

# The energy price shock and European aquaculture farmers

The recent energy price shock has caused great challenges for European aquaculture. Energy prices are vital for the aquaculture industry, but the price shock affects each aquaculture farmer differently. Farmers that had high consumption of energy and lower profitability before the shock were more vulnerable.



**Recirculation Aquaculture Systems (RAS)**, is an example of a production system that requires high levels of energy consumption.

Photo: Terje Aamodt

Researchers from the FutureEUAqua project have developed a model that can help policy makers and industry to predict costs of production when the energy prices are changing. The analysis does not include other changed costs.

## **Beyond the farmers' control**

Uncertainty is one of the biggest challenges facing the aquaculture industry. Each farmer has unique circumstances. Their situation depends on some factors beyond their control such as feed costs, contractual agreements, market conditions, and national government policies.

Here are some examples of what different farmers are facing.



**The Danish farmer producing trout in RAS (highest impact)**

This Danish farmer invested in costly equipment to improve water management. Before the crisis he had lower profitability because of the investments. Energy costs are a high percentage of his total cost. This makes the farm vulnerable when the energy prices spike and therefore profit falls as much as 200%.



**The Irish salmon cage farmer (2<sup>nd</sup> highest impact)**

The Irish farmer lost up to 25% of her net profit. Before the crisis, she had a stronger financial position than many other European aquaculture farmers. The energy shock has so far been smaller in Ireland. Yet, the energy cost are a high share of her farm's budget. This makes the farm vulnerable to the price shock.



**The Greek sea bass and sea bream cage farmer (3<sup>rd</sup> highest impact)**

The Greek farmer was modestly affected by the energy price increase. He was less vulnerable because his energy costs were lower, and he had a reasonable profit prior to the crisis.

**Summary**

One size does not fit all when addressing the significant challenges for the European industry. The model can be used to inform decision makers on how best to support the farmers.

**Method**

Data on the economic performance of aquaculture farmers was collected from the Scientific, Technical and Economic Committee for Fisheries website. A simulation model was prepared to assess impacts on the various production systems and countries. A correction for general inflation was applied to enable analysis of energy prices shocks only.



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**Contacts:**



**Sander van den Burg**  
Researcher  
[sander.vandenburg@wur.nl](mailto:sander.vandenburg@wur.nl)  
+31 703358129



**Oda Bjørnsborg**  
EU Communication Officer  
[oda.bjornsborg@nofima.no](mailto:oda.bjornsborg@nofima.no)  
+47 404 84 930

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