RC_2010_37
Calculation of the Capacity Value of Intermittent Generation - Methodology 2 (Griffin Energy)

Submitted by

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Date submitted:	4 February 2011

Submission

1. Please provide your views on the proposal, including any objections or suggested revisions

Please note that Rule Changes 25 and 37 are mutually exclusive. LGP has therefore assessed them both in combination and lodged a nominally identical submission in respect of both (the difference being in the title).

LGP opposes both Rule Change Proposals.

LGP wishes to declare that it operates three Facilities registered as Intermittent Generators with Certified Capacity of 8MW and has no commercial interest in Wind Farms.

LGP has fully participated in the IMO's various Working Groups pertaining to these matters, and in particular the Renewable Energy Generation Working Group (REGWG), which spawned the two Rule Change Proposals.

LGP acknowledges that the prospective penetration of wind farms on the power system is of the utmost importance to power system operation and market development, and endorses the resourcing, process and deliberations of the REGWG. LGP also supports the present phase of the process in which the IMO has lodged a Rule Change Proposal and Griffin Energy has responded with a counter-Proposal. LGP considers this phase to be a necessary escalation of the process, whereby corporate and philosophical positions will be manifested and assessed against their potential real-world consequences.

The REGWG developed various options with a view to optimizing the following ideals, which were distilled from the Market Objectives in respect of Renewable Energy:

i) Transparency
ii) Simplicity
iii) Continuity of valuation for existing facilities (Regulatory Risk)
iv) Volatility
v) Practicality
vi) Robustness (extent to which it represents commercial and power-system reality)

While the Working Group did not prioritise any particular ideal, the principal issues with the existing valuation system are its deficient Robustness and Practicality; most would agree that it is Transparent, Simple, Continuous and Stable (non-Volatile). However, it discriminates against solar technologies and doesn't reliably value the contribution to system capacity at peak times. It also omits even basic signalling of the timing of Planned Maintenance and the value of the energy it produces.

LGP supports System Management's contention that the Power System cannot be operated on the basis of average outputs, and accepts its contention that operating experience indicates that wind-generation is unreliable during the System Peak. While LGP has previously pressed System Management to be 'less conservative', on reflection, we are now persuaded that "Punter" Brown and his team have adopted a generous position of valuing wind at up to 20% of its Maximum Sent Out Capacity. But for System Management's comfort with such a high number we would otherwise be concerned that it is too high for the purpose of System Planning.

LGP opposes both of these proposals for the following reasons:

a) They violate Ideal iii) (Continuity – Regulatory Risk) without substantive justification. LGP submits that while well-considered and substantiated wealth transfers can in principle support the Market Objectives, the wealth transfers contemplated by both proposals are arbitrary and neither was recommended by the consultant undertaking the study. While LGP considers the consultant's recommendation to also be arbitrary, it is of higher standing with respect to political or commercial bias. That said, LGP also does not support the consultant's proposal per se, but we would be willing to accede to it on the grounds that it is a consultant's recommendation at the end of a thorough and well resourced deliberation amid a complex and commercially-competitive context. While we would accede to it, it should be noted that the following comments would nonetheless apply.

b) They violate Ideal ii) (Simplicity). Developers and their financiers need to be able to understand the valuation and accurately forecast it. Capacity Payments represent highly creditable cash flows and complication reduces their credibility.

The switch to Load for Scheduled Generation (LSG) also aggravates this; while system demand data is readily available, LSG is not.

c) They violate Ideal iv) (Volatility). In addition to financiers requiring stable cash flows in order to minimize financial risk, it is in the best interests of the market to avoid dislocations in the forecast capacity shortfall published in the Statement of Opportnities. LGP perceives that under both options a “high-wind year” could impair system security via a false signal of no requirement for peaking capacity two years out, leading to a potential call on Supplementary Reserve Capacity and its associated expense and disruption.

d) They violate Ideals iv) (Practicality) and v) Robustness in a similar manner to the present system. While they potentially half the magnitude of the potential capacity shortfall, the fact remains that there is no guarantee that the wind will blow at the required time to the statistically determined level. Furthermore, the use of LSG would eventually lead to Solar PV generation not contributing to the system peak because SPV penetration would displace the peak into the evening.

