Considerations for Solar Feed-in Tariffs and Domestic Feed-in Rates

The establishment and annual review of a domestic feed-in rate is a crucial step in addressing electricity pricing and ensuring a fair and equitable energy market. With the sale of prime NSW electrical assets, the energy market now operates in a dual state—either entirely free or regulated by a reasonable government. It is the responsibility of a forward-thinking government to reclaim control of these landmark engineering assets and take ownership of the power generation grid, setting the stage for a sustainable, carbon-neutral future.

While acknowledging the challenges posed by aging base-load generation sites, a hybrid interim solution is required to transition toward a more sustainable energy system. The term "Domestic Feed-in Rate" must be emphasized as distinct from the rate applied to commercially produced solar energy, reflecting the unique contribution of residential solar producers.

Observations from Consultation Processes

Having participated in various electricity pricing consultation processes, it is very clear that more robust public engagement is needed. The solar feed-in benchmark pricing, modelled by IPART as a recommendation to regulators, lacked meaningful input from the public, retailers, and wholesalers. This raises concerns about the consultation process being more aligned with the interests of wholesalers, particularly Ausgrid, than with broader community or consumer needs.

The proposed demand and supply charges for exceeding 200 kWh of solar feed-in during daytime in the Sydney metropolitan area appear inequitable and poorly justified. Retailers, while notably silent, seem poised to amplify these charges, leveraging IPART recommendations to secure private profits—often at ratios as high as 3:1.

Ausgrid's rationale for charges and penalties, including oversupply from systems exceeding 5 to 10 kW, lacks transparency and fails to account for the existing capacity and conditions of domestic networks. Additionally, discussions about community battery solutions remain vague and disconnected from practical implementation.

Where charges are introduced, existing solar generators—who have collectively invested billions into the network—must be protected by grandfather clauses.

Policy Gaps and Recommendations

1. **Incentives for Green Energy Production**: Despite the significant contributions of residential solar producers, there are no clear incentive schemes, such as bonus credits or long-term cash exchange rates, for green energy supply. The absence of a guaranteed percentage return over the next 20 years undermines the government's commitment to driving green energy adoption.
2. **Addressing Grid Contribution Inequities**: Current policies disproportionately penalize existing residential solar generators while sparing new developments the costs of poles and wires as part of infrastructure. This imbalance must be rectified by ensuring new developments bear these charges as part of planning and construction.
3. **Reliability of Poles and Wires**: In regions like Ku-ring-gai, the existing poles-and-wires infrastructure is prone to outages due to weather and environmental exposure due to tree interferences. Despite community calls for underground cabling, Ausgrid has dismissed these proposals without thorough cost or benefit analyses. Such dismissals perpetuate inefficiencies and leave areas vulnerable to recurring outages.
4. **Transparent Calculations and Approvals**: The current approval processes for solar back-feed systems require greater clarity and consistency. All applications are assessed for network compatibility to prevent saturation, yet these approvals seem disconnected from broader incentives or credits for reducing emissions.

Case Study Example

For context, consider my household generating **15 MWh** annually with a system regulated to a 10 kWh back-feed limit. This household's consumption of **21 kWhr / day** is less than half of its annual production, contributing **a significant surplus (51%) to the wholesale market**. However, the lack of transparency from retailers, such as

Energy Australia or AGL, about the value of this contribution underscores the need for clearer, more equitable policies. Additionally, the introduction of penalty charges and vague costs tied to poles and wires compounds the financial burden on residential solar producers.

Tiered Metering System

An examination of a 12-hour period of solar energy generation and consumption highlights several issues with the current tiered metering system. The primary concern is that the tiered structure lacks consistency, as it is not fixed across Winter, Summer, and Shoulder seasons. Frequent quarterly adjustments undermine the purpose of the tiered system as a tool for demand management and consumption strategies, such as shifting usage to off-peak periods.

