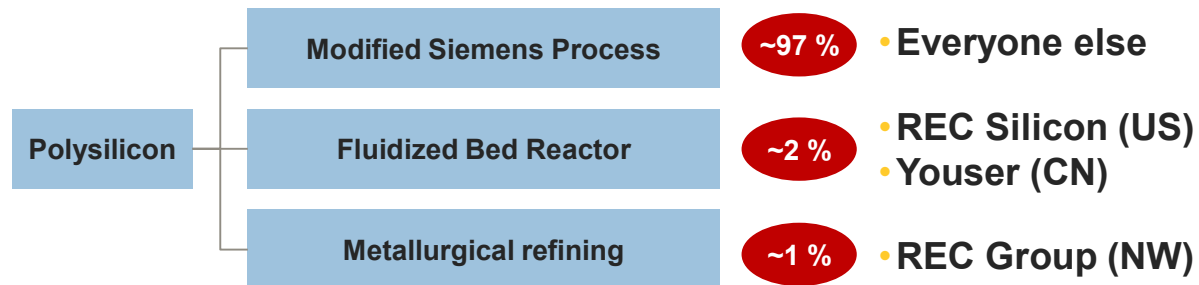
- International, pioneering solar energy company with Scandinavian heritage
- Founded in Norway in 1996
- Industry pioneer with 23 years of experience
- 38 million panels manufactured, amounting to 10 GW (at end 2019)
- Integrated manufacturing from **silicon** to blocks, wafers, cells, and panels

