

# Hydrocarbon Accounting. Reimagined

**AN EFFECTIVE HYDROCARBON ACCOUNTING (HCA) SOLUTION SHOULD BE DRIVEN BY THE NEEDS OF THE BUSINESS BUT ALL TOO OFTEN IT'S THE BUSINESS THAT HAS TO WORK AROUND THE SOFTWARE. CHANGE YOUR RELATIONSHIP WITH SOFTWARE WITH ENERGISYS' WORLD-BEATING AGILE HCA SOLUTION.**



## THE RIGHT HCA SOLUTION SHOULD:



Accommodate the specific accounting and technical requirements of the production asset(s), without specialist changes being required.



Improve the efficiency of the HCA processes and reporting through automation.



Remain current with technological advances, and new features, offered by the vendor so that it does not become out-of-date.



Provide a sound basis for audits.



Accommodate future change efficiently and effectively. For example, the addition of assets, demands for new or different data and reports, changes to allocation philosophy, and new metering.



Reduce and/or remove manual intervention or manipulation of production data.

Energy companies operate and manage a wide variety of assets, including onshore and offshore wells, platforms, pipelines, and LNG plant and regasification facilities.

The objective of oil and gas companies is to maximise the value achieved from their increasingly complex assets, and to meet the demands of shareholders, partners and national governments. To achieve this, they need timely and accurate production data that can support performance analysis and decision making. They need to be able to perform asset-specific calculations such as the allocation of sold quantities to individual producing entities, accounting for different fluid qualities and tracking ownership of product. They must be able to forecast production and revenues in order to plan for the future.

The problem is complex. The topology, the products, the processing, the commercial rules, and the metering, are all different from one asset to the next. Not only that, but this information can be subject to regular change. Customers can change the equipment and process flows in their asset, and acquisition or divestment can require changes in operating and commercial agreements. New partners and new commercial models are common, and the associated agreements are subject to regular change. Further, reporting requirements from management or regulatory authorities tend to evolve, adding information such as emissions data.

Ideally, all this measurement and commercial data, and the associated calculations, would be managed by a single software platform that could adapt organically to support the business as it grew. But traditional software solutions are typically complex, expensive, and inflexible. Customisation of these products can deliver some of what is needed, but only at high cost and at considerable risk. It also relies on the specialist skills of the vendor. The result is a brittle, inflexible data management infrastructure that is a burden to the organisation and restricts their options for growth.

## THE CHALLENGES

## YOU WANT:



Visibility, in that the operator and their customers must be able to view and access appropriate information easily and in a timely fashion.



Security, ensuring that people only have access to the operations and data that they should have.



Auditability, in that every change, whether to calculations or to data, is recorded, versioned, and traceable back to an identified individual or process.



Transparency, in that there should be no "black boxes", and it should be clear how data is being handled and how calculations are done.



Extensibility, so that the accommodation of change in operations or integration can be supported quickly and easily.

## THE SOLUTION

The EnergySys Cloud Platform is the perfect solution for your agile hydrocarbon accounting and reporting needs. It is a revolution in the marketplace and built using leading-edge cloud technologies, designed from the ground up to be highly scalable, and highly secure.

It can provide a solid foundation no matter how many assets you have, or what type they are. There is no other enterprise system that can be delivered as quickly, or with as little services content, as the EnergySys Platform.

Beginning with hydrocarbon accounting and production reporting, the platform allows customers and partners to deliver solutions as configuration on a general, standard low-code platform. The platform has unlimited potential, though, and it has been applied to address a broad spectrum of other technical data management problems in the energy sector, including planning and forecasting, performance analysis, production optimisation, pipeline management, and tracking and reporting greenhouse gas emissions.

The Platform provides a simple, fast, cost-effective way to create secure, enterprise-grade cloud applications that exactly meet the business needs. Custom solutions without software customisation. Business users can configure entire solutions, and change them in the future, without any vendor or third-party assistance. There's no need for specialist programming skills or IT resources, and no on-premises kit to manage. If they need extra resources for this work, or are seeking best practices, they can turn to a growing list of experienced Partners to help.

