

Teralta delivers hydrogen power to the **film industry**. Take one.

Ride along as we implement our first beta test of Teralta's modular hydrogen generators for on-location film shoots.



[WATCH THE VIDEO](#)



Crawford Filmworks produces motion pictures, television series, commercials, and marketing/promotional films with global brands, studios, and streaming services. The company prioritizes clean, sustainable, and fair practices within the film industry, with founder Jacob Crawford an active advocate for sustainable energy alternatives.

Teralta works with Crawford Filmworks, a film production company in British Columbia, Canada. The partnership focuses on the use of mobile hydrogen generators as a cleaner and quieter option to power film shoots.

EODev is an innovator in sustainable, reliable, and economically-viable industrial solutions to accelerate the energy transition. The company is spearheading the hydrogen revolution in the realm of off-grid decentralized electricity production around the world.

The partnership with Teralta focuses on the supply of zero-emission hydrogen power generators that were used during the on-location film shoot beta.

The challenges

Powering an on-location shoot has always been problematic. Saddled with suboptimal solutions including diesel generators and battery packs, the industry faces increasing pressure from local governments and communities to support a more sustainable (and quieter) energy model.

Emissions and noise

Although diesel generators are the current default within the industry, many cities have banned them due to environmental and noise concerns. And more jurisdictions are moving in this direction. These units must run constantly, generating significant emissions and increasing the carbon footprint of the production.

Inefficient alternatives

The other option is battery packs. While these units are much quieter, they don't last as long as diesel. Instead, they serve as a stop-gap measure, used for a few hours at times of day when diesel generators can't run. For example, to power catering in the early morning when noise curfews are in effect. When longer durations and more power are required, production must revert to diesel generators.

For many production companies, powering an on location shoot requires storage and management of these two different systems. With a hydrogen power supply, all use cases are served with a single source, including the provision of fuel for hydrogen-powered production vehicles. The system works within established noise restrictions and enables production to extend beyond curfew hours with no issues.



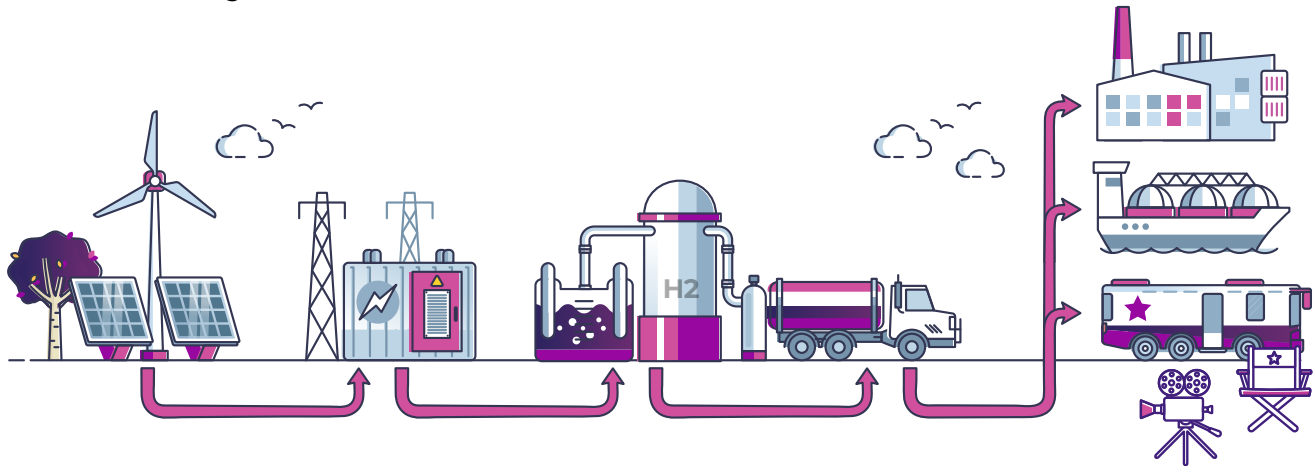
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Hydrogen is a cleaner fuel. It qualifies under the Vancouver clean energy incentive which allows companies to be eligible for up to 50% off the daily fee and late surcharge.”

Jacob Crawford, President
Crawford Filmworks

The technology

Teralta provides hydrogen power units (HPUs) that are optimized for portability and ease of transport, suitable for a range of use cases.



