

Electric Vehicles

What's the difference between a hybrid, all-electric and plug-in hybrid car?

HEVs



Hybrid Electric Vehicles (HEVs) are powered by an internal combustion engine and an electric motor that uses energy stored in a battery. The vehicle is fueled with gasoline to operate the internal combustion engine, and the battery is charged through regenerative braking, not by plugging in.

EVs



All-Electric Vehicles (EVs) also called battery electric vehicles, have a battery that is charged by plugging the vehicle in to charging equipment. EVs always operate in all-electric mode and have typical driving ranges from 150 to 300 miles.

PHEVs



Plug-in hybrid (PHEVs) are powered by an internal combustion engine and an electric motor that uses energy stored in a battery. PHEVs can operate in all-electric (or charge-depleting) mode. To enable operation in all-electric mode, PHEVs require a larger battery, which can be plugged in to an electric power source to charge. To support a driver's typical daily travel needs, most PHEVs can travel between 20 and 40 miles on electricity alone, and then will operate solely on gasoline, similar to a conventional hybrid.

Source: US Department of Energy



Your Board of Directors:

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Grand Haven Board of Light & Power

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GHBLP

125th Anniversary Celebration



September 29, 2021

5:00 pm to 7:00 pm

GHBLP Service Center

1700 Eaton Drive, Grand Haven

*Celebrating 125 Years
of Service to our Community!*

Live Music, Free Refreshments
& Giveaways

PLUGGED IN

News and Information from your Community-Owned Electric Utility

Grand Haven Board of Light & Power

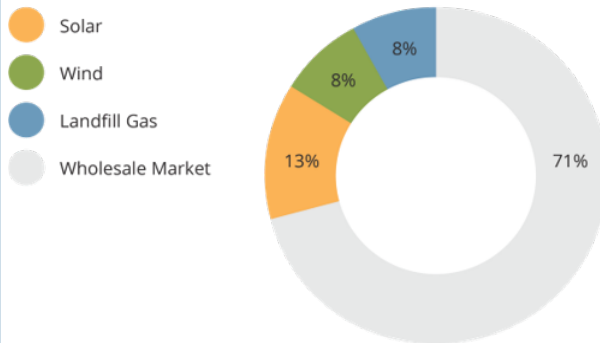


**September &
October 2021**

Bond Issue Update

At two town hall meetings held on August 9th and 11th, the BLP began highlighting an alternative path to its redevelopment plans for the Sims Power Plant site on Harbor Island. Since December 2018, when the Board committed to City Council, as required to obtain Council's approval to shut down Sims, the BLP has worked to include a combined heat and power (CHP) plant as part of its redevelopment of the property. As such, the BLP's Notice of Intent to issue Bonds to fund the Sims site redevelopment allowed for a "Project" definition that included electric generation, and other facilities on the Sims site, and enabled the BLP to utilize its reconstructed substation on the property and access to the piping previously in place that provided heat to the City's snowmelt system from Sims.

Projected 2024 Power Supply



The alternative path was presented to create consensus, as neither the project as defined, nor the suggested "pause" for further study, presented a valid or feasible

option to move the utility forward and gain adequate support to issue bonds to fund the necessary elements of the project.

This alternative path requires a redefined Bond issue which includes:

- (1) Removal of the local CHP generation component
- (2) Purchase the necessary capacity from others in the wholesale market to meet the utility's resource adequacy requirement through 2028
- (3) Use the "interim" snowmelt natural gas fired hot water boiler equipment, installed in 2020, as a permanent solution, or until another alternative can be developed by the city
- (4) Begin an immediate evaluation of alternative sites and facility configurations to provide the necessary building spaces to meet the evolving needs of the local utility and its employees
- (5) Redefine the capital elements to be included in a Bond and the proposed revised facilities plan
- (6) Continue the BLP's development of a "diversified power supply portfolio" with increasing amounts of renewable energy (utility scale to be primarily located remotely in joint projects through Michigan Public Power Agency [MPPA]), distributed

energy resource integration, demand side management and energy optimization, and potentially storage or other emerging technologies

(7) Develop an amended project description and public Bond Notice of Intent to highlight the changes in the project, their capital costs, and the potential locations for these elements

(8) Continue the utility's environmental compliance efforts with on-site Combustion Coal Residuals (CCRs), or coal ash, clean-up and closure requirements and regulations

In a 5-0 vote, the Board took its first step down the alternative path at its August 19, 2021 meeting by authorizing MPPA to execute a 5-year approximate 15 MW capacity purchase for planning years 2024-2028.

In implementing these measures, the BLP would like to emphasize, that certain longer-term savings and risk management benefits anticipated from the proposed project will no doubt be sacrificed; however, the BLP does not anticipate any immediate impact on rates as a result, nor will there be any degradation in the reliability of service our customers have become accustomed to receiving from us. It is important to note as well, that the recently approved 5-year strategic plan for the utility is only minimally modified by the proposed implementation of this alternative path.