Currently, peak consumption is defined as occurring between 2:00 PM and 8:00 PM. However, solar power generation during the summer months occurs from approximately 7:00 AM to 7:00 PM. This misalignment raises the question: Why does peak consumption commence at 2:00 PM when most households, particularly working families, are not actively consuming energy until 3:30 PM to 7:00 PM? This discrepancy affects total billing and restricts opportunities for time-of-use operational strategies. To address this, solar feed-in rates should adopt a two-tiered or three- tiered rebate system, with a differentiated rate for generation before 2:00 PM and a significantly higher rate after 2:00 PM increasing to 8PM

GST and ATO Rulings

The current approach to rebates and billing appears outdated and misaligned with modern expectations for cost savings from residential solar production. Residential solar producers should be compensated with GST credits for their energy production. However, the present system adds GST to the gross bill and provides a credit for surplus supply, leading to excessive GST collection. This approach, potentially based on an outdated ATO ruling, warrants review. Treating residential solar producers as

commercial enterprises for spot rate calculations is problematic and challenges the accuracy of billing. It is essential to ensure fairness and transparency in this process.

Metering Data and Transparency Obtaining accurate metering data from retailers, such as Energy Australia or AGL, remains a significant challenge. When data is provided, it is often overly complex and difficult for the average consumer—or even a professional analyst—to interpret. A simplified format and summary system are necessary to ensure billing transparency and accuracy. Verifying bills without specific independent site-level data logging analysis is currently unfeasible, and this complexity will only increase with the introduction of demand charges by Ausgrid. All billing systems must be designed to provide clear, verifiable data to avoid escalating customer dissatisfaction and associated costs.

Commercial vs. Residential Solar Systems

Residential solar systems are typically limited to 5–10 kW and are not commercial enterprises. Unlike commercial solar producers, residential users do not have access to GST credits, tax deductions, or other mechanisms to offset costs. It is concerning that wholesalers, such as Ausgrid, are considering additional charges for residential producers, who primarily rely on the grid for supplementary power. This stands in contrast to commercial suppliers, who benefit from economies of scale and infrastructure investments. The Independent Pricing and Regulatory Tribunal (IPART) must reconsider its pricing advice to reflect the distinct challenges faced by residential solar producers.

Base Load Power and Market Regulation

Base load power pricing could be reduced through government regulation of retailer profit margins. Solar energy, being supplementary rather than base load power, should not be treated equivalently. Retailers' practices of annually altering billing strategies and imposing hidden penalties exacerbate consumer dissatisfaction. A more effective approach could involve simplifying the energy market by eliminating private retailers and reintroducing government ownership of energy assets. This would allow for stable pricing, reduced extraneous charges, and more equitable billing practices. The Federal

and New South Wales Governments should prioritize this as part of a long-term vision for sustainable energy infrastructure.

Summary and Recommendations

While IPART's recommendation to increase solar costs by approximately 3% (as a flat rate) from July this year is noted and welcomed, this falls short of addressing inflationary pressures, which more accurately reflect a cost-of-living increase of around 30%. The existing retail pricing structures and penalties further exacerbate the financial burden on consumers. Comprehensive reform of metering systems, a two or even a three-step generation rebate system, GST treatment, and energy market regulation is essential to ensure fairness, transparency, and long-term sustainability for both residential and commercial energy users. Especially consideration to residential customers to be more equitably treated to larger stepped rebates as opposed to providing retailers with free energy.

Please contact me for any clarification of my thoughts in this piece.

Kind regards

Mr Craig Sammut

[redacted]

And a concerned electricity producer and consumer.

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Ausgrid 2023-2024 Local Council Community Electricity Report