Typical HPU system performance parameters include:



Prime running power
(PRP¹): **100 kVA**



Hydrogen consumption at max
power output: **~4 kg/hour**



Emergency stand-by power
(ESP¹ - 1 hour): **110 kVA**



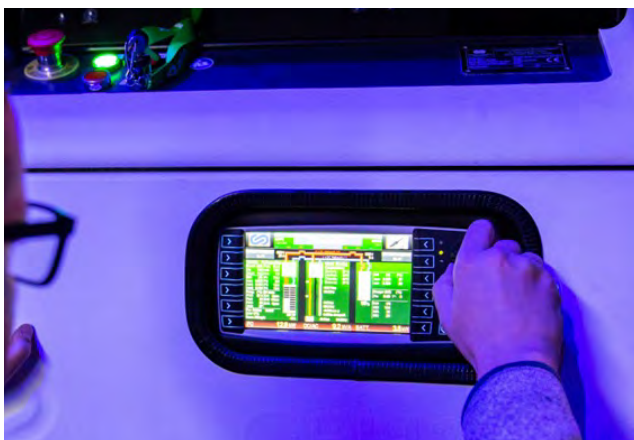
Output voltage²: **208 or 480 VAC,
3 Phase, 60 Hz**



Parallel unit connection max
power: **1+ MVA**



Life span: **13,000 hours**



Ingress protection³: **IP 43**



Ambient operating temperature³:
-10°C to +45°C (14°F to 104°F)



Compliance: **UL/ISO**

The Teralta HPU user interface is intuitive, allowing operators to easily monitor and manage all aspects of the power supply from a single screen.

¹ Based on ISO 8528-1 standard

² Additional voltage output configurations available upon request

³ Extreme operating environment configurations available upon request

The project

Teralta and Crawford Filmworks decided to run the beta during a pilot teaser, a proof of concept for a series. The shoot took place at multiple locations with the circus (the production site) set up in a parking lot. The site needed access to high voltage power for the duration of the shoot.

Set-up

The Teralta hydrogen generator was trucked and craned into position onsite, unlike diesel generators which are towable. This is a mobility requirement that will be factored into the next phase of the project.



The use of a new, clean, and quiet power source really energized the set, with everyone curious and very supportive of the project. There wasn't much of a learning curve as the set-up is similar to other fuel sources used in the industry, such as propane.

Standard safety protocols were reviewed, including the location of high-voltage power lines above the site and the automated line blowing of the generator

which emits a small amount of hydrogen into the air. No special safety measures were required, with existing rules sufficient. For example, no smoking near the generator.

One regulatory requirement was the need to maintain a 15 foot distance between the generator and the hydrogen supply, which was easily managed.

Outcome

Once in place, the Teralta HPU performed better than expected, providing the production with access to clean, quiet, high voltage power.



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*Did the hydrogen generator deliver power?
Yes. Was it silent? Yes. Did people love it? Yes.
These are amazing results!”*

Jacob Crawford, President
Crawford Filmworks

What we loved

The Teralta HPU delivered clean energy, a quiet set, and zero emissions, providing Crawford Filmworks with a longer shoot day and a reduced carbon footprint.

The beta also received an immediate and overwhelmingly positive response from the crew and the industry.



Fuel efficient

Hydrogen generators—unlike diesel—don't burn fuel all the time. Instead, the hydrogen is used intermittently to charge the batteries as needed.



Longer time to shoot

With such a quiet set, shooting went into the night—without any red tape or requests for a noise curfew extension.



Positive support from the crew and the industry

News of the hydrogen beta immediately went viral, with industry groups, unions, rental companies, and large studios reaching out to learn more.

What we learned

As with any beta, the experience allowed us to pinpoint exactly where improvements are required.



Unit footprint

Every inch matters when on-location and the footprint of the HPU with canisters must be modified to align with the size of existing power sources.



Mobility

The HPU and fuel supply must be towable and easily moved to accommodate fluid timelines and unanticipated changes on set.



Refueling

Unlike diesel generators, the Teralta HPU didn't have a fuel supply built in, requiring a 15 foot hydrogen tube to connect the HPU with supply. The design must be streamlined.

Other discoveries include the need to apply a backstop within the hydrogen lines, a standard measure with traditional energy sources. This ensures the HPU is safeguarded from the back feeding of lines which can cause the unit to go down. An easy fix given the technology already exists.

Next Steps

The Teralta and Crawford Filmworks teams are working together to implement the improvements the beta uncovered. A second and final beta is planned when Teralta HPU's will support a full feature film shoot.

In parallel, and based on the immensely positive response the beta received, the teams are actively engaged with other stakeholders to examine additional hydrogen power use cases within the industry.

A demo day model is also in the works, leveraging Crawford's strong network of unions, rental companies, and other industry stakeholders. The demo days will allow technicians and operators to put their hands on the Teralta HPU's and learn about the technology outside the constraints of an on set environment.



It's a fantastic technology that we believe is the future in power generation for the film industry. It's just a matter of how soon. We're working with Teralta to ensure it's as soon as possible."

Jacob Crawford, President
Crawford Filmworks

Teralta provides simple, clean, utility-scale hydrogen for a variety of commercial use cases, helping businesses reduce energy costs and emissions.

If you're interested in how we can help you succeed with your hydrogen project, [contact us](#) or visit our [website](#).

