

Getting the 2nd phase right





JNNSM 2nd phase draft

- 2nd phase now set to 9000 MW
3600 by centre, 5400 by states.
- 2/3rds PV, 1/3rd CSP
- Main funding proposed as Viability Gap Funding through NCEF, some through bundling and GBI (fund not defined)
- Domestic Content Requirement, options



National Clean Energy Fund – the major source for JNNSM 2nd phase

- 50 rupee cess per tonne of coal or lignite
- Inter Ministerial Group in charge have limited NCEF to VGF or loans to 40%
- Projects should promote 'research and innovation'
- These rules have already been flouted



The case against VGF

- A subsidy on capital combined with bidding will push developers towards cheaper material and workmanship.
- Huge gap in performance of modules in market place.
- Generation over 25 years demand will be hit.
- Companies with short-term interest in the business will be attracted to this model.
- Capital subsidy has been phased out internationally and in India.



A possible win-win with GBI

- A bidding based GBI incentivises performance
 - A GBI can be tailored so it recovers the funds spent
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1. Either make NCEF change the rules, or take a loan from NCEF
 2. Set up a fund in SECI or IREDA which pays out GBI
 3. Have bids for fixed 25 year per unit rates
 4. Sign contracts that states pay their average Pooled Power Purchase Cost to solar developers and the rest is covered by GBI
 5. As pooled PPC rises the GBI part diminishes.
 6. When pooled PPC is above the bid to developers the

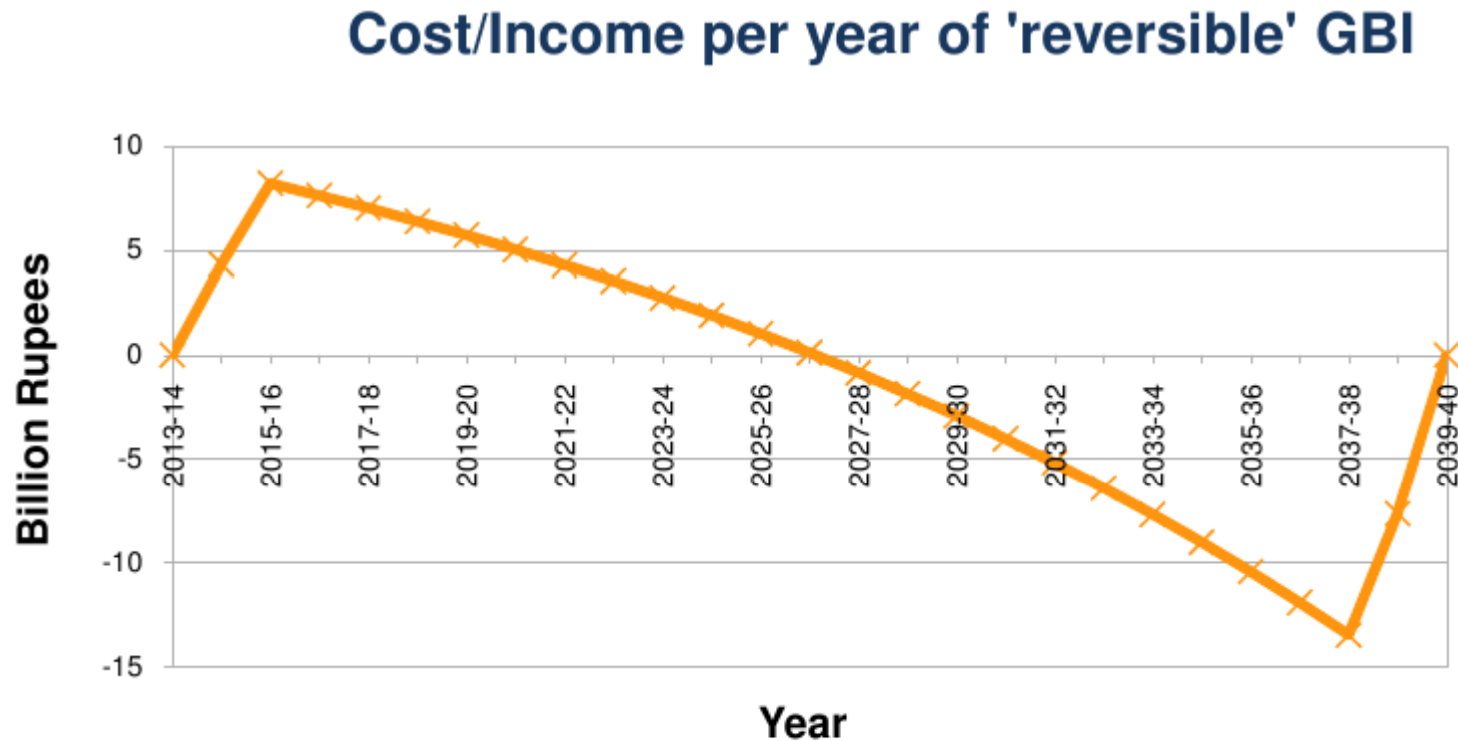


An Example

- Tamil Nadu has a pooled PPC of Rs. 3.38/KWh in 2012-13
- The reverse bidding gives a price to developers of Rs. 7/KWh
- GBI from the centre needs to be 3.62 for the first year.
- Pooled PPC increases historically by an average of 5.86 % annually.
- The year the PPC becomes Rs. 7.01/KWh the state utility pays back Rs. 0.01 to the centre



1520 MW of PV from VGF could earn the centre Rs. 2300 crore





A DCR that builds competitive manufacturers

- Six different options for DCR shown
- Draft shows that impact of DCR has not been studied
- The solar market is neither open nor fair
- US, China and EU have all helped their own
- India needs to make its manufacturers competitive
- DCR should combine with demands for R&D investments
- Any DCR must come with a plan for how to phase manufacturing into global market



Rooftops, canals and parks

- MNRE wants to use NCEF to support large (<250 MW) solar parks. 16 crores for civil engineering and 40 % of transmission infrastructure cost
- Solar parks removes positives of smaller solar installations (distribution)
- Draft on grid-connected rooftops is very unclear. Goal of 1000 MW, on and off-grid set but no clear incentives.
- No mention of Canal Projects although having multiple positives
- CSE recommends NCEF funds for more innovative canal and rooftop projects



Merging RPSSGP and Solar Cities

- Too many programmes in JNNSM becomes sprawling
- Solar Cities aim to lower energy demand of cities
- RPSSGP aim to support states in gaining experience of setting up small and rooftop solar projects
- RPSSGP is in draft suggested to continue with 60 MW for states not yet having RPSSGP projects
- Most, if not all, projects under RPSSGP is not on rooftop
- Merge programmes, each solar city may get 1 MW of solar projects, developers can bid on a GBI to commission and run that 1 MW project.



Wait for Solar Thermal?

- 1/3rd of the Centre's proposed capacity is in Solar Thermal
- So far only 2.5 MW solar thermal commissioned
- The 2014-15 date proposed Solar Thermal might be too early to properly evaluate the 1st phase
- Push this to 2015-16 to wait for generation date from 1st phase



State Incentives

- 3000 MW in Tamil Nadu, 1000 in AP, more planned
- Total reliance on RPO/REC mechanism
- How will solar RPO differ from normal RPO?
- Changing the floor and forbearance price of REC
- Contingency plan if RPO does not pan out?
- States learning from each other?



Issues ignored in the draft

- If there is not enough thermal power for bundling, a clause should be included that this part should be transferred to a different funding method
- Anti-corruption measures in bidding
- Water issues – need for a study
- No clarity on Accelerated Depreciation