Region	Local Government Area	Residential						Solar					Non-residential small-medium sites (0-160 MWh pa)		Non-residential large sites (>160 MWh pa)		Unmetered supply (eg. street lighting)
		Daily average (kWh per customer per day)	MWh			Customer Numbers		Number of solar customers		Generation capacity (kWp)		Energy exported to the grid (MWh)	MWh	Number of Customers	MWh	Number of Customers	Total (MWh)
			General Supply	Off Peak Hot Water	Total	Off Peak	Total	Res	Non-Res	Res (kWp)	Non-Res (kWp)						
Sydney LGAs	BAYSIDE*	12.1	279,232	24,774	304,006	14,530	68,896	5,859	355	34,511	9,590	27,095	136,613	6,561	244,892	412	4,610
	BURWOOD	12.0	62,422	2,970	65,392	2,018	14,971	1,259	61	7,353	1,249	5,502	38,457	1,655	82,928	109	818
	CANADA BAY	12.8	175,823	6,677	182,500	4,630	39,106	3,349	135	21,119	4,936	15,544	67,555	2,937	109,653	199	1,242
	CANTERBURY-BANKSTOWN*	14.3	645,891	64,284	710,176	34,361	135,765	18,833	1,002	109,000	36,399	87,752	231,023	12,312	498,320	661	7,502
	CUMBERLAND**	12.3	99,783	7,027	106,809	3,775	23,774	3,086	214	16,724	10,551	15,757	71,148	2,739	125,703	219	1,892
	GEORGES RIVER*	13.8	264,490	34,205	298,695	18,201	59,487	7,866	295	48,064	7,946	36,112	88,716	5,748	164,477	242	2,627
	HORNSBY*	16.8	285,498	43,668	329,166	20,202	53,798	11,817	270	75,548	8,085	51,179	75,713	4,355	139,152	229	2,691
	HUNTERS HILL	20.8	40,387	2,512	42,899	1,263	5,643	750	15	5,070	290	2,682	8,038	447	13,075	22	305
	INNER WEST*	11.2	342,783	10,426	353,209	8,317	86,076	7,474	536	37,720	13,607	26,839	175,087	8,941	218,200	406	4,975
	KU-RING-GAI	20.1	306,790	27,636	334,426	13,924	45,502	8,248	148	61,206	4,474	33,184	54,840	2,760	94,875	168	2,816
	LANE COVE	14.5	85,782	3,517	89,299	2,084	16,833	1,880	73	12,802	1,879	7,183	37,693	1,701	71,287	138	967
	MOSMAN	16.8	83,849	2,945	86,794	1,771	14,179	1,082	39	7,856	764	4,153	22,155	1,231	14,869	39	624
	NORTH SYDNEY	10.9	155,103	4,072	159,175	2,639	40,019	1,056	99	5,989	2,105	3,684	117,361	6,543	186,091	306	1,371
	NORTHERN BEACHES*	14.9	541,987	51,487	593,474	29,662	108,993	17,373	577	112,745	16,044	72,360	194,345	11,549	288,544	471	5,847
	PARRAMATTA**	11.1	78,992	4,671	83,664	2,374	20,696	2,716	168	11,016	6,395	8,847	61,857	1,856	264,596	313	814
	RANDWICK	12.1	262,052	15,449	277,501	9,320	62,929	5,200	188	32,445	5,342	23,316	75,713	3,601	182,768	251	3,392
	RYDE	12.8	225,976	16,799	242,775	9,384	51,784	6,157	219	37,686	8,553	26,277	114,507	4,550	374,145	523	2,949
	STRATHFIELD	13.4	75,815	3,354	79,169	2,033	16,216	1,529	129	10,732	9,767	8,392	45,782	1,759	112,408	177	933
	SUTHERLAND SHIRE	17.5	494,572	94,616	589,188	40,934	92,178	17,179	441	112,837	12,246	80,296	142,712	8,379	223,321	348	4,980
	SYDNEY	9.6	397,094	6,747	403,841	4,301	115,617	2,050	643	8,784	17,702	8,630	720,711	32,243	1,901,160	2,381	5,674
	WAVERLEY	12.3	154,782	3,566	158,348	2,837	35,183	2,081	89	12,886	1,983	7,939	52,793	2,775	93,596	149	1,268
	WILLOUGHBY	13.8	155,247	6,606	161,853	4,234	32,222	3,676	180	23,725	5,272	15,118	99,921	5,193	235,428	307	1,542
	WOOLLAHRA	17.9	179,822	5,911	185,733	3,641	28,449	1,353	91	10,107	1,408	4,814	53,162	2,902	50,097	98	2,000
	Sub-total (Low Voltage)	13.7	5,394,174	443,918	5,838,092	236,435	1,168,316	131,873	5,967	815,927	186,586	572,654	2,685,902	132,737	5,689,585	8,168	61,840
	Non-Res (High Voltage)														3,281,402	291	
Central Coast and Hunter LGAs	CENTRAL COAST*	15.3	725,375	154,322	879,696	79,954	157,069	38,778	1,143	229,505	39,551	181,769	220,471	12,850	507,994	685	7,215
	CESSNOCK	16.9	156,930	19,127	176,057	10,525	28,497	8,876	340	59,920	13,556	54,274	44,703	1,922	74,278	138	1,378
	LAKE MACQUARIE	15.7	428,849	94,987	523,836	52,453	91,377	27,470	760	165,533	20,282	136,587	126,100	7,301	192,826	386	3,141
	MAITLAND	16.2	200,441	23,714	224,154	12,876	37,849	12,358	380	81,983	13,922	69,150	68,367	3,224	84,727	152	2,073
	MUSWELLBROOK	20.0	45,033	9,494	54,527	4,395	7,472	1,877	116	13,009	2,376	11,333	32,190	1,374	20,474	45	463
	NEWCASTLE	13.0	310,203	46,643	356,845	28,906	74,977	15,449	784	85,811	29,055	81,514	171,274	8,602	261,296	478	3,464
	PORT STEPHENS	15.8	170,933	41,008	211,941	23,374	36,637	11,159	358	67,727	10,633	65,913	60,019	3,111	88,652	188	1,426
	SINGLETON	21.1	67,523	12,365	79,888	6,045	10,349	3,394	207	25,017	8,542	20,957	34,055	1,727	33,394	80	441
	UPPER HUNTER	20.5	37,069	7,239	44,308	3,489	5,929	1,519	130	10,277	2,457	8,720	25,981	1,273	9,769	26	281
	Sub-total (Low Voltage)	15.5	2,142,356	408,896	2,551,252	222,017	450,156	120,880	4,218	738,784	140,372	630,217	783,161	41,384	1,273,410	2,178	19,883
	Non-Res (High Voltage)														2,225,466	194	
Not assigned			98	0.1	98	7	310						4,538	102	3,279	17	51,788
Total		**14.2**	**7,536,627**	**852,815**	**8,389,442**	**458,459**	**1,618,782**	**252,753**	**10,185**	**1,554,711**	**326,958**	**1,202,871**	**3,473,601**	**174,223**	**12,473,142**	**10,848**	**133,511**