# Unique polysilicon production process

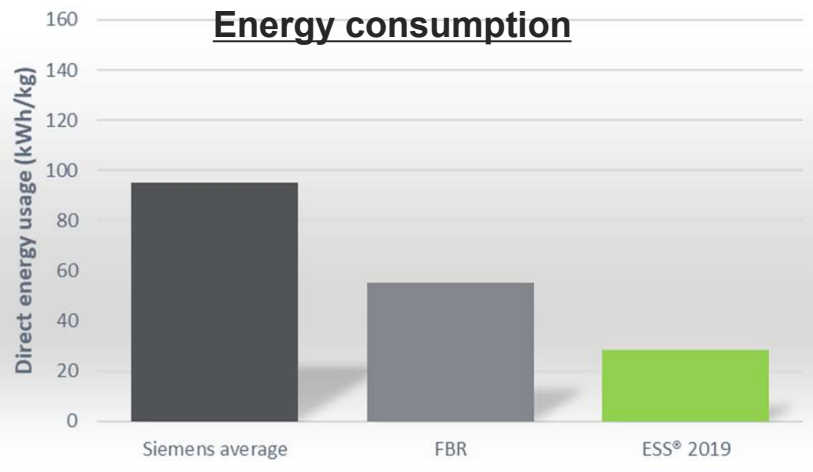


70% less energy and 90% lower CFP than Siemens  REC

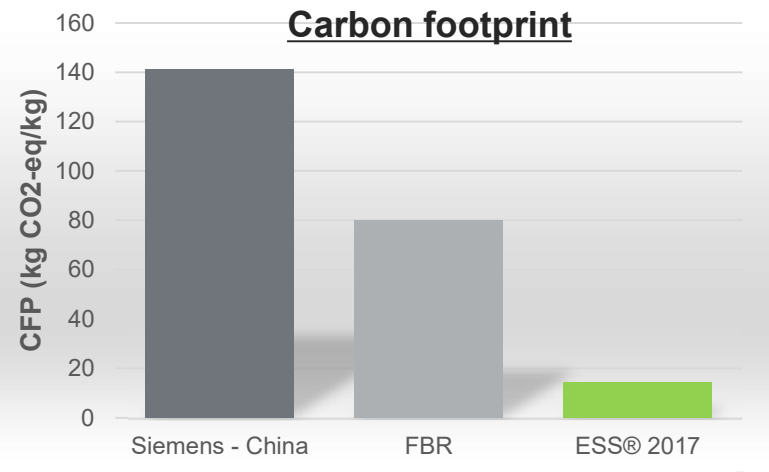
### Global Technology mix



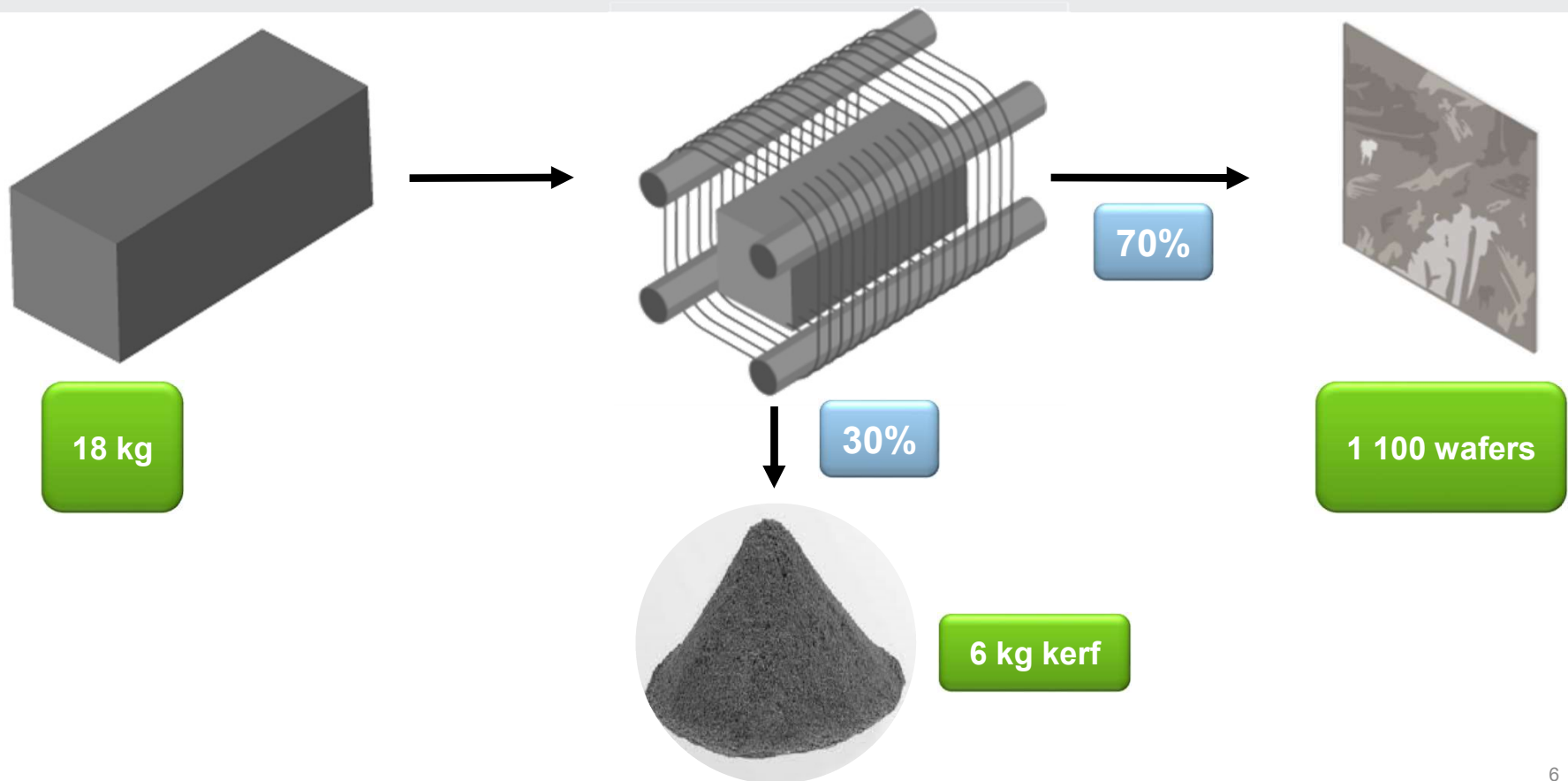
### Energy consumption



### Carbon footprint



## Next step: Making solar pv industry circular



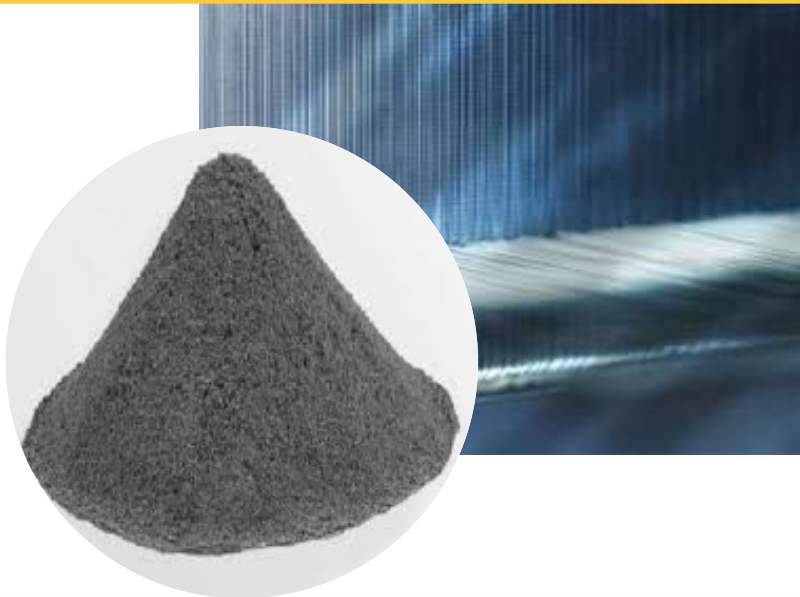
