THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

REA Member Forums Meeting

5th November 2019

A warm welcome to REA members working in the solar, energy storage, electric vehicles, large scale power markets and finance areas.

THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

REA Solar Forum

10.00-11.15

Kindly chaired by Johnathan MacDonald-Brown, CEO, Syzygy Consulting

THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

Policy & Market Update

- Module prices update
- Building regulations part L review
- VAT on Domestic Energy Saving Materials

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Market Update

PV Module Pricing

(as of 1st June 2019)

Below 300 Watt

	Installer Price		volume price	
	£/panel	£/wp	£/panel	£/wp
Average	£ 85.78	£ 0.319	£ 84.80	£ 0.315
Median	**£ 68.95**	**£ 0.253**	**£ 68.11**	**£ 0.250**
High	£ 140.60	£ 0.574	£ 138.89	£ 0.567
Low	£ 60.51	£ 0.224	£ 59.77	£ 0.221

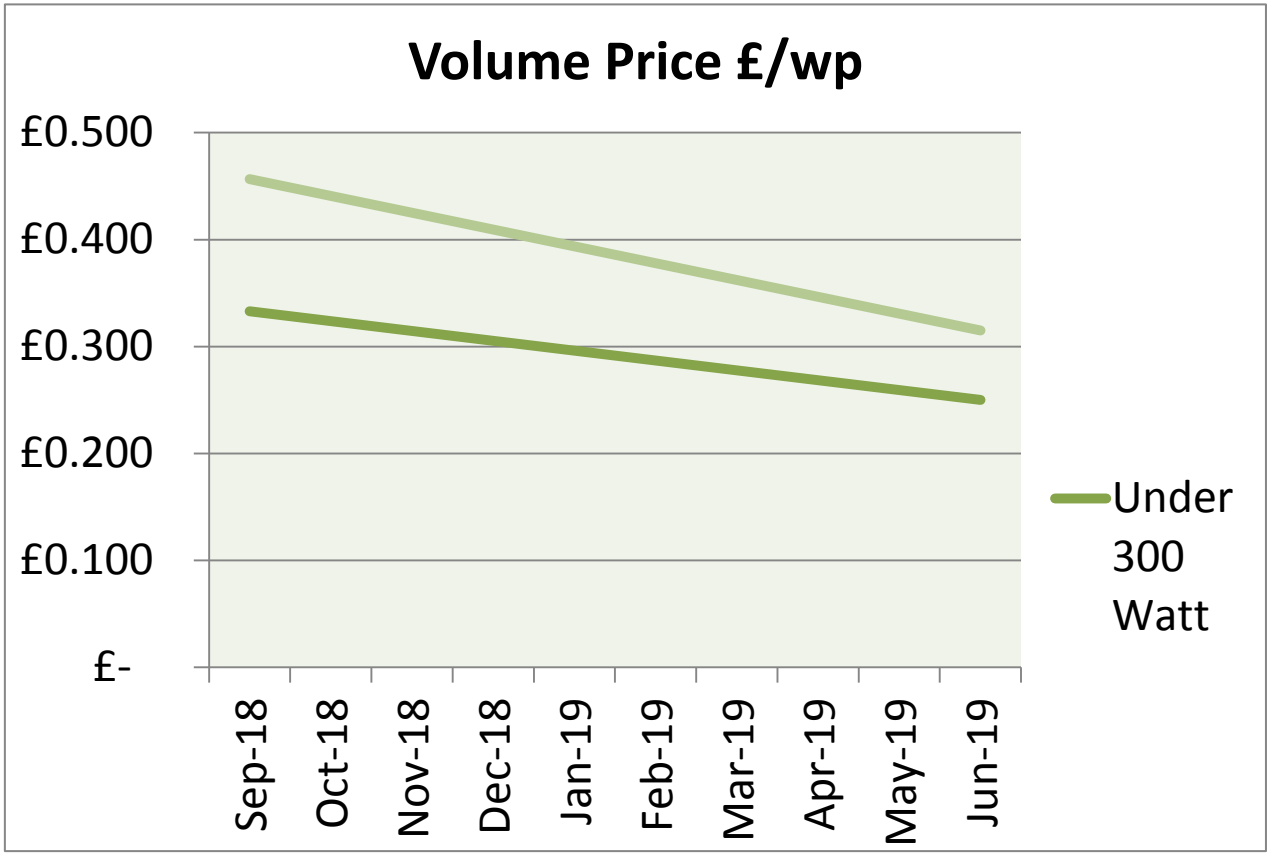
300 Watt or above

	Installer Price		volume price	
	£/panel	£/wp	£/panel	£/wp
Average	£ 127.04	£ 0.386	£ 120.86	£ 0.368
Median	**£ 102.14**	**£ 0.319**	**£ 100.90**	**£ 0.315**
High	£ 257.44	£ 0.696	£ 195.25	£ 0.539
Low	£ 79.83	£ 0.266	£ 78.85	£ 0.227

Data from Alternergy

Market Update

PV Module Pricing



20-30% fall in module costs from Sept 2018 to June 2019

Data from Alternergy

Part L – Conservation of Fuel and Power

Building regulations review

Building regulations review

Part L – Conservation of Fuel and Power

- **MHCLG Consultation released, open until 10th January 2020**
- **Will be implemented in 2020, as a primer for the Future Homes Standard in 2025**

Building regulations review

