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DePIN and Japanese Law

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I DePIN

DePIN (pronounced 'dee-pin') stands for Decentralized Physical Infrastructure Network. While there is no definitive conclusion on what DePIN exactly is, according to ChatGPT, it can be described as follows:

DePIN, which stands for Decentralized Physical Infrastructure Networks, refers to networks that leverage blockchain technology to develop, maintain, and operate physical infrastructure in a decentralized manner. These networks use crypto tokens to incentivize individuals and organizations to contribute resources such as data storage, wireless connectivity, computing power, and energy.

In recent years, DePIN has become a major topic in the Web3 industry, with globally renowned projects such as Hivemapper, Helium, and Filecoin. In Japan, the number of Hivemapper users is increasing, and the country's largest power company, Tokyo Electric Power Company, has launched a DePIN game called **PicTrée**, further highlighting the growing interest in DePIN. A summary of this game is provided for reference in section III below.

Our firm is a law office well-versed in Web3 and has addressed various legal issues related to Web3 under Japanese law in numerous articles written in Japanese. Although DePIN has recently garnered attention in Japan, it seems that adequate legal scrutiny has not yet been conducted. Therefore, to support the business development of DePIN in Japan, we have compiled the Japanese article¹. While the Japanese article contains a more detailed analysis than this English article, this English article is designed for overseas businesses considering offering DePIN in Japan. It summarizes the conclusions of the Japanese article to facilitate easy understanding of the discussion.

¹ <https://innovationlaw.jp/depin/>

II Laws to Consider and Conclusions

There are various types of DePIN projects. Therefore, the laws potentially applicable when introducing DePIN to residents of Japan may vary depending on the project. Here, we considered the introduction of the current major DePIN projects listed in section I for residents of Japan.

In conclusion, for these projects, it is necessary to consider the following regulations:

1. The crypto regulation part of the "Payment Services Act," which establishes regulations related to crypto exchange registration, (hereinafter referred to as the "Crypto Act").
2. The Act against Unjustifiable Premiums and Misleading Representations (hereinafter referred to as the "Premiums and Representations Act"), which regulates the provision of premiums attached to the purchase of goods or services.
3. The Act on Specified Commercial Transactions, which regulates transactions that induce consumers to purchase equipment by offering benefits such as business opportunities.
4. The Radio Act.
5. The Telecommunications Business Act.
6. Other laws related to the import and sale of equipment.

The summary of our current analysis is as follows:

(1) Crypto Act

- In Japan, when engaging in the "selling and buying," "exchanging," or "managing" of crypto as a business, regulations under the Crypto Act apply, and registration as a crypto exchange business is required. These regulations apply not only to crypto exchanges but also to ICOs and IEOs.
- Regarding the relationship between DePIN and the "selling and buying" or "exchanging" of crypto, many projects have a mechanism where users receive tokens as a reward for contributing to DePIN. Even if these tokens are considered crypto, the provision of tokens as a reward for contributions to the project does not constitute "selling and buying" or "exchanging," and therefore, the Crypto Act does not apply.
- Concerning the relationship between DePIN and the "managing" of crypto, if tokens are granted to a user-owned address on the blockchain (where the user manages the private key), it is not considered that the DePIN operator is "managing" the crypto, and thus, the Crypto Act regulations do not apply. On the other hand, if the operator holds tokens granted to the user (the operator manages the private key), registration as a crypto exchange may be required. Therefore, to ensure that it is not considered as "managing"

the crypto, it is necessary to send rewards to the user each time they occur. It is desirable to use a blockchain where even small rewards can be sent with low gas fees.

- If usage fees are paid by credit card, resulting in tokens being burned and mined, this does not constitute the "selling and buying" of crypto.
- In DePIN, it is common to list tokens granted as rewards to users to provide trading opportunities. In this case, for the exchange listing these tokens to sell crypto to Japanese residents, registration as a crypto exchange is required. On the other hand, there are no regulations that apply merely to users of the crypto exchange.

(2) Premiums and Representations Act

- In Japan, attaching high-value premiums to the purchase of goods or services is regulated by the Premiums and Representations Act. For example, if premiums are uniformly provided to all purchasers, they are limited to 20% of the purchase price. If provided through a lottery, they are limited to the lesser of 20 times the purchase price or 100,000 yen, and also must not exceed 2% of total sales.
- When users receive tokens as a reward for contributing to DePIN, these tokens are considered compensation for contributions and are not subject to the premium regulations under the Premiums and Representations Act.

(3) Act on Specified Commercial Transactions

- Some DePIN projects require users to purchase specific equipment to participate in the project.
- For businesses that involve (i) the sale of goods or the provision of services (including brokerage thereof), (ii) the inducement of users by presenting a business opportunity that provides rewards, and (iii) the imposition of the burden of purchasing necessary equipment for users to carry out the business, regulations such as the obligation to provide written documentation are imposed.

(4) Radio Act

- Many of the devices used in DePIN are likely to emit radio waves for wireless communication.
- To use these devices, a license under the Radio Act is required unless they bear a Technical Conformity Mark (GITEKI mark). It is effectively necessary to use general-purpose equipment that already has a GITEKI mark or to obtain the GITEKI mark for specific equipment.

(5) Telecommunications Business Act

- For projects like Helium that involve setting up hotspots to connect to the internet and earn rewards, users may need to submit a notification under the Telecommunications Business Act. This requirement makes it difficult to carry out such DePIN in Japan.

