

Solar grade silicon bottleneck

Is it a real threat for further growth



Osamu Ikki, RTS Corporation, Tokyo
ikki@rts-pv.com

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What's happening now? : Good News

- **Existing polysilicon manufacturers**
→ actively expand production capacity
- **New entrants**
→ constructing SOG-Si plant
- **Si wafer manufacturers**
→ Development of slicing technology for thinner wafer
- **Solar Cell manufacturers**
→ Development of cell process using thinner wafer
Improvement of conversion efficiency
Development of concentrator PV
Enhancement of production capacity of Ribbon Si solar cell
Expansion of production capacity of thin-film Si solar cell
Expansion of production capacity of thin-film non-Si solar cell (CIG-S, CdTe)



What's happening now? : Bad News

- Soaring price of Silicon feed stock
- Volume limit of Silicon feed stock securement
- Continuous increase of Si consumption due to growth of semiconductor industry



Conclusion

- 2006-2008: growth of crystalline Si solar cell market is / will be constrained
- After 2008: Si fed stock issue will be solved

However,

- Excess production capacity if all the plan will be achieved
- Constraint will continue if expansion plans will be delayed
- Policy & Measures for PV promotion will be subject to change