Part L – Conservation of Fuel and Power – new dwellings only

- **MHCLG Consultation released, open until 10th January 2020**
- Proposes two options:
  1. 20% reduction in carbon emissions, compared to current standard (larger focus on energy efficiency measures, still includes gas boiler)
  2. 31% reduction in carbon emissions, better fabric standards although not as high as option 1, includes solar PV

  Option 2 is the government's preferred option

Building regulations review

Part L – Conservation of Fuel and Power – new dwellings only

- **MHCLG Consultation released, open until 10th January 2020**
  - (3.13) The government proposes to introduce a **'Householder affordability rating' into Part L**, essentially to prevent developers installing direct electric heating which has a low capital cost but burdens the occupier with high running costs.
  - (3.40) Future proofing new homes that have a gas boiler installed between now and 2025 is proposed, with a proposal to **require that radiator systems are sized to run at low temperature (<55°C), making them heat pump and heat network ready.**
  - (3.53) New tables have also been added to **SAP allow for the monthly variation of electricity, CO2 and primary energy factors**. This is a constructive move, reflecting that, at present, the carbon burden of grid electricity varies across the year and is higher in the heating season, the concern here is that these tables will likely become rapidly outdated.
  - Re-structuring of the Part L guidance from the current **seven documents into two (dwellings, non-dwellings)** is proposed, as part of a broader effort to simplify available guidance.