The Platform provides the end user with enormous flexibility to do the jobs they need to do, to support the specific requirements of their assets, and to accommodate change whenever required.

## ENERGISYS IN ACTION: SUPERMAJOR REALISES MAJOR EFFICIENCIES WITH MOVE TO THE CLOUD



**The Challenge**  
Following a Net Zero pledge and ambitious cost reduction targets, bp decided to re-evaluate their HCA software. Most of their HCA systems were legacy on-premise solutions that were no longer fit for purpose. They were expensive to maintain and update, relying on a host of consultants and specialists to make changes or upgrades. Infrastructure and IT support was costly and time consuming. This did not align with the digital vision of the group going forward and they considered the move to cloud.

**The Solution**  
Having monitored successful EnergySys implementations at some of their subsidiaries, the wider group decided to deploy the EnergySys Cloud Platform globally. Initially rolling out across 3 assets, these deployments represent a major step in the bp's journey from legacy on-premises solutions to advanced cloud-native platforms. It is also significant in that the configuration was carried out in its entirety by an internal managed team from bp with initial go-live in just six months.

**The Outcome**  
Implementing EnergySys to deliver Hydrocarbon Accounting for their assets has seen an increased efficiency in executing the business processes, improved application supportability and a reduction in the overall cost of ownership of the HCA system. The client's team were impressed with EnergySys' capabilities and the simplicity of how it could be configured to deliver their requirements, including process automation and system auditability.

Going forward, the next key increased adoption of low-code development platforms like EnergySys as the bp see they enabled to their reinvention. The self-implementation of EnergySys across their assets is seen, not only as a brilliant demonstration of the platform's power, but also the client's ability to transform.

This is an ongoing project that will see the Supermajor continue to move to cloud from legacy on-premise HCA systems on various assets over the coming years.

*"EnergySys is a nimble database, which can grow and change as Operations explores new ways of producing wells. This is imperative in today's oil and gas climate."*

## WHY ENERGISYS?



The EnergySys Platform is a cloud-native application, using leading-edge cloud technologies, designed from the ground up to be highly scalable, and highly secure.



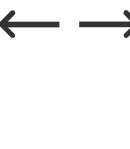
Our focus is not on generating man-time services, but on delivering the most innovative and highest quality technology for our customers and continuing to deliver substantial new features year after year.



It can provide a solid foundation no matter how many assets you have, or what type they are. There is no other enterprise system that can be delivered as quickly, or with as little services content, as the EnergySys Platform.



EnergySys stores its applications as data, not code, and therefore upgrades and new features can be delivered without impact on the client-specific aspects of the system. All clients will always be on the latest release.



The EnergySys Platform is unique in its ability to be configured with the broadest possible range of asset types, with allocation logic of arbitrary complexity, all on a single standard software release.



Every asset can have its own individual logic and workflows, configured to suit the specific requirements, or even the personal preferences, of the asset and its operators. In addition, it's easy to add entirely new applications, and still be on a single standard platform.



The result is a software platform that was built from the ground up to allow users to configure their applications themselves, or employ any trusted third party, using non-specialist tools.

## WHAT DO OUR USERS SAY?

What we've done and how quickly we have done it, would not have been possible with any other tool.

**HCA Team Lead, TAQA Bratani**

After implementing two systems, one to replace a major Enterprise architecture, I can tell you EnergySys jumps the curve when it comes to solving challenges. This along with the "no code" concept makes adapting to ever changing operational requirements very quick and inexpensive.

**Production Measurement and Allocation Team Leader, bp**

We saw EnergySys as an ideal solution because its architecture provides much more flexibility to accommodate change than previous systems. It allows us to layer on extra functionality whilst still allowing upgrades to the underlying base code.

**UK Business Systems Team Lead, Harbour Energy**

After a long period of evaluation, we selected EnergySys as the right tool for us. We were finding it increasingly difficult to make changes quickly and easily with our old system, and we were faced with prohibitive upgrade costs. We were able to deliver a modern solution built on the EnergySys Cloud for a comparable cost to an upgrade of our old system.

**Project Manager, Santos**