# Production of polysilicon from 100% recycled Si-kerf REC

~30 % = 150 000 tons of all silicon used in solar pv industry is lost as kerf (dust). The last 20 years, many have tried to recycle this waste back to solar without success.

**2016:** REC Solar Norway succeeded in pilot furnace.

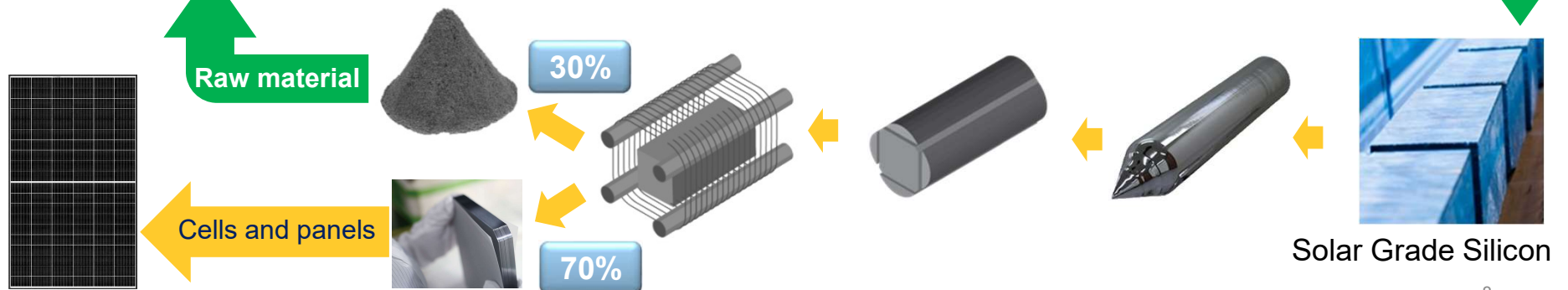
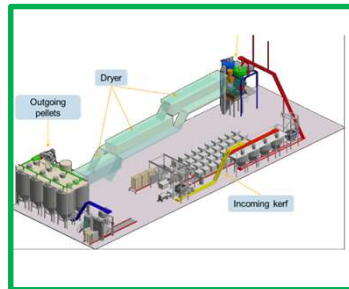
**2020:** Full scale production based on kerf