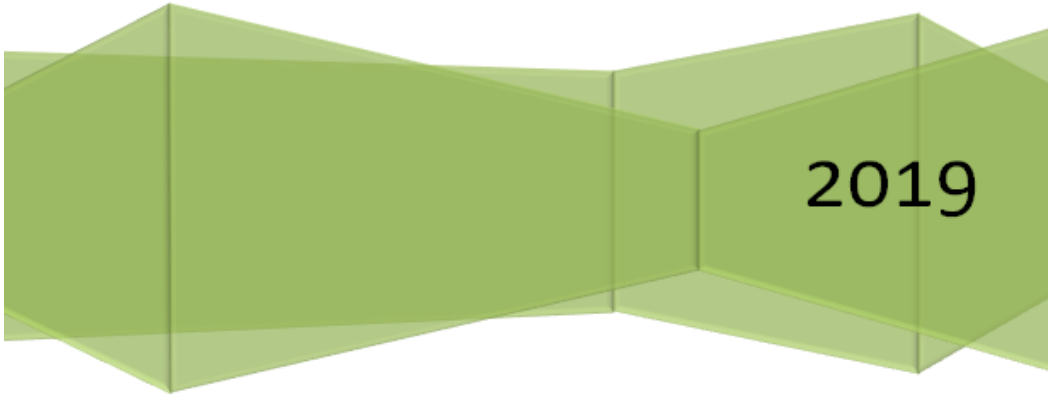
Building regulations review

Renewable Energy Association

Buildings as Power Stations; Homes Fit for the Future

Opportunities in the Future Homes Standard and Building Regulations Part L (Conservation of Fuel and Power) Review

A briefing for parliamentarians, civil servants and construction sector stakeholders



Building regulations review

This briefing calls for five key policy implementations which are crucial as a baseline for all new homes:

1. Solar PV Roofing
2. Smart Electric Vehicle Charge Points
3. Home Energy Storage
4. Three-Phase Electricity Supply
5. Renewables and Clean Tech to be fairly acknowledged in EPCs and SAP
6. Considerations must be made for renewable heat

Building regulations review

1. Solar PV roofing as mandatory in all new buildings

Retrofitted solar PV has an average payback time of 9.5 years[7], unlike standard roofing which is a sunk cost. This means that over a 30 year period, solar roofs will not only be effectively free, but will have paid back 2-3 times their cost. This is without government support, although Smart Export Guarantee tariffs will allow prosumers to sell their excess power to the grid from 2020. Significant cost savings can be realised when installing solar PV on a new building, rather than when retrofitted, as scaffolding for example will already be in place.

Solar PV costs have been falling rapidly since their initial development, and we are now seeing innovations from UK manufacturers such as Solar Roof Tiles (which can blend into roofs clad with concrete or clay roof tiles, or slates), solar glass (used for large office blocks or greenhouses), and solar bricks, falling to competitive prices. Clarification in legislation is also required on these building integrated solar innovations, confirming permitted development rights to local authorities on technologies such as solar tiles, solar glass and solar bricks – see box 1 for more on this.

Micro grids are also encouraged for apartment blocks, or relevant developments, offering greater savings than standalone houses due to the reduced costs of one large installation over many small installations, in addition to better utilised energy consumption (due to a larger range of consumption patterns from consumers) in comparison to smaller standalone installations.

Building regulations review

Box 1 - Innovations in Solar and Legislative Change Required

- Commercial installations - Panels must be situated at least 1 meter from the edge of the roof under permitted development. This should not be required for building integrated solar panels or solar tiles on pitched roofs, to utilise the available space for energy generation.
- Solar tiles and solar glass should not be subject to visual impact regulations, considering their similarity to roof tiles, and are a perfect fit for properties in conservation areas and World Heritage Sites
- ...

Value Added Tax

VAT on Domestic Energy Saving Materials

Implemented on 1st October 2019

The changes include:

- Removal the lower 5% rate for Energy Saving Materials in most instances but maintain the reduced rate on installations of Energy Saving Materials in residential accommodation for **recipients who are aged 60 or over or receiving certain benefits, and for housing associations**
- remove the reduced rate entirely for the installation of wind and water turbines
- maintain the reduced rate for all other installations in residential accommodation where the **cost of the materials does not exceed 60% of the total cost of installation**

Value Added Tax

VAT on Domestic Energy Saving Materials

We have undertaken a number of actions to highlight and campaign against the issue and will continue to do so, keeping it on the agenda for after October:

- Meetings held with HMT, HMRC and BEIS to oppose measures
- Two press releases highlighting and opposing changes- coverage in Independent (including Editorial), Daily Mail, Reuters
- Consultation response offering constructive suggested ways forward
- Support for member public petition on issue (over 10,000 signatures)
- Discussions with parliamentarians and APPG Energy Storage chair
- Signatory to two joint industry letters opposing the measure
- Social media activity