Electricity usage notes

1. Electricity use data is for the 2023-24 financial year is based on network bills issued up until September 2024 for homes, businesses and other customers in our network area.
2. Electricity use data for all metered low voltage customers has been split into four categories:
   i) 'General Supply' refers to electricity used from the grid in residential properties excluding controlled load (off peak) hot water.
   ii) 'Off peak hot water' refers primarily to controlled load residential usage primarily from storage hot water systems.
   iii) 'Non-residential small-medium sites' refers to non-residential customers supplied at low voltage with annual usage from the grid typically less than 160 MWh per year as determined from network tariff assignment
   iv) 'Non-residential large sites' refer to non-residential customers supplied at low voltage with annual usage from the grid typically greater than 160 MWh per year as determned from network tariff assignment
3. Unmetered supply consumption is for the street lighting for each local council plus other unmetered supplies.
4. "Not assigned" customers are customers outside the 32 Local Government Areas listed
5. "High voltage customers" are large non-residential customers connected at 11kV or greater (eg. industry, mining, transport infrastructure, some large universities and hospitals).
   Information for high voltage customers by LGA is not released due to confidentiality concerns.
6. Customer numbers are the average number of customers over the financial year.
7. Solar energy generation is the total electricity exported to the grid from small solar power systems as recorded by electricity meters. The total includes electricity exported from both gross and net metered solar power systems.
   Solar energy generation does not include the solar power used directly within homes with a net metering arrangement.
8. Number of solar customers and solar panel capacity are figures recorded as connected by Ausgrid as at 30 June 2024 and information is derived from customer connection applications for embedded generation systems.
9. Year to year changes are strongly influenced by weather and other factors. Data has not been corrected for weather variations or other factors.
10. Data should be used with caution when comparing with ABS data or other external data sources. Contact Ausgrid for assistance in interpreting data.

Council boundaries and amalgamations

*During 2016-17 some local councils were amalgamated or changed boundaries including;
   a) Auburn council was amalgamated into either Cumberland or Parramatta LGAs
   b) Amalgamation of previous councils into: Bayside, Canterbury-Bankstown, Central Coast, Georges River, Inner West and Northern Beaches
   c) Part of Hornsby was amalgamated into Parramatta Council
   d) Customers in the Cumberland and Parramatta councils are served by Ausgrid or Endeavour Energy depending on their specific location. This report only includes those customers in Ausgrid's network area

For further information please email: **sharinginformation@ausgrid.com.au**