Does the Presence of Reliability Must-Run (RMR) Contracts Exacerbate Irregularities in the Ancillary Services Markets?

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Definition of an RMR Unit

Both of the following conditions must hold:

a) Operation of unit is necessary during certain hours to maintain local grid reliability,

and

b) Insufficient competition exists to check exercise of locational market power by Owner when providing such reliability service to the system.
Basic Objectives of RMR Contracts

a) Establish a price, currently cost-of-service based, for reliability services (energy and ancillary services) applicable during periods when Owner might be able to exercise locational market power.

b) Ensure that RMR units are available when needed by:
   - setting performance obligations.
   - establishing minimum technical and financial standards for RMR Owner.
   - providing sufficient revenues to keep RMR Owner solvent.

c) Encourage and facilitate market participation by the RMR unit to the fullest extent possible, without undermining a) or b) above.
RMR Contract Payments (CA Type A)

I. For **Energy**, including Energy provided with Ancillary Services, the following payments are made only if the RMR unit is actually dispatched by the ISO:

   a) **Reliability Payment** – Represents a “slice” of fixed cost recovery, usually equal to:

   \[
   \frac{\text{total fixed costs}}{\text{expected annual MWh production (market + RMR)}}
   \]

   b) **Variable Payment** – Represents the units variable costs, including fuel.

   c) **Start-up Payment** – Represents start-up costs. Payable only if RMR dispatch requires unit to start-up.
RMR Contract Payments (continued)

II. For **Ancillary Services Capacity**, payment varies by contract, is ambiguous, and is currently the subject of a dispute.

For plants owned or divested by SCE:

a) SCE claims the contract calls for **no payment** for RMR ancillary services capacity.

b) ISO is currently paying MCP, but seeking refunds.

c) Compromise for all RMR Owners under negotiation in settlement conference.
Does the RMR Contract Structure Motivate RMR Owners to Withhold A/S Capacity from the Market?

In its August 19 Report, the California ISO's Market Surveillance Committee makes the following assertions:

a) "...[a] factor...contributing to the inefficient operation of the ISO's ancillary services markets [is]...pervasive incentives for generator bidding behavior...created by reliability must-run contracts" (Summary)

b) "...expensive [RMR] units...have little incentive to bid into the market when there is a reasonable probability that they may be called upon under RMRs." (page 30)
c) "...if the ISO were able to call on RMR units for both economic and reliability reasons it would...[be able to] discipline any attempts by generators to exercise market power by bidding high prices into the ancillary services markets." (page 31)

d) "...high RMR payment rates undermine the incentives for a generating unit to participate in the...ancillary services markets." (page 32)

e) "...reform of the RMR contracts to provide owners of these units with strong incentives to bid aggressively into the ancillary services markets during periods of high demand will go a long way toward making [these] markets workably competitive." (page 45)
Why Does the ISO call on RMR Units for Ancillary Services?

a) Bid insufficiency.

b) Locational grid reliability concerns.
Case 1 - Bid Insufficiency

a) If RMR owner **BIDS:**
   - he is assured that some of his capacity will clear.
   - he can set the MCP (subject to the ISO cap) at *higher* than his RMR payment.

b) If RMR owner **WITHHOLDS HIS BID**, he *may* get called upon as under his RMR contract. However,
   - ISO may select a different RMR unit owned by a competitor to make up the deficiency.
   - even if selected, unit will be paid pursuant to RMR contract, rather than Owner’s MCP-setting bid.
   - beneficial to Owner only if RMR payment exceeds ISO cap,
   - Reliability Payments for 18 of 22 SCE divested RMR units are below $100/MWh. (2 units at $115 and 2 units at $245)
Case 2 – Local Reliability Concerns

If RMR unit is needed to solve a locational problem, then Owner knows he will receive at least his RMR payment.

a) As with all rational bidders, Owner will want to bid at or above his opportunity cost, i.e. the RMR payment.

b) Unless RMR payment exceeds the ISO cap, Owner will always bid.

c) If bid is "excessive" it will not clear the market unless there are insufficient bids.

d) However, if bid insufficiency exists then **ALL** bidders can inflate their bids, whether or not they are RMR.
Conclusions

a) Notwithstanding the contention of the ISO Market Surveillance Committee, the presence and structure of the RMR contracts do **not** motivate RMR owners to withhold capacity from the ancillary services markets.

b) Capacity withholding is only likely to occur if the ISO cap is lower than the RMR Owner's opportunity cost.

c) Even then, the Owner's uncertainty about being dispatched as RMR will usually motivate him to bid.

d) RMR Owners are no better positioned to take advantage of bid insufficiency than any other ancillary services supplier.