e) They violate Market Objective c) (Non-Discrimination against technologies) by utilizing the new concept of in a manner quarantined to this issue without contemplating its generalization to the entire market. In particular, if LSG has merit on the supply side in this regard, it would presumably also have merit on the demand side that drives the supply side. LGP considers that for the use of LSG to be non-discriminatory, it would be first necessary to assess its use in respect of the Peak Demand forecast in the Statement of Opportunities, the 12 Peak Intervals upon which the IRCR is based, and the valuation of Demand Side Management. LGP notes the conclusion of the Working Group that the use of LSG instead of the traditional system demand leads to lower valuations. While that may be a logical outcome of a full review of the use of LSG, in its present form, its use just aggravates their arbitrary nature.

f) LGP considers that the financial impact on Wind Generation as a result of the initiatives of the REGWG must be considered holistically rather than in isolation. In particular, we perceive the combined impact of the present proposals plus the prospective Ancillary Services changes will impair the economics of Wind Generation to such an extent as to avert the high wind penetration that they supposedly seek to facilitate.

g) LGP considers that the present valuation method was established as a means of building into the Market Rules a subsidy favouring Intermittent Generators. While we acknowledge that Market Objective c) provides for non-discrimination across technologies, we submit that this objective was intended to operate so as to preserve the initial subsidy. We perceive that it was decided at the outset that Market Customers would fund the subsidy and that they would do so via the Capacity Mechanism. That said, we note that the outcome of the present system is effectively an energy payment and that it could equally be allocated to Market

Customers on the basis of consumption in a similar manner to the Market Fees. Furthermore, the amount of the subsidy has increased significantly beyond energy-price escalation via the linkage to capacity. We perceive that philosophically the subsidy is payable on the grounds that wind generation from time-to-time displaces Scheduled Generation and consequently drives the Balancing Market down the cost curve to lower prices. Noting that recent certifications of new capacity have centred on DSM and diesel fuel, this phenomenon will become increasing important as a principal source of low SRMC energy. We submit that the error in the Market Rules that needs to be remedied is the linking of this energy payment to the forecast of required capacity via the Planning Criteria. We submit that wind should be valued very conservatively for the purposes of generation planning, but without materially impacting the value of the subsidy. We also consider that an energy payment could be structured into peak and off peak periods so as to signal the desired behaviour and properly reward the contribution of solar generation.

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2. Please provide an assessment, whether the change will better facilitate the achievement of the Market Objectives

LGP submits that the proposed Rule Changes conflict with the Market Objectives, as follows:

(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;

Will deter Wind Farm developers in general and Power Station Developers in general via perception of Regulatory Risk and impaired economics and increased financial risk of Wind Farms. Will also cause dislocations in the Reserve Capacity Forecast according to the correlation of the wind with the System Peak 2 years previously.

(b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;

Will deter Wind Farm developers in general and Power Station Developers in general via perception of Regulatory Risk and impaired economics and increased financial risk of Wind Farms.

(c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;

Discriminates against Intermittent Generators through the use of Load for Scheduled Generation, which should equally apply to the demand side of the dichotomy. Also discriminates against Intermittent Generators through removal of a subsidy that was purposely built into the original Market Rules.

(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and

Will increase the cost of energy by impairing the development of low-SRMC Wind Farms in the phase of increasing gas costs, decreasing gas availability and carbon-impaired coal fuel.

(e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

Neutral

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3. Please indicate if the proposed change will have any implications for your organisation, (for example changes to your IT or business systems) and any costs involved

LGP is unable to assess the impact of the proposal because of its lack of simplicity and transparency. However, if the impact is material, it would cause LGP to re-register its Intermittent Generator Facilities as Scheduled Generators

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4. Please indicate the time required for your organisation to implement the change, should it be accepted as proposed

LGP would potentially need to re-register its facilities and would welcome facilitation of this as part of the change.