**2020:** Simultaneously converting to mono



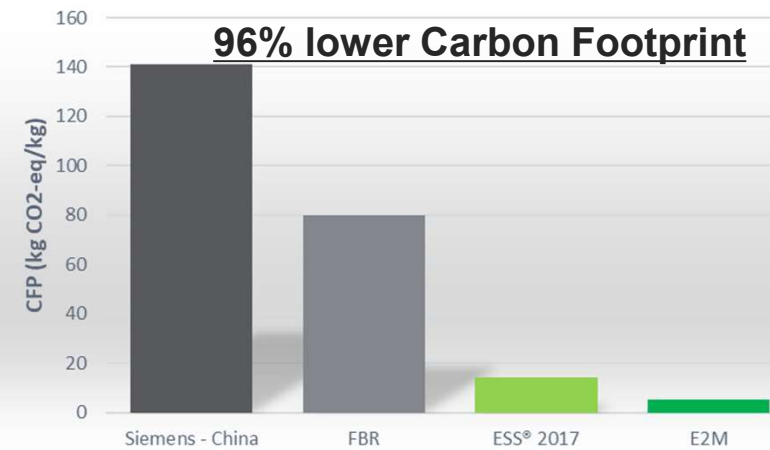
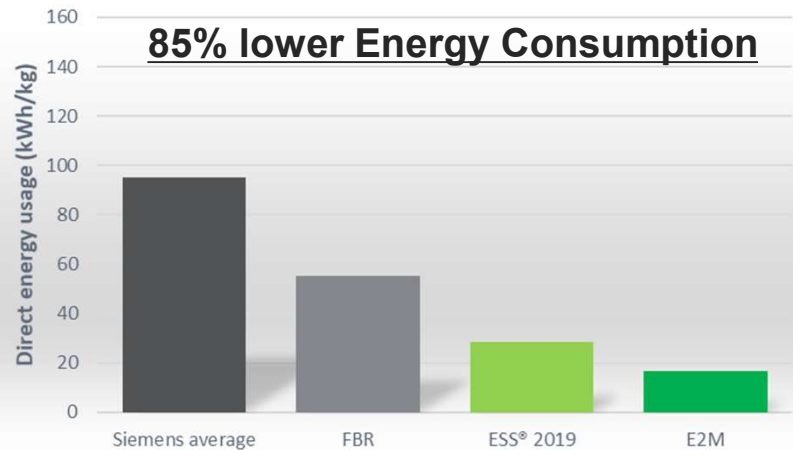


# New process: A big step in making solar industry circular

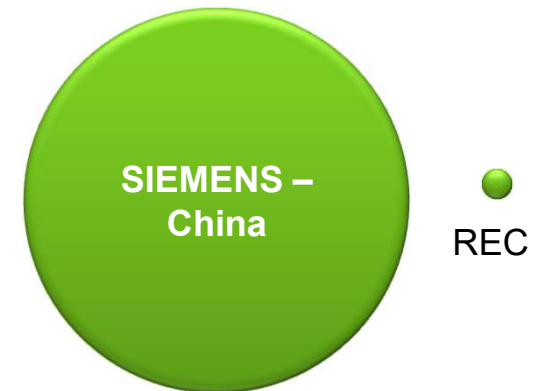




# New circular process reduces energy consumption and carbon footprint further



Yearly Production in Kristiansand	
Polysilicon, MT	8 400
CO <sub>2</sub> -eq using Siemens in China, MT	1 184 400
CO <sub>2</sub> -eq using REC production, MT	42 000





**Thank you.  
Have a nice sunny day!**



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