

FAQs Regarding the Ballard Power Systems Gigafactory Coming to Rockwall Technology Park

What are the local benefits of the newly announced Ballard Gigafactory that will be developed in Rockwall?

Ballard's investment will result in a substantial contribution to the local tax base. The estimated \$200M taxable investment will bring in over \$3M in annual tax revenue based upon the current consolidated tax rate, supporting valuable public services offered by the City of Rockwall, Rockwall County, and the Rockwall Independent School District. This type of project is likely what Rockwall voters had in mind when the Rockwall Economic Development Corporation was authorized in 1995, with the charge of attracting industrial development to share in the local tax burden.

Additionally, the Ballard Gigafactory will bring over 130 jobs, many of which are considered "high quality" in relation to Rockwall's growing median household income. Further, the project will create added benefits such as local permit revenue, hotel occupancy, and significant economic activity surrounding the construction or the project.

Of course, all of these benefits only represent the initial planned development. Ballard officials are optimistic about the potential for future growth, and as such, Rockwall could benefit from added phases in the future.

What is the risk of fire or explosion?

First, it is important to stress that the Ballard Gigafactory will be producing hydrogen fuel cells engines with a small amount of hydrogen, used to test the fuel cell engines, once assembled. Hydrogen consumption at full capacity is estimated at <0.1 metric tons/day. As an example, a recently announced "green hydrogen" production facility located near the Texas panhandle is estimated to produce 200 metric tons of hydrogen, per day, upon ramp up of operation.

In regards to the potential dangers of the limited amount of hydrogen onsite, the hydrogen element is the most abundant element of the universe. The hydrogen molecule (H₂) is colorless, odorless, non-toxic and non-carcinogenic. While it is highly flammable, it is lighter than air, leading to rapid, vertical dispersal of the fuel in the case of a leak, unlike gasoline or propane. To become a fire hazard, hydrogen must first be confined, which is difficult for the lightest element in the universe.

Hydrogen facilities are designed with specific ventilation safety measures and leak detection systems to shut down systems before a hazardous situation occurs. Such systems will exceed the standards of the National Fire Protection Association, specifically NFPA 2 that details the fundamental safeguards for the generation, installation, storage, piping, use, and handling of hydrogen in compressed gas (GH₂) form or cryogenic liquid (LH₂) form. The installations will be heavily inspected and scrutinized by the City of Rockwall's Building Inspections Department and Fire Marshal's Office. Ballard's safety record of 40+ years of operations – within a dense suburb of Vancouver, British Columbia - without incident demonstrates the high standards the company adopts.

There is no reason to believe that the surrounding community should fear the impact of an explosion. Extensive testing of the hazards of hydrogen were completed in the 1960's highlighting the impact of hydrogen leaks have been felt within yards – not miles – of the incident.

Hydrogen has been used for decades in a multitude of industrial purposes and is a well understood and commonly handled substance in both Texas and around the world.

What impact will the Ballard Gigafactory have on local air quality?

Project representatives with Ballard and the REDC have had preliminary discussions with representatives of the Texas Commission on Environmental Quality (TCEQ). Based upon an estimated volatile organic compound (VOC) emission rate, the Ballard Gigafactory will be required to attain a “minor new source” review permit with the state. This emission level is two to three times less than the major source threshold determined by the TCEQ. Other facilities in Rockwall under a minor new source review permit include other manufacturers, crematoriums, and generators deployed at local big-box retail. As such, there is no belief that the Ballard Gigafactory will abnormally impact local air quality beyond existing levels.

Is there any concern of chemical pollution in the local water supply?

Representatives of the North Texas Municipal Water District are aware of the project and have conducted a preliminary review of the chemicals and quantities that are planned to be used in the fuel cell production process, along with applicable safety data sheets. Wastewater pretreatment will be required in the facility before issuance of a permit allowing for discharge into the regional sewage system. This pretreatment is designed to ensure no impact to the waste water treatment facility and that the local water supply remains safe. Pretreatment mandates are not unique to Ballard, as they occur in several other industrial locations in Rockwall.