(6) Other Laws Related to the Import and Sale of Equipment

- When importing or selling specific equipment, laws such as the Electrical Appliances and Materials Safety Act, the Consumer Product Safety Act, the Household Goods Quality Labeling Act, and the Product Liability Act must be considered.

III PicTrée (Demonstration Experiment by DEA and TEPCO Group)

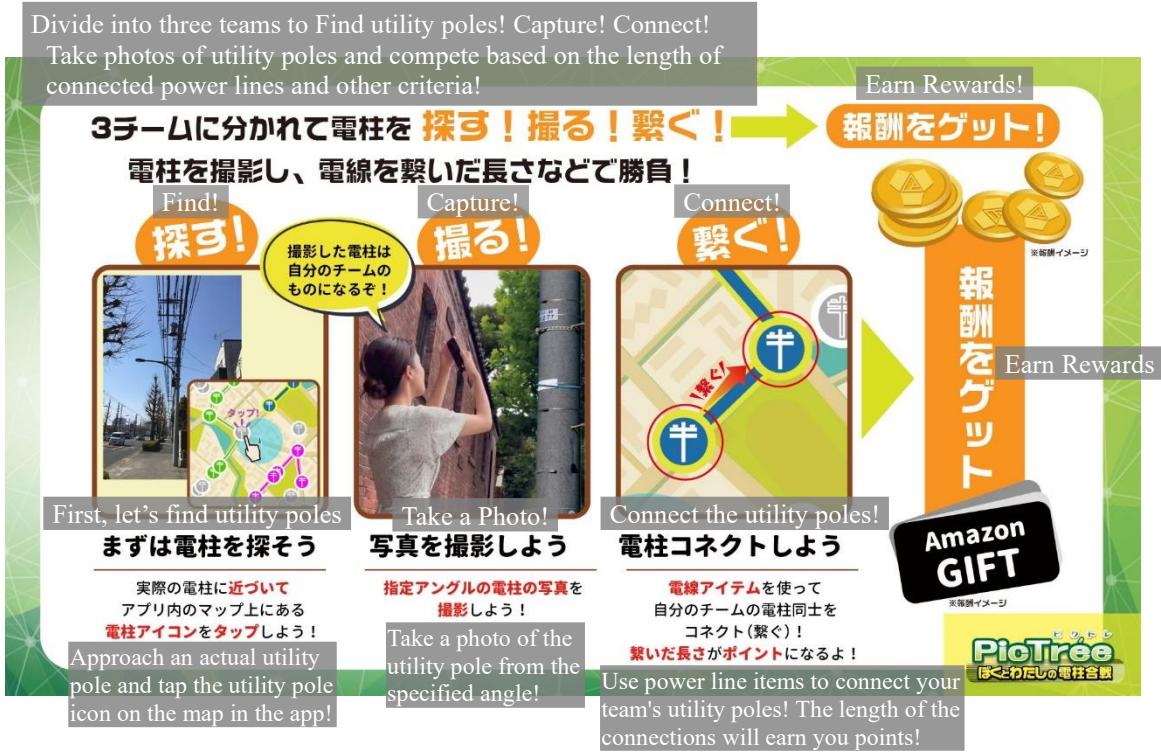
In April 2024, "PicTrée," a GameFi demonstration experiment by the Singapore-based GameFi company Digital Entertainment Asset (DEA) and Tokyo Electric Power Company Power Grid Inc., was launched.

"PicTrée" is a GameFi project where game users receive rewards for taking photos of utility poles and manholes. Utility poles and manholes require continuous maintenance and inspections, which incur significant costs. In this experiment, game players take photos of the current state of utility poles and manholes. Based on these images, the power company determines whether inspections or repairs are necessary, aiming to reduce costs while maintaining safety.

Similar to Hivemapper, this DePIN project allows participants to contribute to society by taking photos and receiving rewards. It is a more accessible DePIN project, as it can be participated in using one's smartphone and a free app.

Overview of the PicTrée Mechanism

1. Team Division: Users are divided into three teams: "Ampere," "Volt," and "Watt."
2. Points: Users take photos of utility poles and manholes. Each time a user take photo of utility poles or manholes, the ownership of that utility poles or manholes can change to a different team. Additionally, by using game items to connect the utility pole or manhole to other utility poles or manholes of the same team, the team earns points.
3. Rewards: Users receive rewards based on their performance within the team, which can be in the form of Amazon gift cards or tokens. The winning team also receives team rewards.
4. TEPCO's Benefit: Through these photos, Tokyo Electric Power Company can determine if maintenance or inspections are needed for the utility poles, thereby reducing maintenance costs.



Game Description and Source of Diagram: Digital Entertainment Asset Pte. Ltd. Press Release, March 4, 2024² (Translated by So & Sato Law Offices)

Disclaimer

The content of this article has not been confirmed by the relevant authorities or organizations mentioned in the article but merely reflects a reasonable interpretation of their statements. The interpretation of the laws and regulations reflects our current understanding and may, therefore, change in the future. This article does not recommend the use of DePIN or the purchase of DePIN equipment. This article provides merely a summary for discussion purposes. If you need legal advice on a specific topic, please feel free to contact us.

² <https://prtimes.jp/main/html/rd/p/000000200.000047612.html>